



**FINAL
LAND USE CONTROL IMPLEMENTATION PLAN
ADDENDUM**

**FORMER OAK AND MAPLE HOUSING AREAS
AND A PORTION OF THE FORMER GRANT HOUSING
AREA ("RESTRICTED AREA")**

FORMER FORT DEVENS ARMY INSTALLATION, DEVENS, MA

APRIL 2021

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LIST OF ATTACHMENTS

- Attachment A: Figures Depicting the Portion of the Former Grant Housing Area (subject to 2009 ROD/2011 LUCIP LUCs) that is suitable for residential use, the Former Impact Area (subject to 2009 ROD/2011 GERE LUCs), and the former Oak, Maple and a Portion of the former Grant Housing Areas (i.e., "Restricted Area") (subject to 2021 LUCIP Addendum/NAUL/SSSMP LUCs), all in relation to Devens
- Attachment B-1: Legal Description of LUC Boundary of the Former Oak, Maple and a Portion of the Former Grant Housing Areas ("Restricted Area")
- Attachment B-2: Figure Depicting LUC Boundary of the Former Oak, Maple and a Portion of the Former Grant Housing Areas ("Restricted Area")

LIST OF EXHIBITS

- Exhibit A: Reports Related to the Assessment, Investigation and/or Removal of UXO and other MEC at the Former Oak and Maple Housing Areas
- Exhibit B: Final MEC Clearance and Construction Support Work Plan for the Former Oak and Maple HAs - July 2016
- Exhibit C: Final MEC Summary Completion Report Former Oak and Maple HAs - May 2017
- Exhibit D: Site-Specific Soil Management Plan (SSSMP) for the Former Oak, Maple and a Portion of the Former Grant HAs ("Restricted Area") - April 2021
- Exhibit E: Notice of Activity and Use Limitation (NAUL) for the Restricted Area
- Exhibit F: Annual LUC Inspection Checklist for the Restricted Area
- Exhibit G: Educational Materials - Utility Bill Insert for the Restricted Area
- Exhibit H: Signage Locations in the Restricted Area
- Exhibit I: LUCIP Addendum Implementation Schedule

LIST OF ACRONYMS AND ABBREVIATIONS

Army	United States Department of the Army
BCT	Base Realignment and Closure (BRAC) Cleanup Team
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DEC	Devens Enterprise Commission
DoD	Department of Defense
DREZ	Devens Regional Enterprise Zone
EOD	Explosive Ordnance Disposal
EPA	United States Environmental Protection Agency
ESD	Explanation of Significant Differences
FFA	Devens Federal Facility Agreement
FFS	Focused Feasibility Study
GERE	Grant of Environmental Restrictions and Easements
HA	Housing Area
HFA	Human Factor Applications
HGL	HydroGeoLogic, Inc.
LUC	Land Use Control
LUCIP	Land Use Control Implementation Plan
MassDEP	Massachusetts Department of Environmental Protection
MassDevelopment	Massachusetts Development Finance Agency
MD	Munitions Debris
MDAS	Materials Documented as Safe
MDEH	Materials Documented as an Explosive Hazard
MEC	Munitions and Explosives of Concern
mm	millimeter
MMRP	Military Munitions Response Program
MPPEH	Materials Potentially Presenting an Explosive Hazard
NAUL	Notice of Activity and Use Limitation
PA	Preliminary Assessment
RAO	Response Action Objective
RCWM	Recovered Chemical Warfare Material
RI	Remedial Investigation
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SI	Site Inspection

SSSMP
SSI

Site-Specific Soil Management Plan
Supplemental Site Investigation

USACE
UU/UE
UXO

U.S. Army Corps of Engineers
unrestricted use and unlimited exposure
unexploded ordnance

FINAL

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**FORMER OAK, MAPLE AND A PORTION OF THE FORMER
GRANT
HOUSING AREAS**

**FORMER FORT DEVENS ARMY INSTALLATION,
DEVENS, MASSACHUSETTS**

1.0 INTRODUCTION AND PURPOSE

This Land Use Control Implementation Plan (LUCIP) Addendum is prepared pursuant to the *Final Explanation of Significant Differences for Grant Housing Area and 37-MM Impact Area, Former Fort Devens Army Installation, Devens, MA*, dated September 2014 (2014 ESD), to address the former Oak and Maple Housing Areas (Oak and Maple HAs), collectively referred to by EPA as Operable Unit (OU) 13. The Grant Housing Area (Grant HA) and 37-mm Impact Area (Impact Area) Record of Decision (ROD) was signed by the United States Department of the Army (Army) and the United States Environmental Protection Agency (EPA) in September 2009 (2009 ROD). The Grant HA and Impact Area are collectively referred to by EPA as OU12.

