GE-PITTSFIELD/HOUSATONIC RIVER SITE
May 2016 Post-Remediation Inspection
Various Removal Action Areas

Prepared for General
Electric Company
Pittsfield, Massachusetts

Prepared by
Tetra Tech, Inc.

July 2016

SEMS Doc ID 591229

Global Operations, Environment, Health & Safety

159 Plastics Avenue
Pittsfield, MA 01201

July 21, 2016

Mr. Dean Tagliaferro
EPA Project Coordinator
U.S. Environmental Protection Agency
c/o Avatar Environmental
10 Lyman Street, Suite 2
Pittsfield, MA 01201

Re: GE-Pittsfield/Housatonic River Site
May 2016 Post-Remediation Inspection Report
East Street Area 2-North, East Street Area 2-South, On-Plant Consolidation Areas, 1½ Mile Floodplain Properties

Dear Mr. Tagliaferro:

In accordance with GE's April 25, 2016 *Proposal to Modify Post-Remediation Inspection Frequencies at Various Removal Action Areas*, as approved by EPA, GE will be submitting two reports per year for inspections conducted under the consolidated post-remediation inspection program described in that proposal – one in July for the May inspections and one in January for the summer and October inspections. GE conducted the May inspections this year on May 25, 2016. These inspections covered: (1) East Street Area 2-North; (2) East Street Area 2- South; (3) the Building 71 and Hill 78 On-Plant Consolidation Areas (OPCAs); and (4) the tree cages at the 1½ Mile Floodplain Group 4C properties. Enclosed is a report, prepared for GE by Tetra Tech, presenting the results of those inspections and specifying the items identified as requiring maintenance or repair. Neither those inspections nor the enclosed report addresses natural resource restoration/enhancement measures, the inspections of which are on a separate track.

Please contact me if you have any questions about the enclosed report.

Very truly yours,

Richard W. Gates
Senior Project Manager – Environmental Remediation

Enclosure

cc: Richard Fisher, EPA
John Kilborn, EPA
Christopher Ferry, ASRC Primus (electronic copy)
Scott Campbell, Avatar Environmental (2 hard copies + electronic copy)
Michael Gorski, MassDEP (cover letter + electronic copy)

Eva Tor, MassDEP (electronic copy of cover letter)*
John Ziegler, MassDEP (cover letter + electronic copy)
Robert Leitch, USACE (electronic copy)
Karen Pelto, MassDEP (electronic copy)
Kenneth Munney, USFWS*
Nancy E. Harper, MA AG*
Nate Joyner, Pittsfield Department of Community Development (electronic copy)
Gina Armstrong, Pittsfield Health Department
Corydon Thurston, Executive Director, PEDA (electronic copy)
James Gagnon, O'Reilly, Talbot & Okun (electronic copy)
Barbara Landau, Noble, Wickersham & Heart (electronic copy)*
Roderic McLaren, GE*
Pat McGuire, Tetra Tech
James Bieke, Sidley Austin
Richard Nasman, Berkshire Gas Co.*
Jack Yablonsky, Berkshire Gas Co.*
Public Information Repositories
GE Internal Repository

(cover letter only)*

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS AND OTHER TERMS

CD	Consent Decree entered by U.S. District Court on October 27, 2000
cfs	cubic feet per second
EPA	U.S. Environmental Protection Agency (EPA)
ERE	Grant of Environmental Restriction and Easement
GE	General Electric Company
NRRE	Natural Resource Restoration/Enhancement
OPCA	On-Plant Consolidation Area
PEDA	Pittsfield Economic Development Authority
Proposal	*Proposal to Modify Post-Remediation Inspection Frequencies at Various Removal Action Areas*
PRSC	Post-Removal Site Control
RAA	Removal Action Area
Trustees	Natural Resource Trustees for the GE-Pittsfield/Housatonic River Site
USGS	United States Geological Survey

1.0 INTRODUCTION

In April 2016, the U.S. Environmental Protection Agency (EPA) issued conditional approval (EPA, 2016) of General Electric Company's (GE's) *Proposal to Modify Post-Remediation Inspection Frequencies at Various Removal Action Areas* (Proposal; GE, 2016). The Proposal is subject to the terms and conditions specified in the Consent Decree (CD) that was entered by the U.S. District Court on October 27, 2000.

In a number of inspection summary reports submitted to the EPA in the fall of 2015, GE proposed to modify the frequency of future post-remediation inspection activities for many of the Removal Action Areas (RAAs) within the GE-Pittsfield/Housatonic River Site. During subsequent discussions and communications between GE and EPA, EPA directed GE to submit a consolidated proposal for modifying the current inspection frequencies at a number of the RAAs. In response, the Proposal presented the frequency and timing of post-remediation inspections, including Post-Removal Site Control (PRSC) inspections, Grant of Environmental Restriction and Easement (ERE) inspections, and Conditional Solution inspections, at a number of RAAs. The Proposal did not address the required natural resource restoration/enhancement (NRRE) inspections, which are on separate tracks subject to oversight by the natural resource trustees (Trustees).

Specifically, the Proposal covered the remaining post-remediation inspections at the following RAAs, shown on Figure 1: the former 20s, 30s, and 40s Complexes, East Street Area 1-North, East Street Area 2- North (as well as Woodlawn Avenue), East Street Area 2-South (including the City Recreational Area), the On-Plant Consolidation Areas (OPCAs), Hill 78 Area-Remainder, Newell Street Areas I and II, Lyman Street Area, Former Oxbow Areas A&C, Former Oxbow Areas J&K, and the 1½ Mile Floodplain Residential and Non-Residential Properties. It also covered certain, but not all, periodic future inspections at the Upper ½ Mile Reach of the Housatonic River; and it covered the annual ERE and Conditional Solution inspections, but not other inspections, at the 1½ Mile Reach of the Housatonic River and at the Silver Lake Area. In addition, the Proposal did not cover the Unkamet Brook Area and the Current Floodplain Residential Properties Downstream of the Confluence, where remediation has not been completed or initiated. Table 1 summarizes, by season, the areas and types of inspections that are part of the EPA-approved consolidated inspection program outlined in the Proposal.

This report covers the May 2016 inspections performed at East Street Area 2-North, East Street Area 2-South, and the Building 71 and Hill 78 OPCAs, and for the tree cages at the 1½ Mile Floodplain Group 4C properties. The observations made during each inspection are described below for each area.

2.0 MAY INSPECTIONS

On May 25, 2016, GE performed inspections at East Street Area 2-North, East Street Area 2-South, the Building 71 and Hill 78 OPCAs, and the tree cages at the 1½ Mile Floodplain Group 4C properties. Present for the inspections were Richard Gates (GE), Izabella Zapisek (Avatar, representing EPA), and Pat McGuire (Tetra Tech, representing GE). The observations made in each area during this inspection are described below. Table 2 provides a corrective measures tracking sheet summarizing the maintenance/repair activities identified during these inspections and their status, including a schedule to complete those activities.

2.1 East Street Area 2-North

GE performs post-remediation inspection at the East Street Area 2-North RAA, except for the portions that have been transferred to the Pittsfield Economic Development Authority (PEDA), which is now required to conduct post remediation inspections of those areas. Specifically, since the Woodlawn Avenue Area and the former 19s Complex (shown on Figure 2) have been transferred to PEDA, they are subject to inspections by PEDA, and GE is responsible to conduct inspections at the remaining portions of this RAA (referred to herein as the Remainder of East Street Area 2-North, Figure 2). GE's most recent prior inspection of the Remainder of East Street Area 2-North was performed on May 14, 2015, with the report on it dated June 12, 2015.

The 2016 annual inspection of the Remainder of East Street Area 2-North was conducted on May 25, 2016 in accordance with the applicable PRSC requirements in GE's approved *Final Completion Report for East Street Area 2-North Removal Action* (ARCADIS, 2012). For that portion of the RAA, this inspection included observations of areas where the need for maintenance activities had been identified during the May 2015 inspection (as described in GE's June 12, 2015 report) and observations of the backfilled/restored areas within the Open Soil/Vegetated Area and the paved areas within the Other Ground-Covering Feature Area, the Slab Area, and the Building Demolition Barrier Area, as those areas are defined in the Revised ERE for the Remainder of East Street Area 2-North, which was recorded on September 17, 2014.[1] Figure 2 shows the areas and items subject to inspection at this RAA. In addition, as part of this inspection, GE is required to observe and document any significant erosion observed in any part of the Remainder of East Street Area 2-North.

Summary of Observations During Inspection and Identified Maintenance Activities

The results of the May 2016 inspection are presented in the attached Inspection Summary and Checklist (Appendix A). As indicated in that form, it was determined that the maintenance activities identified during the May 2015 inspection had been completed prior to the May 2016 inspection. As also indicated in the attached form, while the backfilled/restored areas inspected were observed to be in generally good condition, several minor deficiencies in paved or concrete

[1] That Revised ERE replaced, in part, an ERE that was recorded for all of East Street Area 2-North (except for the Woodlawn Avenue Area) on December 21, 2011. The December 2011 ERE remains in place for the former 19s Complex (with PEDA now as the Grantor), although PEDA has proposed to execute and record a Revised ERE for the former 19s Complex. The Woodlawn Avenue Area is covered by a separate ERE, recorded on October 18, 2011, for which PEDA is now the Grantor.

areas were identified as needing repair through patching. It should be noted that after the winter 2016 thaw and prior to the May 2016 inspection, GE was proactive in repaving areas that were damaged due to freeze/thaw actions and plowing. The paved/concrete areas identified during the inspection as requiring repair are as follows (identified by reference to numbered areas shown on Figure 2):

- Two locations in the concrete slab in the southwestern corner of the former Building 9-B slab (Area 1 on Figure 2);
- A single area in the pavement southwest of the former Building 9-B slab (Area 2 on Figure 2);
- Two locations in the southwestern corner of the former Building 9-B slab (Area 3 on Figure 2);
- Two locations on the former Building 9-B slab (Area 4 on Figure 2);
- Four locations south of former Building 9-E (Area 5 on Figure 2);
- Three locations between former Building 14-C and former Building 9-E (Area 6 on Figure 2);
- One small area northwest of former Building 9-E and northeast of former Building 14-C (Area 7 on Figure 2);
- Three small areas south of Building 14-E (Area 8 on Figure 2); and
- One small area south of Building 12-X (Area 9 on Figure 2).

All of these locations were marked with an orange paint circle for ease in locating each area. Additionally, small saplings were observed on the former Building 9-B slab.

All maintenance activities (i.e., repair of the above-listed paved areas and removal of the saplings) will occur before the end of this summer. A summary of needed maintenance activities and a schedule to complete those activities is included in Table 2.

Schedule for Future Inspections

GE will continue to perform the annual inspections in May, with the next scheduled inspection in May 2017. GE will provide EPA with at least 7 days advance written notice of the scheduled inspections. GE will also conduct such inspections after severe storms to verify that these areas have not sustained significant damage. A “severe storm” is defined in the Final Completion Report for this RAA as a storm event in which a 15-minute instantaneous peak of 3,500 cubic feet per second (cfs) is measured on the Housatonic River at the U.S. Geological Survey (USGS) gaging station at Coltsville, MA.

