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Transmitted Via Overnight Courier

August 25, 2006

Ms. Sharon M. Hayes
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One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

**Re: GE-Pittsfield/Housatonic River Site
East Street Area 2-North (GECD140)
Final Removal Design/Removal Action Work Plan**

Dear Ms. Hayes:

Enclosed for your review is GE's *Final Removal Design/Removal Action Work Plan for East Street Area 2-North*.

Please call Dick Gates if you have any questions or comments regarding this letter.

Sincerely,

Andrew T. Silfer, P.E.
GE Project Coordinator

Enclosure

V:\GE_Pittsfield_CD_ESA_2_North\Reports and Presentations\Final RDRA WP44962196Ltr.doc

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REPORT

*Final Removal Design/
Removal Action Work Plan for
East Street Area 2-North*

August 2006

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1. Introduction

1.1 General

On October 27, 2000, a Consent Decree (CD) executed by the General Electric Company (GE), the United States Environmental Protection Agency (EPA), the Massachusetts Department of Environmental Protection (MDEP), and several other government agencies was entered by the United States District Court for the District of Massachusetts. The CD requires (among other things) the performance of Removal Actions to address polychlorinated biphenyls (PCBs) and other hazardous constituents present in soils, sediment, and groundwater in several Removal Action Areas (RAAs) located in or near Pittsfield, Massachusetts. These RAAs are part of the GE-Pittsfield/Housatonic River Site. For each Removal Action, the CD and accompanying *Statement of Work for Removal Actions Outside the River* (SOW) (Appendix E to the CD) establish Performance Standards that must be achieved, as well as specific work plans and other documents that must be prepared to support the Removal Actions for each RAA. For most of the Removal Actions, these work plans/documents include the following: Pre-Design Investigation Work Plan, Pre-Design Investigation Report, Conceptual Removal Design/Removal Action (RD/RA) Work Plan, and Final RD/RA Work Plan.

For the East Street Area 2-North RAA, which is considered one of the GE Plant Areas under the CD and SOW, GE has previously submitted the following documents in accordance with the CD and SOW:

- *Pre-Design Investigation Work Plan for East Street Area 2-North Removal Action* (PDI Work Plan) (April 2003);
- *Pre-Design Investigation Report for East Street Area 2-North Removal Action* (Pre-Design Report) (June 2004);
- *Summary of Additional Pre-Design Soil Investigations and Assessment of Remaining Data Needs* (Data Needs Assessment) (February 2005);
- *Conceptual Removal Design/Removal Action Work Plan for East Street Area 2-North* (Conceptual Work Plan) (April 2005);

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- *Supplement to Conceptual RD/RA Work Plan and Proposal for Additional Investigations* (Conceptual Supplement) (October 2005); and
 - *Conceptual Removal Design/Removal Action Work Plan Addendum for East Street Area 2-North* (Conceptual Addendum) (April 2006).

As will be described further below, East Street Area 2-North consists of a single GE-owned industrial property and comprises a single averaging area. Following completion of Removal Actions on this RAA, however, it is anticipated that the western portion of this RA will be transferred to the Pittsfield Economic Development Authority (PEDA) under the terms of the Definitive Economic Development Agreement (DEDA) executed by GE and PEDA contemporaneously with (but separately from) the CD. Moreover, in contemplation of that transfer, certain buildings have been and certain other buildings will be demolished. Some or all of the slabs of former Buildings 15, 15-A, 15-B, and 15-Ext (also known as 15-W) may remain in place and some or all of these slabs may be removed. Accordingly, in conducting the RD/RA evaluations of this RAA, GE has evaluated the entire RAA as a single averaging area and also (at the request of EPA) has evaluated as a separate averaging area the portion of the area anticipated to be transferred to PEDA. GE also has conducted RD/RA evaluations both on the assumption that the slabs of former Buildings 15, 15-A, 15-B, and 15-Ext (also known as 15-W) remain in place and on the assumption that those building slabs will be removed.

Therefore, the Conceptual Work Plan, as supplemented by the Conceptual Addendum, presented: (1) evaluations of PCBs and non-PCB constituents listed in Appendix IX of 40 CFR 264 (excluding pesticides and herbicides), plus benzidine, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine (Appendix IX+3) data under existing conditions for both the entire RAA and the portion to be transferred to PEDA (both with certain slabs left in place and with those slabs removed) to assess the need for soil-related removal actions; (2) a conceptual proposal for soil-related removal actions, where necessary; and (3) evaluations of PCBs and other Appendix IX+3 constituents in soil under post-remediation conditions to demonstrate that the proposed removal actions in both the entire RAA and the portion to be transferred to PEDA will achieve the applicable Performance Standards under the CD and SOW. On June 30, 2006, EPA issued a letter to GE conditionally approving the Conceptual Addendum.

This *Final RD/RA Work Plan for East Street Area 2-North* (Final Work Plan) presents a summary of the pre-design investigation activities performed at the East Street Area 2-North RAA, a summary of PCB and Appendix IX+3 evaluation procedures and results (revised, as appropriate, to reflect EPA comments related to

the Conceptual Addendum), design and implementation details, a discussion regarding Contractor selection, anticipated post-construction activities, and information regarding the anticipated timeframe for construction activities. Additional details regarding the specific components of this Final Work Plan are provided in Section 1.3.

1.2 Description of East Street Area 2-North

East Street Area 2-North is comprised of a single, GE-owned industrial property (City of Pittsfield Parcel No. J10-9-2) occupying an area of approximately 50 acres. As shown on Figure 1-1, this area is generally bounded by Tyler Street to the north, New York Avenue to the east, Woodlawn Avenue and the 40s Complex RAA to the west, and Merrill Road, the 20s Complex RAA and East Street Area 1-North RAA to the south. Although approximately 85% of the RAA is currently covered with buildings, building slabs, or pavement, several relatively small unpaved areas are present within the eastern portion of this RAA. East Street Area 2-North is located outside of the 100-year floodplain of the Housatonic River.

As mentioned above and discussed in more detail below, although the parcel comprising this RAA remains under GE's ownership, following completion of Removal Actions, a certain portion of this RAA will be transferred to PEDDA. The portion to be transferred to PEDDA consists of the western portion of the RAA, as shown on Figure 1-2. Former Buildings 1 through 6, 3-C, 8, 8-E, 15, 15-A, 15-B, and 15-Ext (also known as 15-W), and the 100 Annex have already been demolished. Buildings 7, 11, 16, 16-Ext, 17, 17-C, and 19 will be demolished either this year or next year.

1.3 Contents of Final Work Plan

Section 3.4 of the SOW contains specific requirements regarding the information required in Final Work Plans, including:

- Results of pre-design studies/investigations;
- An evaluation of the areas and depths subject to removal actions to meet the PCB-related Performance Standards set forth in the SOW;

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- An evaluation of the need for additional removal actions to address non-PCB constituents and (if needed) the type of such removal actions;
 - An evaluation of other issues that may affect the type and extent of removal actions (e.g., groundwater);
 - Design assumptions and parameters;
 - Identification of Applicable or Relevant and Appropriate Requirements (ARARs) in accordance with Attachment B of the SOW;
 - Detailed design of the removal actions;
 - Description of other implementation details concerning performance of the removal actions;
 - Summary of anticipated Post-Removal Site Control activities following completion of the Removal Action;
 - Identification of the Removal Action team, including key personnel, roles and responsibilities, and lines of authority;
 - Process for selection of Removal Action Contractor (if not already selected);
 - Schedule for implementation of Removal Action;
 - Construction Quality Assurance Plan (CQAP); and
 - Project closeout requirements.

1.4 Scope and Format of Final Work Plan

To satisfy the requirements identified above, the remainder of this Final Work Plan is presented in eight sections. The title and a brief overview of each section are presented below:

Section 2 – Summary of Pre-Design Investigation Activities, describes the pre-design soil investigation activities conducted by GE at East Street Area 2-North RAA, the results of which were used to determine the need for and extent of removal actions to address PCBs and Appendix IX+3 constituents in soil within this RAA.

Section 3 – Summary of PCB and Appendix IX+3 Evaluation Procedures, provides an overview of the applicable PCB and Appendix IX+3 Performance Standards and describes the procedures used to evaluate PCBs and other Appendix IX+3 constituents in soil under existing and, where necessary, post-remediation conditions, in both cases for the entire RAA and the portion to be transferred to PEDA (both with certain slabs left in place and with those slabs removed).

Section 4 – Summary of PCB and Appendix IX+3 Evaluation Results, presents an overall summary of the PCB and Appendix IX+3 evaluations for East Street Area 2-North, as presented in the Conceptual Work Plan and Conceptual Addendum, as well as the removal actions proposed to achieve applicable Performance Standards.

Section 5 – Design Information, describes additional design-related information associated with the removal actions identified in Section 4. Such information includes technical plans and specifications, technical drawings, information regarding performance of soil removal activities, identification of site-specific ARARs, and a description of the procedures to be implemented to ensure attainment of those ARARs.

Section 6 – Contractor Selection, discusses the anticipated process for selecting the Remediation Contractor.

Section 7 – Implementation Plan, discusses certain site-specific implementation components, including identification of the project participants, Contractor submittal requirements, project-specific site preparation and construction-related components, and the perimeter air monitoring approach. As also discussed in this section, there remain certain implementation-related logistics that are currently unknown and will be provided to EPA in a supplemental information package once a Remediation Contractor has been selected.

Section 8 – Post-Construction Activities, identifies the various activities to be performed following implementation of removal actions, including project closeout activities (i.e., pre-certification inspection and preparation of a Final Completion Report) and Post-Removal Site Control activities.

Section 9 – Schedule, identifies the schedule for submittal of a supplemental information package to support this Final Work Plan, as well as the anticipated schedule for construction and reporting activities.

The discussions in the above-referenced sections are supported by tables, figures, and other evaluations presented in several attachments, as described in subsequent sections of this Final Work Plan.

Finally, it should be noted that this Final Work Plan evaluates the need for and scope of removal actions to achieve the soil-related Performance Standards set forth in the CD and SOW. Groundwater at East Street Area 2-North is being addressed as part of GE's groundwater-related activities for Groundwater Management Area (GMA) 1 pursuant to the CD and SOW. At the present time, these activities consist of the performance of an interim groundwater monitoring program.

2. Summary of Pre-Design Investigation Activities

2.1 General

The removal actions presented in this Final Work Plan are based on the results of pre-design investigation activities performed by GE and EPA at East Street Area 2-North. The Conceptual Work Plan (Section 2), as well as the Conceptual Supplement and the Conceptual Addendum, provide detailed descriptions of the pre-design investigation activities, as well as the corresponding data tables presenting the results of those investigations. Therefore, only a summary of those investigations is provided herein.

2.2 Summary of Pre-Design Soil Investigations

The pre-design investigation activities for East Street Area 2-North consisted of the following:

- Historical soil investigations prior to December 2003 and not associated with the pre-design investigation activities proposed in GE's PDI Work Plan (April 2003).
- Pre-design activities conducted by GE during January and June 2004, generally including the collection and analysis of soil samples for analysis of PCBs, and for certain of those samples, other Appendix IX+3 constituents.
- Supplemental pre-design activities conducted by GE during December 2004 to address certain data needs from the initial pre-design investigation for PCBs.
- Supplemental sampling activities conducted by GE in February 2006 to address certain data needs from soils below existing floor slabs of certain buildings subject to demolition.

The investigation data identified above were the basis for the PCB and Appendix IX+3 evaluations presented in the Conceptual Work Plan, as revised in the Conceptual Addendum. Data summary tables providing the results of the pre-design and supplemental soil sampling investigations were provided in Appendix A of the Conceptual

Work Plan (pre-design investigation data) and Tables 1 and 2 of the Conceptual Addendum (supplemental investigation data).

Although GE initially understood that the slabs of former Buildings 15, 15-A, 15-B, and 15-Ext (also known as 15-W) would remain in place upon transfer of the western portion of the property to PEDDA, and therefore performed the sampling in the area of those slabs on the basis that those slabs would constitute paved areas under the SOW, it was subsequently determined that these slabs might be removed prior to the transfer of the western portion of the property to PEDDA. Therefore, the Conceptual Supplement provided for the collection of additional samples as would be required if the slabs were removed and, hence, the areas of the slabs were treated as unpaved areas. The results of that additional sampling are presented in the Conceptual Addendum.

3. Summary of PCB and Appendix IX+3 Evaluation Procedures

3.1 General

This section of the Final Work Plan summarizes the procedures used by GE to determine the need for soil-related removal actions to achieve the PCB and other Appendix IX+3 Performance Standards specified in the SOW. This section provides an overview of the evaluation procedures for PCBs (Section 3.2) and other Appendix IX+3 constituents (Section 3.3).

As noted in Section 1.2 above, East Street Area 2-North is comprised of one averaging area, and the evaluation procedures used in the Conceptual Work Plan evaluated the RAA accordingly. However, it is contemplated pursuant to the DEDA that the western portion of East Street Area 2-North will be transferred to PEDDA after completion of the Removal Action in this area. Therefore, pursuant to condition number 2 of EPA's February 15, 2006 letter conditionally approving the Conceptual Supplement, and as described in the Conceptual Addendum, GE subsequently performed RD/RA evaluations both for the entire RAA and for the portion to be transferred to PEDDA.

In addition, as noted in Section 2.2 above, although GE initially sampled and evaluated the RAA on the basis that the slabs of former Buildings 15, 15-A, 15-B, and 15-Ext (also known as 15-W), would remain in place and constitute paved areas under the SOW, it was subsequently determined that these slabs might be removed prior to the transfer of the western portion of the property to PEDDA. Therefore, after collection of additional data in the area of the slabs as provided for in the Conceptual Supplement, the Conceptual Addendum then performed evaluations on the entire RAA and the PEDDA-only portion both under the assumption that the slabs were removed and under the assumption that the slabs were left in place.

3.2 Summary of PCB Evaluation Procedures

This section provides an overview of the PCB evaluation procedures for East Street Area 2-North, including: (1) a description of the applicable PCB-related Performance Standards for this RAA; (2) an overview of PCB evaluation procedures GE used for this RAA, including the performance of separate RD/RA evaluations for the entire RAA and for only the portion to be transferred to PEDDA, assuming for both evaluations that the indicated

pavement slabs are removed or, alternatively, that those slabs are left in place; and (3) an overview of the utility corridor PCB evaluation procedures.

3.2.1 PCB-Related Performance Standards

The Performance Standards related to the presence of PCBs in soil for East Street Area 2-North are set forth in Paragraph 25 of the CD and Section 2.2.2 of the SOW. As this RAA is comprised of a GE-owned property (Parcel J10-9-2), GE will execute and record an ERE for the RAA, including any portion to be transferred to PEDDA. Therefore, the Performance Standards applicable to this RAA are those for commercial/industrial properties with EREs and may be summarized as follows:

- For the unpaved portion of this RAA, if the spatial average PCB concentration in the top one foot of soil exceeds 25 parts per million (ppm), GE shall either remove and replace soils or install a soil cover (in accordance with the specifications for soil covers described in Attachment G of the SOW) as necessary to achieve a spatial average PCB concentration of 25 ppm or less. In addition, since the entire averaging area is greater than 1 acre in size, GE shall remove any soils containing PCB concentrations greater than the not-to-exceed (NTE) level of 125 ppm from the top one foot of unpaved portions the averaging area.
- For an entire averaging area (i.e., both the paved and unpaved portions together), if the spatial average PCB concentration in the top foot exceeds 25 ppm, GE shall recalculate the spatial average PCB concentration after incorporating the anticipated performance of any response actions described above for the unpaved portion. If that recalculated spatial average PCB concentration still exceeds 25 ppm, GE shall maintain and enhance the existing pavement/concrete surfaces in those areas determined to cause the exceedance of the 25 ppm spatial average concentration for the top foot in the averaging area. Any such pavement enhancements will be in accordance with the specifications described for pavement enhancement in Attachment G of the SOW.
- If the spatial average PCB concentration in the 1- to 6-foot depth increment exceeds 200 ppm (considering the paved and unpaved portions together), GE shall undertake a combination of removal and replacement of soils in unpaved portions and/or enhancement of the existing pavement/concrete surfaces in paved areas (in accordance with the specifications for pavement enhancement in Attachment G to the SOW) as necessary to

ensure that the PCB concentrations causing the spatial average to exceed 200 ppm are removed or covered by enhanced pavement.

- If, after incorporating the anticipated performance of any response actions in accordance with the foregoing Performance Standards, the spatial average PCB concentration for the 0- to 15-foot depth increment exceeds 100 ppm, GE shall install an engineered barrier (in accordance with the specifications for such barriers in Attachment G of the SOW).
- Where utilities potentially subject to future emergency repair are present and the spatial average PCB concentration for the soils in the utility corridor that may need to be removed during an emergency repair exceeds 200 ppm in the 1- to 6-foot depth increment, GE shall evaluate whether additional response actions are necessary for that corridor and submit that evaluation, and a proposal for such response actions, if needed, to EPA. In addition, if a new subgrade utility is installed or an existing subgrade utility is repaired or replaced in the future, GE shall ensure that the spatial average PCB concentration of the backfill material does not exceed 25 ppm.

3.2.2 Area-Specific PCB Evaluation Procedures

Section 3.2.2 of the Conceptual Work Plan detailed the general procedures used to evaluate PCB concentrations in soil for the entire East Street Area 2-North averaging area. These procedures were established in Attachment E to the SOW (Protocols for PCB Spatial Averaging), and generally involve the following steps: (1) comparing the discrete PCB concentrations in the top foot of soil in unpaved areas to the applicable NTE levels; (2) comparing the existing spatial average PCB concentrations for the relevant depth increments to the applicable PCB Performance Standards; (3) where there were exceedances of the applicable NTE levels or other Performance Standards, developing a remediation proposal (soil removal, pavement enhancement, or placement of an engineered barrier, as applicable) to address those exceedances; and (4) evaluating the post-remediation condition to ensure that the proposed remediation would achieve the Performance Standards.

As noted above, however, a portion of East Street Area 2-North is to be transferred to PEDDA pursuant to the DEDA. Therefore, in the Conceptual Addendum, as requested by EPA, GE performed RD/RA evaluations both for the entire RAA and for the portion of the RAA subject to future transfer to PEDDA.

In addition, since it was (and still remains) uncertain whether the slabs of former Buildings 15, 15-A, 15-B, and 15-W would be removed, the evaluations presented in the Conceptual Addendum were performed under two separate scenarios: (1) assuming that the slabs would be removed at some future date; and (2) assuming that the slabs would remain in place.

Although not relevant at the present time, GE acknowledges two requirements of EPA's June 30, 2006 letter conditionally approving the Conceptual Addendum. Condition number 3 of that letter required that GE submit a plan regarding the characterization and disposition of the slab for each building or former building in the portion of the East Street Area 2-North RAA that GE is planning to transfer to PEDDA. GE is required to submit that document by the earlier of (a) 30 days after GE receives notice of PEDDA's foundation requirements for this area, or (b) December 29, 2006. As required by EPA, the required plan will provide: (1) if any of the slabs are to be removed, details regarding the characterization of each such slab for subsequent disposition; (2) if any of the slabs are to remain in place, a plan to demonstrate that each such slab is protective of human health and the environment; (3) if the plan for any slab is unknown, or if any slab will remain unused, a plan for the installation and maintenance of appropriate engineering controls to limit direct contact and groundwater leaching risks; and (4) an evaluation of the required provisions in the ERE to address direct contact and other risks from the slabs.

Second, condition number 5 of that letter required that, if any building slabs other than those associated with former Buildings 15, 15-A, 15-B, and 15-W are removed prior to the recording and/or registration of the ERE for this RAA, GE must perform additional characterization of the soil beneath any such removed slab(s) (based on the SOW sampling requirement for unpaved areas) and provide any additional response action necessary to meet the Performance Standards (specified in Section 3.2.1 above).

3.2.3 Utility Corridor Evaluation Procedures

As discussed in Section 3.2.3 of the Conceptual Work Plan, subsurface utilities potentially subject to emergency repairs were also subject to additional evaluation activities. Due to the pervasive presence of utilities throughout the RAA, including a multiplicity of electricity and telephone lines, storm drains, water, fire protection, gas, and sewer lines, and due to the fact that certain of the utility lines are inactive or abandoned, the investigation and assessment of the utility corridors at this RAA were performed in an iterative manner. Specifically, the first step in the investigation procedure involved the identification of all samples in the 1- to 6-foot depth increment that contain discrete PCB concentrations in excess of 200 ppm. If such results were located in the vicinity of active subsurface utilities, the need for additional PCB soil sampling was considered, taking into account other nearby

data as appropriate, and additional sampling in these areas was provided for in the Pre-Design Report, in EPA's conditional approval of that report, and in the Data Needs Assessment. In evaluating the data, GE initially reviewed all available PCB data in the vicinity of the subsurface utility lines to identify specific locations where the discrete PCB sampling data exceeded 200 ppm. That review revealed that all samples in the western portion of the RAA had PCB sample results well below 200 ppm. However, in the remainder of the RAA, the evaluations presented in the Conceptual Work Plan identified seven such samples containing PCB concentrations in excess of 200 ppm. For each such sample, GE reviewed in more detail the specific sampling data at that location, the PCB data available from other nearby sampling locations, and the specific utility(ies) of interest to assess whether the applicable Performance Standards had been achieved, or, alternatively, whether additional evaluation and/or response actions were warranted.