1.1 SITE BACKGROUND

Historical records indicate that training (physical and tactical as well as use of military equipment), including the use of military munitions, occurred throughout the history of Fort Devens, including prior to the late 1950s in the area of the former Grant, Oak and Maple HAs. A 37-mm range was located along the western boundary of the Grant HA with an impact area on the northern slope of Oak Hill. Historical documentation indicates that the range was likely used between World War I and World War II; however, with the construction of Hospital Road in the 1930s, the range was likely closed around that time for safety reasons. Military training continued through the late 1950s when base housing was constructed, and training activities ceased.

Based on recommendations in a 2008 Preliminary Assessment/Site Inspection (PA/SI) and Supplemental Site Investigation (SSI) Report for the Grant HA, a MEC Remedial Investigation (RI) of the former Oak and Maple HAs was conducted in 2010 and 2011 (HydroGeoLogic, Inc. [HGL], 2012) to evaluate areas thought to have the greatest likelihood of MEC discovery. The investigation determined that the probability of encountering MEC within the previously developed former Oak and Maple HAs is low based on the number of anomalies investigated (3,647) versus the number of MEC found (1) and the fact that previous investigations performed for the former 37-mm range overlapped portions of the Oak and Maple HAs.

Upon conclusion of the MMRP RI, Army, in consultation with EPA and the Massachusetts Department of Environmental Protection (MassDEP), evaluated remedial alternatives to protect current and future owners, lessees, tenants, construction and/or utility workers, and the public from direct contact with remnant UXO and other MEC potentially remaining within the Oak and Maple HAs.

The Grant HA and Impact Area Record of Decision (ROD) was signed by Army and EPA in September 2009. In May 2011, a Land Use Control Implementation Plan (LUCIP) was issued for the Grant HA and 37-mm Impact Area, that outlined the process for implementing the Land Use Controls (LUCs) (i.e., institutional controls, prohibitive directives and other measures) required per the 2009 ROD to address potential risks from remnant UXO and other MEC that may remain on these properties from historic military training activities. In accordance with the 2009 ROD, institutional controls, access restrictions, and prohibitive directives for the former Impact Area are implemented in accordance with the Grant of Environmental Restrictions and Easement (GERE) issued by MassDEP in December 2011 ("2011 GERE"). The 2011 GERE prohibits, in perpetuity, the excavation, removal, or disturbance of any soil or other ground intrusive activity and/or use or redevelopment of the former Impact Area for any purpose, with very limited exceptions. *This 2021 LUCIP Addendum does not alter, modify or amend in any way the Impact Area LUCs.*

In September 2014, an Explanation of Significant Differences (ESD) was signed, incorporating the former Oak and Maple HAs into the former Grant HA and Impact Area ROD by expanding the scope of LUCs to address potential risks resulting from different levels of MEC investigation and clearance activities performed and potential hazards associated with the future use of the former Oak and Maple HAs for commercial and/or industrial purposes. Reports related to the

assessment, investigation and/or removal of UXO and other MEC at the Former Oak and Maple Housing Areas are listed in Exhibit A, as well as in Exhibits B and C.

1.2 LAND AFFECTED

Between 1917 and the 1930s, the Army used the Grant HA, the Impact Area and a portion of the Oak HA for military training activities. The former HAs and Impact Area were conveyed to the Massachusetts Development Finance Agency (MassDevelopment), pursuant to deeds issued in 1996, and 2003. All deeds indicated that remnant UXO and other MEC may remain on these properties from historic military activities. Redevelopment plans included residential use in the entire former Grant HA, commercial (innovation and technology business) use in the former Oak and Maple HAs, and restricted use in the Impact Area. The former Oak and Maple HAs along with the commercially rezoned portion of the former Grant HA, collectively comprise the “Restricted Area” that is the subject of this 2021 LUCIP Addendum. Because the LUC requirements for Oak and Maple HAs are more restrictive and add additional controls beyond the LUCs applied to the Grant HA pursuant to the 2009 ROD, these LUCs may be applied to the portion of the Grant HA that is now part of the Restricted Area.

This 2021 LUCIP Addendum is not intended to alter, modify or amend in any way the LUCs for the Impact Area implemented pursuant to the 2009 ROD, 2011 LUCIP and 2011 GERE¹. The Restricted Area subject to the LUCs in this 2021 LUCIP Addendum does not include the Impact Area. In addition this 2021 LUCIP Addendum is not intended to alter, modify or amend in any way the LUCs for the portion of the former Grant HA that is not part of the Restricted Area.