2.2 East Street Area 2-South

The Post-Removal Site Control Plan contained in GE's *Final Completion Report for the East Street Area 2-South Removal Action* (ARCADIS, 2013) prescribes the inspection activities to be performed at this RAA. Under the EPA-approved Proposal, the remaining inspection activities at this RAA involve observations of the engineered barriers and enhanced pavement installed, the Other Ground-Covering Feature Area (as defined in the ERE for this RAA), the Groundwater Recharge Pond, and the trees replanted in 2014. The last inspection of East Street Area 2-South was performed on September 3, 2015 and reported to EPA on October 2, 2015.

Consistent with the EPA-approved Proposal, future inspections at East Street Area 2-South were broken into two schedules. The trees planted in the fall of 2014 are to be inspected in May and in August or September of 2016. The remaining remediation components listed above are to be inspected on an annual basis, with the next inspection in October 2016. This inspection Report covers the May 2016 inspection of the trees that were planted in 2014.

Figure 3 shows the areas where the trees planted in 2014 are located and Figure 4 lists the ten trees subject to this inspection. The results of the May 2016 inspection of those ten trees are documented in the East Street Area 2-South Inspection Summary and Checklist (in Appendix B). As shown there, the tree counting and observation activities indicate that all ten of the trees subject to inspection were surviving and in good condition. Table 3 summarizes the results of the inspection. Documentation of the individual tree observations is provided in Tables B-1 through B-6 in Appendix B. No tree cages, guards, or stakes were present.

Schedule for Future Inspections

The next scheduled inspection of the trees replanted in 2014 will be in either August or September 2016. GE will coordinate with EPA regarding the specific date for the inspection and will provide at least 7 days' written notice. This will be the final inspections of the plantings in this area provided that the trees planted in 2014 are all still found to be surviving and in healthy condition. (If not, GE will make a proposal regarding future inspections.)

2.3 Building 71 & Hill 78 OPCAs

GE currently conducts semi-annual post-closure inspections of the Building 71 and Hill 78 OPCAs. Post-closure inspections of the OPCAs will continue to be performed twice per year (in May and October) to assess the integrity of the final cover system, the associated surface water drainage and leachate management systems, and certain ancillary components, as prescribed in the Proposal. The last post-closure inspections of the OPCAs was performed on September 24, 2015 and reported to EPA on October 23, 2015.

The May 2016 inspection was conducted in accordance with the requirements specified in the final Revised PRSC Plan, which is Appendix H of the *Final Completion Report - On-Plant Consolidation Areas* (ARCADIS, 2011). The inspection included observations of the following OPCA components, as shown on the attached Figure 5:

- The final covers of the Building 71 and Hill 78 OPCAs and the surrounding areas;
- Paved site access roads (including the portion of the access road south of the Hill 78 OPCA which EPA has required, and GE has agreed, to be maintained as paved);
- The Building 71 and Hill 78 OPCA final cover access roads;
- The OPCA surface water drainage system, including the North and South Stormwater Basins and the other drainage components described in Section 3.1.2 of the final Revised PRSC Plan, as well as the final cover drain pipes installed as part of slope repair activities in November 2011 and a new swale drain pipe installed in November 2014 – all as listed in the attached Inspection Form and shown on Figure l ;

- The leachate handling system (including the components listed in the attached Inspection Form);
- Perimeter fencing and access gates;
- Any significant erosion anywhere within the OPCA Removal Action Areas; and
- The trees in the Perimeter Vegetated Area and other areas around the OPCAs to determine whether those areas contained dead or dying vegetation and whether the trees are continuing to provide a visual barrier between the OPCAs and the surrounding community.[2]

Although this inspection included observations of the final OPCA covers, it did not include a specific inspection of the vegetation planted on the Hill 78 OPCA cover or other actions taken as part of the NRRE measures (including the biological control program to address the invasive species Cypress spurge), which are subject to separate NRRE inspections.[3]

Summary of Observations During Inspection

The results of the May 2016 post-closure inspection are presented in the Post-Closure Inspection Form in Appendix C-1. Photographs taken during the inspection are provided in Appendix C-2. As indicated in Section V of the Post-Closure Inspection Form, it was determined that the maintenance activities identified during the September 2015 inspection had been completed. The completed activities included removal of woodchucks and repair of a borrow hole and reseeding and mulching of bare areas.

As indicated in Sections II and III of the attached Inspection Form, the May 2016 inspection indicated that the final cover areas of the Building 71 and Hill 78 OPCAs, as well as the other components of the OPCAs, are in good overall condition, although a number of areas/items requiring maintenance or repair were identified. Several areas of bare/sparse vegetation were observed along the western and southwestern sideslopes of the Hill 78 OPCA, where Cypress spurge had previously been treated and along the southern berm of Building 71 where a drainage swale was repaired in November 2014. Further, additional woodchuck burrow holes were observed in nine locations, and one tree was noted growing at each of the Hill 78 and Building 71 OPCAs. Erosion and sedimentation control logs that had been used in the Hill 78 OPCA slope repair activities were observed to be still present along the southern sideslope of that OPCA. The May 2015 inspection also showed that Cypress spurge continues to be pervasive on the Building 71 OPCA cover, and it identified the presence of Cypress spurge growing along the western plateau/sideslope of Hill 78 OPCA (outside the NRRE area). No dead or dying vegetation was identified in the Perimeter Vegetated Area or other areas around the OPCAs, and the trees were continuing to provide a visual barrier between the OPCAs and the surrounding community. The

[2] The required two-year monitoring period for these trees has been completed. Thus, in accordance with the final Revised PRSC Plan, the inspection of these areas is limited to keeping the areas free from dead or dying vegetation and verifying that the trees are continuing to provide a visual barrier between the OPCAs and the surrounding community.

[3] As part of the biological control program, GE is continuing to monitor the Cypress spurge and flea beetle populations at the Building 71 OPCA in an effort to control that species and prevent its expansion into the NRRE portion of the Hill 78 OPCA. Following these monitoring events in 2016, GE will submit a separate letter to the Trustees describing the results of the 2016 monitoring.

approximate locations of the items identified as requiring maintenance or repair are shown (by reference to the number on the Inspection Form) on Figure 5.

Maintenance/Repair Activities

As indicated in Section IV of the attached Inspection Form, the areas of sparse vegetation on the western and southwestern sideslopes of the Hill 78 OPCA will be monitored again in the October 2016 inspection, and if growth is not observed, those areas will be re-seeded and mulched in November 2016. The burrowing woodchucks will be removed from the OPCAs and the burrow holes filled with topsoil, seeded, and mulched. The two trees growing on Hill 78 and Building 71 OPCAs will be removed. The erosion/sedimentation control logs located on the southern sideslope of Hill 78 OPCA will be removed. These maintenance activities will be conducted this summer.

To address the Cypress spurge, GE is continuing its biological control program at the Building 71 OPCA through monitoring of the Cypress spurge and flea beetle populations at that OPCA, and will submit a letter report on those efforts to the Trustees, with a copy to EPA, following the 2016 monitoring events. To address the areas where Cypress spurge was observed at the Hill 78 OPCA, GE will spray those areas using Roundup in accordance with the Trustees' June 13, 2013 approval of GE's June 7, 2013 proposal for treating Cypress spurge. GE plans to proceed with this spraying if it does not receive notice otherwise from EPA within 15 days after submission of this report.

A summary of the needed maintenance activities and a schedule to complete those activities is included in Table 2.

Schedule for Future Inspections

Future post-closure inspections of the Building 71 and Hill 78 OPCAs (apart from the NRRE inspections) will be conducted on a semi-annual basis in accordance with GE's Proposal. The next post-closure inspection will be performed in October 2016. GE will coordinate with EPA regarding the specific date for the inspection and will provide at least 7 days' written notice.

GE will also conduct inspections, in accordance with the PRSC Plan, after a storm event in which a 15-minute instantaneous peak of 3,500 cfs is measured on the Housatonic River at the USGS gaging station at Coltsville to verify that the OPCA covers and other components have not sustained significant damage.

2.4 1½ Mile Floodplain Properties – Tree Cages at Group 4C Properties

For the properties in the floodplain adjacent to the 1½ Mile Reach of the Housatonic River, the remaining inspections specified in the EPA-approved Proposal consist of ERE and Conditional Solution inspections (to be performed in October) and an inspection of the tree cages at the properties in Phase 4, which are located in Group 4C. Those properties are depicted on Figure 6, and the trees and shrubs planted at the Group 4C properties are shown on Figure 7. For the tree cages in Group 4C, an EPA letter dated November 28, 2012 directed that, after the 2015 tree cage inspection, GE would provide a proposal to EPA for addressing the tree cages in subsequent

years. In its June 11, 2015 inspection report on the May 2015 inspection, GE proposed to maintain the tree cages (where present) for one additional year and then to remove them in the spring of 2016. In a December 7, 2015 e-mail message to GE, EPA requested that GE perform an additional tree cage inspection in 2016. In response to that request, GE's Proposal provided that that inspection would be performed in May 2016, to be followed by a decision on whether to eliminate subsequent tree cage inspections.

The requested 2016 inspection of the tree cages at the Group 4C properties was conducted on May 25, 2016. That inspection indicated that cages remained around the great majority (approximately 99%) of the replanted trees on these properties. Observations during the inspection indicated that all of those cages were in good condition. However, several tree cages were restricting the growth of the associated trees, but could not be removed at the time of the inspection. In addition, observations during the May 2016 inspection indicated that numerous volunteer saplings (i.e., plantings that were not installed as part of the restoration planting plan) are filling the Group 4C properties and that many had been cut and removed by beavers.

Overall, the observations indicate that the planted trees are growing along with many volunteer trees and shrubs, and that the Group 4C properties are returning to a restored, natural floodplain condition. Therefore, GE will continue to inspect the tree cages and will remove the tree cages as necessary depending on the condition of the cages and tree growth. There will be no further maintenance of the cages. This proposal is included in Table 2.

3.0 UPCOMING INSPECTIONS

Upcoming post-remediation inspections will take place in summer (either August or September) and October 2016. The summer inspection will be conducted at the East Street Area 2-South and will involve another inspection of the trees that were replanted in 2014. If the trees are all found surviving and in good health, then this will be the final inspection of the East Street Area 2-South trees. The October inspections will be performed at numerous RAAs, as specified in Table 1.

GE will provide EPA with at least 7 days advance written notice of the scheduled inspections. GE will submit a consolidated report on these inspections in early January of 2017 in accordance with the EPA-approved Proposal.

4.0 REFERENCES

ARCADIS, 2011. *Final Completion Report - On-Plant Consolidation Areas*, September 15, 2011.

ARCADIS, 2012. *Final Completion Report for East Street Area 2-North Removal Action*, January 6, 2012.

ARCADIS, 2013. Final *Completion Report for the East Street Area 2-South Removal Action*, May 8, 2013.

EPA, 2016. Letter from R. Fisher (EPA) to R. Gates (GE), Conditional Approval of General Electric's April 25, 2016 submittal titled *Proposal to Modify Post-Remediation Inspection Frequencies at Various Removal Action Areas*, GE-Pittsfield/Housatonic River Site, April 26, 2016.