It was determined in the Conceptual Work Plan that:

- Although four of the sample results (from locations ES1-6, PS-W-47, and PS-W-53, and PS-W-90) are located near existing utility lines, certain of these utilities are no longer active and/or have been abandoned. Therefore, such utilities are not subject to future emergency repairs and are not subject to the utility-related Performance Standards established in the SOW.
- Three of the samples (PS-W-95, PS-W-96, and RAA5-J10) are located within areas where some utility abandonment has been performed, while one or more active utilities currently exists. Specifically, GE noted that all three of these locations were near an active electrical conduit and an active water main existed near location RAA5-J10. GE further noted that any repairs to the underground electrical line typically do not involve excavation but involve running new lines through existing conduit. Moreover, the unpaved portion of the polygons associated with these locations is being removed. GE also noted more generally that , the areas affected by all three locations are located entirely on GE-owned property, which will be subject to an ERE, and, therefore, that there will be opportunities to evaluate any planned excavation in these areas and to ensure that appropriate measures are taken, including both health and safety precautions and soil disposition activities.

EPA agreed in its conditional approval letter dated September 13, 2005 that the four samples near abandoned or inactive utility lines did not require further action. However, in condition number 4 of that letter, EPA required additional information and evaluation for subsurface utilities in connection with the locations near the active electrical conduit, namely: (1) further evaluation of whether the active utility lines in these areas are potentially

subject to emergency repair activities that could involve exposure to subsurface soil; (2) for those utility lines that are potentially subject to emergency repair, calculation of the spatial average PCB concentration in the 1- to 6-foot depth increment within the utility corridor(s); and (3) for any such corridor where the spatial average PCB concentration exceeds 200 ppm, an evaluation of the need for additional response actions.

In the Conceptual Supplement, GE further explained that the active electrical lines in the conduit are not subject to emergency repair activities that could involve exposure to subsurface soil because repair activities would consist of replacing/re-splicing a portion of the electrical cable within the existing concrete conduit system between manholes, without the need for soil excavation. GE further explained that the replacement of an existing electrical distribution system (i.e., the concrete conduit) would be prohibited by the ERE absent a Conditional Exception. Consequently, GE determined that no further action was required with regard to the samples near the active electrical conduit. In addition, the line that had been referred to in the Conceptual Work Plan as an active water main was in fact an inactive fire protection main, but not permanently terminated. Therefore, GE evaluated the need for additional response action with regard to the sample near the water main and determined that GE would render that section of the fire protection line permanently inactive by cutting and capping the line in that area. EPA approved GE's evaluations and proposal in its conditional approval letter dated February 15, 2006.

3.3 Summary of Appendix IX+3 Constituent Evaluation Procedures

This section provides an overview of the applicable Performance Standards for non-PCB Appendix IX+3 constituents in soil and the procedures used to assess achievement of those standards. As with PCBs, the other Appendix IX+3 constituents have been evaluated for both the entire evaluation area and for the portion to be conveyed to PEDDA, both under pre-removal conditions. For an evaluation area where the applicable Performance Standards are not met, removal actions were proposed and the post-remediation conditions were evaluated to ensure achievement of the Performance Standards.

3.3.1 Applicable Performance Standards

The applicable Performance Standards for non-PCB constituents in soil at East Street Area 2-North are included in Section 2.2.2 of the SOW. These standards include the following:

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- For dioxins and furans, total TEQ concentrations must be calculated using the Toxicity Equivalency Factors (TEFs) developed by the World Health Organization (WHO) (van den Berg J. et al., *Environ. Health Perspectives*, Vol. 106, No. 12, Dec. 1998). Either the maximum TEQ concentration or the 95% percent Upper Confidence Limit on the mean (95% UCL) of the TEQ data must be below certain PRGs developed or approved by EPA for dioxin/furan TEQs. These PRGs are 5 parts per billion (ppb) in the top foot of soil and 20 ppb in subsurface soil for industrial areas.
 - For other non-PCB constituents, any combination of the following must be achieved: (1) maximum concentrations of individual constituents that do not exceed the Screening PRGs established or approved by EPA (as discussed below); or (2) for the remaining constituents, average concentrations that either: (a) do not exceed the applicable MCP Method 1 soil standards (or Method 2 standards, if developed); or (b) are shown through an area-specific risk evaluation to have cumulative risk levels that do not exceed (after rounding) an Excess Lifetime Cancer Risk of 1×10^{-5} and a non-cancer Hazard Index of 1.

3.3.2 Overview of Evaluation Process

The initial task in the evaluation of the non-PCB constituents in soil at East Street Area 2-North was to assess such constituents in soil under existing conditions, based on all available Appendix IX+3 data collected from that area, without considering PCB-related remediation. This assessment consisted of several steps:

- First, a data screening step was conducted, which generally involved comparison of the maximum concentrations of all detected constituents (other than dioxin/furan TEQs) to the applicable PRGs developed by EPA Region 9 (as set forth in Exhibit F-1 to Attachment F of the SOW) or certain surrogate PRGs previously approved by EPA or proposed in the Conceptual Work Plan. This screening step is discussed further in Section 3.3.3 of the Conceptual Work Plan.
- Second, for dioxin/furan TEQs, the maximum concentration or the 95% UCL (whichever is lower) at each area and relevant depth increment was compared to the applicable dioxin/furan PRG described above. This step is discussed further in Section 3.3.4 of the Conceptual Work Plan.
- Third, for those constituents (other than dioxin/furan TEQs) that were not screened out in Step 1, the existing average concentrations of each such constituent were calculated for the same depth increments used for the required PCB evaluations, as specified in Section 3.2.1. These average concentrations were then

compared to the applicable MCP Method 1 soil standards for such constituents. This step is discussed further in Section 3.3.5 of the Conceptual Work Plan.

- Fourth, where there were exceedances of the Method 1 soil standards in any depth increment but such exceedances were not significantly above the Method 1 soil standards, an area-specific risk evaluation was conducted for the same constituents evaluated in Step 3 and in accordance with the procedures specified for such evaluations in the SOW. This step is discussed further in Section 3.3.6 of the Conceptual Work Plan.

Although each of these steps was performed in the Conceptual Work Plan for the entire RAA as a single averaging area, the Conceptual Addendum performed each of these steps (with one exception) separately for the entire RAA and for the PEDDA portion by itself. The exception is that no area-specific risk evaluation was performed for the portion to be transferred to PEDDA, as all dioxin/furan TEQs are below the applicable PRGs and there are no exceedances of Method 1 soil standards in any depth increment for any other retained non-PCB Appendix IX+3 constituent in that portion of the RAA.

GE notes that in the Conceptual Work Plan it compared average non-PCB Appendix IX+3 concentrations (other than dioxin/furan TEQs) to the draft “Wave 2” MCP Method 1 S-2 and S-3 standards that had been proposed in September 2004. Those standards were partially revised in May 2005, and final “Wave 2” Method 1 S-2 and S-3 soil standards were issued by MDEP in January 2006 and published in the Massachusetts Register on March 24, 2006, effective April 3, 2006. In the Conceptual Addendum, submitted April 14, 2006, GE compared the average non-PCB Appendix IX+3 concentrations (other than dioxin/furan TEQs) to the final Wave 2 Method 1 Standards, for both the entire averaging area and the PEDDA portion only.

4. Summary of PCB and Appendix IX+3 Evaluation Results

4.1 General

Section 4 of the Conceptual Work Plan presented the results of the area-specific PCB and Appendix IX+3 evaluations that were performed for East Street Area 2-North, in accordance with the evaluation procedures summarized in Section 3 of the Conceptual Work Plan. The Conceptual Work Plan presented the following information for the averaging area consisting of all of East Street Area 2-North:

- Description of area and identification of applicable Performance Standards;
- Evaluation of existing conditions with respect to PCBs and discussion of the need for removal actions to address PCBs;
- Evaluation of existing conditions with respect to other Appendix IX+3 constituents and discussion of the need for removal actions to address these constituents;
- Description of proposed removal actions (as shown on Figure 4-1 of the Conceptual Work Plan); and
- Evaluation of post-remediation conditions with respect to PCBs.

The Conceptual Addendum repeated these evaluations, incorporating newly-collected data, for both the entire RAA and the PEDA-only portion, in each case under the assumptions that the previously-mentioned concrete slabs had been removed and under the assumption that they were left in place. The results of the revised evaluations were provided in Section 3 of the Conceptual Addendum.

In support of the PCB and Appendix IX+3 evaluations, the Conceptual Work Plan and Conceptual Addendum included backup documentation for the evaluations. Specifically, the spatial averaging tables and Theissen polygon maps developed in support of the area-specific PCB evaluations were presented in Appendix D of the Conceptual Work Plan and Appendix C of the Conceptual Addendum. Appendix E of the Conceptual Work Plan and Appendix D of the Conceptual Addendum contained the evaluation tables developed in support of the Appendix IX+3 evaluations. Appendix F of the Conceptual Work Plan and Appendix E of the Conceptual Addendum presented the area-specific risk evaluations.

4.2 Overall Summary

Based on the evaluations presented in Section 4 of the Conceptual Work Plan, GE proposed, and EPA conditionally approved, Removal Actions for PCBs consisting of soil removal/replacement for certain portions of the East Street Area 2-North. As no Removal Action was found to be necessary in the area to be transferred to PEDDA, the areas where soil removal is required were within the non-PEDA (eastern) portion of the RAA. The RD/RA evaluations showed that no soil removal was required with regard to non-PCB Appendix IX+3 constituents.

In EPA's February 16, 2006 letter conditionally approving the Conceptual Supplement, EPA asked GE to consider removing certain soil in the vicinity of sample locations PS-W-52 through PS-W-55 due to VOC concentrations in the 2-foot to 6-foot and 6-foot to 10-foot depths, even though the evaluation area satisfied the Appendix IX+3 Performance Standards even without the removal. GE voluntarily included the additional VOC removal as requested by EPA in the scope of removal shown in the Conceptual Addendum, subject to constructability and structural stability considerations.

In EPA's June 30, 2006 letter conditionally approving the Conceptual Addendum, EPA asked GE to consider removing additional soil, in the vicinity of sample locations PS-W-47B (2-6') and PS-W-56C (6-10'), also due to elevated VOC concentrations. Although this additional removal also is not required to satisfy the Performance Standards, GE has voluntarily revised Figure 3 from the Conceptual Addendum (Figure 4-1 to this Final Work Plan) to include the additional removal areas for VOCs requested by EPA, subject to the constructability considerations discussed in Sections 5.4 and 7.5.6. The revised Figure 3 (Figure 4-1 of this Final Work Plan) also corrects an error concerning the extent of PCB removal, as also noted in EPA's June 30, 2006 conditional approval letter. These modifications to the PCB soil removal limits shown on the revised figure were already incorporated into the revised post-remediation average PCB concentrations presented in the Conceptual Addendum. The revised removal areas are shown on Figure 4-1 and in the Technical Drawings provided in Attachment A, and are discussed below.

GE notes that, although it evaluated both the entire averaging area and the PEDDA-only portion of the area under the scenario that the slabs of former Buildings 15, 15-A, 15-B, and 15-Ext (also known as 15-W) are removed and under the scenario that those slabs remain in place, the soil removal under either scenario is identical. No removal is necessary in the portion of the property to be transferred to PEDDA under either scenario, and the scope of PCB removal proposed by GE and approved by EPA in the eastern (non-PEDA) portion of the property

remains the same under either scenario. Therefore, the ultimate disposition of these slabs will not affect the scope of removal to be performed by GE.

4.2.1 PCB Evaluation Summary

Table 4-1 below lists, for both the entire RAA and the PEDAs-portion only, the post-remediation average PCB concentration for each depth increment subject to evaluation, as presented in the Conceptual Addendum, as well as the applicable PCB Performance Standard for that depth increment. These post-remediation average PCB concentrations are calculated both on the assumption that the slabs of former Buildings 15, 15-A, 15-B, and 15-Ext (also known as 15-W) are removed and on the assumptions that these slabs are left in place, although, as noted above, the extent of soil removal is the same under either scenario. The following table also lists the currently-estimated volume of soil removal. This soil removal volume has been revised from that volume specified in the Conceptual Addendum based on the addition of removal areas in response to condition numbers 1 and 2 of EPA's June 30, 2006 conditional approval letter for the Conceptual Addendum. The quantities of removal listed below include soil removal to address both PCBs and other Appendix IX+3 constituents.

FINAL AVERAGE PCB CONCENTRATIONS AND ESTIMATED SOIL REMOVAL VOLUMES

Parcel	PCB Performance Standard (ppm)	Final Average PCB Concentration (ppm)	Estimated Soil Removal Volume (cubic yards)
<i>J10-9-2 (Entire Parcel)</i>			820
0 – 1' (unpaved, assuming slabs removed)	25	5.3	
0 – 1' (unpaved, assuming slabs left in place)	25	6.4	
0 – 1' (paved and unpaved)	25	6.2	
1 – 6'	200	60.0	
0 – 15'	100	61.9	
<i>J10-9-2 (PEDA Portion)</i>			0
0 – 1' (unpaved, assuming slabs removed)	25	0.6	
0 – 1' (unpaved, assuming slabs left in place)	25	0.9	
0 – 1' (paved and unpaved)	25	3.0	
1 – 6'	200	5.2	
0 – 15'	100	8.9	

As indicated in the above table, no removal actions are necessary in the portion of Parcel J10-9-2 to be transferred to PEDAs, while the removal actions for the entire East Street Area 2-North RAA are expected to involve excavation and off-site disposal of approximately 820 cubic yards of soil.

4.2.2 Utility-Related PCB Information

The soil-related PCB Performance Standards set forth in Paragraph 26 of the CD and Section 2.3.2 of the SOW provide that where subgrade utilities potentially subject to emergency repair requirements are present, if the spatial average PCB concentration in the utility corridor exceeds 200 ppm, GE must evaluate whether any additional response actions are necessary. As indicated in Section 3.2.4, GE previously identified seven locations within utility corridors that contain discrete PCB concentrations greater than 200 ppm. As proposed by GE and approved by EPA in its September 13, 2005 conditional approval letter, three of those locations do not require response actions since the utilities adjacent to those locations were inactive. As explained above in Section 3.2.4, GE also concluded in the Conceptual Supplement that the remaining four locations (RAA5-J10, PS-W-90, PS-W-95, and PS-W-96), do not require response actions, and EPA approved that conclusion in its conditional approval letter dated February 15, 2006.

4.2.3 Appendix IX+3 Evaluation Summary

As previously indicated, information regarding the post-remediation concentrations of non-PCB Appendix IX+3 constituents and corresponding area-specific risk evaluations (where necessary) is provided in Appendices D and F, respectively, of the Conceptual Work Plan, as well as Appendices C and E, respectively, of the Conceptual Addendum. Based on those evaluations, no soil removal activities were necessary to achieve the Performance Standards for non-PCB Appendix IX+3 constituents. However, as discussed above in Section 4.2, condition number 3 of EPA's February 15, 2006 conditional approval letter for the Conceptual Supplement and condition number 2 of EPA's June 30, 2006 conditional approval letters for the Conceptual Addendum requested that GE consider soil removal to address elevated VOCs in the vicinity of PS-W-47B (2-6'), PS-W-52 through PS-W-55 (2-6' and 6-10'), PS-W-55B (2-6') and PS-W-56C (6-10'), even though such soil removal is not required to satisfy the applicable Performance Standards. Based on those comments, GE has evaluated the potential for additional soil removal to address these locations. GE has estimated that, subject to constructability and structural stability considerations (as further discussed in Sections 5.4. and 7.5.6), approximately 140 cy of soil removal would be removed to address the levels of tetrachloroethene and/or trichloroethene at locations PS-W-47B (2- to 6-foot depth increment), PS-W-53B (2- to 6-foot depth increment), PS-W-54C (6- to 10-foot depth increment), PS-W-55B (2- to 6-foot depth increment), and PS-W-56C (6- to 10-foot depth increment). The soil removal voluntarily proposed by GE to address non-PCB Appendix IX+3 constituents is included in the approximate removal volumes set forth in Section 4.2.1 above, and shown on Figure 4-1 (revised Figure 3 from Conceptual Addendum).

5. Design Information

5.1 General

This section discusses the Removal Action that has been identified to meet the applicable Performance Standards established in the CD and SOW for East Street Area 2-North. These activities generally involve the removal of soils, disposal of this material at appropriate off-site disposal facilities, backfilling of excavations with clean material, and general site restoration. These and other pertinent components of the construction activities are discussed in the remainder of this section. As discussed in Section 6, GE will select a Remediation Contractor to perform the removal actions proposed herein. Section 6 provides further details regarding that selection process, while Section 7 provides additional site-specific implementation details associated with construction of the various design components.

5.2 Technical Specifications

GE has developed design information for the Removal Actions at the East Street Area 2-North RAA. The various design details are summarized in this Final Work Plan, but are more specifically described in the Technical Drawings and Specifications developed by GE for use in selecting a Remediation Contractor. These Technical Drawings and Specifications are provided in Attachments A and B, respectively, and include project-specific construction quality assurance requirements related to soil removal and other construction elements.

Certain of the plans comprising GE's Project Operations Plan (POP) provide additional design, construction, and implementation-related information relevant to the construction activities. With the exception of the FSP/QAPP and the Health and Safety Plan (HASP) (which was provided to EPA for informational purposes only), the latest revisions to the POP were conditionally approved by EPA in a letter dated April 24, 2003, and the revised POP was submitted to EPA on July 14, 2003, and additional modifications to the POP may be agreed to by EPA and GE prior to performance of the work.

The POP contains a series of plans that address several common aspects of the Removal Actions Outside the River and apply to various activities to be conducted as part of those Removal Actions, ranging from initial pre-design activities to the performance and completion of remediation activities. Collectively, these plans describe the minimum requirements, general activities, protocols, and methodologies applicable to these Removal

Actions. These plans include a Waste Characterization Plan, Soil Cover/Backfill Characterization Plan, Site Management Plan, Ambient Air Monitoring Plan, and a Contingency and Emergency Procedures Plan. The POP also includes a CQAP, which provides technical requirements related to items such as backfill, topsoil, seeding, mulch, etc. In addition, the CQAP specifies activities that are relevant to certain of the construction activities, such as soil placement and grading/compaction, survey control, etc. The general provisions of the POP are applicable to East Street Area 2-North and are incorporated herein by reference.

5.3 Soil Removal Activities

As described in Section 4.2, GE will remove approximately 820 cubic yards of soil from East Street Area 2-North. The removal limits are shown in Technical Drawing 3 in Attachment A. Based on a review of the analytical data located within the limits of removal actions, soils subject to removal will be transported to and properly disposed of at the appropriate off-site disposal facility, as further described in Section 7.5.4. Prior to initiating removal activities for the areas subject to soil removal, the horizontal limits of removal will be surveyed and staked in the field. During removal activities, field measurements will be made to verify that the target removal depths/elevations have been achieved for each excavation area. Following removal, common backfill will be obtained from an off-site source (Sections 5.5 and 7.5.5) and will be placed and compacted to re-establish the original grade. The provisions specified in the Technical Drawings (Attachment A), Technical Specifications (Attachment B), and the POP (including the Soil Cover/Backfill Characterization Plan and the CQAP) will be utilized during the removal and backfill activities.

5.4 Excavation Stabilization

As previously indicated, excavation of the soil in the VOC removal areas (i.e., the six and ten foot excavation areas) is not required to meet the Performance Standards for non-PCB Appendix IX+3 constituents at this RAA. For these removal areas, where excavations will exceed 4 feet in depth and where Contractor personnel will enter the excavations to perform work or where the stability of on-site structures needs to be maintained, the Remediation Contractor will be required to evaluate sidewall stability in accordance with Occupational Health and Safety Administration (OSHA) requirements, and implement protective measures, as appropriate. These methods will be identified by the Remediation Contractor and may include benching the excavation or installation of a temporary earth-retaining structure (e.g., installation of steel sheeting, soldier beam and lagging, trench boxes). For any temporary earth-retaining structure that is planned to be used by the Contractor, a

Professional Engineer licensed in the Commonwealth of Massachusetts will design and stamp the system. If, after evaluation of sidewall and structural stability, the Remediation Contractor determines that the removal of these soils cannot be performed in a manner protective of Contractor personnel or on-site structures, the target soils will only be removed to the extent possible without compromising excavation or structural stability.

5.5 Excavation Backfill

Soil fill and topsoil components will be used to backfill the excavations at East Street Area 2-North. Information regarding the measurement, composition, and deposition of acceptable backfill materials is provided in the Technical Drawings and Specifications provided in Attachments A and B, respectively. The specific fill sources to be used for this project will be identified by the selected Remediation Contractor. The backfill materials to be used at these properties will originate either from existing or new sources of backfill material. Existing sources of backfill material consist of those sources that have been previously used for other GE remediation projects in Pittsfield and have been previously qualified for such use in submittals to EPA and/or MDEP. The sample data presented in those documents include analyses for PCBs and Appendix IX+3 volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. If such existing, approved sources have been used by GE within the past 18 months, these prior analytical data will not be resubmitted to EPA. For any backfill materials from a source that has not already been identified and characterized, representative samples of proposed fill materials will be collected and analyzed for PCBs and Appendix IX+3 VOCs, SVOCs, and metals, as required by GE's approved Soil Cover/Backfill Characterization Plan provided in the POP. The name of the proposed backfill source location and the results of the analyses for PCBs and Appendix IX+3 VOCs, SVOCs, and metals (if necessary) will be submitted to EPA in a supplemental information package prior to the use of such material.