Figures showing the portion of the former Grant HA (that remains subject to 2009 ROD/2011 LUCIP LUCs permissible of unrestricted/residential use), the former Impact Area (subject to 2009 ROD/2011 GERE LUCs), and the Restricted Area (subject to 2014 ESD, 2021 LUCIP Addendum, NAUL and SSSMP) in relation to Devens are included in Attachment A. The legal description and figure illustrating the LUC boundaries of the Restricted Area are included in Attachments B-1 and B-2.

¹ The purpose of the GERE is to establish covenants and restrictions and to convey to the MassDEP real property rights involving access and enforcement, all of which shall run with the land in perpetuity, to facilitate the remediation of environmental contamination, and to protect human health and the environment by reducing the risk of exposure to contaminants as specified in the 2009 ROD and 2011 LUCIP.

2.0 LAND USE CONTROLS FOR THE RESTRICTED AREA

The following affirmative measures, institutional controls, access restrictions, and prohibitive directives, originally specified in the 2014 ESD for the former Oak and Maple HAs, now apply to the entire Restricted Area:

- a) **Deed Notices - Inclusion of Prohibition of Residential Reuse.** A prohibition of residential reuse will be enforced through a deed notice that prohibits construction of single family or multi-family residences; child care facilities and any type of facility or use for children or young adults through grade 12; and, nursing home or assisted living facilities within the boundaries of the Restricted Areas. The deed notice to be used for the Restricted Area shall be a "Notice of Activity and Use Limitation," (NAUL) issued pursuant to Massachusetts General Laws ch. 21E sec 6 and implementing regulations at 310 CMR 40.0111 and 310 CMR 40.1074(5). The prohibition on residential reuse is warranted based on potential human health risks and explosive safety hazards associated with UXO or other MEC that may still be present in these areas and will be enforced through the NAUL. MassDevelopment will record the NAUL in the chain of title for all deeds in which MassDevelopment conveys property located in the Restricted Area (or a portion thereof). The NAUL shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer, whereby an interest in and/or a right to use the Restricted Area or a portion thereof is conveyed in accordance with 310 CMR 40.1074(5). As a result, all subsequent deeds conveying Restricted Area property (no matter who conveys) will convey subject to the residential prohibition. The NAUL prohibiting residential reuse is necessary until such time that the hazard associated with potential remnant UXO or other MEC in the Restricted Area soils, as identified in the 2009 ROD and 2014 ESD, is at levels that allow for unrestricted use and unlimited exposure (UU/UE). A copy of the NAUL to be placed on the chain of title is included in Exhibit E. Copies of the executed NAUL will be inserted in Exhibit E upon recording in the Worcester County Registry of Deeds.
- b) **Notice of Activity and Use Limitation to Address the Potential Presence of UXO and Other MEC.** MassDevelopment, the current owner of the Restricted Area, will prepare and record a NAUL approved by the Army, MassDEP and EPA on the title

held by MassDevelopment for the Restricted Area property. The Army, in consultation with EPA and MassDEP, worked with MassDevelopment to ensure the NAUL includes all ROD/ESD-required LUCs. The Army retains ultimate responsibility for implementing, maintaining, and reporting on LUCs (including compliance with the NAUL) to ensure remedy integrity. A copy of the draft NAUL to be executed and recorded by MassDevelopment for the Restricted Area is included in Exhibit E. Copies of the executed NAUL will be inserted in Exhibit E upon recording in the Worcester County Registry of Deeds.

Nothing contained herein shall preclude MassDevelopment or future owners from undertaking, in accordance with applicable laws and regulations, additional remediation necessary to allow for residential use (i.e., unrestricted use/unlimited exposure (UU/UE) provided that upon completion of such remediation, a Massachusetts Licensed Site Professional renders an opinion that the Restricted Area is suitable for said use and such opinion is approved by EPA and MassDEP. In addition, upon receiving EPA and MassDEP approval, Army shall prepare and submit to EPA and MassDEP for review and comment, a ROD Amendment to permanently remove the land-use restrictions and other institutional controls, as applicable, required in the 2009 ROD and 2014 ESD.

- c) **Public Education Through Distribution of Educational Materials, Live Information Sessions, and Web-based Visual and Audio Media.** Army must expand all planned and ongoing information distribution to include the Restricted Area. Consistent with requirements set forth in Section 2.0(b)(1) of the 2011 LUCIP, Army shall cause the operator of the electric utilities at Devens to include, at least annually, an educational insert in electric utility bill mailings to owners, lessees and/or tenants of commercial buildings/establishments within the Restricted Area who receive an electric bill. The inserts shall also be included in the first bills to any new owner, lessee and/or tenant. In addition, Army shall cause the insert to be posted in an 11" x 17" permanent laminated format on a kiosk or a community bulletin board located in a central public location within or near the Restricted Area (or, if a central public space does not yet exist, the kiosk or bulletin board shall be located in the area where the construction activity is occurring, provided that the Army shall relocate such kiosk or bulletin board once a central public space has been created). The insert, and postings on any