GE, 2016. Letter from R. Gates (GE) to R. Fisher (EPA) titled *Proposal to Modify Post-Remediation Inspection Frequencies at Various Removal Action Areas*, GE-Pittsfield/Housatonic River Site, April 26, 2016.

TABLES

TABLE 1

SUMMARY OF REGULAR POST-REMEDIATION INSPECTIONS AT SELECTED REMOVAL ACTION AREAS
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

May Inspections	
Area	**Inspection Type**
East St. Area 2- North (outside former 19s Complex)	Backfilled/restored areas
	Other Ground-Covering Feature Area, Slab Area, and Building Demolition Barrier Area
East Street Area 2-South	Trees planted in 2014 (May 2016 only inspection)
Building 71 & Hill 78 OPCAs	Post-closure
Phase 4C Floodplain Area	Tree cages/guards (in 2016, then discussion on
Summer Inspections	
Area	**Inspection Type**
East Street Area 2-South	Trees planted in 2014 (2016 final inspection if these trees are all found surviving and in healthy condition)
Upper ½ Mile Reach	Restored banks and armor stone (biennial during low flow, with next inspection in summer of 2017)
October Inspections	
Area	**Inspection Type**
Former 20s Complex	ERE
Former 30s Complex	ERE
Former 40s Complex	ERE
	Temporary stockpile and embankment areas
East Street Area 1-North	Conditional Solution
19s Complex in East Street Area 2-North	ERE
Woodlawn Avenue	ERE
East Street Area 2-South	Engineered barrier
	Enhanced pavement
	Paved areas and former building foundations with appropriate soil cover
	Areas GE elected to maintain as paved
	Groundwater Recharge Pond
City Recreational Area	Surface cover/perimeter fencing areas (biennial, with next inspection in 2017)
Hill 78 Area - Remainder	Other Ground-Covering Feature Area (plus recently repaired small depressin/erosion area on bank during October 2016 inspection)
Building 71 & Hill 78 OPCAs	Post-closure
Newell St. Area I	Engineered barrier area
	Paved NTE area - Parcel J9-23-16
	ERE (including riverbanks)
	Conditional Solution
Newell St. Area II	Engineered barrier area
	ERE
	Conditional Solution (including riverbanks)
Lyman Street Area	Engineered barrier
	ERE
	Conditional Solution (including riverbanks)
Former Oxbow Areas A&C	Conditional Solution (including riverbanks)
Former Oxbow Areas J&K	Paved NTE area - Parcel K10-11-5
	Conditional Solution
1½ Mile Floodplain Properties	ERE (including riverbanks)
	Conditional Solution (including riverbanks)
1½ Mile Reach	ERE
	Conditional Solution
Silver Lake Area	ERE
	Conditional Solution
Dalton Avenue	Temporary Solutions
Commercial Street Site	Temporary Solutions

Table 2
CORRECTIVE MEASURES TRACKING SHEET – MAY 2016 INSPECTION

GENERAL ELECTRIC COMPANY – PITTSFIELD, MASSACHUSETTS

Area	Parcels Subject to Inspection	Inspection Type	Observed Maintenance Items	Maintenance Status (including timetable if not complete)	Next Inspection
GE Plant Area					
East St. Area 2-North	Parcel J10-9-2	Backfilled/restored areas; Other Ground-Covering Feature Area; Slab Area; Building Demolition Barrier Area	- 19 locations in 9 paved area show damage to pavement; need patching - Small saplings observed on former Bldg 9-E slab; need removal	Completed (Photos 17, 18, and 19)	May 2017
East St. Area 2-South	Averaging Areas 4B, 4C, & 4E	10 trees planted in 2014	None (all trees in good condition)	N/A	October 2016
Building 71 & Hill 78 OPCAs	N/A	Post-closure	- Areas of sparse vegetation on western & southwestern slideslopes; need monitoring - Nine woodchuck burrows observed; need removal of woodchucks and repair of holes - 2 small trees growing on OPCAs; need removal - Cypress spurge present at Hill 78 OPCA; need spraying outside NRRE area - Sedimentation control logs remaining on southern sideslope of Hill 78 OPCA; need removal	- Areas of sparse vegetation to be monitored in October 2016 inspection. If growth not observed, re-seed and mulch in November 2016 -Woodchuck control activity on-going -Small trees removed when OPCAs are mowed in October -Sedimentation control logs have been removed (Photo 20) - Other item to be conducted in summer 2016	October 2016
Housatonic River Floodplain Properties					
1½ Mile Floodplain – Group 4C	All tree cages	Tree cages	Tree cages in good condition, but some restricting tree growth	No further maintenance of the tree cages, inspect the tree cages and remove the tree cages as necessary	May 2017

Table 3: Results of Tree/Shrub Observations in East Street Area 2 South – May 2016								
Planting Area	**Species**	**Subject to Inspection in May 2016**	**Observed in Good Health**	**Observed Dead/ Stressed Trees 1**	**Avg Height (ft.)**	**Range of Heights (ft.)**	**Percent in Good Health (%) 2**	**Percent Survival (%) 3**
1	Quaking Aspen	3	3	0/0	5.7	4-6	100	100
	Cottonwood	1	1	0/0	5.0	--	100	100
8	Cottonwood	1	1	0/0	5.0	--	100	100
9	Box Elder	1	1	0/0	6.0	--	100	100
	Cottonwood	1	1	0/0	6.0	--	100	100
11	Quaking Aspen	3	3	0/0	5.0	4-6	100	100

Notes:

1. This column lists the number of dead trees observed and then the number of trees/shrubs that were not dead but were stressed.
2. This column shows the percentage of trees inspected that were in good condition relative to the total quantity inspected.
3. This column shows the percentage of trees that were alive (including stressed plants) relative to the total quantity inspected.

FIGURES

Unkamet Brook - West Area

Unkamet Brook - Remainder Area

Building 71 On-Plant Consolidation Area

Hill 78 On-Plant Consolidation Area

Hill 78 Remainder

19's Complex (Designated to be Transferred to PEDA)

East Street Area 1 - North

East Street Area 2- North

20's Complex

40's Complex

30's Complex

Silver Lake Banks

Former Oxbow Areas A and C

Lyman Street Area

1 1/2 - Mile Floodplain Properties

Continues to Confluence with West Branch

1/2 - Mile Reach

1 1/2 - Mile Reach

Newell Street Area II

Newell Street Area I

East Street Area 1- South (Groundwater only)

City Recreation Area

East Street Area 2 - South

Former Oxbow Areas J and K

Goodrich Pond

Lakewood Residential Area

Dalton Ave

Tyler Street

Kellogg Street

Silver Lake Blvd

East Street

Lyman Street

Newell Street

Hibbard Park

Woodlawn Ave.

New York Ave.

Plastics Ave.

Merrill Road

Unkamet Brook

Allendale School Area

Hill 78 Landfill

Co-Generation Facility

Interior Landfill

Vault

Silver Lake

OP-1

OP-2

OP-3

LEGEND:

GE Plant Area:

- 20's complex
- 30's complex
- 40's complex
- East Street Area 1- North
- East Street Area 1-South (Groundwater only)
- East Street Area 2 - North
- East Street Area 2 - South
- Building 71 On-Plant Consolidation Area
- Hill 78 On-Plant Consolidation Area
- Hill 78 Remainder
- Unkamet Brook - West Area
- Unkamet Brook - Remainder Area

Silver Lake:

- Silver Lake Sediment
- Silver Lake Banks

Former Oxbow Areas:

- Former Oxbow Areas A&C
- Former Oxbow Areas J&K
- Lyman Street Area
- Newell Street Area I
- Newell Street Area II

- Allendale School Area

- 1/2 - Mile Reach
- 1 1/2 - Mile Reach
- 1 1/2 - Mile Floodplain Properties

- Former Oxbows

Notes:

1. Base features provived by General Electric Contractors.
2. Not all physical features are shown.
3. Site Boundaries are approximate.
4. Map produced by Weston Solutions, Inc.

N W E S

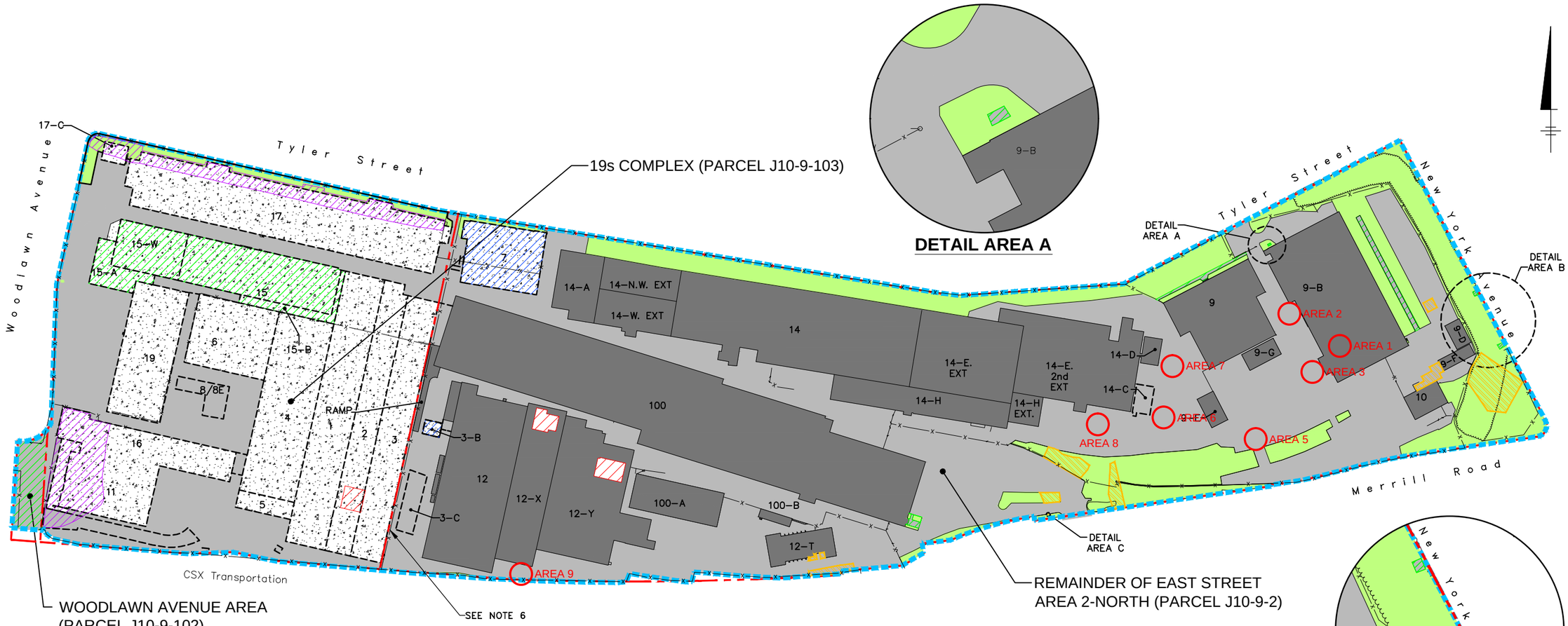
Scale in Feet

500 0 500 1000 1500 2000

GE-PITTSFIELD/HOUSATONIC RIVER SITE

SITE MAP **FIGURE 1**

TETRA TECH



DETAIL AREA A

DETAIL AREA B

DETAIL AREA C

LEGEND:

- PROPERTY LINE
- EXISTING FENCE
- FORMER BUILDING/STRUCTURE (SEE NOTE 3)
- 14 — BUILDING ID
- USABLE CRUSHED BUILDING MATERIALS PLACEMENT AREA
- SOIL REMOVAL AREAS
- AREA IDENTIFIED AS NEEDING REPAIR

RESTRICTED AREAS:

- PERIMETER BOUNDARY OF RESTRICTED AREAS (SEE NOTE 4)
- OPEN SOIL/VEGETATED AREA (GRASS/DIRT/GRAVEL)
- OPEN SOIL/VEGETATED AREA (PAVED/FOUNDATION AREAS THAT HAVE BEEN CHARACTERIZED AS UNPAVED)
- OTHER GROUND-COVERING FEATURE AREA (EXISTING BUILDING/STRUCTURE)
- OTHER GROUND-COVERING FEATURE AREA (ASPHALT/CONCRETE/BRICK)
- SLAB AREA (CONCRETE SLAB/FOUNDATION)
- PORTION OF SLAB AREA THAT HAS BEEN COVERED WITH 3-INCHES OF ASPHALT
- BUILDING DEMOLITION BARRIER AREA (SEE NOTE 5)

NOTES:

1. BASE MAPPING FROM TOPOGRAPHIC SURVEY (DRAWING S2059W01) BY FORESIGHT LAND SURVEYORS DATED 2/9/05. BASE MAPPING WAS REVISED 9/28/10 BASED ON A HILL DRAWING TITLED "OVERALL SITE PLAN", DATED 7/12/2010, AT A SCALE OF 1" = 40'.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. THE LIMITS OF THE FORMER BUILDING/STRUCTURES ARE APPROXIMATE AND GENERALLY REPRESENT THE FOOTPRINT OF THE MORE SIGNIFICANT ABOVE-GRADE STRUCTURES THAT HAVE BEEN DEMOLISHED.
4. THE PERIMETER BOUNDARY OF RESTRICTED AREAS SHOWS THE OUTER PERIMETERS OF THE RESTRICTED AREAS UNDER THE EREs FOR THE WOODLAWN AVENUE AREA AND THE ENTIRE REMAINDER OF EAST STREET AREA 2-NORTH.
5. BUILDING DEMOLITION BARRIER AREAS ARE DELINEATED BASED ON FIELD OBSERVATIONS MADE BY GE AND EPA PERSONNEL IN JUNE 2011.
6. THE FENCE BETWEEN THE 19S COMPLEX AND THE REMAINDER OF EAST STREET AREA 2-NORTH HAS BEEN OFFSET FOR EASE OF REFERENCE, BUT IS ACTUALLY LOCATED PARALLEL WITH THE BOUNDARY, SIX INCHES INSIDE THE GE PROPERTY.

0 120' 240'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
FINAL COMPLETION REPORT FOR EAST STREET AREA 2-NORTH

RESTRICTED AREAS AND ITEMS SUBJECT TO INSPECTION

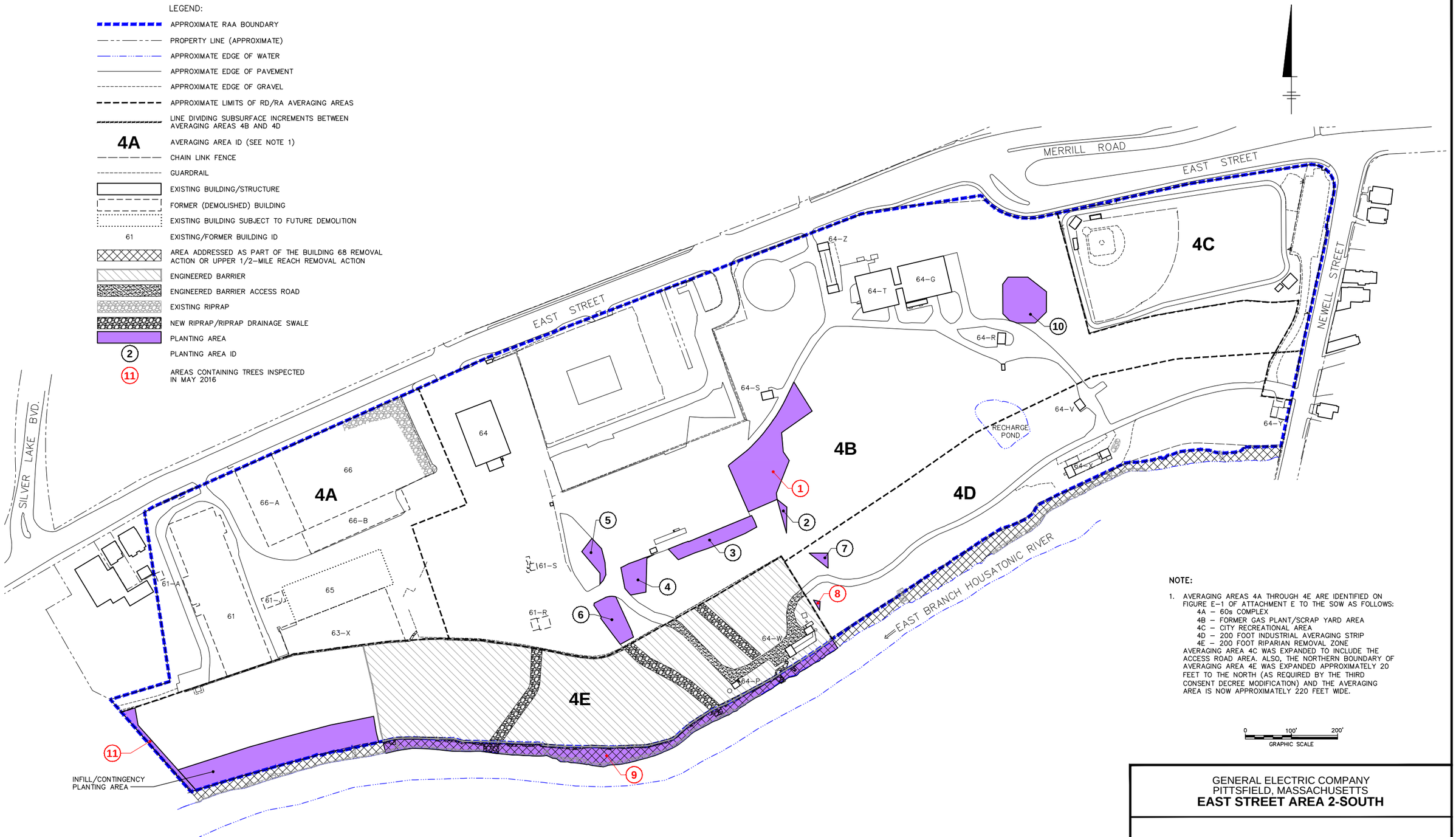
TETRA TECH

FIGURE
2

S:\CAD\GE\PITTSFIELD\FIG2.DWG

LEGEND:

- APPROXIMATE RAA BOUNDARY
- PROPERTY LINE (APPROXIMATE)
- APPROXIMATE EDGE OF WATER
- APPROXIMATE EDGE OF PAVEMENT
- APPROXIMATE EDGE OF GRAVEL
- APPROXIMATE LIMITS OF RD/RA AVERAGING AREAS
- LINE DIVIDING SUBSURFACE INCREMENTS BETWEEN AVERAGING AREAS 4B AND 4D
- 4A — AVERAGING AREA ID (SEE NOTE 1)
- CHAIN LINK FENCE
- GUARDRAIL
- EXISTING BUILDING/STRUCTURE
- FORMER (DEMOLISHED) BUILDING
- EXISTING BUILDING SUBJECT TO FUTURE DEMOLITION
- 61 — EXISTING/FORMER BUILDING ID
- AREA ADDRESSED AS PART OF THE BUILDING 68 REMOVAL ACTION OR UPPER 1/2-MILE REACH REMOVAL ACTION
- ENGINEERED BARRIER
- ENGINEERED BARRIER ACCESS ROAD
- EXISTING RIPRAP
- NEW RIPRAP/RIPRAP DRAINAGE SWALE
- PLANTING AREA
- 2 — PLANTING AREA ID
- 11 — AREAS CONTAINING TREES INSPECTED IN MAY 2016



NOTE:

1. AVERAGING AREAS 4A THROUGH 4E ARE IDENTIFIED ON FIGURE E-1 OF ATTACHMENT E TO THE SOW AS FOLLOWS:
   - 4A – 60s COMPLEX
   - 4B – FORMER GAS PLANT/SCRAP YARD AREA
   - 4C – CITY RECREATIONAL AREA
   - 4D – 200 FOOT INDUSTRIAL AVERAGING STRIP
   - 4E – 200 FOOT RIPARIAN REMOVAL ZONE

   AVERAGING AREA 4C WAS EXPANDED TO INCLUDE THE ACCESS ROAD AREA. ALSO, THE NORTHERN BOUNDARY OF AVERAGING AREA 4E WAS EXPANDED APPROXIMATELY 20 FEET TO THE NORTH (AS REQUIRED BY THE THIRD CONSENT DECREE MODIFICATION) AND THE AVERAGING AREA IS NOW APPROXIMATELY 220 FEET WIDE.

0 100' 200'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
EAST STREET AREA 2-SOUTH

RESTORATION PLANTING PLAN

TETRA TECH

FIGURE 3

S:\CAD\GE\PITTSFIELD\FIG3.DWG

PLANTING AREA ID	TREE/SHRUB SPECIES	ORIGINALLY PLANTED TREES/SHRUBS			REPLANTED TREES/SHRUBS
		HEIGHT SPECIFICATION (FT)	REQUIRED	SUPPLEMENTAL	2014
					OCTOBER
1	Quaking Aspen (Populus tremuloides)	5'-6'	57	--	3
	Cottonwood (Populus deltoides)	5'-6'	33	--	1
8	Cottonwood (Populus deltoides)	5'-6'	2	--	1
9	Box-elder (Acer negundo)	5'-6'	22	--	1
	Cottonwood (Populus deltoides)	5'-6'	20	--	1
10	Eastern White Pine (Pinus strobus)	7'-8'	4	--	3
		TOTAL:	138	--	10