5.6 Applicable or Relevant and Appropriate Requirements

The Removal Actions to be conducted at East Street Area 2-North will be subject to several ARARs. Attachment B to the SOW identifies the chemical-specific, action-specific, and location-specific ARARs for Removal Actions Outside the River. As noted above, the Removal Action for East Street Area 2-North includes soil removal and replacement. These activities will be performed outside the 100-year floodplain of the Housatonic River. In these circumstances, this Removal Action is subject to the following ARARs identified in Attachment B to the SOW: action-specific ARARs identified in Table 2, subsection B ("Soil Removal") and

potentially subsection K (“Other”). Storage of any such materials on-site at the GE Plant Area prior to off-site disposal will be performed using procedures similar to the ARARs identified in Table 2, subsection H (“Temporary On-Site Storage of Free Product, Drums, and Equipment That Will Be Disposed of Off-Site”) of Attachment B to the SOW

A summary of the key ARARs that were considered with respect to the removal actions proposed herein, along with the associated project component(s) and means by which the ARAR is addressed by the design and implementation activities, is as follows:

ARAR	Associated Project Components	Means by Which ARAR Will Be Addressed
Toxic Substances Control Act (TSCA) Regulations (PCB Remediation Waste) (40 CFR 761.61)	<ul style="list-style-type: none"> • Soil removal 	<ul style="list-style-type: none"> • EPA has determined that Removal Actions conducted in accordance with the CD and SOW will not pose an unreasonable risk of injury to health or the environment.
TSCA Regulations (Decontamination) (40 CFR 761.79)	<ul style="list-style-type: none"> • Soil removal (equipment cleaning) 	<ul style="list-style-type: none"> • Will be attained by cleaning equipment as necessary in accordance with TSCA regulations (see Section 7.5.7).
Resource Conservation and Recovery Act (RCRA) Hazardous Waste Regulations (40 CFR 261.24)	<ul style="list-style-type: none"> • Soil removal 	<ul style="list-style-type: none"> • GE will review the relevant Appendix IX+3 data from the soils to be excavated, using a conservative screening tool (i.e., dividing the total sample results by 20) and comparing the results to allowable concentration limits associated with the Toxicity Characteristic Leaching Procedure (TCLP) under these regulations. Based on that comparison, the appropriate off-site disposal facility will be selected for the disposal of such soils.
Clean Water Act NPDES Regulations (Stormwater Discharges) [40 CFR 122.44(k); 40 CFR 122.26(c)(ii)(C); 40 CFR 125.100-.104]	<ul style="list-style-type: none"> • Soil removal 	<ul style="list-style-type: none"> • Implementation of erosion and sedimentation controls (Section 7.4.5).
Massachusetts Air Pollution Control Requirements (310 CMR 7.09)	<ul style="list-style-type: none"> • Soil removal 	<ul style="list-style-type: none"> • Implementation of dust control measures (as necessary) and air monitoring (Sections 7.5.2 and 7.6, respectively).

ARAR	Associated Project Components	Means by Which ARAR Will Be Addressed
TSCA Regulations (Storage for Disposal) (40 CFR 761.61; 40 CFR 761.65)	<ul style="list-style-type: none"> • Temporary storage of removed materials 	<ul style="list-style-type: none"> • Temporary storage of free product and liquids in tanks or containers at GE's existing on-plant tank system or hazardous waste storage facility, both of which meet the long-term PCB storage requirements of TSCA. • Temporary storage of drums and other equipment in containers at GE's existing on-plant hazardous waste storage facility, which meets the long-term PCB storage requirements of TSCA.
TSCA Regulations (PCB Marking Requirements) (40 CFR 761.40)	<ul style="list-style-type: none"> • Temporary storage of removed materials 	<ul style="list-style-type: none"> • Will be attained by marking PCB items in accordance with these requirements.
RCRA Hazardous Waste Regulations (Storage of Hazardous Waste) (40 CFR 264, Subparts I and J 40 CFR 262.34)	<ul style="list-style-type: none"> • Temporary storage of removed materials 	<ul style="list-style-type: none"> • Temporary storage of free product and liquids in tanks or containers at GE's existing on-plant tank system or hazardous waste storage facility, both of which meet the long-term PCB storage requirements of TSCA. • Temporary storage of drums and other equipment in containers at GE's existing on-plant hazardous waste storage facility. • Storage of materials in tanks will be limited to 90 days or less and will meet the substantive requirements for up to 90-day accumulation in tanks. • Materials in containers will be stored at GE's hazardous waste storage facility, which meets the requirements for long-term storage of hazardous waste in containers.
RCRA Hazardous Waste Management/Disposal Facilities Regulations (Preparedness and Prevention) (40 CFR 264, Subparts C)	<ul style="list-style-type: none"> • Temporary storage of removed materials 	<ul style="list-style-type: none"> • GE's existing on-plant hazardous waste storage facility meets these requirements.
RCRA Hazardous Waste Management/Disposal Facilities Regulations (General) (40 CFR 264.13 - .19)	<ul style="list-style-type: none"> • Temporary storage of removed materials 	<ul style="list-style-type: none"> • Operation of GE's existing on-plant hazardous waste storage facility meets these requirements.
RCRA Hazardous Waste Management/Disposal Facilities Regulations (Closure) (40 CFR 264.111 - .115)	<ul style="list-style-type: none"> • Temporary storage of removed materials 	<ul style="list-style-type: none"> • Upon termination of operations, GE's existing on-plant hazardous waste storage facility will be closed in accordance with the substantive requirements of these regulations.
Massachusetts Hazardous Waste Regulations (Storage of Hazardous Waste) (310 CMR 30.680, 30.690 310 CMR 30.340)	<ul style="list-style-type: none"> • Temporary storage of removed materials 	<ul style="list-style-type: none"> • See discussion of Federal RCRA Hazardous Waste Regulations (Storage of Hazardous Waste) above.

ARAR	Associated Project Components	Means by Which ARAR Will Be Addressed
Massachusetts Hazardous Waste Regulations (Closure) (310 CMR 30.580)	<ul style="list-style-type: none"> • Temporary storage of removed materials 	<ul style="list-style-type: none"> • See discussion of Federal RCRA Hazardous Waste Regulations (Closure) above.
TSCA Spill Cleanup Policy (40 CFR 761, subpart G)	<ul style="list-style-type: none"> • New PCB spills (if any) during on-site activities 	<ul style="list-style-type: none"> • GE will consider and address cleanup policy for any new PCB spills that occur during the work.

In addition to the requirements specified above, if any historic or prehistoric artifacts or sites or any threatened or endangered species or species of special concern are identified by GE during the course of field activities, or identified by EPA or MDEP and communicated to GE, GE shall notify EPA and discuss with EPA the need for and scope of additional actions, if any, needed to protect such resources.

6. Contractor Selection

Following EPA's approval of this Final Work Plan and in accordance with the schedule to be agreed to by GE and EPA, GE will select a Remediation Contractor that is qualified to complete the on-site soil remediation/construction activities. To accomplish this, GE will develop a Request for Proposal (RFP) that describes the project, provides the Technical Drawings and Specifications contained herein, and solicits bids from prospective contractors. GE and its Supervising Contractor (BBL, an ARCADIS company [BBL]) will then review the potential Contractor bids for completeness, relevant experience, the proposed work schedule, and the Contractors' financial status. After the review is complete, GE will select the Remediation Contractor and initiate a contractual agreement.

Upon selection, the Remediation Contractor will be responsible for providing several submittals to GE, including those identified in Section 7.3 of this Final Work Plan. GE will subsequently provide the Contractor information and submittals to EPA in a supplemental information package, as described in Section 9 of this Final Work Plan.

7. Implementation Plan

7.1 General

As indicated in Section 5.2, the POP contains a series of plans that address several common aspects for Removal Actions Outside the River. As relevant, those plans will be followed during implementation of the Removal Action associated with East Street Area 2-North.

As a supplement to the implementation-related procedures specified in the POP plans, this section provides additional details regarding certain construction activities. Specifically, this section identifies the requirements for project-specific plans to be submitted by the selected Remediation Contractor, describes site-specific elements of the site preparation and construction activities, and summarizes the project-specific perimeter air monitoring approach.

7.2 Project Participants

To the extent possible, the following table identifies the key project participants involved in the design and implementation of remediation/construction activities associated with East Street Area 2-North, along with their project roles and contact information:

Organization/Contact	Role	Address and Phone Number
United States Environmental Protection Agency Sharon M. Hayes	<ul style="list-style-type: none"> - Lead regulatory agency. - Review and approval of Final Work Plan. - Oversight of removal actions. 	USEPA Region 1 One Congress Street, Suite 1100 Boston, MA 02114-2023 (617) 918-1328
General Electric Company Richard W. Gates	<ul style="list-style-type: none"> - Supervise pre-design, construction, and documentation activities related to the East Street Area 2-North Removal Action. - Supervise implementation of the Removal Action and related activities to ensure that they are conducted in accordance with the CD. - Direct/coordinate activities of the Remediation Contractor and other GE-contracted organizations. - Responsible for preparation of a Final Completion Report. 	General Electric Company 159 Plastics Avenue Building 59 Pittsfield, MA 01201 (413) 448-5909

Organization/Contact	Role	Address and Phone Number
BBL James M. Nuss, P.E., LSP	<ul style="list-style-type: none"> - Supervising Contractor for GE. - Review Remediation Contractor submittals. - Project coordination and documentation. - Provide technical assistance related to the implementation of the Removal Action. - Assist in verifying that the Removal Action is complete and performed in accordance with the Work Plan. - Prepare Final Completion Report. 	Blasland, Bouck & Lee, Inc. 6723 Towpath Road Syracuse, NY 13214 (315) 446-9120
Berkshire Environmental Consultants Maura Hawkins	<ul style="list-style-type: none"> - Design and implement perimeter air monitoring in conjunction with construction activities. 	Berkshire Environmental Consultants, Inc. 152 North Street, Suite 250 Pittsfield, MA 01201 (413) 443-0130
Remediation Contractor (To be determined)	<ul style="list-style-type: none"> - Implement all construction-related activities. 	(To be determined)

7.3 Contractor Submittals

Once selected, the Remediation Contractor will be required to provide certain pre-mobilization submittals to demonstrate that the Contractor: (1) has an adequate understanding of the scope of the Removal Action; (2) has developed a project-specific sequence that can efficiently perform all on-site activities within the allowable schedule; (3) will utilize acceptable materials, products, and procedures; and (4) will perform all activities in a manner that is protective of on-site workers and the surrounding community. Certain of those submittals relate to the manner in which the work activities will be implemented and, as such, will supplement the information and procedures presented in this Final Work Plan. Those submittals include an Operations Plan, Health and Safety (HASP), and Contingency Plan. Each of these submittals is further described below.

Operations Plan

The purpose of the Operations Plan is to summarize the materials, procedures, timelines, and controls that the Contractor intends to utilize during project activities. This plan will be prepared in consultation with GE and its Supervising Contractor and will include the following:

- List of equipment to be used on site;
- Work Schedule;
- The Contractor's proposed plan for controlling vehicular and pedestrian traffic during the performance of construction activities;
- Proposed excavation stabilization measures (if any);

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- The Contractor's qualifications package (if requested by GE);
 - Stormwater (including run-on and run-off), erosion, noise, and dust control measures;
 - The Contractor's proposed excavation approach;
 - Materials handling and staging approach; and
 - Equipment cleaning procedures.

HASP

The HASP will identify the Remediation Contractor's project-specific health and safety procedures and will be developed to address the minimum requirements established in the POP and 29 CFR 1910 and 1926. The plan will address those activities to be undertaken by the Contractor and present required information including, but not limited to, the following (as applicable):

- Training;
- Identification of key personnel (including the Contractor's Health and Safety Officer);
- Medical surveillance;
- Site hazards;
- Work zones;
- Personal safety equipment and protective clothing;
- Personal air monitoring;
- Personnel/equipment cleaning;
- Confined space entry;
- Construction safety procedures;
- Standard operating procedures and safety programs; and
- Material safety data sheets.

Contingency Plan

The Contingency Plan will set forth procedures for responding to emergency conditions or events that may occur during the performance of the Removal Action, and will include the following information:

- A spill prevention control and countermeasures plan for all materials brought on the work site;
- Emergency vehicular access/egress;

-
- Evacuation procedures of personnel from the work site;
 - A list of all contact personnel with phone numbers and procedures for notifying each;
 - Routes to local hospitals; and
 - Identification of responsible personnel who will be in a position at all times to receive incoming phone calls and to dispatch Contractor personnel and equipment in the event of an emergency situation.

In addition to the Contingency Plan requirements listed above, certain measures will be taken by GE and the Remediation Contractor in the event that any drums, capacitors, or other vessels are discovered during the course of the remedial activities. These measures will include the following:

- Immediate notification of any such discovery to EPA and MDEP;
- Segregation, overpacking, characterization, and off-site disposal of any intact liquid-containing drums, capacitors, or other vessels; and
- Discussions with EPA regarding the need for and/or scope of follow-up activities, such as additional air monitoring, investigations, and response actions, if necessary.

The Remediation Contractor will also be required to prepare a submittal(s) specifying the sources and, if necessary, the corresponding analytical data for proposed backfill sources to be used during the performance of this project.

Once developed by the selected Remediation Contractor and approved by GE, each of the above-listed Contractor submittals will be submitted to EPA in a supplemental information package. In addition to these submittals, the Contractor is required to provide GE with various other submittals over the course of this project. The overall purpose of such submittals is to verify that the materials and procedures used in the construction activities are consistent with the design of the Removal Action. In accordance with the POP, all Contractor submittals will be tracked to confirm their receipt and approval. A copy of the Technical Submittal Register provided to the prospective Contractors as part of the RFP for this project is provided in Attachment C. (Please note that submittals required by GE but not subject to submittal to EPA as part of the supplemental information package have been shaded.)

7.4 Site Preparation

Immediately prior to or following mobilization to the work area, the selected Remediation Contractor will perform several site preparation activities to establish the necessary site controls, features, and procedures for subsequent implementation of the construction activities. These activities include the following:

- Obtaining utility clearances;
- Establishing site controls and access;
- Site survey and layout;
- Installing erosion and sedimentation control measures; and
- Surface preparation.

General information regarding various site preparation activities (e.g., coordinating with local utilities, permitting, verifying existing conditions, establishing work areas, etc.) is provided in the general CQAP (part of the POP); the information provided below supplements that CQAP by providing additional site-specific details associated with certain of these activities.

7.4.1 Utility Clearances

Above ground and underground utilities that could potentially be affected by the construction activities will be identified prior to initiating any intrusive subsurface activities (e.g., soil excavation, etc.). As indicated on Technical Drawings 1 through 4 (Attachment A), certain subsurface and above ground utilities are known to be present within East Street Area 2-North. Subsurface utilities within the East Street Area 2-North RAA include electric, telephone and gas lines; storm drains; and water, fire protection, gas and sewer lines. The selected Contractor will be responsible for coordinating with DIGSAFE to determine the locations of all utilities at the start of the work and coordinating with GE (the property owner) and, if necessary, any other utility owners, regarding relocation/termination of any utilities, as required. Above ground utilities within the East Street Area 2-North RAA include overhead electric and telephone lines. The selected Contractor will be responsible for coordinating the relocation of any overhead utilities which may be impacted by the performance of the removal actions and ensuring there is no interruption of service.

7.4.2 Work Area Security

The level of work area security will depend on the activities being performed and the location of those activities. Security measures will be selected in consultation with the Remediation Contractor and may consist of temporary fencing or barriers, maintenance of sign-in/sign-out sheets, and implementation of safe work practices, as described below.

Temporary Fencing - Temporary construction fencing will be installed, as needed, to delineate and secure areas during ongoing construction activities. While other fencing configurations of equivalent performance may be considered, such temporary fencing is expected to be at least 4 feet in height, constructed of high-density polyethylene, and orange in color.

Sign-In/Sign-Out Sheet - For the duration of construction activities, a sign-in/sign-out sheet will be maintained for the work site. All on-site personnel and visitors will be required to sign in upon entering the work area and sign out upon leaving.

In addition, safe work practices will also be employed at this work site. These activities may include any of the following:

Daily Safety Meetings - Such meetings, commonly referred to as tailgate meetings, are typically held with the Contractor to discuss hazards potentially encountered during the planned daily activities.

Posting of Warning Tape - To restrict access during construction activities, warning tape may be installed at certain locations to delineate certain areas, such as the exclusion zone, contaminant reduction zone, and/or support zone.

Use of Flagmen or Other Signaling Devices - Certain excavation activities in high traffic areas may necessitate the use of flagmen or other signaling devices (i.e., flashing beacons mounted on sawhorses).

7.4.3 “Clean” Access Area

Since a number of activities will require periodic access/egress between the work site and adjacent areas, a “clean” transition area will be established. Such an area will be used for equipment/material delivery and for the

positioning of trucks for subsequent loading and off-site transport of excavated materials. It is expected that each transport area will be constructed of gravel or a layer of geotextile fabric and will be properly delineated from the remainder of the property. The specific location and construction of the access area will be developed by the Remediation Contractor in accordance with the anticipated progression of the construction actions, as well as other factors such as the layout of the site, traffic patterns, and material handling procedures.

7.4.4 Survey Control

In accordance with the CQAP, survey controls will be established at the start of the work and maintained throughout the construction activities. GE will provide survey benchmarks so that the Remediation Contractor can establish appropriate horizontal and vertical control consistent with the existing survey data. As stated in the CQAP, the Remediation Contractor will establish a minimum 50-foot control grid within the areas subject to removal. This survey will be performed to verify that the horizontal and vertical limits of removals have been obtained and the final surface grade has been achieved to the existing elevations.

7.4.5 Erosion and Sedimentation Control Measures

Erosion and sedimentation control measures will be implemented to minimize the potential for erosion of exposed soils and subsequent accumulation of materials in site drainage pathways. In addition, these measures will be used to divert rainfall runoff from contacting any soil stockpile areas and/or entering work areas and open excavations.

Specific to this RAA, erosion control measures to be implemented will include placement of hay bales and/or staked silt fencing around the perimeter of the downhill side of the unpaved work areas, plus additional area-specific measures, as required. The approximate location and layout of the hay bales/siltation fencing are indicated on Technical Drawing 2. This fencing will be placed at the start of the site work activities and will be maintained until a good stand of vegetation is established.

In addition to the hay bale/silt fence, other erosion and sedimentation control measures will be implemented as needed. At a minimum, this will include placement of erosion control measures around any temporary soil stockpiles.

7.4.6 Surface Preparation

Various surface preparation activities will be performed prior to or in conjunction with the initial site preparation activities. These surface preparation activities are specified on Technical Drawing 2.

7.5 Construction Activities

7.5.1 Monitoring Well Decommissioning

As shown on Technical Drawing 1, 28 wells located within East Street Area 2-North were installed and/or have been sampled as part of the groundwater-related activities at GMA 1. The majority of the monitoring and NAPL/groundwater recovery wells were installed as part of the GMA 1 groundwater quality monitoring/NAPL source recovery well network (although not all of the monitoring wells are currently being sampled under the interim groundwater monitoring program in progress at GMA 1). Most of these monitoring wells will either not be impacted by the proposed remediation actions or will be proposed to be protected during the performance of the remediation activities described herein. However, certain monitoring wells (most of which are not currently used in the GMA 1 program) located in areas not considered vital to the monitoring program may be proposed for decommissioning prior to the commencement of soil removal activities. These are monitoring wells ES1-11, ES1-13 and ES1-6. GE will decommission each of the identified monitoring wells in accordance with the general procedures described in the Appendix GG of GE's FSP/QAPP for the GE-Pittsfield/Housatonic River Site. That Standard Operating Procedure was developed in accordance with Section 4.6 of the MDEP's *Standard References for Monitoring Wells* (April 19, 1991).

7.5.2 Soil Removal, Material Handling, and Transportation and Disposal

The proposed removal actions will require excavation and handling of certain existing soils within East Street Area 2-North. Specifically, existing soils within the excavation limits and depths, as depicted on Technical Drawing 3, will be removed using conventional construction equipment (e.g., excavator, backhoe, loader). The maximum depth of excavation will be approximately 10 feet below ground surface (bgs). Based on data from the ongoing groundwater monitoring program at GMA 1 (indicating that the minimum depth to groundwater is approximately 24 feet near the areas where removal is anticipated to occur), excavation of saturated materials is not anticipated for the soil removal activities. However, if saturated materials are encountered, they will be mixed with drier soil such that the resulting material will pass the Paint Filter Test. If this procedure does not

yield a material that will pass the Paint Filter Test, drying agents may subsequently need to be added. These drying agents could include, but not be limited to, quick-lime, cement, and/or flyash.

As soils are excavated, and prior to their transport to the appropriate off-site disposal facility, a number of intermediate on-site handling activities may be necessary. To ensure that such activities are performed in a manner that minimizes the potential for inadvertent releases to the environment, unsafe conditions for on-site and off-site personnel, and delays or complications in project completion, several on-site material handling procedures will be implemented. The specific method(s) of handling the removed soils will be based on, but not limited to, the following considerations:

- The characteristics of the excavated soils and corresponding disposition requirements;
- The locations from which the materials are removed and their proximity to the loading area(s); and
- The overall sequence and schedule of the removal actions.