such kiosk or bulletin board, will identify the historical military use of Devens, the potential presence of UXO, locations where UXO are more likely to be encountered (Impact Area vs. former HAs), how to identify UXO, how to minimize the potential of encountering UXO, what actions to take if suspect UXO is encountered and opportunities for further education (including websites and awareness briefing). Army shall ensure that the utility insert created for the former Grant HA and Impact Area is amended to include a discussion of the Restricted Area and submitted to EPA and MassDEP for review and concurrence within the timeframe specified in Exhibit I – LUCIP Addendum Implementation Schedule. Upon receipt of EPA and MassDEP approval, the updated inserts should be reproduced for inclusion in the next annual mailing (or initial utility bill) to property owners, lessees, and/or tenants in the Restricted Area and displayed in existing kiosks and community bulletin boards. In addition, a copy of the revised insert should replace the existing insert included in Exhibit G and date of the last annual mailing should be recorded in the Annual LUC Inspection Checklist in Exhibit F for inclusion in the next Annual LUC Inspection Report. All live information sessions and web-based visual and audio media previously created for the former Grant HA and former Impact Area must also be updated to include information pertaining to the Restricted Area.

d) Construction-Related and Intrusive Soil Activities.

- i. Provision of Site-Specific Soil Management Plan. The Army (or its designee) will distribute to all construction and/or utility personnel at the time of application for a building permit a current copy of the *Site-Specific Soil Management Plan for the Former Oak, Maple and Portion of the Former Grant Housing Areas* (see Exhibit D) containing the process and procedures required to ensure proper management of soils generated during the performance of construction-related and/or intrusive soil activity involving the disturbance, excavation, removal and/or relocation of soils on any portion of the Restricted Area and protocol and procedures to follow if UXO/MEC is encountered or suspected during the performance of any construction-related and/or intrusive soil activity in the Restricted Area.
- ii. Provision of UXO/MEC Awareness Briefing. The Army (or its designee) will ensure that prior to commencing any construction-related and/or intrusive soil activity involving the disturbance, excavation, removal and/or relocation of soils

on any portion of the Restricted Area, all personnel conducting, overseeing and/or supervising construction-related and/or intrusive soil activity involving the disturbance, excavation, removal and/or relocation of soils on any portion of the Restricted Area have successfully completed the required Devens UXO/MEC Awareness Briefing² conducted by the Army (or its designee) designed to instruct personnel how to visually recognize UXO and the steps to follow should suspect UXO be encountered or suspected. The Devens UXO/MEC Awareness Briefing is currently conducted by the Devens Fire Department. This Briefing will also be made available to any owner/occupant of the Restricted Area who requests it.

- iii. Perform Low-Probability MEC Investigation Prior to Removal of Asphalt Roads and/or Performance of any Intrusive Activity Beneath Existing Asphalt Roads in the Restricted Area. Prior to commencement of asphalt roadway removal activities and/or performance of any intrusive soil activity that disturbs, excavates, relocates and/or removes soil beneath existing asphalt roadways (as of the date of this 2021 LUCIP Addendum) in the Restricted Area, the Army (or Army's designee with the approval of MassDevelopment) shall perform a low probability MEC investigation in accordance with procedures set forth in Sections 2.0 and 4.0 of the *Final Munitions and Explosives of Concern Clearance and Construction Support Work Plan for Former Oak and Maple Housing Areas* dated July 2016 ("2016 MEC Construction Support Plan") (Exhibit B). Although originally scheduled to be conducted in conjunction with the low probability MEC sweep of the ten grids (i.e., F4 through F7, E4, E6, E7, D4, D5 and C4) in the former Maple HA and removal of 13 remnant concrete building slabs (i.e., former housing pads) in the former Oak HA, the May 2017, *Final MEC Summary Completion Report for the Former Oak and Maple Housing Areas* ("2017 MEC Clearance Report") revealed that while all of the grids and areas beneath the concrete slabs in the former Oak HA were cleared to the depth of detection of hand-held instrumentation, the asphalt roadway removal work was not conducted. Instead, Army, MassDEP, MassDevelopment and EPA agreed that the required low probability MEC investigation beneath the asphalt roadways would be performed in conjunction

² What is referred to herein as Devens UXO/MEC Awareness Briefing is synonymous with the Devens UXO training identified in the 2014 ESD.

with future asphalt roadway removal activities. As such, the requirement for a low-probability MEC Investigation in conjunction with the removal of existing asphalt roadways remains outstanding in the entire Restricted Area including the former Oak HA as of the date of this 2021 LUCIP Addendum.