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
EAST STREET AREA 2-SOUTH

RESTORATION PLANTING PLAN TABLES

TETRA TECH

FIGURE
4

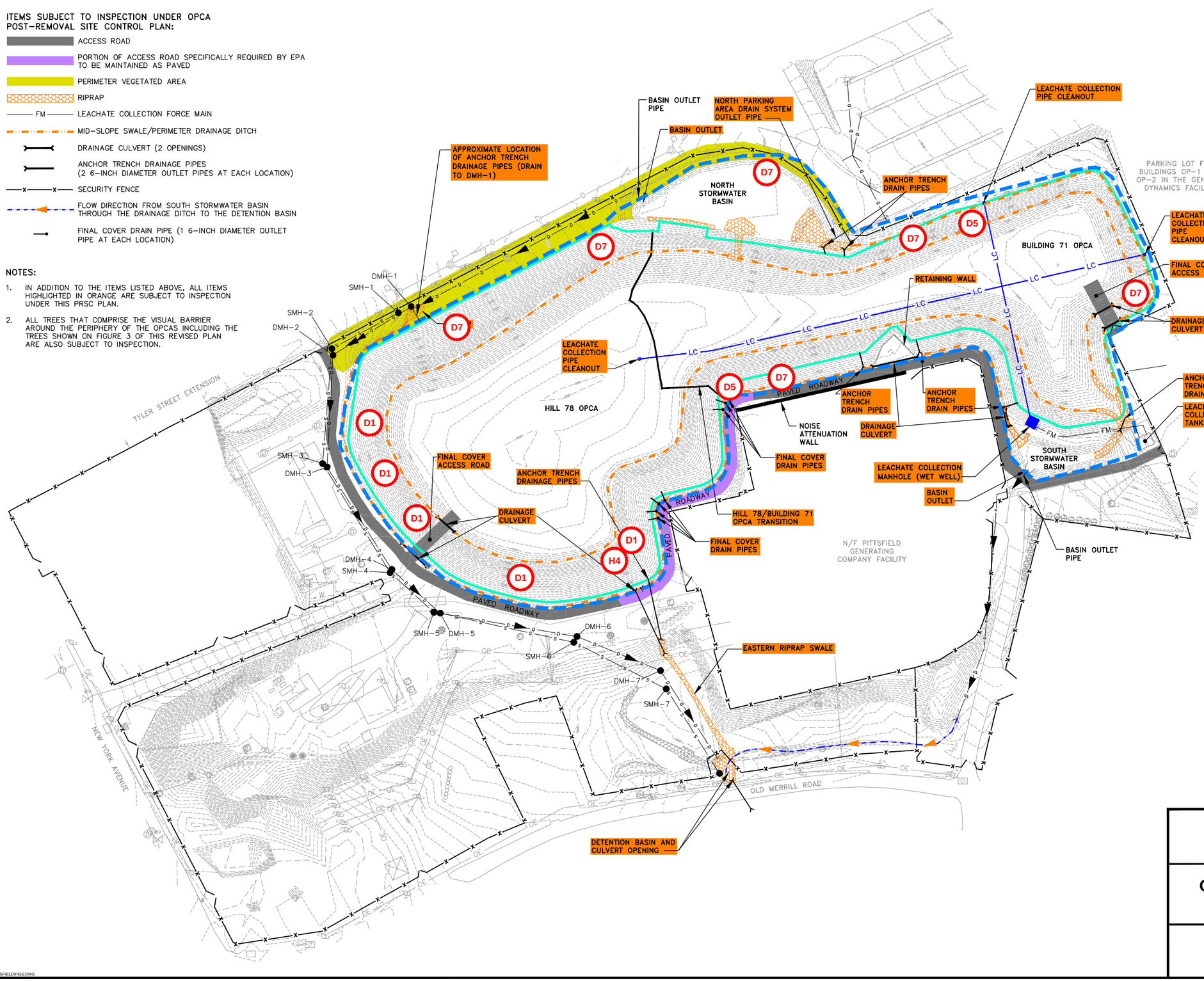
S:\CAD\GE\PITTSFIELD\FIG4.DWG

ITEMS SUBJECT TO INSPECTION UNDER OPCA POST-REMOVAL SITE CONTROL PLAN:

- ACCESS ROAD
- PORTION OF ACCESS ROAD SPECIFICALLY REQUIRED BY EPA TO BE MAINTAINED AS PAVED
- PERIMETER VEGETATED AREA
- RIPRAP
- FM — LEACHATE COLLECTION FORCE MAIN
- MID-SLOPE SWALE/PERIMETER DRAINAGE DITCH
- DRAINAGE CULVERT (2 OPENINGS)
- ANCHOR TRENCH DRAINAGE PIPES (2 6-INCH DIAMETER OUTLET PIPES AT EACH LOCATION)
- SECURITY FENCE
- FLOW DIRECTION FROM SOUTH STORMWATER BASIN THROUGH THE DRAINAGE DITCH TO THE DETENTION BASIN
- FINAL COVER DRAIN PIPE (1 6-INCH DIAMETER OUTLET PIPE AT EACH LOCATION)

NOTES:

1. IN ADDITION TO THE ITEMS LISTED ABOVE, ALL ITEMS HIGHLIGHTED IN ORANGE ARE SUBJECT TO INSPECTION UNDER THIS PRSC PLAN.
2. ALL TREES THAT COMPRISE THE VISUAL BARRIER AROUND THE PERIPHERY OF THE OPCAS INCLUDING THE TREES SHOWN ON FIGURE 3 OF THIS REVISED PLAN ARE ALSO SUBJECT TO INSPECTION.



LEGEND:

- BOUNDARY OF BUILDING 71 AND HILL 78 ON-PLANT CONSOLIDATION AREA REMOVAL ACTION AREAS
- DRAIN MANHOLE
- RIPRAP
- STORM SEWER (DRAINAGE) LINE
- SANITARY LINE
- INDEX CONTOUR LINE
- INTERMEDIATE CONTOUR LINE
- LIMIT OF FINAL COVER
- LC — LEACHATE COLLECTION PIPE
- SMH — SANITARY MANHOLE FOR REROUTED PIPELINE
- DMH — DRAIN MANHOLE FOR REROUTED PIPELINE
- FLOW DIRECTION FROM NORTH OR SOUTH STORMWATER BASINS TO THE DETENTION BASIN
- D1 — INSPECTION OBSERVATION ITEM

NOTES:

1. BASEMAP INFORMATION BASED ON FIELD SURVEY INFORMATION OBTAINED FROM SK DESIGN GROUP, INC. ON OCTOBER 6, 2006, DECEMBER 11, 2006, JANUARY 30, 2008, APRIL 15, 2009, MAY 15, 2009 AND AUGUST 24, 2010. ADDITIONAL BASEMAP INFORMATION BASED ON "EXISTING SITE PLAN" PREPARED BY ARCADIS BBL, DATED APRIL 2007.
2. SEWER RELOCATION FEATURES AND FIELD SURVEY TOPOGRAPHY ARE BASED ON FIELD SURVEY INFORMATION OBTAINED FROM SK DESIGN GROUP, INC. ON APRIL 15, 2009.
3. ELEVATIONS SHOWN ARE REFERENCED TO NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).
4. HORIZONTAL DATUM IS REFERENCED TO THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (NAD 1927).
5. CONTOUR INTERVAL EQUALS 1 FOOT.

0 80' 160'
GRAPHIC SCALE

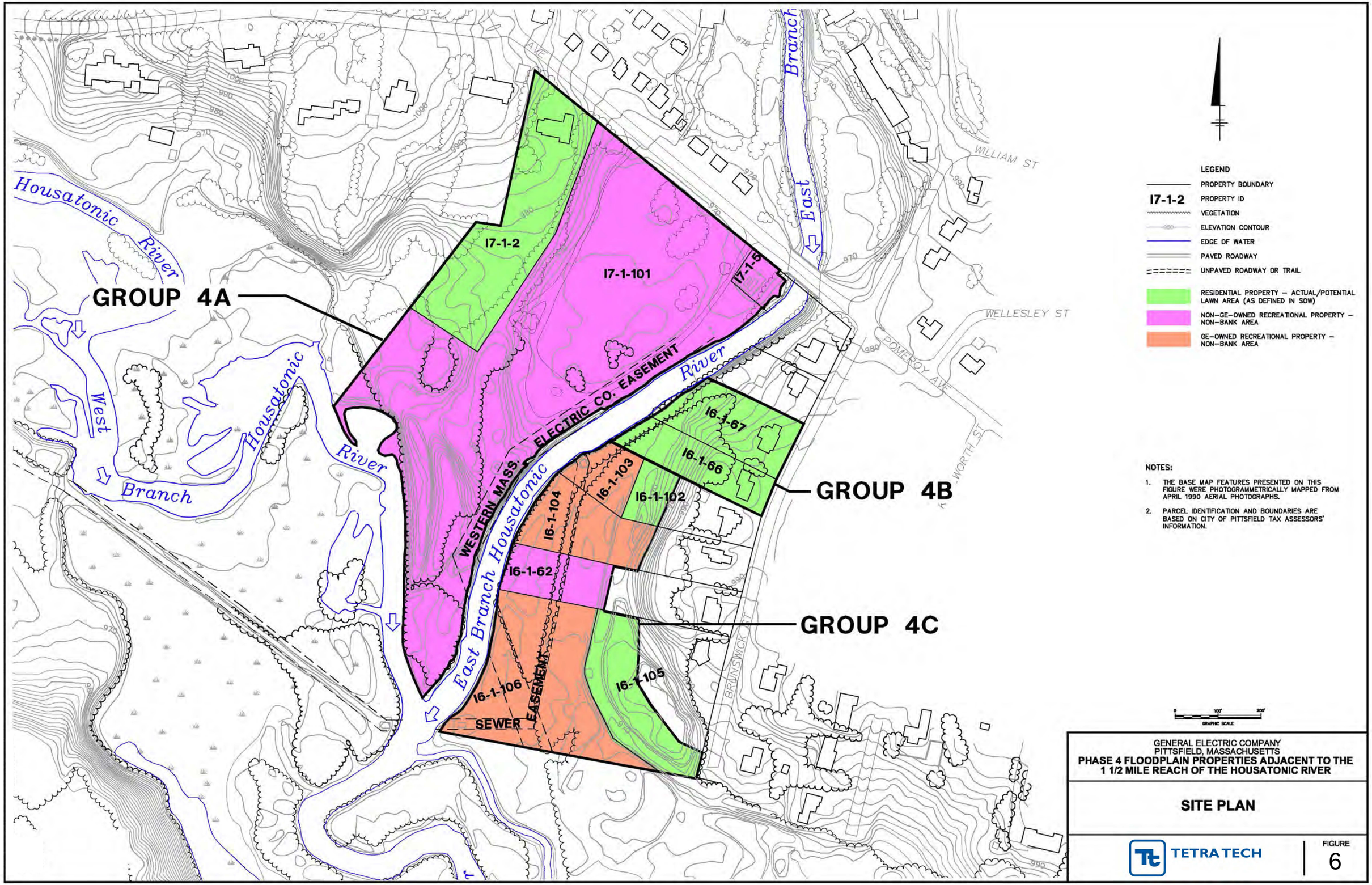
GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
HILL 78 AND BUILDING 71 OPCAs