To reduce the potential for the release of PCBs or other Appendix IX+3 constituents to the environment during removal and handling activities, the number of times that the excavated material is handled will be kept to a minimum. To accomplish this, the Remediation Contractor will conduct direct loading to trucks to the extent practical. Additional information regarding material handling is discussed below.

- To reduce the potential for migration of PCBs or other Appendix IX+3 constituents due to wind- and rainfall-related factors, temporary stockpiles (such as GE may construct at the GE plant site), staging areas, and work areas where excavation activities are yet to be completed will be protected with a cover (e.g., polyethylene sheeting), which will be anchored when the area is not under active excavation/use. In addition, if concerns regarding airborne dust are identified or suspected, water will be sprayed to keep the open excavation (or excavated soils) moist. Finally, to the extent possible, all temporary stockpiles and staging areas will be located in areas subject to future excavation activities, or existing buildings subject to future demolition to prevent possible contamination of clean soils. If such stockpiles or staging areas are required in areas not subject to future excavation, polyethylene sheeting will be placed under such stockpiles or staging areas and these areas will be bermed to prevent excavated soils or precipitation runoff from such stockpiles from contacting underlying soils.
- To the extent feasible and practicable, material handling and loading areas will not be established in locations that may interfere with construction operations or necessary traffic flow. In addition, material

handling areas will be located so as to take into account site topography and avoid (to the extent possible) low-lying drainage areas where surface runoff is likely to accumulate.

- Additional erosion and sedimentation control measures (e.g., hay bales with silt fencing) will be utilized as necessary.

Based on the specified soil removal limits identified on Technical Drawing 3, the estimated total volume of existing materials to be removed from the work area is approximately 820 in-situ cubic yards. GE has determined that all of this waste will be disposed of off-site, at facilities authorized under applicable law to accept such waste. Additional details concerning the characterization and disposal of the soil are presented in the following section. Additional information regarding the transport and disposition of excavated materials is provided below in Section 7.5.4.

7.5.3 Groundwater Management

As noted above, the minimum depth to groundwater at the locations where removals are anticipated to occur is approximately 24 feet. The deepest depth of removal at this RAA is for two 10-foot removals for non-PCB constituents. Therefore it is not likely that groundwater will enter any of the excavations at this RAA. However, if groundwater enters at these deeper removal areas, it is anticipated that sumps equipped with pumps should be able to keep the excavation dry. If such an arrangement is necessary to keep the excavation dry, a tanker truck, and possibly temporary water storage tanks, will be brought on site to collect the pumped groundwater prior to transporting it to GE's Building 64G water treatment facility for treatment and discharge.

7.5.4 Transport and Disposition of Excavated Materials and Remediation-Derived Waste

As indicated above, GE has determined that all excavated materials will be sent to appropriate off-site disposal facilities. Previous sampling and analysis conducted at the Site indicate that the majority of soils subject to removal contain PCBs at concentrations over 50 ppm, and thus are regulated for disposal under TSCA (40 CFR 761.61). However, some of the excavated soils contain PCBs at concentrations less than 50 ppm and thus will be treated as non-TSCA materials. In addition, GE will provide the existing non-PCB sampling data from the soils subject to excavation to the selected off-site disposal facilities. In consultation with those off-site disposal facilities, GE will perform an evaluation of the data to determine whether the excavated materials would

constitute characteristic hazardous waste subject to regulation under RCRA, including, as appropriate, an initial screening evaluation to determine whether further hazardous waste characterization sampling is necessary. As appropriate, GE will collect additional samples for TCLP waste characterization sampling in accordance with the POP and the Waste Characterization Plan and/or at a frequency determined in consultation with the disposal facilities.

At this time, based on a review of the TSCA/non-TSCA status of the soils to be excavated (see Technical Drawing 3), it is estimated that approximately 685 cy of excavated material will be subject to TSCA disposal regulations. This material will be sent for off-site disposal to a TSCA-approved disposal facility (subject to confirmation that those materials do not constitute hazardous waste under RCRA). The remaining 140 cy of excavated material will be characterized as discussed above and a determination will be made as to whether that material will be subject to RCRA disposal regulations. If it is, it will be sent for off-site disposal to an off-site RCRA-approved disposal facility. If it is not, it will be sent either to the Hill 78 On-Plant Consolidation Area (OPCA) or to an appropriate off-site facility.

All excavated materials and remediation-related residual wastes will be loaded for treatment/disposal at the appropriate OPCA or permitted treatment, storage, and disposal facility. Over-the-road transport of these materials will be performed by licensed haulers in accordance with appropriate local, state, and federal regulations. If GE determines to transport any materials to the Hill 78 OPCA for disposal, a figure showing truck routes will be provided to EPA for its approval. Dump trailers leaving the work area will be lined to prevent spillage during transportation (as necessary), manifested (as necessary), and placarded in accordance with federal and state requirements using Hazardous Waste Manifests and Bureau of Waste Site Clean-up (BWSC) Bill of Lading forms. The Remediation Contractor will be required to implement the following procedures for the transport of excavated materials from East Street Area 2-North to the above-referenced disposal facilities:

- Employ qualified personnel trained per U.S. Department of Transportation (DOT) requirements for handling and shipping hazardous materials, with such training to include general safety, emergency response, exposure protection, accident prevention, preparation of shipping papers, and securing loads;
- Employ drivers that have a Commercial Driver's License (CDL) with a Hazardous Materials Endorsement;

-
- Utilize trucks that are DOT-inspected;
 - Include in its HASP, Operations Plan, and Contingency Plan detailed provisions for responding to transportation emergencies such as spills, releases, or other incidents;
 - Maintain records of the number of loads of materials sent to the off-site disposal facilities on a daily basis; and
 - Confirm that the materials are suitable for transport (i.e., no free liquids).

The transport of excavated materials from East Street Area 2-North to the appropriate off-site disposal facility will be conducted in accordance with the following guidelines:

- After a safety check of the truck, the truck bed will be lined with polyethylene. Excavated soil will be placed in the truck and the load will be covered.
- An appropriate Hazardous Waste Manifest or BWSC Bill of Lading will be prepared and signed by the truck driver and the appropriate disposal facility.

7.5.5 Backfilling of Excavations

Backfilling operations will be initiated as soon as practicable after completion and proper documentation of excavation activities (i.e., survey control). It is anticipated that the excavations will be backfilled and compacted using conventional construction equipment. Clean backfill materials will be placed in 12-inch thick lifts in a loose state and compacted in accordance with the Technical Specifications (Attachment B) prior to additional fill being placed within the excavation. The excavation will be brought up to the predetermined subgrade elevation prior to installing the final surface layer (e.g., topsoil and seed).

Backfill material will be clean, natural material, no greater than gravel in size to ensure proper settlement, permeability, and compactability. The specific fill sources to be used for this project will be identified by the Remediation Contractor. A description of the process for identifying such sources and, if necessary, submitting the analytical data for them was presented in Section 5.5.

7.5.6 Installation of Excavation Controls

As noted in Section 5.4 above, the six and ten foot VOC soil removals are not required to meet the non-PCB Performance Standards for Appendix IX+3 constituents at this RAA. For such excavations extending to depths greater than 4 feet and which Contractor personnel will enter to perform work or for which the structural stability of adjacent structures must be maintained, excavation sidewall stabilization will be required, as discussed in Section 5.4. If after evaluation of sidewall and structural stability, the Remediation Contractor determines that the performance of such soil removal activities will endanger the structural stability of adjacent buildings, target soils will only be removed to the extent possible without compromising excavation or structural stability. If additional procedures/controls beyond those included herein are identified prior to submission of the forthcoming supplemental information package, such procedures/controls will be included in that package.

7.5.7 Equipment Cleaning

Equipment and materials that have come into contact with existing soils at East Street Area 2-North during the construction activities will be cleaned prior to relocation to an area outside the work zone (i.e., the excavation and loading areas), prior to handling backfill materials, and prior to its departure from this RAA. Equipment cleaning will be conducted as specified in Section 3.5 of the Site Management Plan within the POP.

7.5.8 Restoration of Surfaces

As indicated on Technical Drawing 4, vegetated surfaces will require the placement of 3 inches of topsoil followed by the placement of a seed mix and mulch to restore pre-excavation grades. A plan to address any other resurface restoration will be developed based on consultation with EPA and discussions GE.

7.6 Perimeter Air Monitoring

Ambient air monitoring for PCBs and particulate matter will be performed during the removal actions. The scope of the ambient air monitoring program is presented in Attachment D to this Final Work Plan. In overview, ambient air monitoring for PCBs will include collection of ambient air samples using “high volume” samplers equipped with glass fiber filters and polyurethane foam (PUF) cartridges. The samples will be

collected, analyzed, and evaluated using the procedures specified in EPA Compendium Method TO-4A. To obtain representative data on ambient levels of PCBs around the construction site before and during construction activities, two PCB air sampling events will be performed prior to the start of construction activities, and additional events will be performed at least once every 4 weeks during the course of construction. Ambient air monitoring for particulates will be performed on a continuous basis during all active construction activities using real-time particulate air monitors.

For both PCB and particulate monitoring, baseline monitor locations will be established at four locations within East Street Area 2-North. Although subject to change based on the location of construction activities and weather conditions, the ambient air monitoring scope of work (Attachment D) identifies preliminary locations for air monitoring. In addition, a background monitoring location will be established during removal actions.

8. Post-Construction Activities

8.1 General

This section addresses the activities to be performed by GE following the completion of removal actions at East Street Area 2-North. These activities include project closeout activities (including preparation and submittal of a Final Completion Report) and Post-Removal Site Control activities. Each of these topics is further discussed below.

8.2 Project Closeout – Pre-Certification Inspection and Completion Report

Once GE has determined that the removal actions for East Street Area 2-North are complete (excluding Post-Removal Site Control activities) and the applicable Performance Standards have been attained, GE will schedule and conduct a pre-certification inspection with EPA and MDEP. This inspection will be conducted within 90 days after GE concludes that the Removal Actions are complete.

After the pre-certification inspection, GE will proceed with remaining closeout activities, which will consist of development and submittal of a Final Completion Report to summarize and document the scope of the completed Removal Action activities. At a minimum, the Final Completion Report will include the following:

- A description of the Removal Actions performed;
- Identification of any deviations from the design submittals approved by EPA;
- A listing of Removal Action quantities, including approximate soil volumes removed;
- Results of quality assurance/quality control (QA/QC) testing performed during the Removal Actions;
- Survey data to document the current grade and final surface contours;
- Copies of Record Drawings to document the as-built conditions;

-
- Representative project photographs;
 - Documentation regarding the disposition of materials excavated in conjunction with the construction activities; and
 - A summary of Post-Removal Site Control activities and a schedule for such activities.

As indicated in Section 9, the Final Completion Report will be submitted to EPA within 30 days after the pre-certification inspection (or at such other time as may be proposed by GE and approved by EPA at the time of that inspection).

8.3 Post-Removal Site Control Activities

Post-construction inspection and maintenance (I/M) activities will be performed at East Street Area 2-North, as required by Technical Attachment J to the SOW. A Post-Removal Site Control Plan (PRSCP) which describes and identifies the frequencies and duration of these I/M activities is included as Attachment E.

9. Schedule

As described in Section 6, GE will develop and submit an RFP to potential Remediation Contractors following EPA's approval of this Final Work Plan, at a time to be agreed upon between EPA and GE. Further, GE proposes that within approximately 30 days of selection of a Remediation Contractor, GE will submit a supplemental information package to EPA as a follow-up to this Work Plan. This supplemental information package is anticipated to include the following:

- Identification of and contact information for the selected Remediation Contractor;
- Copies of the Remediation Contractor's pre-mobilization submittals (i.e., Operations Plan, HASP, and Contingency Plan);
- Identification of backfill sources and locations; and
- Analytical data for samples collected from the backfill sources (unless the backfill sources have already been approved based on previously submitted analytical data).

Following EPA approval of this Final Work Plan and the supplemental information package, site preparation activities will be initiated. The specific schedule for the implementation and completion of the removal actions at this RAA will depend on several factors, including the timing of EPA approval of these documents and timing of the onset of winter weather conditions. As such, GE will discuss with EPA the possible timing of remediation activities for East Street Area 2-North.

Additional details regarding overall project duration, including an estimate of the duration of the entire project in working weeks will be provided in the Remediation Contractor's Work Schedule – which is a required component of the Contingency Plan submittal (Section 7.3) – that will be provided to EPA as part of the forthcoming supplemental information package.


Within 90 days of completing the field construction activities, GE will schedule and conduct a pre-certification inspection with EPA and MDEP, as described in Section 8.2. Within 30 days thereafter, or at such other time as proposed by GE and approved by EPA at the time of the inspection, GE will submit a Final Completion Report on this Removal Action. That report will represent the completion of the CD-required construction activities. Periodic inspection reports will be provided thereafter to EPA in accordance with the schedules outlined in Attachment E.

Figures

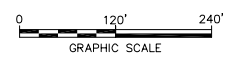
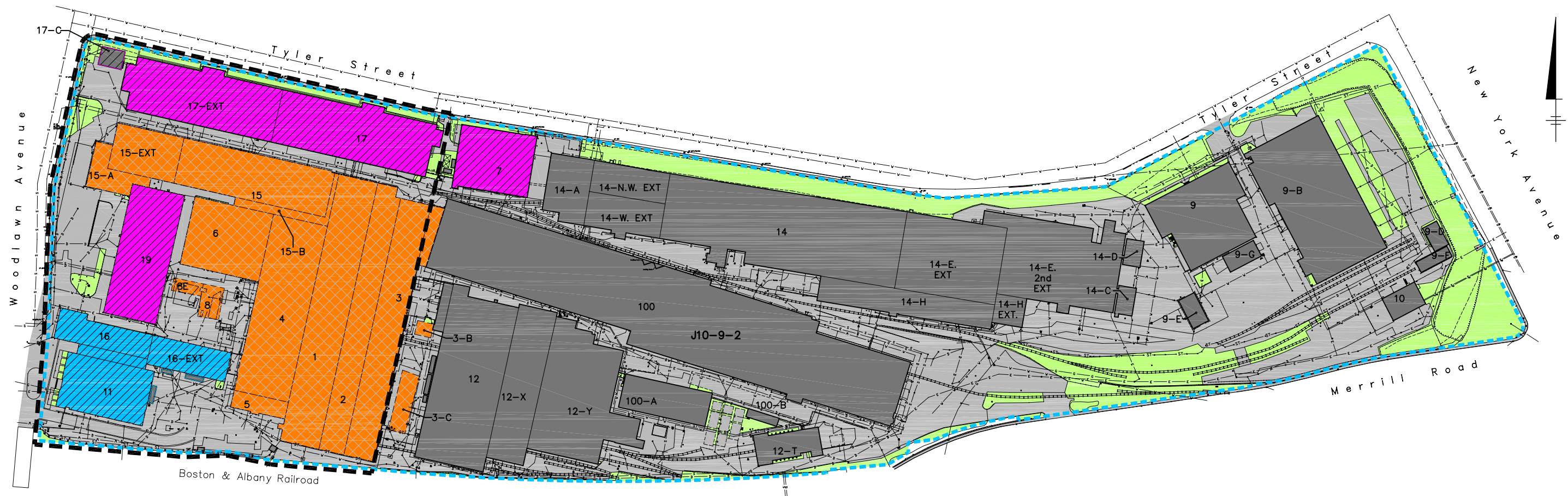


LEGEND:
■ EAST STREET AREA 2-NORTH
--- APPROXIMATE REMOVAL ACTION AREA BOUNDARY

- NOTES:**
1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. - FLOWN IN APRIL 1990; DATA PROVIDED BY GENERAL ELECTRIC COMPANY; AND BLASLAND AND BOUCK ENGINEERS, P.C. CONSTRUCTION PLANS.
 2. NOT ALL PHYSICAL FEATURES SHOWN.

GENERAL ELECTRIC COMPANY PITTSFIELD MASSACHUSETTS FINAL RD/RA WORK PLAN FOR EAST STREET AREA 2-NORTH	
REMOVAL ACTION AREA	
 an ARCADIS company	FIGURE 1-1

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 PLOT DATE: 8/25/2006 9:28 AM
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 PLOT SIZE: 40469X02
 PLOT ORIGIN: 40469X00



LEGEND	
	REMOVAL ACTION AREA BOUNDARY
	BUILDING
	BUILDING TO BE DEMOLISHED
	FORMER BUILDING LOCATION
	DEMOLITION COMPLETED
	DEMOLITION TO BE INITIATED IN 2006
	DEMOLITION TO BE INITIATED IN 2007
14	BUILDING ID
	PAVED AREA
	UNPAVED AREA
	APPROXIMATE AREA TO BE TRANSFERRED TO PITTSFIELD ECONOMIC DEVELOPMENT AUTHORITY (PEDA)
	STORM SEWER
	SANITARY SEWER
	WATER MAIN / FIRE PROTECTION MAIN
	STEAM LINE
	NATURAL GAS MAIN
	ELECTRIC/TELEPHONE CONDUIT
	LIGHT POLE
	CATCH BASIN
	DRAIN MANHOLE
	UTILITY POLE
	GAS VALVE
	FIRE HYDRANT
	WATER SHUTOFF

- NOTES:**
1. BASE MAPPING FROM TOPOGRAPHIC SURVEY (DRAWING S2059W01) BY FORESIGHT LAND SURVEYORS DATED 2/9/05.
 2. NOT ALL PHYSICAL FEATURES SHOWN.

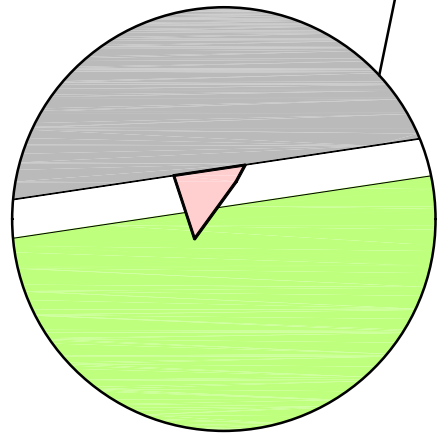
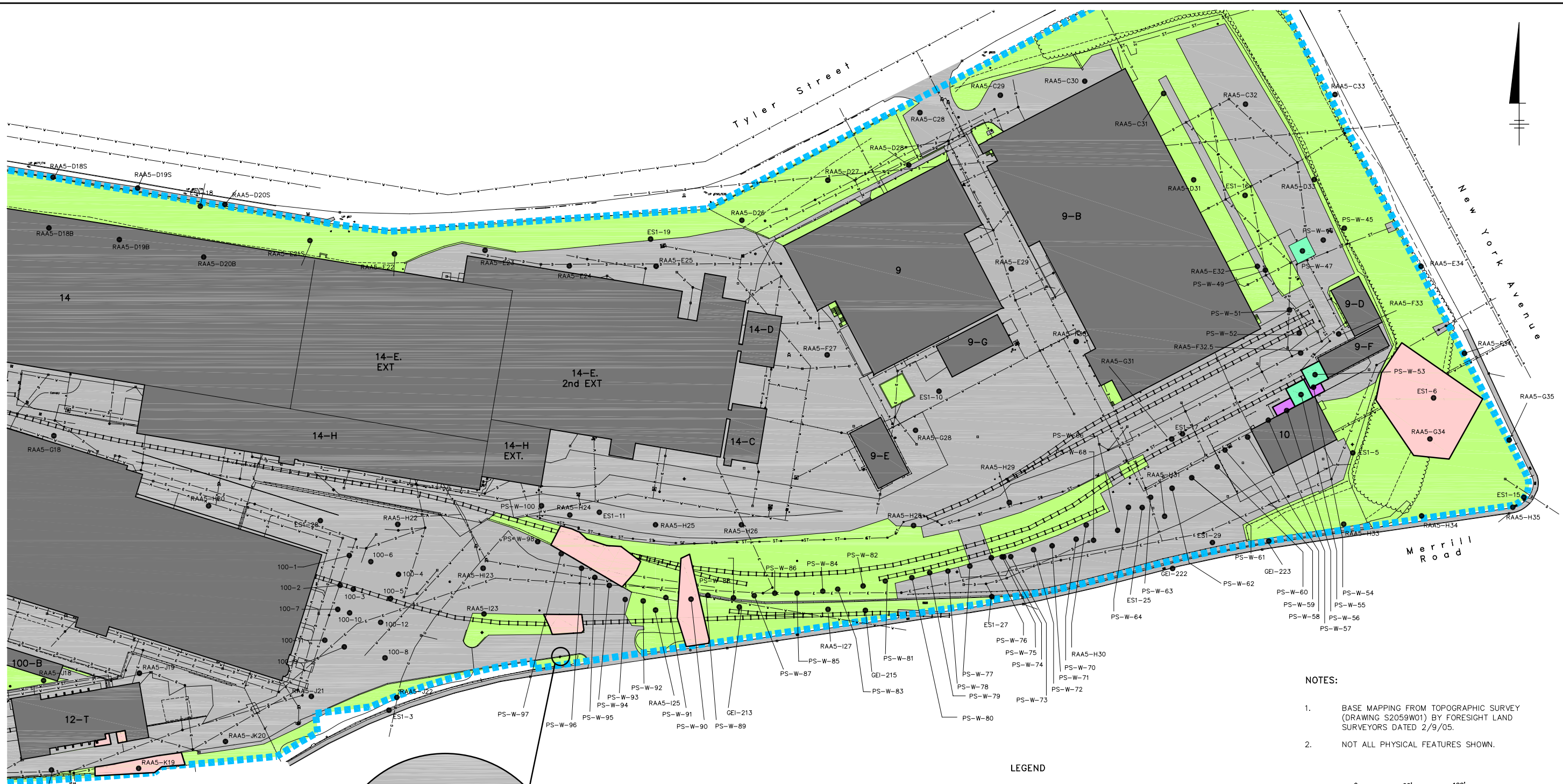
**GENERAL ELECTRIC COMPANY
 PITTSFIELD MASSACHUSETTS
 FINAL RD/RA WORK PLAN FOR
 EAST STREET AREA 2-NORTH**

SITE PLAN

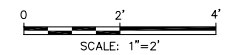


FIGURE
1-2

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 40469X03
 40469X00



1-FOOT REMOVAL AREA DETAIL



LEGEND	
	REMOVAL ACTION AREA BOUNDARY
	BUILDING
	BUILDING ID
	PAVED AREA
	UNPAVED AREA
	EXISTING SOIL SAMPLING LOCATION
	1-FOOT REMOVAL
	6-FOOT REMOVAL (10'x10', NOT SHOWN TO SCALE)
	10-FOOT REMOVAL (10'x10', NOT SHOWN TO SCALE)
	STORM SEWER
	SANITARY SEWER
	WATER MAIN / FIRE PROTECTION MAIN
	STEAM LINE
	NATURAL GAS MAIN
	ELECTRIC/TELEPHONE CONDUIT
	LIGHT POLE
	CATCH BASIN
	DRAIN MANHOLE
	UTILITY POLE
	GAS VALVE
	FIRE HYDRANT
	WATER SHUTOFF

- NOTES:**
- BASE MAPPING FROM TOPOGRAPHIC SURVEY (DRAWING S2059W01) BY FORESIGHT LAND SURVEYORS DATED 2/9/05.
 - NOT ALL PHYSICAL FEATURES SHOWN.