- iv. Conduct an Instrument-Assisted Visual Inspection of Entire Proposed Construction Area, Including Proposed Construction Footprint and All Construction Areas Where Intrusive Soil Activity That Disturbs, Excavates, Relocates and/or Removes Soil Will be Performed in the Restricted Area. As discussed in the 2014 ESD and Sections 2.0 and 4.0 of the 2016 MEC Construction Support Plan, the Army (or Army's designee, with the approval of MassDevelopment) shall perform an instrument-assisted visual inspection of the entire proposed construction area, including the proposed construction footprint and all construction areas, as designated by MassDevelopment, within the Restricted Area where intrusive soil activity that disturbs, excavates, relocates and/or removes soils will be conducted, including areas outside of building footprints (e.g., areas to be regraded, landscaped, or covered by pavement or grass).
- v. Provide On-call MEC Construction Support for All Intrusive Activities in the Restricted Area. Future on-call MEC construction support must be provided for all construction-related and/or intrusive soil activity involving the disturbance, excavation, removal and/or relocation of soils within the Restricted Area. This on-call support shall be performed following low probability protocols in accordance with all applicable DoD and Army directives, policy, and guidance related to explosive safety requirements, including USACE EM 385-1-97, Explosives Safety and Health Requirements Manual (April 12, 2013) and the SSSMP (see Exhibit D).

At the property owner's request, the Army (or its designee with the approval of MassDevelopment) shall provide pre-construction support at any time, even if construction is not imminent. In addition, the Army must ensure ongoing coordination with MassDevelopment such that all MEC construction support requirements can be performed so as not to interfere with future development and/or construction plans and schedules.

- vi. All On-Site Personnel Performing, Overseeing and/or Supervising Construction-Related and/or Intrusive Activity that Disturbs, Excavates, Relocates and/or Removes Soils within the Restricted Area Shall Actively Monitor for Potential UXO or Other MEC. If UXO or other MEC is suspected or encountered, all activities shall immediately cease and the UXO/MEC Protocol and Procedures outlined in Attachment-B to the SSSMP (Exhibit D) shall be implemented.
- vii. Submit a MEC Construction Support Summary Field Report to EPA, MassDEP and MassDevelopment Upon Completion of Any Discrete MEC Construction Support. Within thirty (30) days of completing any MEC construction support activities specified in ¶¶ iii-vi above, Army shall prepare (or shall ensure that the entity to which the Army has delegated this responsibility with the approval of MassDevelopment) prepares a MEC Construction Support Summary Report for submission to EPA, MassDEP, and MassDevelopment, documenting performance of the specific MEC construction support activities specified in the 2016 MEC Construction Support Work Plan performed and shall include, at a minimum, the requirements of Section 5.0 of the SSSMP (Exhibit D).
- viii. All Excavated and/or Disturbed Soils Shall Remain Within the Restricted Area to the Extent Reasonably Possible. In the event that excavated and/or disturbed soils ("excess soils") ***must*** be moved/transported to either 1) another location at Devens, or 2) to an approved, licensed off-site (i.e., outside Devens) treatment or disposal facility a written "Request for Excess Soil Movement/Transport Outside of the Restricted Area" must be submitted to Army, MassDevelopment, MassDEP and EPA for review and approval *prior to moving/transporting the excess soils outside of the Restricted Area* in accordance with Section 6.0 of the SSSMP (Exhibit D). *Excess soils shall not be moved/transported outside the Restricted Area until Army has received written approval from MassDevelopment, MassDEP and EPA.*
- ix. Submit a Completion Summary Report to EPA, MassDEP and MassDevelopment. In accordance with Section 5.0 of the 2016 MEC Construction Support Plan (Exhibit B of this 2021 LUCIP Addendum), within sixty (60) days of completion of site development activities and/or each site development phase, a Completion Summary Report shall be submitted to EPA, MassDEP, and MassDevelopment,

that documents all of the MEC construction support activities performed within the Restricted Area and shall include, at a minimum, the requirements of Section 7.0 of the SSSMP (Exhibit D).

The Completion Summary Report shall be included in Annual LUC Inspection Reports and Five-Year Reviews for the Restricted Area, as required per the 2009 ROD, the 2011 LUCIP, the 2014 ESD, this 2021 LUCIP Addendum, and 2021 NAUL.