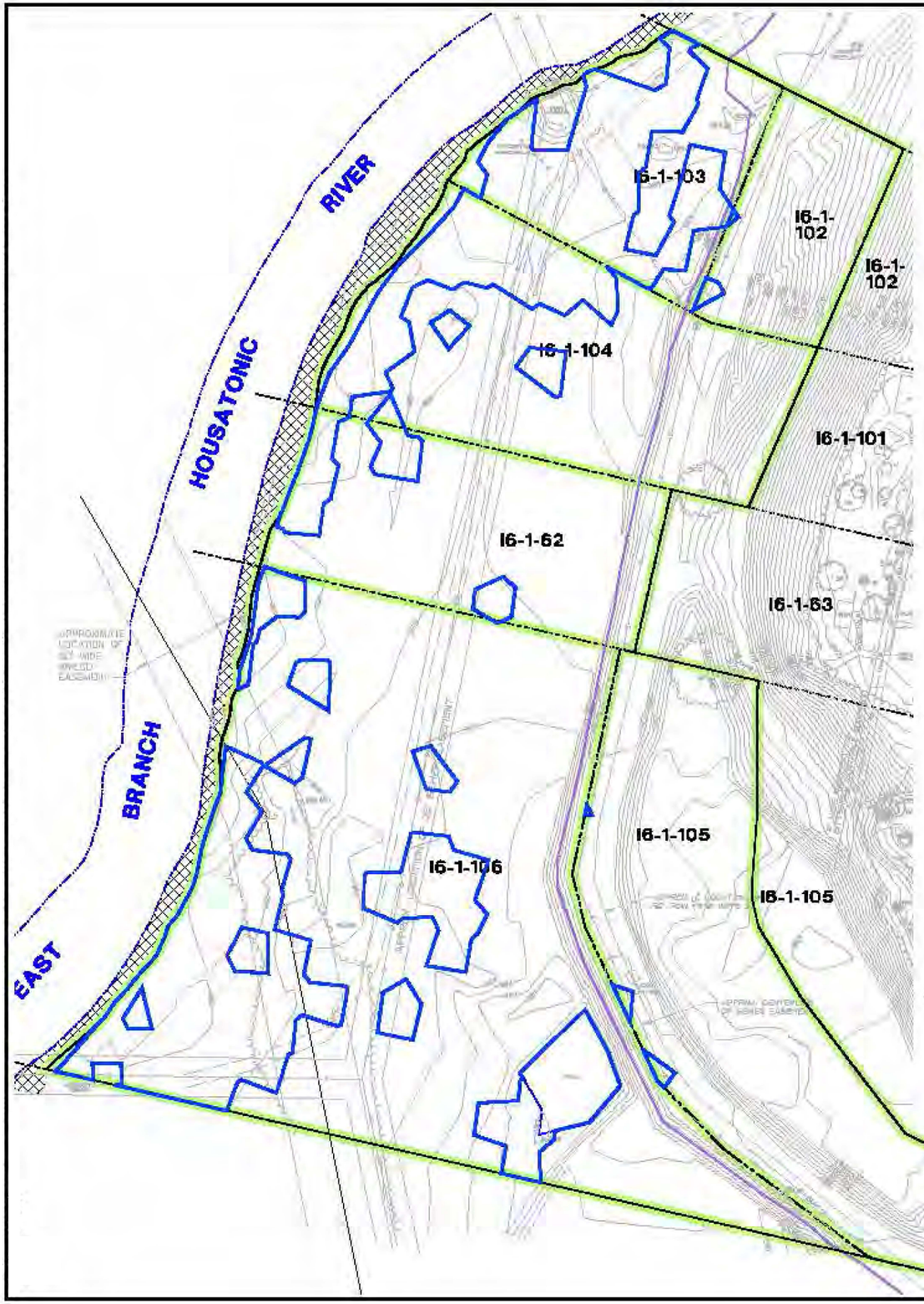
OPCA COMPONENTS SUBJECT TO POST-CLOSURE INSPECTION

TETRA TECH

FIGURE 5

S:\CAD\GE\PITTSFIELD\FIG5.DWG


Housatonic River
West Branch
Housatonic River
East Branch Housatonic River
GROUP 4A
GROUP 4B
GROUP 4C
I7-1-2
I7-1-101
I7-1-5
I6-1-67
I6-1-66
I6-1-103
I6-1-102
I6-1-104
I6-1-62
I6-1-106
I6-1-105
WESTERN MASS. ELECTRIC CO. EASEMENT
SEWER EASEMENT
WILLIAM ST
WELLESLEY ST
POMEROY AVE
WORTH ST
BRUNSWICK
LEGEND
PROPERTY BOUNDARY
I7-1-2 PROPERTY ID
VEGETATION
ELEVATION CONTOUR
EDGE OF WATER
PAVED ROADWAY
UNPAVED ROADWAY OR TRAIL
RESIDENTIAL PROPERTY – ACTUAL/POTENTIAL LAWN AREA (AS DEFINED IN SOW)
NON-GE-OWNED RECREATIONAL PROPERTY – NON-BANK AREA
GE-OWNED RECREATIONAL PROPERTY – NON-BANK AREA
NOTES:
1. THE BASE MAP FEATURES PRESENTED ON THIS FIGURE WERE PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
2. PARCEL IDENTIFICATION AND BOUNDARIES ARE BASED ON CITY OF PITTSFIELD TAX ASSESSORS' INFORMATION.
GRAPHIC SCALE
GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
PHASE 4 FLOODPLAIN PROPERTIES ADJACENT TO THE 1 1/2 MILE REACH OF THE HOUSATONIC RIVER
SITE PLAN
TETRA TECH
FIGURE
6

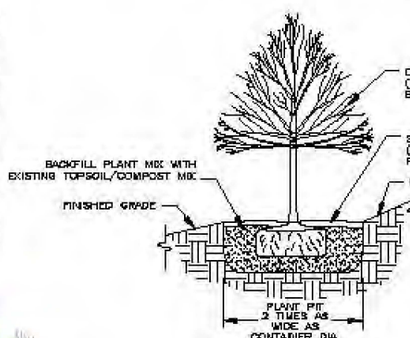


ORIGINALLY PLANTED TREES	
Species	**Total Planted**
Upland Areas	
Silver Maple (Acer saccharinum) Red Maple (Acer rubrum) Sugar Maple (Acer saccharum)	255
Eastern Cottonwood (Populus deltoides)	157
Box Elder (Acer negundo)	181
Northern Arrowood (Viburnum dentatum)	6
Winterberry Holly (Ilex verticillata)	5
Dogwood (Cornus sericea)	10
Chokecherry (Prunus virginiana)	4
Total	**558**

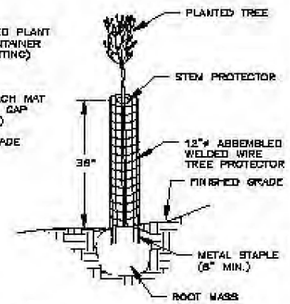
Note: 3 of the maples planted within the Phase 4C properties are on residential Parcel 16-1-102. The remaining maples were planted on non-residential parcels.

REPLANTED TREES			
Species	**Installation Date**	**Quantity**	**Height (ft.) at Time of Replanting**
Northern Arrowood (Viburnum dentatum)	October 2008	6	3'
Dogwood (Cornus sericea)	October 2008	3	3'
Chokecherry (Prunus virginiana)	October 2008	1	2'
	May 2010	1	2'
Eastern Cottonwood * (Populus deltoides)	May 2010	79	16'
Red Maple (Acer rubrum) *	May 2010	60	12'

Note: * DENOTES SUBSTITUTE SPECIES (PROPOSED BY GE AND APPROVED BY EPA) TO BE PLANTED IN LIEU OF BOX ELDERS.



TREE PLANTING DETAIL
NO SCALE



TREE PROTECTOR DETAIL
NO SCALE

NOTE: WELDED WIRE TREE PROTECTOR IS TO BE MANUALLY REMOVED ONCE TREE HAS GROWN TO 4" DBH.

LEGEND

- BOUNDARY OF FLOODPLAIN PROPERTIES AS DESIGNATED IN SOW
- APPROXIMATE PARCEL BOUNDARY
- APPROXIMATE HORIZONTAL LIMITS OF AVERAGING AREA
- 16-1-62 PROPERTY PARCEL ID
- 10 YEAR FLOODPLAIN
- WIRE FENCE
- CHAIN LINK FENCE
- WOODEN FENCE
- STONE WALL/RETAINING WALL
- WATER LINE
- GAS LINE
- SANITARY SEWER
- OVERHEAD ELECTRIC
- ELEVATION CONTOUR (1 FOOT CONTOUR INTERVAL)
- EDGE OF BUSHES/HEDGE
- SHRUB
- CONIFEROUS TREE
- DECIDUOUS TREE
- LIGHT POLE
- UTILITY POLE
- SANITARY MANHOLE
- HYDRANT
- EASEMENT LINE
- APPROXIMATE EDGE OF WATER
- AREA ASSOCIATED WITH EPA's 1 1/2 MILE REACH REMOVAL ACTION
- LIMITS OF SOIL REMOVAL

NOTES:

1. THE BASE MAP FEATURES (EXCLUDING THE RIVERS) PRESENTED ON THIS FIGURE ARE FROM SURVEY BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, FILE NO. GE1100-001, DATED 6/7/06. RIVER LOCATIONS WERE PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1980 AERIAL PHOTOGRAPHS. RIVER LOCATIONS ARE APPROXIMATE.
2. THE 10 YEAR FLOODPLAIN LINE IS APPROXIMATE AND WAS DERIVED USING HYDRAULIC MODELING PERFORMED BY BLASLAND, BOUCK & LEE, INC. (1994) AND AVAILABLE TOPOGRAPHIC MAPPING.
3. UTILITIES ARE SHOWN IN AN APPROXIMATED WAY ONLY AND ALL UTILITIES MAY NOT BE SHOWN.
4. THE PARCELS SHOWN HEREON MAY BE SUBJECT TO RIGHTS AND EASEMENTS AS CONTAINED IN THE VARIOUS DEEDS OF RECORD DESCRIBING SAID PREMISES. ALL RIGHTS AND EASEMENTS MAY NOT BE DEPICTED HEREON.
5. LIMIT OF EPA RESPONSE ACTIONS ASSOCIATED WITH THE 1 1/2 MILE REACH IS BASED ON ELECTRONIC FILE RECEIVED FROM EPA ON JUNE 14, 2006.

0 40' 80'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
PHASE 4 FLOODPLAIN PROPERTIES ADJACENT TO THE 1 1/2 MILE REACH OF THE HOUSATONIC RIVER

RESTORATION PLANTING PLAN FOR PHASE 4 - GROUP 4C

TETRA TECH

FIGURE 7

APPENDICES

Appendix A
East Street Area 2 – North Inspection Summary and Checklist

INSPECTION SUMMARY AND CHECKLIST
EAST STREET AREA 2-NORTH REMOVAL ACTION AREA
REMAINDER OF EAST STREET AREA 2-NORTH

I. GENERAL INFORMATION

Inspection Date:	5/25/2016
Conducted By/Phone Number:	Pat McGuire (315 420-5629)
Weather Conditions:	Sunny, 70-85°F
Date of Last Inspection:	5/14/2015

II. INSPECTION SUMMARY

1. Backfilled/Restored Areas *(Note evidence of topsoil or gravel erosion [depending on cover type], depressions and/or surface water ponding, any areas where excessive settlement has occurred relative to the surrounding areas, any drainage or growth problems, and other conditions that could jeopardize the performance of the completed remediation actions)*

All areas in good condition

2. Other Ground-Covering Feature Area and Other Paved/Building Foundation Areas (Inspect the areas shown on Figure 6 of the Final Completion Report as Other Ground-Covering Feature Area, as well as the Slab Area and Building Demolition Barrier Area, and note evidence of any of the following: (i) excessive cracking, fissures, spalling, rutting, potholes, or other exposed subgrade material; (ii) in such areas that were subject to remediation activities, exposed subbase materials, excessive settlement relative to the surrounding areas, any drainage problems, and other conditions that could jeopardize the performance of the completed remediation; (iii) in the Slab Area, the condition of the 3-inch asphalt cover in place over the slabs of former Buildings 3B and 7 to ensure that the pavement is intact and that there is no exposed concrete; and (iv) in areas that constitute the Building Demolition Barrier Area (i.e., the two discrete areas that are located inside of existing Buildings 12X and 12Y), the overall condition of the engineered barrier surface, and any conditions which could compromise the integrity of the barrier surface area)

The following locations in paved and concrete areas were identified as needing repair by patching.