**GENERAL ELECTRIC COMPANY
 PITTSFIELD MASSACHUSETTS
 FINAL RD/RA WORK PLAN FOR
 EAST STREET AREA 2-NORTH**

**REVISED SOIL-RELATED
 RESPONSE ACTIONS**

FIGURE
4-1

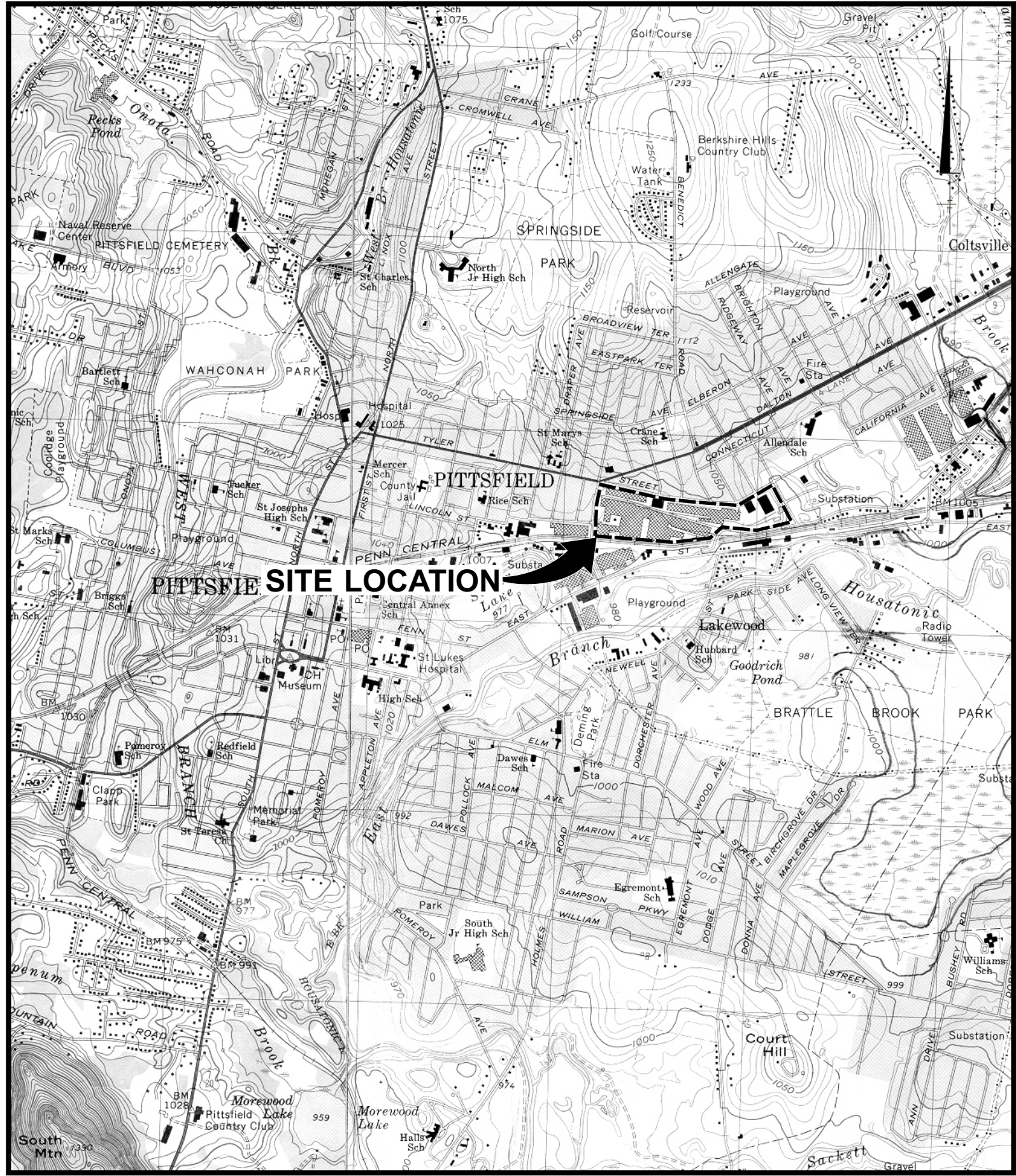
Attachments

Attachment A

Technical Drawings

TECHNICAL DRAWINGS

**REMOVAL ACTION
EAST STREET AREA 2-NORTH
REMOVAL ACTION AREA (RAA)**



REFERENCE: Base Map Source: USGS 7.5 Min. Topo. Quads., Pittsfield West, Mass-New York and Pittsfield East, Mass., 1973.

2000' 0 2000'
APPROX. SCALE: 1 = 2000 FEET
LOCATION MAP

AUGUST 2006

PREPARED FOR:



**General Electric Company
Pittsfield, Massachusetts**

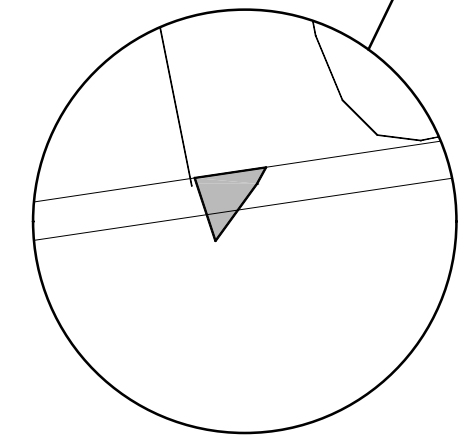
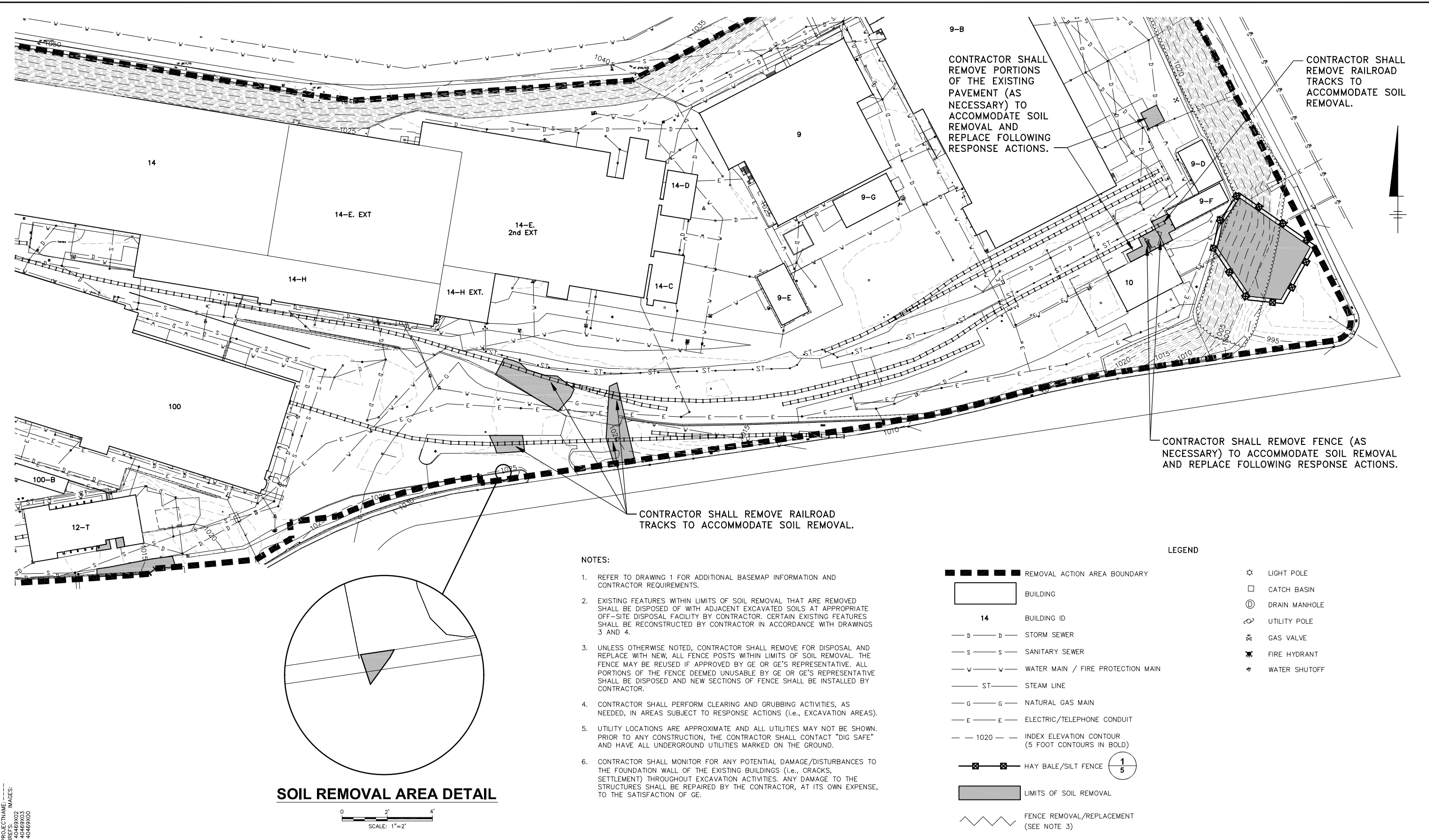
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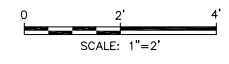
INDEX TO DRAWINGS

- COVER SHEET
- 1. EXISTING SITE PLAN
- 2. SITE PREPARATION PLAN
- 3. EXCAVATION LIMITS
- 4. SITE RESTORATION PLAN
- 5. GENERAL NOTES AND DETAILS

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 40469X02
 40469X03
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SOIL REMOVAL AREA DETAIL



NOTES:

- REFER TO DRAWING 1 FOR ADDITIONAL BASEMAP INFORMATION AND CONTRACTOR REQUIREMENTS.
- EXISTING FEATURES WITHIN LIMITS OF SOIL REMOVAL THAT ARE REMOVED SHALL BE DISPOSED OF WITH ADJACENT EXCAVATED SOILS AT APPROPRIATE OFF-SITE DISPOSAL FACILITY BY CONTRACTOR. CERTAIN EXISTING FEATURES SHALL BE RECONSTRUCTED BY CONTRACTOR IN ACCORDANCE WITH DRAWINGS 3 AND 4.
- UNLESS OTHERWISE NOTED, CONTRACTOR SHALL REMOVE FOR DISPOSAL AND REPLACE WITH NEW, ALL FENCE POSTS WITHIN LIMITS OF SOIL REMOVAL. THE FENCE MAY BE REUSED IF APPROVED BY GE OR GE'S REPRESENTATIVE. ALL PORTIONS OF THE FENCE DEEMED UNUSABLE BY GE OR GE'S REPRESENTATIVE SHALL BE DISPOSED AND NEW SECTIONS OF FENCE SHALL BE INSTALLED BY CONTRACTOR.
- CONTRACTOR SHALL PERFORM CLEARING AND GRUBBING ACTIVITIES, AS NEEDED, IN AREAS SUBJECT TO RESPONSE ACTIONS (i.e., EXCAVATION AREAS).
- UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "DIG SAFE" AND HAVE ALL UNDERGROUND UTILITIES MARKED ON THE GROUND.
- CONTRACTOR SHALL MONITOR FOR ANY POTENTIAL DAMAGE/DISTURBANCES TO THE FOUNDATION WALL OF THE EXISTING BUILDINGS (i.e., CRACKS, SETTLEMENT) THROUGHOUT EXCAVATION ACTIVITIES. ANY DAMAGE TO THE STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR, AT ITS OWN EXPENSE, TO THE SATISFACTION OF GE.

	REMOVAL ACTION AREA BOUNDARY		LIGHT POLE
	BUILDING		CATCH BASIN
14	BUILDING ID		DRAIN MANHOLE
-D-D-	STORM SEWER		UTILITY POLE
-S-S-	SANITARY SEWER		GAS VALVE
-W-W-	WATER MAIN / FIRE PROTECTION MAIN		FIRE HYDRANT
-ST-ST-	STEAM LINE		WATER SHUTOFF
-G-G-	NATURAL GAS MAIN		
-E-E-	ELECTRIC/TELEPHONE CONDUIT		
-1020-	INDEX ELEVATION CONTOUR (5 FOOT CONTOURS IN BOLD)		
	HAY BALE/SILT FENCE		
	LIMITS OF SOIL REMOVAL		
	FENCE REMOVAL/REPLACEMENT (SEE NOTE 3)		

ORIGINAL SCALE APPLIES TO 22"x34" DRAWING
 1"=60'
 60' 0 60' 120'
 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.

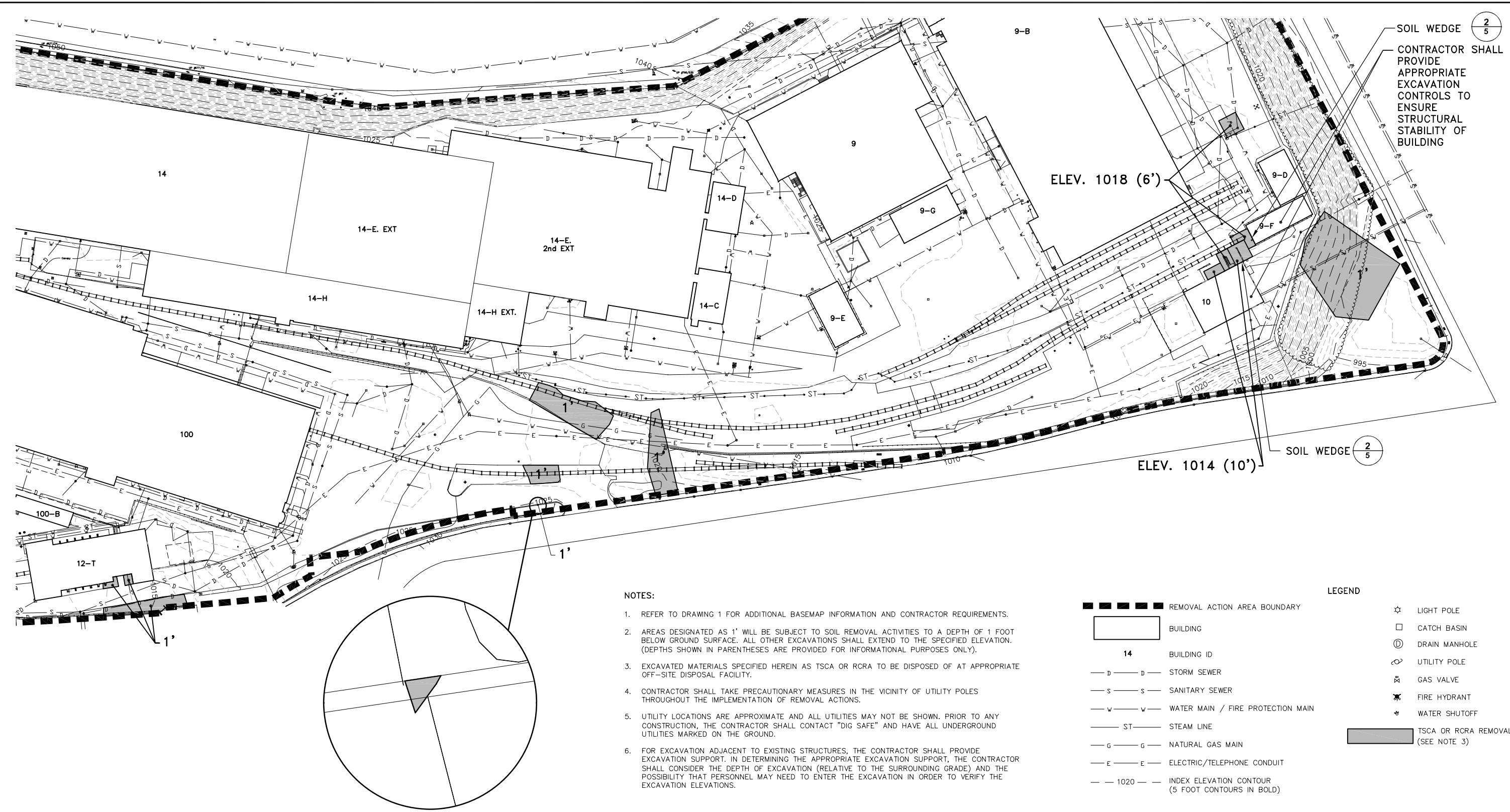
No.	Date	Revisions	Init

Professional Engineer's Name
 Professional Engineer's No.
 State Date Signed
 Project Mgr. Designed by Drawn by
 JAP DMW

GENERAL ELECTRIC COMPANY • PITTSFIELD, MASSACHUSETTS
 FINAL RD/RA WORK PLAN FOR EAST STREET AREA 2-NORTH
SITE PREPARATION PLAN
 TECHNICAL DRAWINGS

40469.025
 Date
 AUGUST 2006
 Blasland, Bouck & Lee, Inc.
 an Arcadis company
 6723 Towpath Road
 Syracuse, NY 13214
 315-446-9120

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 REFERENCE IMAGES: 40469X02 40469X03 40469X00



SOIL WEDGE $\frac{2}{5}$
 CONTRACTOR SHALL PROVIDE APPROPRIATE EXCAVATION CONTROLS TO ENSURE STRUCTURAL STABILITY OF BUILDING

SOIL WEDGE $\frac{2}{5}$
 ELEV. 1014 (10')

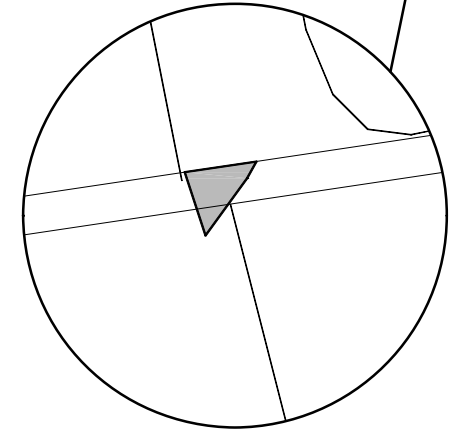
NOTES:

- REFER TO DRAWING 1 FOR ADDITIONAL BASEMAP INFORMATION AND CONTRACTOR REQUIREMENTS.
- AREAS DESIGNATED AS 1' WILL BE SUBJECT TO SOIL REMOVAL ACTIVITIES TO A DEPTH OF 1 FOOT BELOW GROUND SURFACE. ALL OTHER EXCAVATIONS SHALL EXTEND TO THE SPECIFIED ELEVATION. (DEPTHS SHOWN IN PARENTHESES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY).
- EXCAVATED MATERIALS SPECIFIED HEREIN AS TSCA OR RCRA TO BE DISPOSED OF AT APPROPRIATE OFF-SITE DISPOSAL FACILITY.
- CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES IN THE VICINITY OF UTILITY POLES THROUGHOUT THE IMPLEMENTATION OF REMOVAL ACTIONS.
- UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "DIG SAFE" AND HAVE ALL UNDERGROUND UTILITIES MARKED ON THE GROUND.
- FOR EXCAVATION ADJACENT TO EXISTING STRUCTURES, THE CONTRACTOR SHALL PROVIDE EXCAVATION SUPPORT. IN DETERMINING THE APPROPRIATE EXCAVATION SUPPORT, THE CONTRACTOR SHALL CONSIDER THE DEPTH OF EXCAVATION (RELATIVE TO THE SURROUNDING GRADE) AND THE POSSIBILITY THAT PERSONNEL MAY NEED TO ENTER THE EXCAVATION IN ORDER TO VERIFY THE EXCAVATION ELEVATIONS.