3.0 LUC RESPONSIBILITIES

The Army is responsible for implementing, maintaining, reporting on, and enforcing the LUCs. Although the Army may delegate some or all of these duties to another entity (such as MassDevelopment or other future property owner) or through a third party by contract or through other means, it retains ultimate responsibility for ensuring the effectiveness and integrity of the Restricted Area remedy, as determined by the 2009 ROD, the 2011 LUCIP, the 2014 ESD, and this 2021 LUCIP Addendum (and attached NAUL and SSSMP), through the proper management of soils and implementation, maintenance, reporting and enforcement of LUCs until such time that the hazard associated with the remnant UXO or other MEC in soils is at levels to allow unlimited use and unrestricted exposure (UU/UE). Specifically, the Army retains, at a minimum, the following responsibilities:

- Ensure that NAULs are recorded on the title to the Restricted Area properties and a copy of the NAUL, prepared, recorded and inserted on the deed is included in Exhibit E after recording in the Worcester County Registry of Deeds is complete. The Army, in consultation with EPA and MassDEP, will work with MassDevelopment to ensure that any amendment to the NAUL includes all ROD/ESD-required LUCs. Copies of subsequently executed NAULs should be inserted into Exhibit E as they are recorded/executed.
- Ensure that a current version of the SSSMP for the Restricted Area (Exhibit D) is distributed to MassDevelopment (and other current/future owners of property within the Restricted Area), Devens Fire Department and local/State Police;
- Ensure that all personnel applying for a building permit for the performance of

construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area receive copies of the SSSMP and complete the required Devens UXO/MEC Awareness Briefing prior to commencing such work;

- Ensure that all personnel performing, overseeing and/or supervising constructed-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area complete the required Devens UXO/MEC Awareness Briefing prior to entering the Restricted Area to commence the foregoing activity;
- Ensure that Devens UXO/MEC Awareness Briefings are made available to current and future property owners, lessees, commercial tenants, building occupants, construction and/or utility workers or members of the public upon request. Should the Devens Fire Department elect to discontinue current briefings, the Army shall arrange for comparable alternative briefings. The Army shall verify the continuation of these briefings on the Annual LUC Inspection Checklist contained in Exhibit F.
- Ensure that the utility bill insert created for the former Grant HA and Impact Area, per the 2009 ROD/2011 ESD, is amended to include a discussion of the Restricted Area and submitted to EPA and MassDEP for review and concurrence within the timeframe specified in Exhibit I – LUCIP Addendum Implementation Schedule. Upon receipt of EPA and MassDEP approval, the updated inserts should be reproduced and included in the next annual mailing (or initial utility bill) to property owners, lessees, and/or tenants in the Restricted Area and displayed in kiosks and community bulletin boards. In addition, a copy of the revised insert should replace the existing insert included in Exhibit G and date of the last annual mailing should be recorded in the Annual LUC Inspection Checklist in Exhibit F for inclusion in the next Annual LUC Inspection Report.
- Ensure that the public education materials available via Army, MassDevelopment, and Devens Enterprise Commission websites are updated to include the Restricted Area by the date indicated in Exhibit I – LUCIP Addendum Implementation Schedule.
- Ensure that the SSSMP is implemented as specified therein. Conduct periodic reviews of the SSSMP to ensure that future construction-related and/or intrusive soil activity

that disturbs, excavates, relocates and/or removes soils within the Restricted Area continues to be performed in accordance with the requirements, directives, policies, and guidance specified above and future amendments thereto.

It is anticipated that MassDevelopment, the Devens Enterprise Commission (DEC), or their successors will perform some of the duties required under this LUCIP Addendum, but this effort is, and shall at all times be, under the supervision of the Army. Should MassDevelopment, the DEC, or their successors cease performing these duties, the Army shall implement the LUCs or propose modifications to this LUCIP Addendum that provide an equivalent level of protection, as determined by EPA and MassDEP, in consultation with MassDevelopment or its successor municipal authority.

4.0 IMPLEMENTATION ACTIONS

Upon concurrence of this LUCIP Addendum by EPA and MassDEP, the Army will undertake the implementation actions, including ensuring that the NAUL is recorded on the title to the Restricted Area properties, to confirm compliance with requirements set forth in the 2009 ROD, 2011 LUCIP, 2014 ESD and set forth herein. The Army will notify the EPA and MassDEP if MassDevelopment, the DEC, or their successors cease to perform any duties associated with the LUCIP Addendum. In such instances, Army will assume responsibility for performing such duties until an alternate arrangement can be confirmed.

The following LUC implementation actions will be undertaken by the Army to ensure that the LUC objectives are met and maintained.