- Two locations in the concrete slab in the southwestern corner of the former Building 9-B slab (Area 1 on Figure 2);
- A single area in the pavement southwest of the former Building 9-B slab (Area 2 on Figure 2);
- Two locations in the southwestern corner of the former Building 9-B slab (Area 3 on Figure 2);
- Two locations on the former Building 9-B slab (Area 4 on Figure 2);
- Four locations south of former Building 9-E (Area 5 on Figure 2);
- Three locations between former Building 14-C and former Building 9-E (Area 6 on Figure 2)
- One small areas northwest of former Building 9-E and northeast of former Building 14-C (Area 7 on Figure 2);
- Three small areas south of Building 14-E (Area 8 on Figure 2); and
- One small area south of Building 12-X (Area 9 on Figure 2).

3.

Soil Cover Areas *(For paved areas or building foundations that are covered with an appropriate soil cover, inspect for evidence of topsoil erosion; the effectiveness of erosion controls in areas where vegetation is not established; during the semi-annual vegetation inspections conducted during the two-year period after planting, the establishment, coverage, and condition of the vegetation planted on the soil cover; depressions and/or surface water ponding; areas where excessive settlement has occurred relative to the surrounding areas; any drainage or growth problems due to possible over-compaction of the soil cover materials; and other conditions that could jeopardize the soil cover)*

NA - No such areas have

4.

Other Observations *(Note any other general observations, including parcel-specific restoration activities. In addition, if significant erosion is observed at any location in this portion of the RAA that could change the post-remediation topography and alter the depth intervals to which the Performance Standards apply, note that condition. Lastly, if any portion of the perimeter fencing is observed to not be intact or is otherwise compromised, note that condition as well.)*

- All maintenance items identified during the May 2015 inspection, as described in GE's June 12, 2015 report, had been completed.
- Saplings were observed growing on the former Building 9-B slab.

III. FOLLOW-UP MAINTENANCE AND REPAIR ACTIVITIES

- Patch two locations in the concrete slab in the southwestern corner of the former Building 9-B slab;
- Patch single area in the pavement southwest of the former Building 9-B slab;
- Patch two locations in the southwestern corner of the former Building 9-B slab;
- Patch two locations on the former Building 9-B slab;
- Patch four locations south of former Building 9-E;
- Patch three locations between former Building 14-C and former Building 9-E
- Patch one small areas northwest of former Building 9-E and northeast of former Building 14-C;
- Patch three small areas south of Building 14-E;
- Patch one small area south of Building 12-X; and
- Remove saplings from former Building 9-B slab.

Appendix B
East Street Area 2 – South Inspection Summary and Checklist

INSPECTION SUMMARY AND CHECKLIST

EAST STREET AREA 2-SOUTH

I. GENERAL INFORMATION

Inspection Date:	5/25/2016
Conducted By/Phone Number:	Pat McGuire (315 420-5629
Weather Conditions:	Sunny 65° - 85F
Date of Last Inspection:	9/1/2015

NA Check here to confirm that the Post-Removal Site Control activities for the City Recreational Area have been performed (if necessary). (Most recent inspection performed on September 10, 2014.)

x Check here to confirm that Figures 6 and 7 of the *Final Completion Report for the East Street Area 2-South Removal Action* and the as-built survey drawings provided in Appendix D of that document have been reviewed in the field during the inspection

II. INSPECTION SUMMARY

1. Engineered Barrier Area

A. **Vegetated Portion of Engineered Barrier Area** *(Note any physical changes since last inspection, including evidence of the following conditions that would affect the integrity of the barrier components: topsoil erosion, bare or sparsely vegetated areas, deficiencies in the soil layer overlying the synthetic cover components [e.g., excessive erosion, surface water ponding, depressions, exposed synthetic cover components, vehicle ruts, or other abnormalities], damage to synthetic cover components, uneven settlement relative to surrounding areas, or other conditions that could jeopardize the integrity of the barrier [e.g., animal burrows, unauthorized excavation, etc.].)*

NA

B. **Engineered Barrier Access Road** *(Note any physical changes since last inspection, including: excessive cracking, fissures, spalling, or potholes; evidence of uneven settlement, depressions, surface water ponding, excessive rutting, or exposed sub-base or exposed sub-grade materials; presence of nuisance vegetation [weeds]; damage to synthetic cover components; or other conditions that could jeopardize the integrity of the barrier.)*

NA

C. **Surface Water Diversions and Perimeter Drainage System Discharge Locations** *(Verify the proper function and integrity of these structures and evaluate whether drainage through or discharges from the outlets are causing erosion; inspect drainage swales and discharge locations for the accumulation of solids (if excessive, attempt to identify the source of the accumulated solids); evaluate whether there has been significant movement of riprap or reduction in riprap thickness that threatens the integrity of these structures or results in the erosion of underlying soils or sediment or the exposure of underlying geotextile fabric; also inspect drainage swales for the presence of tree saplings.)*

NA

2. Open Soil/Vegetated Area

A. **Backfilled/Restored Areas** (*Note any physical changes since last inspection, including evidence of topsoil or gravel erosion, effectiveness of erosion controls [in areas, if any, where vegetation is not established], depressions, surface water ponding/drainage problems, excessive settlement, burrows, vehicle ruts, and unauthorized excavations.)*

NA

B. **Vegetation** *(Note any physical changes since last inspection, including general condition of vegetative cover [e.g., evidence of stressed/sparse cover], trees/shrubs planted during the restoration activities, and tree guards/cages/stakes [where present]. Determine the percent survivorship of planted trees/shrubs, and measure and record the size of all trees and shrubs subject to inspection.)*

Results of the inspection, tree counting and observation activities indicate that all of the trees subject to inspection (a total of 10 plantings) were surviving and in good condition. Attached Tables B-1 through B-6 summarizes the results of the inspection.

3. Enhanced Pavement Area

Enhanced Pavement Area *(Note any physical changes since last inspection, including evidence of excessive cracking, fissures, spalling, rutting, exposed sub base or exposed sub-grade materials, potholes, heaving, uneven settlement, presence of nuisance vegetation (weeds); depressions or surface water ponding/drainage problems; excessive settlement relative to the surrounding areas; or other conditions that could jeopardize the performance of the enhanced pavement, as designed.)*

NA

4. Other Ground-Covering Feature Area

A. **Paved Areas to be Maintained by GE** *(Note any physical changes since last inspection, including: (1) in all such areas, evidence of excessive cracking, fissures, spalling, rutting, potholes, heaving, uneven settlement, exposed sub-grade or sub-base materials, or the presence of nuisance vegetation (weeds); and (2) in areas that were subject to remediation activities, excessive settlement relative to the surrounding areas, any drainage problems, and other conditions that could jeopardize the performance of the completed remediation.)*

NA

B. **Paved Areas and Foundation Slabs of Former (Demolished) Buildings Covered with Soil and Grass (or Riprap on a Portion of the Former Building 66 Slab)** *(Note any physical changes since last inspection, including: evidence of soil erosion; effectiveness of erosion controls [in areas, if any, where vegetation is not established]; the establishment, coverage, and condition of the vegetation planted on the soil cover [during the two-year vegetation inspection period]; evidence of depressions, surface water ponding, excessive settlement relative to surrounding areas, and/or drainage or growth problems; evidence of gaps in the riprap placed on a portion of the former Building 66 slab; or other conditions that could jeopardize the soil cover [e.g., animal borrows, unauthorized excavation, etc.].)*

NA

INSPECTION SUMMARY AND CHECKLIST

EAST STREET AREA 2-SOUTH

II. INSPECTION SUMMARY (continued)

5. Groundwater Recharge Pond Area *(Note any evidence, since last inspection, of disturbance, filling, or active drawdown of the water in the pond or other interference with the pond's function of providing hydraulic control of non-aqueous-phase liquid.)*

NA

6. Other Observations *(Confirm that repair/maintenance measures identified during prior inspection have been performed; note any other general observations, including area-specific restoration activities.)*

NA

III. FOLLOW-UP MAINTENANCE AND REPAIR ACTIVITIES

No followup maintenance is required

TABLE B-1
SUMMARY OF TREE/SHRUB OBSERVATIONS - PLANTING AREA: 1 - QUAKING ASPEN*(POPULUS TREMULOIDES)*

SUMMARY OF May 2016 INSPECTION ACTIVITIES FOR EAST STREET AREA 2 - SOUTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Tree	Height (ft.)	Condition of Tree	Condition of Tree Cage, Guard, and Stakes (where present)	Comments
5	4	Good	NA	Replanted 10/14
6	6	Good	NA	Replanted 10/14
7	5	Good	NA	Replanted 10/14

Average Height (ft.):	**5.0**
Height Range (ft.):	**4- 6**
Total Tree Count:	**3**

TABLE B-2
SUMMARY OF TREE/SHRUB OBSERVATIONS - PLANTING AREA: 1 - COTTONWOOD *(POPULUS DELTOIDES)*

SUMMARY OF May 2016 INSPECTION ACTIVITIES FOR EAST STREET AREA 2 - SOUTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Tree	Height (ft.)	Condition of Tree	Condition of Tree Cage, Guard, and Stakes (where present)	Comments
1	5	Good	NA	Replanted 10/14

Average Height (ft.):	**5.0**
Height Range (ft.):	**--**
Total Tree Count:	**1**

TABLE B-3
SUMMARY OF TREE/SHRUB OBSERVATIONS - PLANTING AREA: 8 - COTTONWOOD *(POPULUS DELTOIDES)*

SUMMARY OF May 2016 INSPECTION ACTIVITIES FOR EAST STREET AREA 2 - SOUTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Tree	Height (ft.)	Condition of Tree	Condition of Tree Cage, Guard, and Stakes (where present)	Comments
1	5	Good	NA	Replanted 10/14

Average Height (ft.):	**5.0**
Height Range (ft.):	**--**
Total Tree Count:	**1**

TABLE B-4
SUMMARY OF TREE/SHRUB OBSERVATIONS - PLANTING AREA: 9 - BOX ELDER *(ACER NEGUNDO)*

SUMMARY OF May 2016 INSPECTION ACTIVITIES FOR EAST STREET AREA 2 - SOUTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Tree	Height (ft.)	Condition of Tree	Condition of Tree Cage, Guard, and Stakes (where present)	Comments
3	4	Good	NA	Replanted 10/14