LEGEND

	REMOVAL ACTION AREA BOUNDARY		LIGHT POLE
	BUILDING		CATCH BASIN
14	BUILDING ID		DRAIN MANHOLE
	STORM SEWER		UTILITY POLE
	SANITARY SEWER		GAS VALVE
	WATER MAIN / FIRE PROTECTION MAIN		FIRE HYDRANT
	STEAM LINE		WATER SHUTOFF
	NATURAL GAS MAIN		TSCA OR RCRA REMOVAL (SEE NOTE 3)
	ELECTRIC/TELEPHONE CONDUIT		
	INDEX ELEVATION CONTOUR (5 FOOT CONTOURS IN BOLD)		

TSCA OR RCRA REMOVAL AREA DETAIL



SCALE: 1"=2'
 0 2' 4'

ORIGINAL SCALE APPLIES TO 22"x34" DRAWING
 1"=60'
 60' 0 60' 120'
 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

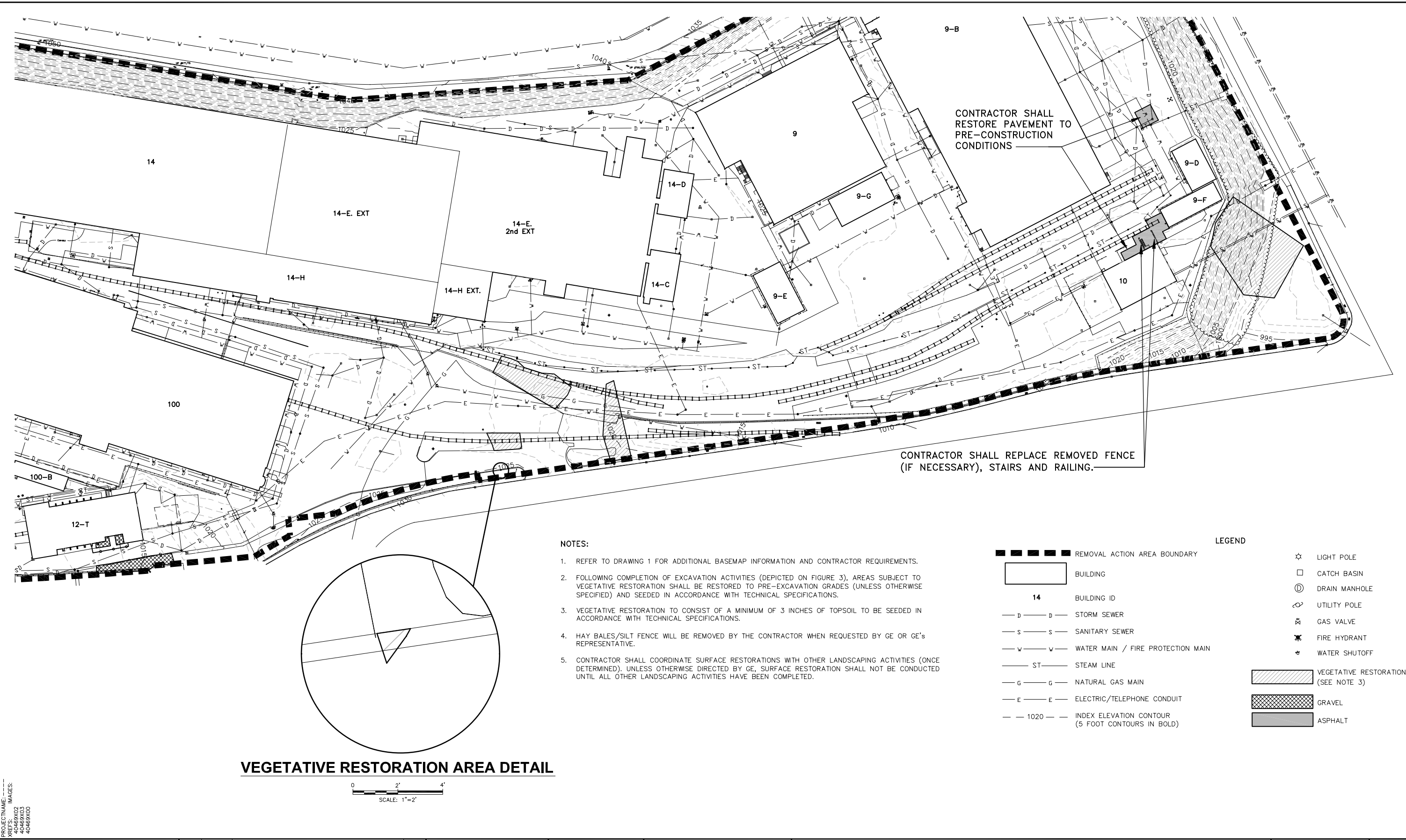
Professional Engineer's Name		
Professional Engineer's No.		
State	Date Signed	
Project Mgr.	Designed by	Drawn by
JAP		DMW



GENERAL ELECTRIC COMPANY • PITTSFIELD, MASSACHUSETTS
 FINAL RD/RA WORK PLAN FOR EAST STREET AREA 2-NORTH
EXCAVATION LIMITS
 TECHNICAL DRAWINGS

40469.025
Date AUGUST 2006
Blasland, Bouck & Lee, Inc. an Arcadis company 6723 Towpath Road Syracuse, NY 13214 315-446-9120

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CONTRACTOR SHALL RESTORE PAVEMENT TO PRE-CONSTRUCTION CONDITIONS

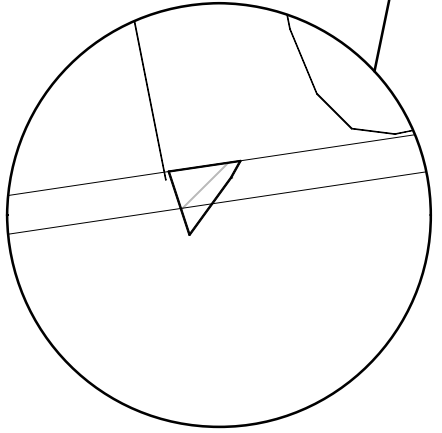
CONTRACTOR SHALL REPLACE REMOVED FENCE (IF NECESSARY), STAIRS AND RAILING.

NOTES:

1. REFER TO DRAWING 1 FOR ADDITIONAL BASEMAP INFORMATION AND CONTRACTOR REQUIREMENTS.
2. FOLLOWING COMPLETION OF EXCAVATION ACTIVITIES (DEPICTED ON FIGURE 3), AREAS SUBJECT TO VEGETATIVE RESTORATION SHALL BE RESTORED TO PRE-EXCAVATION GRADES (UNLESS OTHERWISE SPECIFIED) AND SEEDED IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS.
3. VEGETATIVE RESTORATION TO CONSIST OF A MINIMUM OF 3 INCHES OF TOPSOIL TO BE SEEDED IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS.
4. HAY BALES/SILT FENCE WILL BE REMOVED BY THE CONTRACTOR WHEN REQUESTED BY GE OR GE'S REPRESENTATIVE.
5. CONTRACTOR SHALL COORDINATE SURFACE RESTORATIONS WITH OTHER LANDSCAPING ACTIVITIES (ONCE DETERMINED). UNLESS OTHERWISE DIRECTED BY GE, SURFACE RESTORATION SHALL NOT BE CONDUCTED UNTIL ALL OTHER LANDSCAPING ACTIVITIES HAVE BEEN COMPLETED.

LEGEND	
	REMOVAL ACTION AREA BOUNDARY
	BUILDING
14	BUILDING ID
	STORM SEWER
	SANITARY SEWER
	WATER MAIN / FIRE PROTECTION MAIN
	STEAM LINE
	NATURAL GAS MAIN
	ELECTRIC/TELEPHONE CONDUIT
	INDEX ELEVATION CONTOUR (5 FOOT CONTOURS IN BOLD)
	LIGHT POLE
	CATCH BASIN
	DRAIN MANHOLE
	UTILITY POLE
	GAS VALVE
	FIRE HYDRANT
	WATER SHUTOFF
	VEGETATIVE RESTORATION (SEE NOTE 3)
	GRAVEL
	ASPHALT

VEGETATIVE RESTORATION AREA DETAIL



SCALE: 1"=2'

ORIGINAL SCALE APPLIES TO 22"X34" DRAWING
 1"=60'
 60' 0 60' 120'

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No.	Date	Revisions	Init

Professional Engineer's Name
 Professional Engineer's No.
 State Date Signed
 Project Mgr. Designed by Drawn by
 JAP DMW



GENERAL ELECTRIC COMPANY • PITTSFIELD, MASSACHUSETTS
 FINAL RD/RA WORK PLAN FOR EAST STREET AREA 2-NORTH

SITE RESTORATION PLAN

TECHNICAL DRAWINGS

40469.025
 Date AUGUST 2006
 Blasland, Bouck & Lee, Inc. an Arcadis company
 6723 Towpath Road
 Syracuse, NY 13214
 315-446-9120

Attachment B

Technical Specifications

MATERIALS & PERFORMANCE SPECIFICATIONS

Section 02200 – Earthwork

Section 02207 – Restoration of Surfaces

Section 02212 – Topsoil, Seeding, and Mulch

Section 02222 – Fill Materials

Section 02600 – Bituminous Concrete Pavements

MATERIALS AND PERFORMANCE - SECTION 02200

EARTHWORK

PART 1 - GENERAL

1.01 DESCRIPTION

- A. All labor, materials, services, and equipment necessary to complete the earthwork activities as depicted on the Technical Drawings and/or as directed by GE or GE's Representative.
- B. Earthwork is defined to include, but is not limited to, clearing, pavement removal, rough grading, excavation for subgrades, trenching, handling and disposal of surplus materials, maintenance of excavations, removal of water, backfilling operations, embankments and fills, and compaction.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section MP-02207 – Restoration of Surfaces
- B. Section MP-02222 – Fill Materials
- C. Final RD/RA Work Plan, Section 5.3 – Soil Removal Activities
- D. Final RD/RA Work Plan, Section 5.5 – Excavation Backfill
- E. Final RD/RA Work Plan, Section 7.4.5 – Erosion and Sedimentation Control Measures
- F. Final RD/RA Work Plan, Section 7.5.2 – Soil Removal, Material Handling, and Transportation, and Disposal
- G. Final RD/RA Work Plan, Section 7.5.5 – Backfilling of Excavations
- H. Final RD/RA Work Plan, Section 7.6 – Perimeter Air Monitoring

1.03 APPLICABLE CODES, STANDARDS AND SPECIFICATIONS

- A. American Society for Testing and Materials (ASTM).

1.04 SUBMITTALS

- A. Prior to earthwork activities, Contractor shall submit proposed equipment and compaction method(s).

PART 2 - PRODUCTS

See following sections.

PART 3 - EXECUTION

3.01 UNAUTHORIZED EXCAVATION

- A. The Contractor shall not be entitled to any compensation for excavations carried beyond or below the lines and subgrades prescribed on the Technical Drawings. The Contractor shall refill such unauthorized excavations at its own expense and in conformance with the provisions of this section.
- B. Should the Contractor, through negligence or for reasons of its own, carry its excavation below the designated subgrade, appropriate materials specified in Section MP-02222 - Fill Materials shall be furnished and placed as backfill in sufficient quantities to reestablish the required subgrade surface. Fill material used for backfilling shall be spread and compacted in conformance with the requirements of later subsections of this section and to the percentage compaction outlined therein. The cost of any tests required as a result of this refilling operation shall be borne by the Contractor.
- C. All material that slides, falls, or caves into the established limits of excavations due to any cause whatsoever, shall be removed and disposed of at the Contractor's expense and no extra compensation will be paid to the Contractor for any materials ordered for refilling the void areas left by the slide, fall, or cave-in.

3.02 BACKFILL MATERIALS

- A. Fill material shall be used as specified for backfill. Requirements for off-site fill material are specified in Section MP-02222 - Fill Materials.
- B. Existing on-site material, designated as "native fill" or "existing soil" material shall not be used as backfill.

3.03 GENERAL BACKFILLING REQUIREMENTS

- A. Backfill shall be started at the lowest section of the area to be backfilled.
- B. Drainage of the areas being backfilled shall be maintained at all times.
- C. Areas to be backfilled shall be inspected and approved by GE or GE's Representative prior to backfilling operations. All unsuitable materials and debris shall be removed.
- D. Backfill material shall not be placed when moisture content is too high to allow proper compaction.
- E. When material is too dry for adequate compaction, water shall be added to the extent necessary.
- F. Backfill material shall not be placed on frozen ground nor shall the material itself be frozen or contain frozen soil fragments when placed.
- G. No calcium chloride or other chemicals shall be added to prevent freezing.
- H. Material incorporated in the backfilling operation that is not in satisfactory condition shall be subject to rejection and removal at the Contractor's expense.
- I. The maximum lift thickness is 12 inches (measured prior to compaction).

- J. For backfill placed directly over geosynthetics (i.e., in areas where engineered barriers are installed), the minimum installed lift thickness is 9 inches.
- K. The Contractor shall use appropriately sized equipment and methods when placing and compacting backfill over engineered barriers so as not to damage underlying geosynthetic materials. Areas of the engineered barrier (i.e., geosynthetics) that may have been damaged during backfill installation as determined by the Contractor, GE or GE's Representative, shall be inspected and repaired, if necessary, in accordance with the technical specifications at the Contractor's expense.

3.04 METHOD OF COMPACTION

A. General

- 1. The Contractor shall adopt compaction methods that shall produce the degree of compaction specified herein, prevent subsequent settlement, and provide adequate support.
- 2. Methods used shall avoid disturbance to underlying fine-grained soils, subsurface utilities, and the geosynthetics used in the engineered barriers.
- 3. Hydraulic compaction by ponding or jetting shall not be permitted.
- 4. Backfill material shall not be left in an uncompacted state at the close of a day's construction.
- 5. Prior to terminating work, ridges of soil left on the final layer of compacted fill, by tractors, trucks, or other equipment used for compaction, shall be eliminated using low-pressure equipment.
- 6. As backfill progresses, the surface shall be graded such that no ponding of water shall occur on the surface of the fill.

B. Equipment: Unless otherwise specified on the Technical Drawings, equipment for compaction shall be consistent with space limitations of the work areas and the need to protect adjacent facilities.

- 1. Compaction of fill material in confined areas shall be accomplished by means of a drum-type, power driven, hand-guided vibratory compactor, or by hand-guided vibratory plate tampers.
- 2. If the proposed method does not produce the degree of compaction required, an alternate method shall be adopted until the required compaction is achieved.
- 3. The moisture content of backfill or fill material shall be adjusted, if necessary, to achieve the required degree of compaction.

C. Minimum Compaction Requirements

- 1. Unless otherwise specified on the Technical Drawings, the degree of compaction specified for the various items listed in Table 1 shall be the minimum allowable.
- 2. Unless the Contractor can successfully demonstrate that its methods shall produce the required degree of compaction, materials to be compacted shall be placed in layers not exceeding the uncompacted thicknesses listed in Table 1.

3. In-place density tests shall be required at a minimum of one test per each lift of backfill placed or at a frequency of 1 passing test per 2,500 square feet of subgrade, 100 cubic yards of soil fill, or 100 linear feet of pipe bedding, whichever results in the greatest frequency.
4. GE or GE's Representative may order additional in-place density tests to ascertain conformance with the compaction requirements shown in Table 1.
5. The Contractor shall dig test holes at no additional cost to GE when requested for the purpose of taking an in-place density test below the current fill level.
6. The Contractor shall provide free access to fill areas for the purpose of making such tests. Payment for all compaction tests shall be made by the Contractor.
7. The Contractor shall anticipate time needed due to testing procedures and shall not have claims for extra compensation occasioned by such time.
8. Minimum compaction requirements in Table 1 are expressed as a percentage of the maximum dry unit weight of the material compacted using the Modified Proctor Compaction Test (ASTM D1557).

TABLE 1		
Type of Backfill	Maximum Uncompacted Lift Thickness (inches)	Minimum Compaction (percent)
1. Subgrade - Existing Soil	Not applicable	Proof-rolling
2. Embankments and Fills (not above geosynthetics)	12	90
3. Fills (above geosynthetics)	12	Compacted by placing/grading
4. Pipe Bedding	8	92
5. Road Subbase	12	95
6. Topsoil	8	Compact by placing/grading only

Note:

1. Maximum uncompacted lift thicknesses do not apply to backfill placed directly over geosynthetics in areas receiving engineered barriers.

9. Laboratory compaction curves for the full range of soil materials shall be provided by the Contractor.
10. When proof-rolling existing (or native) soils, the layer shall be acceptable when deformations caused by substantial site equipment (e.g., roller, fully loaded dump truck) are no deeper than 1 inch. All soft or wet materials that continue to deform more than 1 inch shall be removed and replaced with suitable material and retested at the expense of the Contractor.

3.05 GRADING

- A. After the completion of all backfill operations, the Contractor shall grade the site to the lines, grades, and elevations shown on the Technical Drawings, taking into account any subsequent site restoration requirements (e.g. installation of engineered barriers).

3.06 EXISTING FACILITIES

A. General

1. Existing subsurface facilities may be encountered during construction of the work, or located in close proximity to the work.
2. These facilities may include, but are not necessarily limited to, sewers, drains, water mains, conduits and their appurtenances. These facilities may or may not be shown on the Technical Drawings. However, the sizes, locations, and heights or depths, if indicated, are only approximate and the Contractor shall conduct its operations with caution and satisfy itself as to the accuracy of the information given. The Contractor shall not claim nor shall it be entitled to receive compensation for damages sustained by reason of the inaccuracy of the information given or by reason of its failure to properly maintain and support such structures.
3. There may be other subsurface facilities, the existence and/or location of which are not known, such as individual water and gas services, electrical conduits, sanitary and storm sewer drains, etc. The Contractor shall consult with GE or GE's Representatives of such facilities and, if possible, shall determine, prior to construction, the location and depth of any such facilities that may exist in the area to be excavated.
4. If underground facilities are known to exist in an area but their location is uncertain, the Contractor shall exercise reasonable care in its excavation technique to avoid damage to them.
5. The Contractor shall notify Massachusetts DIGSAFE at least 72 hours prior to any site work.

B. Notification and Protection Procedures

1. Except where superseded by state or local regulations, or in the absence of any applicable regulations, the Contractor shall, at a minimum, include the following procedures in its operations:
 - a. Prior to Excavating:
 - 1) Determine correct field location of all nearby underground facilities or arrange for Representatives of the utilities to locate them.
 - 2) Notify owners of nearby underground facilities when excavation is to take place, allowing them reasonable time to institute precautionary procedures or preventive measures which they deem necessary for protection of their facilities.
 - 3) In cooperation with owners of nearby facilities, provide temporary support and protection of those underground facilities that may be especially vulnerable to damage by virtue of their physical condition or location, or those that could create hazardous conditions if damaged.

- b. Immediately notify any utility owner of any damage to its underground facilities resulting from the Contractor's operations, and arrange for repairs to be made as soon as possible.
- c. In case of any emergency the Contractor shall follow the Contingency and Emergency Procedures Plan outlined in GE's Project Operations Plan. This document will be provided upon request of the Contractor.

3.07 OTHER REQUIREMENTS

A. Unfinished work

- 1. When, for any reason, the work is to be left unfinished, all trenches and excavations shall be filled and all roadways and watercourses left unobstructed with their surfaces in a safe and satisfactory condition. The surface of all roadways shall have temporary pavement.

B. Hauling Material on Street

- 1. When hauling material over the streets or pavement, the Contractor shall provide suitably tight-sealing vehicles so as to prevent deposits on the streets or pavements. In all cases where any materials are dropped from the vehicles, the Contractor shall clean up the same as often as required to keep the crosswalks, streets, and pavements clean and free from dirt, mud, stone, and other hauled material.
- 2. When hauling materials that contain PCBs or other hazardous constituents, the Contractor shall abide by all applicable federal, state, and local codes, including, but not limited to, manifesting and placarding (if necessary).

C. Dust Control

- 1. It shall be the sole responsibility of the Contractor to control the dust created by any and all of its operations to such a degree that it will not endanger the safety and welfare of the general public.

- END OF SECTION -

MATERIALS AND PERFORMANCE - SECTION 02207

RESTORATION OF SURFACES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. All types of surfaces, structures and appurtenances disturbed, damaged, or destroyed during the performance of the work under or as a result of the operations of the Contract, shall be restored and maintained, as specified herein or as directed by GE or GE's Representative.
- B. The quality of materials and the performance of work used in the restoration shall produce a surface or feature equal to or better than the condition of each before the work began, as approved by GE or GE's Representative.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section MP-02200 – Earthwork
- B. Section MP-02212 – Topsoil, Seeding, and Mulch
- C. Section MP-02222 – Fill Materials
- D. Section MP-02600 – Bituminous Concrete Pavements
- E. Final RD/RA Work Plan, Section 5.5 – Excavation Backfill
- F. Final RD/RA Work Plan, Section 7.5.5 – Backfilling of Excavations
- G. Final RD/RA Work Plan, Section 7.5.8 – Restoration of Surfaces

1.03 SUBMITTALS

- A. A schedule of restoration operations shall be submitted by the Contractor for review.
- B. Material cut sheets for chain link fencing shall be submitted by the Contractor for review.
- C. Name of proposed fencing installer shall be submitted by the Contractor for review.