4.1 DISTRIBUTION OF LUCIP ADDENDUM

Within 30 days of receiving EPA approval and MassDEP concurrence of this LUCIP Addendum, in accordance with their respective legal authorities, the Army will undertake the following specific actions:

- Send a copy of this LUCIP Addendum and all Exhibits to the Town of Ayer, Massachusetts for its records;
- Send a copy of this LUCIP Addendum and all Exhibits to the Town of Harvard, Massachusetts for its records;
- Send a copy of this LUCIP Addendum and all Exhibits to the Town of Shirley, Massachusetts for its records;

- Send a copy of this LUCIP Addendum and all Exhibits to the DEC for its records;
- Send a copy of this LUCIP Addendum and all Exhibits to the Devens Fire Department for its records;
- Send a copy of this LUCIP Addendum and all Exhibits to MassDevelopment to be kept in its files at 33 Andrews Parkway; and
- Place a copy of this LUCIP Addendum and all Exhibits in the central Army repository and on the Former Fort Devens website at:

<https://www.nae.usace.army.mil/missions/projects-topics/former-fort-devens-environmental-cleanup/>

- Place a copy of this LUCIP Addendum and all Exhibits on www.devensec.com.

4.2 ACTIVITY AND USE LIMITATION

As described above in Sections 2.0 and 3.0, Army shall ensure that the NAUL is recorded on the Restricted Area properties and that all necessary briefings, notices, signage, and educational materials are posted, provided and/or made available.

4.3 REPORTING AND NOTIFICATION

a) REPORTING - ANNUAL REVIEWS/INSPECTIONS

Annual reviews, physical inspections and interviews with Army, MassDevelopment, and current property owners shall be conducted to verify continued, effective implementation, enforcement and compliance with the LUCs required per the 2009 ROD, 2014 ESD, this 2021 LUCIP Addendum (and attached NAUL and SSSMP), and the 2016 MEC Construction Support Plan. Army shall complete the Annual LUC Inspection Checklist, included in Exhibit F, to annually evaluate/verify compliance with the foregoing.

Army (or its designee) will provide results of the annual LUC inspection in a draft Annual LUC Inspection/Compliance Report for submittal to EPA, MassDEP, and MassDevelopment. At a minimum, the annual report will include the completed Annual LUC Inspection Checklist (Exhibit F) and a narrative summary of work performed, discuss observations during physical site inspections, identify deviations from the LUCIP and/or this LUCIP Addendum and whether they were caused by an implementation issue, a change in site conditions or land use, or some other issue. The report should also recommend corrective actions necessary or already undertaken to

correct the infraction(s). In addition to the items listed above, the annual report will also include a summary of any UXO or other MEC discovered during the reporting period (including the location of discovered UXO or other MEC, the type of UXO or other MEC (if known), information on the activity conducted that led to the find, and the name and affiliation of the individual that reported the discovery), as well as safety procedures followed and the ultimate disposal of any such discovered UXO or other MEC. The annual report will also address whether the use restrictions and controls referenced in this LUCIP Addendum were communicated in the deed(s) and other legal instruments, whether the owners and state and local agencies were notified of the use restrictions and controls affecting Restricted Area, and whether use of these areas has conformed to such restrictions and controls.

If any deficiency(ies) are found during the annual inspection, a written explanation will be prepared indicating the deficiency and what efforts or measures have or will be undertaken to correct the deficiency, and a schedule to correct the same. The correction and enforcement of such deficiencies shall follow the requirements under Section 6.0 Enforcement. If there is to be a delegation of performance of duties by the Army as permitted by Section 3.0 above, the Army, having ultimate responsibility for the remedy's integrity, will promptly notify EPA, MassDEP, MassDevelopment and DEC of such delegation.

Army shall provide copies of the Final LUC Inspection/Compliance Report to EPA, MassDEP, MassDevelopment, the DEC, and the Towns of Ayer, Harvard, and Shirley, Massachusetts. A link to the Annual LUC Report will be provided on the community website as described in Section 2.0.

b) REPORTING - FIVE-YEAR REVIEWS

As part of the Comprehensive Five-Year review process conducted at Devens under Section 121 of CERCLA, as amended by SARA of 1986, a review/inspection of the continued short- and long-term effectiveness of the LUCs will be conducted by the Army, with the cooperation of MassDevelopment and any future property owner. Public meetings will be held by the Army coincident with these five-year reviews to help keep the public informed of site status, including its general condition, presence of UXO, and effectiveness of the remedial action.

5.0 LUC CHANGES

The Army shall not modify or terminate Land Use Controls, implementation actions, or modify restrictions regarding land use without approval by EPA and the MassDEP and the concurrence of MassDevelopment; provided that Army determines, in its sole discretion, that the requirement for such concurrence shall not place the Army in violation of its legal obligations to the EPA. The Army shall seek prior concurrence before any anticipated action that may disrupt the effectiveness of the LUCs or any action that may alter or negate the need for LUCs. This LUCIP Addendum may be amended only in accordance with Section VII of the Federal Facilities Agreement (FFA). Except as provided by Section 8.1, no changes shall be made without the prior approval of EPA and MassDEP, and the concurrence of MassDevelopment; provided that Army determines, in its sole discretion, that the requirement for such concurrence shall not place the Army in violation of its legal obligations to the EPA. In the latter case, Army shall take reasonable steps to consult with MassDevelopment to minimize the impacts of the changes to these parties.