Average Height (ft.):	**4.0**
Height Range (ft.):	**NA**
Total Tree Count:	**1**

TABLE B-5
SUMMARY OF TREE/SHRUB OBSERVATIONS - PLANTING AREA: 9 - COTTONWOOD *(POPULUS DELTOIDES)*

SUMMARY OF May 2016 INSPECTION ACTIVITIES FOR EAST STREET AREA 2 - SOUTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Tree	Height (ft.)	Condition of Tree	Condition of Tree Cage, Guard, and Stakes (where present)	Comments
4	6	Good	NA	Replanted 10/14

Average Height (ft.):	**6.0**
Height Range (ft.):	**NA**
Total Tree Count:	**1**

TABLE B-6
SUMMARY OF TREE/SHRUB OBSERVATIONS - PLANTING AREA: 11 - QUAKING ASPEN*(POPULUS TREMULOIDES)*

SUMMARY OF May 2016 INSPECTION ACTIVITIES FOR EAST STREET AREA 2 - SOUTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Tree	Height (ft.)	Condition of Tree	Condition of Tree Cage, Guard, and Stakes (where present)	Comments
5	5	Good	NA	Replanted 10/14
6	6	Good	NA	Replanted 10/14
7	4	Good	NA	Replanted 10/14

Average Height (ft.):	**5.0**
Height Range (ft.):	**4 - 6**
Total Tree Count:	**3**

Appendix C
Building 71 and Hill 78 On-Plant Consolidation Areas Inspection

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
BUILDING 71 AND HILL 78 ON-PLANT CONSOLIDATION AREAS (OPCAs)

INSPECTION FORM

I. Inspection Information

Inspection Date: May 25, 2016 — Weather Conditions: Sunny, light breeze

Inspection Area: Building 71 OPCA/Hill 78 OPCAs and Select Ancillary Site Components

Performed by: Pat McGuire — Phone Number: 315 420-5629 — E-mail address: pat.mcguire2@tetratech.com
Richard Gates

Observed by: Izabela Zapisek

Time Arrived: 12:00 AM — Time Departed: 12:00 AM

Date of Prior Inspection: September 24,2015

Check to confirm that Figure 2 of the Revised Post-Removal Site Control Plan (including revisions to that figure) was reviewed in the field during the inspection: ___x___

II. Observations

	Column A	Column B
A. Site Access Road		
1. Is there excessive cracking, potholes, visible fissures, or spalling?	No	Yes
2. Are the subbase materials exposed in an unsatisfactory manner?	No	Yes
3. Is there evidence of depressions and/or surface water ponding?	No	Yes
4. Is there evidence of excessive rutting?	No	Yes
B. Final Cover Access Road		
1. Is there excessive erosion or rutting of road surface?	No	Yes
2. Is there undesirable vegetative growth?	No	Yes
C. Site Security		
1. Are the access gates and locks in operating condition?	Yes	No
2. Is the perimeter fence in satisfactory condition (i.e., in proper position, adequately secured to fence posts, etc.)?	Yes	No
3. Are the posted signs on the perimeter fence securely attached to fence and visible?	Yes	No
D. Final Cover System		
1. Are there bare spots (void of vegetation) or areas of sparse vegetation?	No	Yes
2. Is there evidence of stressed vegetation?	No	Yes
3. Are there exposed geosynthetic cover components?	No	Yes
4. Is there evidence of topsoil erosion or other excessive erosion?	No	Yes
5. Is there evidence of tree or shrub growth or other undesirable vegetative growth?	No	Yes
6. Is there visible evidence of damage to the geosynthetic cover components?	No	Yes
7. Is there evidence of burrowing animals?	No	Yes
8. Is there evidence of uneven settlement?	No	Yes
9. Is there evidence of ponding water conditions?	No	Yes
10. Is there evidence of excessive wheel rutting?	No	Yes
11. Are the slopes adequate for surface water drainage?	Yes	No
12. Are the cover system drainage layer outlet pipes (anchor trench and final cover) at all fifteen locations visible and free of obstructions?	Yes	No
13. Is there evidence of soil movement or slope instability (e.g., cracks in the soil cover running parallel to the slope or soil sloughing)?	No	Yes
14. Is there evidence of unauthorized excavations?	No	Yes
E. Surface Water Drainage System (Including all features/components conveying stormwater from the vicinity of the OPCAs through culvert under old Merrill Road)		
1. Are the following elements of the surface water drainage system visible and free of excessive sediment, debris buildup, blockages, and damage:		
a. The outlet of the south stormwater basin, the outlet of the pipe that conveys water from that basin to the drainage ditch, and the full length of the drainage ditch that discharges into the eastern riprap swale located south of the Hill 78 OPCA?	Yes	No
b. The outlet of the drain from the General Dynamics parking lot that conveys stormwater to the north stormwater basin and the outlet (i.e., riprap forebay and concrete manhole) from that basin?	Yes	No
c. The entire length of the OPCA mid-slope drainage swales and perimeter drainage ditches, including inlets and outlets for the seven drainage culverts associated with these drainage swales and perimeter drainage ditches?	Yes	No
d. The riprap surrounding the stormwater manhole at the northwest corner of the Hill 78 OPCA?	Yes	No
e. The full length of the eastern riprap swale located south of the Hill 78 OPCA, the associated detention basin, and the opening for the culvert conveying stormwater under old Merrill Road?	Yes	No
2. Does established vegetation in the OPCA mid-slope swales and perimeter drainage ditches provide adequate erosion protection?	Yes	No
3. Are there bare spots (i.e., areas void of vegetation) or excessive erosion on stormwater basin berm slopes?	No	Yes
F. Leachate Handling System		
1. Is the leachate collection/pump manhole (wet well) in satisfactory condition?	Yes	No
2. Have the pumps on the wet well been tested?	Yes	No
3. Are the pumps on the wet well in operating condition?	Yes	No
4. Have the float levels on the wet well been tested?	Yes	No
5. Are the float levels on the wet well in operating condition?	Yes	No
6. Is the high-level alarm on the wet well functional?	Yes	No
7. Is the leak detection alarm on the wet well functional?	Yes	No
8. Are the leachate transfer pipes in satisfactory condition?	Yes	No
9. Are the leachate holding tanks in satisfactory condition?	Yes	No
10. Is the high-level alarm on each leachate holding tank functional?	Yes	No
11. Is the leak detection alarm on each leachate holding tank functional?	Yes	No
12. Has the auto dialer warning system for the two holding tanks and the wet well been tested?	Yes	No
13. Is the auto dialer warning system in operating condition?	Yes	No

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
BUILDING 71 AND HILL 78 ON-PLANT CONSOLIDATION AREAS (OPCAs)

INSPECTION FORM

G. Perimeter Vegetation and Tree Plantings			
1.	Are there bare spots (void of vegetation) or areas of sparse vegetation in the Perimeter Vegetated Area?	NA	Yes
2.	Is there evidence of stressed vegetation in the Perimeter Vegetated Area?	NA	Yes
3.	Is there evidence of topsoil erosion or other excessive erosion in the Perimeter Vegetated Area?	NA	Yes
4.	Is there any evidence of drainage problems in the Perimeter Vegetated Area?	NA	Yes
5.	Is there evidence that any trees planted in the Perimeter Vegetated Area or other areas around the OPCAs are dead, dying, or stressed (during applicable monitoring period)?	NA	Yes
6.	Are any dead or dying trees in the Perimeter Vegetated Area or any other area around the OPCAs adversely affecting the visual barrier between the OPCAs and the surrounding community?	No	Yes
7.	Is there evidence of undesirable vegetative growth affecting any of the planted trees around the OPCAs?	No	Yes
8.	Is there trash or debris in the Perimeter Vegetated Area or along the north side of Tyler Street Extension?	No	Yes
H. Other			
1.	Was any significant erosion observed anywhere within the OPCA Removal Action Areas?	No	Yes
2.	Are there any additional conditions observed during the inspection that require attention?	No	Yes

III. Inspection Observations

Describe observations from Column B in Section II. Use additional pages if necessary.

D1. Several areas of bare/sparse vegetation were observed along the western and southwestern sideslopes of the Hill 78 OPCA vegetative cover, where Cypress spurge had been previously treated and along the southern berm of Building 71 OPCA where the drainage swale was repaired.

D5. There are several areas on the sideslope of Hill 78 OPCA where Cypress spurge is growing outside the NRRE treatment area. In addition, two trees are present within the OPCA: one near the southern corner of Hill78/Building 71 transition boundary and the other near the northern perimeter of Building 71 OPCA.

D7. Nine suspected woodchuck burrow holes weres observed along the northern perimeter of Hill 78 and Building 71 OPCAs, in the southeast corner of Building 71 OPCA, and on the southern perimeter of Building 71 OPCA.

H2. Erosion and sedimentation control logs used during the Hill 78 OPCA slope repair were observed present along the southern sideslope of the OPCA.

IV. Inspection Response Actions

Describe response actions to be conducted for each observation noted in Section III above. Use additional pages if necessary.

D1. Observed areas of sparse vegetation will be monitored for growth at the October 2016 inspection. If growth is not observed the areas will be reseeded and mulched.

D5. Cypress spurge growth observed on the Hill 78 OPCA will be sprayed using Roundup.

D5. Trees will be removed.

D7. The woodchucks will be removed and the holes filled with topsoil, re-seeded and mulched.

H2. The erosion and sedimentation control logs will be removed.

V. Prior Inspections

Describe response actions conducted to address prior maintenance needs.

D1. Observed areas of bare/sparse vegetation were reseeded and mulched.

D7. Woodchuck was removed and the borrow hole was filled, topsoiled, re-seeded.

VI. Other

Photo #1: View of Woodchuck hole in the western berm of the Building 71 OPCA (photo direction West).

Photo #2: View of Woodchuck hole in the western berm of the Building 71 OPCA (photo direction West).

Client: General Electric
Project Name: Building 71 and Hill 78 OPCAs
Project Location: Pittsfield, Massachusetts

Photo #3: View of western perimeter fence line along the western side of the Building 71 OPCA (photo direction North).

Photo #4: View of southern berm of the Building 71 OPCA (photo direction West).

Photo #5: View of berm along the west side of the Building 71 OPCA (photo direction East).

Photo #6: View of North Stormwater Basin drain pipes (photo direction West).

Photo #7: View of leachate collection cleanout pipe of the Building 71 OPCA (photo direction South).

Photo #8: View of Eastern berm of Building 71 OPCA (photo direction South).

Photo #9: View of leachate collection tanks (photo direction West).

Photo #10: View of Anchor trench drain pipes in berm of Building 71 OPCA (photo direction North).

Photo #11: View of drainage ditch along southern edge of Building 71 OPCA (photo direction East).

Photo #12: View of southern berm of Building 71 OPCA (photo direction West).

Photo #13: View of sediment and erosion control logs along southern edge of Building 71 OPCA (photo direction North).

Photo #14: View of sediment and erosion control logs along southern edge of Building 71 OPCA (photo direction North).

Photo #15: View of southern berm of Building 71 OPCA (photo direction North).

Photo #16: View of access road to top of Building 71 OPCA (photo direction North).

Photo #17: View of Building 9B Slab-Vegetation Removed.

Photo #18: East Street Area 2 North Pavement Repair.

Client: General Electric
Project Name: May Inspections
Project Location: Pittsfield, Massachusetts

Photo #19: Pavement Repair Between Buildings 9B and 9F.

Photo #20: OPCA Erosion Control Removed.