1.04 SCHEDULE OF RESTORATION

- A. After an accepted schedule has been agreed upon, it shall be adhered to unless otherwise revised with the approval of GE or GE's Representative.
- B. The replacement of surfaces at any time, as scheduled or as directed, shall not relieve the Contractor of responsibility to repair damages by settlement or other failures.

PART 2 - PRODUCTS

2.01 CHAIN-LINK FENCING

A. Chain-link fencing shall comply with the following specifications:

6' or 8' Fence:

Fabric:	2" Aluminized Mesh, 6 gauge, selvage to be knuckle/knuckle
Framework:	Top and bottom rails: 1-5/8" schedule 40
	Line posts 2-1/2" schedule 40
	Brace Rail 1-5/8" schedule 40
	Corner Posts 2-1/2" schedule 40
	End Posts 3" schedule 40
	Gate Posts 3" schedule 40
	Gate Frame 2" schedule 40

Post Attachment: install fencing using bolted flanges to concrete slabs or install concrete footings where posts will be located in grass area.

8' Fence: in lawn or earth areas install 48" deep x 12" diameter concrete footings at posts.

6' Fence: in lawn or earth areas, drive fence posts to depth of 4' minimum.

PART 3 - EXECUTION

3.01 ASPHALT PAVEMENT

A. Pavement shall be constructed in the areas requiring restoration (i.e., existing pavement damaged as a result of construction activities) and/or as shown on the Technical Drawings.

1. The thickness of the asphalt and subbase coarse shall be at least equal to existing thicknesses or as shown on the Technical Drawings.
2. After compaction, the surface shall conform to the slope and grade of the area being replaced and/or as shown on the Technical Drawings.

3.02 GRASSED AREAS

- A. The furnishing and placing of topsoil, seed and mulch shall be as directed by GE or GE's Representative.
- B. When required to obtain germination, the seeded areas shall be watered in such a manner as to prevent washing out of the seed.
- C. Precautionary measures shall be taken to prevent washout or other damage to seeded areas. If a washout or other damage occurs, the area shall be regraded and/or reseeded at the Contractor's expense until a sod, approved by GE or GE's Representative, is established.
- D. The Contractor shall maintain the newly seeded areas in good condition, including regrading, reseeding, remulching, and watering, as necessary.

3.04 OTHER TYPES OF RESTORATION

- A. Drainage structures, including culverts, manholes, catch basins, sidewalks, pavements and piping, curbs and gutters, that are destroyed or removed as a result of the construction operations shall be replaced in like size and material and shall be replaced at the original location and grade unless otherwise shown on the Technical Drawings. When there is minor damage to a drainage structure and with the consent of GE or GE's Representative, a repair may be undertaken, if satisfactory results can be obtained.
- B. Fences and gates destroyed, damaged, removed or otherwise altered as a result of the construction operations shall be replaced in like size and material and shall be replaced at the original location unless otherwise noted on the Technical Drawings.
- C. Chain link fencing shall be installed by a properly licensed, qualified fencing installer.

3.05 MAINTENANCE

- A. The finished products of restoration shall be maintained in an acceptable condition for and during a period of two years following the date of Substantial Completion or other such date as set forth elsewhere in the Contract Documents.

- END OF SECTION -

MATERIALS AND PERFORMANCE - SECTION 02212

TOPSOIL, SEEDING, AND MULCH

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work under this section consists of furnishing and placing of topsoil, fertilizer, seed, mulch, erosion control matting, and maintenance of seeded areas until final acceptance.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section MP-02200 – Earthwork
- B. Section MP-02207 – Restoration of Surfaces
- C. Final RD/RA Work Plan, Section 5.5 – Excavation Backfill
- D. Final RD/RA Work Plan, Section 7.5.5 – Backfilling of Excavations
- E. Final RD/RA Work Plan, Section 7.5.8 – Restoration of Surfaces

1.03 SUBMITTALS

- A. Analysis of the seed (to demonstrate compliance with the seed mix identified in Sections 2.01D and 2.01E of this specification) and fertilizer (to identify chemical composition), and proposed application rates (to demonstrate compliance with the fertilizer application rate identified in Section 3.01B of this specification).
- B. Should hydroseed be used, the Contractor shall submit all data including material and application rates and methods.
- C. Sample of topsoil to be tested by GE for chemical contaminants as discussed in Section 5.5 – Excavation Backfill.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Any offsite topsoil shall be unfrozen, friable, natural loam and shall be free of clay lumps, brush needs, litter, stumps, stones, and other extraneous matter. The topsoil shall have an organic content between 5% and 20%, and a pH between 5.5 and 7.5.
- B. Fertilizer shall be a standard quality commercial carrier of available plant food elements (i.e., a complete prepared and packaged material containing a minimum of 5% nitrogen, 10% phosphoric acid, and 10% potash).
 - 1. Each bag of fertilizer shall bear the manufacturer's guaranteed statement of analysis.

- C. Seed mixtures shall be of commercial stock of the current season's crop and shall be delivered in unopened containers bearing the guaranteed analysis of the mix. All seed shall meet the State standards of germination and purity.
- D. Seed mix to be used shall consist of the following mixture of native warm-season grass and wildflower species: 23% creeping red fescue (*Festuca rubra*), 15% little bluestem (*Schizachyrium scoparium*), 15% indian grass (*Scorphastrum nutans*), 8% wild blue lupine (*Lupinus perennis*), 6% Canada wild-rye (*Elymus canadensis*), 6% common milkweed (*Asclepias syriaca*), 10% blue verain showy tick-trefoil (*Desmodium canadense*), 5% zig-zag aster/New York aster mix (*Aster prenanthoides/novi-belgi mix*), 5% New England aster (*Aster novae-angliae*), 3% wild senna (*Cassia hebecarpa*), 2.5% golden alexanders (*Zizia aurea*), 1.5% butterfly milkweed (*Asclepias tuberosa*). To ensure soil stability and prevent erosion, a nurse crop of annual rye-grass (*Lolium temulentum*) will be added to the seed mixture. The seed mixture will be seeded at a rate of 15 pounds per acre (*see seed mix attached at the end of this section).
- E. Seed mix to be used in vegetated areas other than Parcel I9-8-1 shall consist of the following mixture: 65% Kentucky Blue Grass, 20% Perennial Rye Grass, and 15% Fescue. The seed mixture will be seeded at a rate of 150 pounds per acre.
- F. Mulch shall be stalks of oats, wheat, rye, or other approved crops free from noxious weeds and coarse materials.
- G. Temporary erosion control matting shall be S75 as manufactured by North American Green, or equivalent.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. The topsoil shall be applied in a single loose lift of not less than 3 inches and shall have a final thickness as shown on the Technical Drawings. No compaction is required or allowed. Following placement of topsoil and prior to fertilizer application, all stones greater than 1-inch in diameter, sticks, and other deleterious material shall be removed.
- B. The fertilizer shall be applied to the surface uniformly at the rate of 20 pounds per 1,000 square feet.
 - 1. Following the application of the fertilizer and prior to application of the seed, the topsoil shall be scarified to a depth of at least 2 inches with a disk or other suitable method traveling across the slope if possible.
 - a. After the soil surface has been fine-graded, the seed mixture shall be uniformly applied upon the prepared surface with a mechanical spreader at a rate specified by the seed manufacturer.
 - b. The seed shall be raked lightly into the surface.
 - c. Seeding and mulching shall not be done during windy weather.
 - d. Mulch (where used) shall be hand or machine spread to form a continuous blanket over the seed bed, approximately 2 inches in uniform thickness at loose measurement with a minimum of 90% surface coverage. Excessive amounts or bunching of mulch shall not be permitted.

- e. Unless otherwise specified, mulch shall be left in place and allowed to decompose.
2. Any mulch that has not disintegrated at time of first mowing shall be removed.
- a. Seeded areas shall be watered as often as required to obtain germination and to obtain and maintain a satisfactory sod growth. Watering shall be performed in such a manner as to prevent washing out of seed and mulch.
 - b. Hydroseeding may be accepted as an alternative method of applying fertilizer, seed, and mulch. The Contractor must submit all data regarding materials and application rates to GE or GE's Representative for review.
 - c. Temporary erosion control matting shall be installed in accordance with manufacturer's specifications.

3.02 MAINTENANCE

- A. All erosion rills or gullies within the topsoil layer shall be filled with additional approved topsoil, graded smooth, and re-seeded and mulched.
- B. The Contractor shall also be responsible for repairs to all erosion of the seeded areas until all new grass is firmly established and reaches a height of not less than 4 inches. All bare or poorly vegetated areas must be re-seeded and mulched.

*See attached NE wildflower seed mix referenced in Section 2.01(D) above.

- END OF SECTION -

MATERIALS AND PERFORMANCE - SECTION 02222

FILL MATERIALS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work Specified

1. Work under this section shall include, but not necessarily be limited to, supplying all labor and materials, excavating, transporting, dumping, spreading, and compacting fill material in the locations and to the depth shown on the Technical Drawings and/or as directed by GE or GE's Representative.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section MP-02200 – Earthwork

B. Final RD/RA Work Plan, Section 5.5 – Excavation Backfill

C. Final RD/RA Work Plan, Section 7.5.5 – Backfilling of Excavations

1.03 APPLICABLE CODES, STANDARDS, AND SPECIFICATIONS

A. American Society for Testing Materials (ASTM).

B. American Association of State Highway and Transportation Officials (AASHTO).

C. Massachusetts Highway Department Standard Specifications for Highways and Bridges (MHD).

1.04 SUBMITTALS

A. Sieve analysis of all granular materials.

B. Sample of soil to be tested for chemical contaminants as discussed in Section 5.5 – Excavation Backfill.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Fill materials shall be of the types listed below:

1. Soil Fill:

- a. Soil fill material shall be free from excessive moisture, frost, stumps, trees, roots, sod, muck, marl, vegetable matter, or other unsuitable materials, and demonstrated to be clean based on chemical analysis. Soil fill shall consist of clean common earth fill, free from organic material, coatings, sharp angular stones, and other deleterious materials, and shall

have a maximum particle size of 3 inches. Soil fill shall have the following gradation by weight:

<u>Sieve</u>	<u>Percent Passing</u>
3 inch	100
No. 200	10-30

2. Subbase/Gravel:

- a. Subbase/gravel shall have a percentage of wear, by the Los Angeles test, of not more than 45. Fine aggregate shall consist of natural or crushed stone. The composite material shall be free from clay, loam or other plastic material, and shall conform to the following grading requirements:

<u>Sieve Designation</u>	<u>Percent Passing</u>
2 inch	100
1 ½ inch	70-100
¾ inch	50-85
No. 4	30-55
No. 50	8-24
No. 200	3-10

- b. Sampling and testing shall be in accordance with the following standard AASHTO methods:

Sieve Analysis – T27
Passing No. 200 (75µm) – T11

3. Filter Stone:

- a. Material placed around collection piping shall be washed, rounded run-of-bank gravel, with a d_{max} of 1 ½ inches and a d_{min} of ¾ inches.
- b. Filter stone shall be wrapped with non-woven geotextile as shown on the Technical Drawings.
- B. Backfill material shall be inspected prior to placement and all roots, vegetation, organic matter, or other foreign debris shall be removed.
- C. Stones larger than 6 inches in any dimension shall be removed or broken. Additional size requirements for backfill placed within 6 inches of the bottoms of engineered barriers are as specified above.
- D. Stones shall not be allowed to form clusters with voids.

PART 3 - EXECUTION

3.01 FILL PLACEMENT

- A. In general, fill material shall be placed and compacted in horizontal layers not exceeding those thicknesses indicated in Section MP-02200 - Earthwork. Subgrade that will receive fill material shall be first approved by GE or GE's Representative. Fill material shall not be placed in areas that will not support the weight of construction equipment.

- B. Each layer of fill material shall be thoroughly tamped or rolled to the required degree of compaction by mechanical tampers or vibrators as specified in 3.02 of this section. Successive layers shall not be placed until the layer under construction has been thoroughly compacted.
- C. Where required, the Contractor shall, at its own expense, moisture-condition the fill to meet the compaction requirements. If the material is too wet for satisfactory compaction due to rain or other causes, it shall be allowed to dry or be removed as required before compaction.
- D. No compaction is required for riprap.

3.02 FIELD TESTING AND QUALITY CONTROL

- A. In-place nuclear density testing (ASTM D2922 and D3017) shall be performed by an independent testing laboratory, at the Contractor's expense, at the frequency specified in Section MP-02200 – Earthwork to meet the minimum compaction requirements presented in Table 1 of that section.
- B. If a defect (e.g., insufficient layer thickness, materials that exceed particle size requirements, etc.) is discovered in a finished fill material layer, GE or GE's Representative will determine the extent and nature of the defect by additional testing, observation, a review of records, or other means that GE or GE's Representative deems appropriate. The Contractor shall be responsible for correcting all deficiencies to the satisfaction of GE or GE's Representative.

3.03 CRITERIA AND TOLERANCES

- A. Fill material shall be constructed to such heights as to make allowance for post-construction settlement. Any settlement that occurs before final acceptance of the Contract shall be corrected to make the backfill conform to the required lines and grades.

- END OF SECTION -

MATERIALS AND PERFORMANCE - SECTION 02600

BITUMINOUS CONCRETE PAVEMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Contractor shall be responsible for providing all labor, equipment, and materials required for replacement of bituminous concrete paving over removed driveways or other paved areas as shown on the drawings and as specified herein.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section MP-02222 – Fill Materials
- B. Final RD/RA Work Plan, Section 7.5.8 – Restoration of Surfaces

1.03 APPLICABLE CODES, STANDARDS, AND SPECIFICATIONS

- A. American Society of State Highway and Transportation Officials (AASHTO).
- B. Massachusetts Highway Department Standard Specification for Highways and Bridges (Mass Highway Specifications).

1.04 TIME OF CONSTRUCTION

- A. The Contractor shall:
 - 1. Apply prime and tack coats when ambient temperature is above 50°F, and when temperature has not been below 35°F for 12 hours immediately prior to application. The Contractor may not install paving when the base is wet or contains excess moisture.
 - 2. Construct bituminous concrete wearing surface when surface temperature is above 42°F and when the binder is dry.
 - 3. Base course may be placed when air temperature is above 32°F and rising.
 - 4. Establish and maintain required lines and elevations.

PART 2 - PRODUCTS

2.01 SUBBASE COURSE

- A. Subbase course material must be capable of achieving the gradation and compaction requirements as presented in Section MP 02222.

2.02 BASE COURSE AGGREGATE

- A. The crushed aggregate for the bituminous concrete base course shall conform to the requirements of the Mass Highway Specifications.

2.03 BITUMINOUS BINDER

- A. The binder shall be asphalt cement conforming to the requirements of AASHTO 20.

2.04 WEARING SURFACE

- A. The wearing surface shall be Type 1-2. The material shall conform to quality requirements as stated in the Mass Highway Specifications.

PART 3 - EXECUTION

3.01 SURFACE PREPARATION

- A. Remove loose matter from the compacted subbase surface immediately before applying prime coat.
- B. Proof-roll prepared subbase to check for unstable areas and areas requiring additional compaction.
- C. Notify appropriate personnel of unsatisfactory subbase conditions. Paving work may not proceed until deficient subbase areas have been corrected and are ready to receive paving.
- D. Apply tack coat to contact surfaces of previously constructed asphalt or Portland cement concrete and surfaces abutting or projecting into asphalt concrete pavement. The Contractor shall distribute tack coat at rate of 0.05 to 0.15 gallons per square yard of surface.
- E. Allow drying of all surfaces until they are of the proper condition to receive paving.

3.02 PAVING

A. General

- 1. Place concrete mixture on prepared surface, spread, and strike-off. Spread mixture at minimum temperature of 225°F (107°C). Place inaccessible and small areas by hand. Place each course to required grade, cross-section, and compacted thickness.

B. Pavement Placing

- 1. Place in strips not less than 10 inches wide, unless otherwise acceptable to GE or GE's Representative. After strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Complete base course for a section before placing surface course.

C. Joints

- 1. Make joints between old and new pavements or between successive days' work, to ensure a continuous bond between adjoining work. Construct joints to have same texture and smoothness as other sections of bituminous concrete. Clean concrete surfaces and apply tack coat.

3.03 ROLLING

A. General

1. Begin rolling when mixture will bear roller weight without excessive displacement.
2. Compact mixture with hot tampers or vibrating plate compactors in areas inaccessible to rollers.

B. Breakdown Rolling - Accomplish breakdown rolling immediately following rolling of joints and outside edge. Check surface after breakdown rolling and repair displaced areas by loosening and filling, if required, with hot material.

C. Second Rolling - Follow breakdown rolling as soon as possible while mixture is hot. Continue rolling until mixture has been thoroughly compacted.

D. Finish Rolling - Perform finish rolling while mixture is still warm enough for removal of roller marks. Continue rolling until marks are eliminated and course has attained maximum density.

E. Patching - Remove and replace paving areas mixed with foreign materials and defective areas. Cut out such areas and fill with fresh, hot bituminous concrete. Compact by rolling mixture to maximum surface density and smoothness.

F. Protection - After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.

G. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

- END OF SECTION -

Attachment C

Contractor Submittal Tracking Form

**ATTACHMENT C
CONTRACTOR SUBMITTAL TRACKING FORM**

**FINAL RD/RA WORK PLAN FOR EAST STREET AREA 2-NORTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Item No.	Submittal Description	Specification Reference (see Note 2)	Date Received	Review Conducted by:		Interim Status/Date (see Note 1)	Final Status/Date (see Note 1)	Notes
				GE Project Manager	Design Engineer			
1	Operations Plan - The Plan shall address, but not be limited to the following items:	Section 7.3						
	List of Equipment to be used on-site.	Section 7.3						
	Work Schedule	Section 7.3						
	The Contractor's proposed plan for controlling vehicular and pedestrian traffic while performing construction and operational activities..	Section 7.3						
	Proposed excavation stabilization measures.	Section 7.3						
	The Contractor's qualifications package (if requested by GE).	Section 7.3						
	Stormwater (including run-on and run-off), erosion, noise, and dust control	Section 7.3						
	The Contractor's proposed excavation approach	Section 7.3						
	Materials handling and staging approach.	Section 7.3						
Equipment cleaning procedures.	Section 7.3							
2	Health and Safety Plan - The Plan shall address, but not be limited to the following items (Refer to Note 3):	Section 7.3						
	Identification of Key Personnel	Section 7.3						
	Training	Section 7.3						
	Medical Surveillance	Section 7.3						
	Site Hazards	Section 7.3						
	Work Zones	Section 7.3						
	Personal Safety Equipment and Protective Clothing	Section 7.3						
	Personal Air Monitoring	Section 7.3						
	Personnel/Equipment Cleaning	Section 7.3						
	Confined Space Entry	Section 7.3						
	Material Safety Data Sheets	Section 7.3						
	Construction Safety Procedures	Section 7.3						
	Standard Operating Procedures	Section 7.3						
3	Contingency Plan - The Plan shall address, but not be limited to the following items:	Section 7.3						
	Spill prevention control and countermeasures plan for all materials brought on site.	Section 7.3						
	Emergency vehicular access/egress.	Section 7.3						
	Evacuation procedures of personnel from the work sites.	Section 7.3						
	List of all contact personnel with phone numbers and procedures for notifying	Section 7.3						
	Routes to local hospitals	Section 7.3						
4	Identification of backfill sources and locations and analytical data for samples collected from each source (unless the source(s) have already been approved based on previously submitted analytical data).	Section 5.5/7.3						
5	Record Drawings to document any deviations from the work specified in the RFP. Deviations shall be noted on the Record Drawings as soon as possible following their identification by the Contractor, GE, or GE's Representative.	Section 8.2						

**ATTACHMENT C
CONTRACTOR SUBMITTAL TRACKING FORM**

**FINAL RD/RA WORK PLAN FOR EAST STREET AREA 2-NORTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Item No.	Submittal Description	Specification Reference (see Note 2)	Date Received	Review Conducted by:		Interim Status/Date (see Note 1)	Final Status/Date (see Note 1)	Notes
				GE Project Manager	Design Engineer			
6	Daily Construction Reports prepared by GE's Representative will include documentation of problems and/or deficiencies noted during construction (e.g., when construction material or activity is observed or tested that does not meet the specified requirements), and corrective action employed to address the problems or deficiencies. The documentation reports will be cross-referenced to the reports, data sheets, forms, and check lists that contain data or observations leading to the determination of a problem or deficiency. Problem and deficiency identification and	--						
7	Earthwork - Proposed equipment and compaction method(s).	Materials and Performance - Section 02200 (1.04)(A)						
8	Restoration of Surfaces - A schedule of restoration operations.	Materials and Performance - Section 02207 (1.03)(A)						
9	Restoration of Surfaces - Material cut sheets for chain link fencing.	Materials and Performance - Section 02207 (1.03)(B)						
10	Restoration of Surfaces - Name of proposed fencing installer.	Materials and Performance - Section 02207 (1.03)(C)						
11	Fill Materials - Sieve analysis of all granular materials.	Materials and Performance - Section 02222 (1.04)(A)						
12	Fill Materials - Sample of backfill materials to be tested for chemical contaminants as discussed in this Work Plan.	Materials and Performance Section 02222 (1.04)(B)						
13	Topsoil, Seeding, and Mulch - Analysis of the seed and fertilizer, and proposed application rates.	Materials and Performance Section 02212 (1.03)(A)						
14	Topsoil, Seeding, and Mulch - Should hydroseed be used, the Contractor shall submit all data including material and application rates.	Materials and Performance - Section 02212 (1.03)(B)						
15	Topsoil, Seeding, and Mulch - Sample of topsoil to be tested by GE for chemical contaminants.	Materials and Performance Section 02212 (1.03)(C)						

Notes:

- Submittal status nomenclature is as follows:
R - Reviewed
N - Reviewed and noted
S - Resubmit
J - Rejected
- All Section, Specification, and Drawing references are to the *Final Work Plan* (BBL, August 2006).
- The Health and Safety Plan is required for GE record-keeping purposes only and therefore GE and BBL will conduct a review of the plan for completeness only. Determination of the appropriate level of worker safety, equipment, and procedures based on site conditions must be made by the Contractor based on site visits, review of available information, and anticipated site activities.
- Shaded item numbers indicate submittals required by GE but not subject to submittal to EPA as part of the supplemental information package.

Attachment D

Ambient Air Monitoring Program

Attachment D

**Ambient Air Monitoring Plan for PCBs and Particulate Matter
During Remediation Actions at
East Street Area 2 - North
Pittsfield, Massachusetts**

**General Electric Company
Pittsfield, Massachusetts**

Prepared by

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August 2006

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- 10.0 Notification and Action Levels
 - 10.1 PCBs
 - 10.2 Particulate Matter

1.0 INTRODUCTION

This plan describes the ambient air monitoring for polychlorinated biphenyls (PCBs) and particulate matter which will be conducted during remediation actions at East Street Area 2 – North (ESA2-North) in Pittsfield, Massachusetts. The program consists of ambient air monitoring for PCBs and particulate matter during the excavation portion of the remediation at ESA2-North.

2.0 SAMPLING OBJECTIVES

The objectives of the sampling program are two-fold:

1. To obtain valid and representative data on ambient levels of PCBs around ESA2-North before and during remediation activities to insure that the activities are not causing an unacceptable increase in ambient air concentrations of PCB.
2. To obtain valid and representative data on ambient levels of particulates around ESA2-North before and during soil remediation activities to insure that the remedial activities are not causing an unacceptable increase in ambient air concentrations of particulate matter.

3.0 MONITORING LOCATIONS

The specific monitoring locations at ESA2-North for PCBs and particulate matter will be determined prior to the initiation of excavation activities. Four on-site monitoring locations have been preliminarily identified, as indicated on the attached Figure D-1. These locations have been selected based on: (a) the location of the soil remediation activities; (b) consideration of the predominant wind direction and the location of potential off-site receptors; (c) the presence of obstructions (such as buildings) and other influences (such as truck traffic) that may affect the representativeness of the data; and (d) availability of power, accessibility, and site security. The predominant wind direction is west-northwest based on wind rose data from the Albany, NY National Weather Service (NWS) station. Data from the City of Pittsfield Airport meteorological station and the former GE-owned on-site meteorological station also demonstrate a predominant WNW wind direction; however, the data from the local stations also show that the local wind direction and speed vary considerably. Therefore, air monitors have generally been placed in locations that will include good downwind coverage but also provide other coverage between the areas of construction and potential off-site receptors.

As discussed below, PCB monitoring will be conducted at three on-site monitoring locations during each PCB sampling event (see Section 4.1), and particulate monitoring will be conducted at a minimum of two on-site monitoring locations during a given day of excavation (see Section 5). In addition, a representative industrial background monitoring location for both PCBs and particulate matter will be established and operated at a location to be determined on the GE plant site in Pittsfield. GE will advise EPA of the location of this background station once it has been selected.

4.0 PCB MONITORING PROGRAM

4.1 *High Volume PCB Sampling*

The high volume PCB sampling program will include the following elements:

High-Volume Monitoring Locations	3
Background Sites	1
Co-Located Sites (Field Duplicates)	1
Sampling Time	24 hours per sampling event
Sampling Period	Duration of soil remediation activity
Frequency of Sampling	Twice prior to the onset of soil remediation activity and once every four weeks during remediation activity*
No. of Blanks Per Sampling Event	1
Sampling Method	EPA Compendium Method TO-4A
Analytical Method	GC/ECD or GC/MS as described in EPA Method TO-4A

* Sampling frequency may be increased if either PCB or particulate monitoring levels exceed threshold values.

Ambient air monitoring for PCBs will be conducted for two 24-hour periods prior to the initiation of remediation and once every 4 weeks during soil remediation. At least one 24-hour PCB sampling event will be performed during remediation activity. The ambient air monitoring frequency for PCBs may be increased to bi-weekly in the event that ambient particulate concentrations at any one location consistently exceed the particulate notification level of 120 µg/m³ (micrograms per cubic meter). “Consistently exceeding” will be defined as concentrations greater than 120 µg/m³ on three consecutive 10-hour days or 5 days in any two-week period. Once PCB concentrations are below PCB notification and action levels (see Section 10 of this Scope of Work) for two consecutive bi-weekly events, then PCB sampling frequency will revert to once every four weeks.

PCB baseline monitoring will be conducted prior to any on-site soil remediation activity at three locations in the removal action area at ESA2-North. The sampling sites that will be used for this baseline monitoring are identified as ES2N-1, ES2N-2, and ES2N-4 on Figure D-1. During soil remediation activity, PCB monitoring will be conducted at three locations at ESA2-North and at an industrial background location (to be selected) on the GE plant site in Pittsfield. Of the four identified on-site monitoring locations (ES2N-1, ES2N-2, ES2N-3, and ES2N-4, as shown on Figure D-1), three will be selected for use during a given PCB ambient air monitoring event during soil removal activities. The specific monitoring locations to be used for a given event will be selected based on the location and nature of the soil remediation activity, predominant wind direction, and the location of potential receptors. In addition, the specific sampling locations may be modified based on those factors, as well as physical obstructions (i.e. trees, buildings, traffic), the availability of power, site security, site accessibility, etc. Any significant modifications to the locations of monitors will be reviewed with the GE Project Manager and the U.S. Environmental Protection Agency (EPA).

The sampling method to be used for PCBs in the high volume samples is EPA Compendium Method TO-4A, *Determination of Pesticides and Polychlorinated Biphenyls in Ambient Air Using High Volume Polyurethane Foam (PUF) Sampling Followed by Gas Chromatographic/Multi-Detector Detection (GC/MD)*. This method employs a modified high volume sampler consisting of a glass fiber filter with a polyurethane foam (PUF) backup adsorbent cartridge to sample ambient air at a rate of 0.225 m³/min. A General Metal Works Model GPS-1 Sampler or equivalent will be used. The filter and cartridge will be placed in clean, sealed containers and returned to the laboratory for analysis.

Procedures for sample media preparation and calibration of the sampling system are specified in Method TO-4A. TO-4A further specifies procedures for calculation and data reporting, and the assessment of data for accuracy and precision.

The samplers will be monitored at six-hour intervals over each 24-hour sampling period. During these six-hour checks, barometric pressure, temperature, and magnehelic pressure readings will be taken and the air flow adjusted to the target flow rate, as necessary. At the end of the sampling period, the sampling modules containing the fiber filters and PUF adsorbents will be removed from the samplers. Each glass fiber filter will be folded and placed on the PUF adsorbent for that sample and each sample consisting of a fiber filter and PUF adsorbent (inside a glass cartridge) will be wrapped in hexane rinsed aluminum foil. Each fiber filter and PUF adsorbent set will be labeled as one sample. The samples will be wrapped, packaged in ice and sent under chain-of-custody to the laboratory for analysis.

The PCB sampling probe height for all high volume monitors will be approximately 2.0 meters above the ground. This height is adequate to represent the breathing zone and to be above the influence of ground activity around the monitor. The location of the samplers will be in conformance, to the extent practical, with the siting requirements for ambient monitors in *Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)* (U.S. EPA. May, 1987).

4.2 Analytical Procedures

In the high volume samples, the PCBs on the PUF and filter will be recovered by the sample extraction procedures described in TO-4A. The extracts will be reduced in volume using concentration techniques as described in TO-4A and subjected to column chromatographic cleanup. The extracts will be analyzed for PCBs using gas chromatography with either electron capture detection (GC/ECD) or mass spectrometry detection (GC/MS) as described TO-4A.

The samples will be analyzed for the following PCB Aroclors:

PCB-1016	PCB-1221
PCB-1232	PCB-1242
PCB-1248	PCB-1254
PCB-1260	

The detection limit (DL) for PCB analysis of the high volume samples will be $0.0003 \mu\text{g}/\text{m}^3$, in consideration of the following:

Avg. Sampling Rate	$0.225 \text{ m}^3/\text{min.}$
Avg. Sample Volume	$324 \text{ m}^3/\text{PUF}$
Analytical DL	$0.1 \mu\text{g}/\text{PUF}$
Project DL	$0.0003 \mu\text{g}/\text{m}^3$

5.0 PARTICULATE MONITORING PROGRAM

Real-time particulate monitoring will be conducted during the excavation portion of the remediation at ESA2-North. Monitoring will be conducted daily during the hours of excavation. It is anticipated that the particulate monitoring will be conducted for approximately 10 hours a day, from 7:00 a.m. to 5:00 p.m. Particulate monitoring will occur throughout the period of excavation.

Particulate monitoring will be conducted using a MIE dataRAM real-time airborne particulate monitor, Model DR-2000/4000 or Model pDR-1000, or a MetOne E-BAM monitor, or equivalent. The Model DR-2000/4000 dataRAM monitor is equipped with a temperature conditioning heater and in-line impactor head to measure particulate concentrations with a mean diameter less than 10 micrometers (PM₁₀). The Model pDR-1000 dataRAM monitor uses a passive sampling technique and light scattering photometer to determine particulate concentrations. These MIE monitors have a measurement range of 0.001 to 400 mg/m³. The MetOne E-BAM uses beta attenuation as a measurement technique. The mass of suspended particulate is measured by the decrease in the number of beta particles passed over a particulate filtering medium due to absorption by the particulate.

For all monitors, particulate data will be averaged and recorded for each 15-minute interval during the sampling day by the instrument's datalogger. An overall daily average will be calculated and recorded by the instrument's datalogger (if the instrument has the capability) or using a spreadsheet. The particulate monitoring results will be reported as PM₁₀ (particulate matter with a mean diameter of 10 micrometers or less).

Calibrations and maintenance will be conducted at the frequency and in accordance with the procedures recommended by the manufacturer. All calibrations will be recorded.

The MIE Models DR 2000/4000 and pDR-1000 monitors have an inherent sensitivity to moisture and readings taken under very high humidity conditions are unreliable. GE may, at times, use the professional engineering judgment of its environmental consultants to determine the reliability and usability of data collected during very high humidity conditions. Data summaries will exclude the time period when moisture is clearly a factor. The raw data file will be marked and maintained to indicate what data are included in the average.

As discussed in Section 3, four preliminary monitoring locations have been identified as indicated on Figure D-1. For particulate monitoring, at least two monitoring locations will be utilized during a given day of excavation at ESA2-North. As required and at the discretion of Berkshire Environmental Consultants (BEC), GE, and the Remediation Contractor, additional monitors may be operated at ESA2-North to adequately assess ambient particulate concentrations. The specific monitoring locations to be used on a given day will be established based on the following: location of excavation, truck and vehicle traffic on-site, obstructions, accessibility, and receptors. As excavation proceeds and conditions change at ESA2-North, the monitoring locations may be moved.

A background particulate sampler will be installed at a suitable, but yet to be determined, industrial background monitoring location on the GE plant site in Pittsfield. Data from this station will be used in evaluating ambient particulate concentrations during the remediation (see Section 10.2 below).

6.0 QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES

Quality assurance and quality control (QA/QC) procedures for the air sampling program will follow those described in GE's approved *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP), prepared by Blasland, Bouck & Lee, Inc., June 2004, with any subsequent modifications agreed upon by GE and EPA. Additional specific quality assurance and quality control for the monitors will be based on manufacturer's recommendations.

7.0 PCB SAMPLE DOCUMENTATION, HANDLING AND SHIPMENT

Each filter holder and PUF cartridge holder will be pre-marked with a permanent identification number. As each sample is collected, it will be recorded on a field data form along with the date, time and location of collection.

All samples will be securely wrapped for shipment. PCB samples will be preserved at 4°C and shipped on ice. Samples will be shipped under chain-of-custody by commercial overnight carrier or courier to the analytical laboratory. Complete details on the PCB sample shipment procedures are contained in the FSP/QAPP.

8.0 METEOROLOGICAL MONITORING

Hourly meteorological data from the Automated Surface Observation System (ASOS) Monitor operated at the Pittsfield Municipal Airport in Pittsfield, Massachusetts will be evaluated for each sampling period. A summary of the wind directional data for the sampling period will be included with the sampling results. This ASOS Monitor is operated by the National Weather Service, Federal Aviation Administration, and the Department of Defense. The ASOS Monitor measures and records wind speed, wind direction, precipitation, temperature, sky conditions, barometric pressure, and relative humidity.

9.0 DOCUMENTATION AND REPORTING

PCB and particulate data will be summarized and reported to the GE Project Manager and the Blasland, Bouck & Lee (BBL) Project Manager. If there is an exceedance of a reporting threshold, GE will be notified as soon as possible. All field and laboratory data recorded during ambient monitoring will be documented according to the procedures in the FSP/QAPP. A written report summarizing the results will be provided to GE and BBL after the conclusion of sampling and will include the following:

Date and Time of Sampling
Sampling Locations
Calibration and Maintenance Activities
Pollutants Monitored
Number of Samples Collected
Analytical Results
Quality Assurance Assessment
Meteorological Data Summary
Discussion of Problems or Disruptions

10.0 NOTIFICATION AND ACTION LEVELS

10.1 *PCBs*

The notification and action levels for PCB concentrations in ambient air are 0.05 $\mu\text{g}/\text{m}^3$ (24-hour average) and 0.1 $\mu\text{g}/\text{m}^3$ (24-hour average), respectively. These are the same levels established by EPA for other remediation activities at the GE-Pittsfield/Housatonic River Site.

If the 0.05 $\mu\text{g}/\text{m}^3$ notification level is exceeded, GE will notify EPA promptly, but no later than 24 hours after receipt of the data showing such an exceedance, and will implement additional response actions. The actions to be considered in such circumstances will include those previously implemented by GE at other areas at the GE-Pittsfield/Housatonic River Site (e.g., increased frequency of monitoring, establishment of additional monitoring locations, increased use of dust suppression measures, modifications to dust-producing activities).

If the action level of 0.1 $\mu\text{g}/\text{m}^3$ is exceeded, GE will: (a) notify EPA immediately upon receipt of the data showing such an exceedance; (b) temporarily cease ongoing excavation activities; and (c) discuss with EPA appropriate immediate or short-term response actions to address the exceedance. In addition, GE will evaluate the cause of the exceedance and the need for additional engineering controls, discuss that evaluation with EPA, and if warranted, propose to EPA appropriate engineering controls or other corrective actions. EPA approval of appropriate response actions and engineering controls, if proposed, will be required before GE resumes excavation activities.

10.2 *Particulate Matter*

For each day of monitoring, the particulate data from the on-site monitors will initially be compared with the data from the background monitor. If the average 10-hour PM_{10} concentration at any on-site monitor exceeds the average concentration at the background monitor, the on-site concentrations will then be compared with the notification level of 120 $\mu\text{g}/\text{m}^3$ – which represents 80 percent of the current 24-hour

National Ambient Air Quality Standard (NAAQS) for PM₁₀ (150 µg/m³). This notification level has been selected to allow notice to GE before concentrations reach the level of the 24-hour NAAQS (the action level).

Any exceedance of the notification level will be reported to EPA as soon as practicable following receipt of data showing the exceedance, and GE will take appropriate steps to prevent an exceedance of the action level and will discuss with EPA the need for and type of additional response measures. The actions to be considered in these circumstances will include the same types of measures listed above for exceedances of the notification level for PCBs, or other appropriate measures.

In the event that any 10-hour average PM₁₀ concentration at an on-site monitor exceeds the level of the NAAQS for PM₁₀ (the action level), GE will: (a) report such exceedance to EPA immediately following receipt of data showing the exceedance; (b) temporarily cease ongoing excavation activities; and (c) discuss with EPA appropriate immediate or short-term response actions to address the exceedance. In addition, GE will evaluate the cause of the exceedance and the need for additional engineering controls, discuss that evaluation with EPA, and propose to EPA appropriate engineering controls or other corrective actions. EPA approval of appropriate response actions and engineering controls, if proposed, will be required before GE resumes excavation activities.

Attachment E

Post-Removal Site Control Plan

Attachment E – Post-Removal Site Control Plan

In accordance with Section 3.7 of the *Statement of Work for Removal Actions Outside the River* (SOW), which is Appendix E of the CD, and as required in Technical Attachment J of the SOW, this Post-Removal Site Control Plan describes the future inspection, maintenance, and repair activities (I/M activities) to be conducted at the East Street Area 2-North Removal Action Area (RAA). Technical Attachment J of the SOW describes the future inspection, maintenance, and repair activities (I/M activities) to be conducted by GE at all areas where soil removal and replacement activities will be performed. The I/M activities described herein will be conducted on a semi-annual basis and will consist of the activities specified in Section 2.2 (related to backfilled/restored areas) of Technical Attachment J of the SOW. The scope of these activities for the East Street Area 2-North RAA is further described in the following sections.

Semi-Annual Inspection Activities

The I/M activities on all restored areas will be conducted on a semi-annual basis and will consist of the activities specified in Technical Attachment J of the SOW and further described below. Sections 2.2 and 2.3 of Attachment J require the performance of I/M activities for restored vegetated covers in areas of soil removal and other backfilled/restored areas, respectively. GE will initiate post-construction inspections of areas that were backfilled/restored at the East Street Area 2-North RAA following completion of the construction activities, as further described below.

The first inspection for areas of restored vegetation will be performed approximately one month after completion of construction activities. Additionally, these restored surfaces will be inspected every 6 months for a period of 2 years. Inspections are anticipated to occur in May and October of each year to ensure that the vegetation is growing as anticipated and is providing the desired degree of erosion control. At a minimum, these inspections will include visual observations of the following: (a) evidence of topsoil erosion; (b) establishment and coverage of vegetation (e.g., bare or sparsely vegetated areas); (c) erosion controls to verify their continued effectiveness until such time vegetation is sufficiently established; (d) any areas where excessive settlement has occurred relative to the surrounding areas; (e) any drainage or growth problems due to possible over-compaction of the backfill materials; and (f) other conditions that could jeopardize the performance of the removal actions as designed.

Inspections for other restored areas (i.e., gravel or paved areas) will be similar to the inspections for the areas of restored vegetation. Specifically, the first inspection for areas of restored vegetation will be performed approximately one month after completion of construction activities. Additionally, these restored surfaces will be inspected every 6 months for a period of 2 years. These inspections are also anticipated to occur in May and October of each year. At a minimum, these inspections will include visual observations of the following: (a) evidence of gravel erosion/displacement or, for paved areas, excessive cracking, fissures, spalling, or potholes caused by heaving, uneven settlement, or vehicular use; (b) establishment of vegetation (e.g., weeds) in gravel areas; (c) evidence of depressions and/or surface water ponding and, for paved areas, excessive rutting, or exposed subbase materials; (d) any areas where excessive settlement has occurred relative to the surrounding areas; (e) any drainage or growth problems due to possible over-compaction of the backfill materials; and (f) other conditions that could jeopardize the performance of the removal actions as designed.

Additional inspections of the backfilled/restored areas will be conducted following severe storms, as specified in Section 2.2 of Attachment J to the SOW, to verify that these areas have not sustained significant damage. An inspection will be conducted following storm events in which a 15-minute instantaneous peak of 3,500 cubic feet per second (cfs) or greater, is measured at the United States Geological Society (USGS) Coltsville Gauging Station.

Maintenance and Repair Activities

GE will be responsible for the maintenance and repair of site conditions and features as necessary to meet the requirements of the CD and SOW. Such activities will include addressing any conditions noted during the periodic inspections. Examples of maintenance/repair activities that may be identified and conducted as a result of the periodic inspections include, but are not limited to, placement of additional topsoil, gravel, or pavement in areas of erosion or settlement and repair or replacement of any components of the backfilled/restored areas exhibiting deficiencies or potential problems. If needed, additional planting or seeding will be performed to replace dead or dying vegetation.

Reporting

Reports on the overall inspection activities will be prepared after each inspection. These reports will be submitted to EPA and will document I/M activities performed since submittal of the previous inspection report. As required by Attachment J of the SOW, these reports will include the following information (as relevant):

- Description of the type and frequency of inspection and/or monitoring activities conducted;
- Description of any significant modifications to the inspection and/or monitoring program made since submittal of the preceding monitoring report;
- Description of any conditions or problems noted during the inspection and/or monitoring period which are affecting or may affect the completed remediation;
- Description of any measures taken to correct conditions affecting the performance of the response action;
- Results of any sampling analyses and screening conducted as part of the inspection and/or monitoring program; and
- Description of any measures that may need to be performed to correct any conditions affecting the completed response actions.

Contact Information

In accordance with Section 2.0 of Technical Attachment J of the SOW, provided below is the name and contact information for the person who will be responsible for conducting inspection and monitoring activities at the Lyman Street Area. The individual shown below may change during the period that these activities are conducted.

Name	Company/Entity	Telephone Number
Richard W. Gates	General Electric Company	(413) 448-5909