6.0 ENFORCEMENT

Should the LUCs reflected in this LUCIP Addendum cease to provide an appropriate level of protection, the Army shall propose modifications through an Explanation of Significant Differences (ESD) or a ROD amendment. If the Army determines that the LUCs are not being complied with, its actions may range from informal resolutions with the owner or violator, to the institution of judicial action. Any activity that is inconsistent with the LUC objectives or use restrictions, or any other action that may interfere with the effectiveness of the LUCs will be addressed by the Army as soon as practicable, but in no case will the process be initiated later than 10 days after the Army becomes aware of the breach. The Army will notify EPA and MassDEP as soon as practicable but no longer than ten days after discovery of any activity that is inconsistent with the LUC objectives or use restrictions, or any other action that may interfere with the effectiveness of the ICs. The Army will notify EPA and MassDEP regarding how the Army has addressed or will address the breach within 10 days of sending EPA and MassDEP notification of the breach. Should the Army become aware that a user of the Restricted Area has violated any LUC requirement where a local agency may have independent jurisdiction (local regulations and permits), the Army will also notify the agencies and MassDevelopment of such violations and work cooperatively with them to re-establish owner/user compliance with the LUC. Without limiting the authority of the EPA and MassDEP under applicable law, MassDEP shall have the authority to enforce the NAUL against the then current owner of the Restricted Area.

7.0 DURATION OF LUCS

LUCs will be maintained until such time that the hazard associated with potential remnant UXO or other MEC in the soil, as identified in the 2014 ESD, is at levels to allow for unrestricted use and unlimited exposure (UU/UE) without the use of LUCs. If LUCs relating to the NAUL specified in this LUCIP Addendum are no longer needed, as determined in an ESD or ROD amendment, the Army will coordinate with the owner of the affected property(ies) and MassDEP to record releases of the relevant NAUL(s) following procedures called for under the NAUL(s) and the State regulations that authorize the NAUL(s), and will also advise MassDevelopment of that action. At that time, the specific LUCs that are no longer needed and the associated responsibilities contained in the NAUL will be discontinued.

8.0 APPROVALS; NOTICES

8.1 APPROVALS

Changes to the LUCIP can only be approved through the process set forth in Section 5.0. Where the approval of a party (hereafter, the "approval party") is required under this LUCIP for non-substantive changes that may be made without amendment of this LUCIP as provided herein, the Army (or its designee) shall give the approval party notice thereof, along with any information to be included in such notice pursuant to the terms of this LUCIP. If the approval party fails to respond to the request for approval within thirty (30) days after said request is made, the Army (or its designee) will send the approval party a second request. If the approval party fails to respond to such second request within ten (10) days after said second request is made, the approval party will be deemed to have approved such request.

8.2 NOTICES

All notices, responses, requests, and approvals required or permitted under this LUCIP Addendum, between or among MassDevelopment (or its successor entity(ies)), EPA, MassDEP and/or the Army, shall be sent by postage pre-paid certified or registered mail (return receipt requested) or by recognized overnight courier (such as DHL, Federal Express, UPS), with delivery charges prepaid, to the following respective addresses unless all parties consent to the use of electronic mail:

If to MassDevelopment:

Massachusetts Development Finance Agency, 99 High Street, Boston, MA 02110, Attn: President & CEO

with copies to:

Massachusetts Development Finance Agency, 33 Andrews Parkway, Devens, Massachusetts 01434, Attn: EVP, Devens Operations

and

Massachusetts Development Finance Agency, 99 High Street, Boston, MA 02110, Attn: EVP Real Estate

and

Massachusetts Development Finance Agency, 99 High Street, Boston, MA 02110, Attn: General Counsel

If to the Army:

Department of the Army, Fort Devens, BRAC Division, 30 Quebec Street, Room 100, Devens, MA 01432-4479, Attn: BRAC Environmental Coordinator

If to EPA:

U.S. Environmental Protection Agency, Region I, 5 Post Office Square, Federal Facilities Superfund Section, Suite 100 (HBT), Mail Code OSRR07-3, Boston, MA 02109-3912, Attn: Remedial Project Manager

If to MassDEP:

Massachusetts Department of Environmental Protection, Bureau of Waste Site Cleanup, One Winter Street, Boston, MA 02108, Attn: Superfund Federal Facilities, Section Chief

A party may change its address for notice by notice to the other parties in accordance with this Section. Notices shall be deemed given when delivered (or, if delivery is refused, when so refused).





ATTACHMENTS

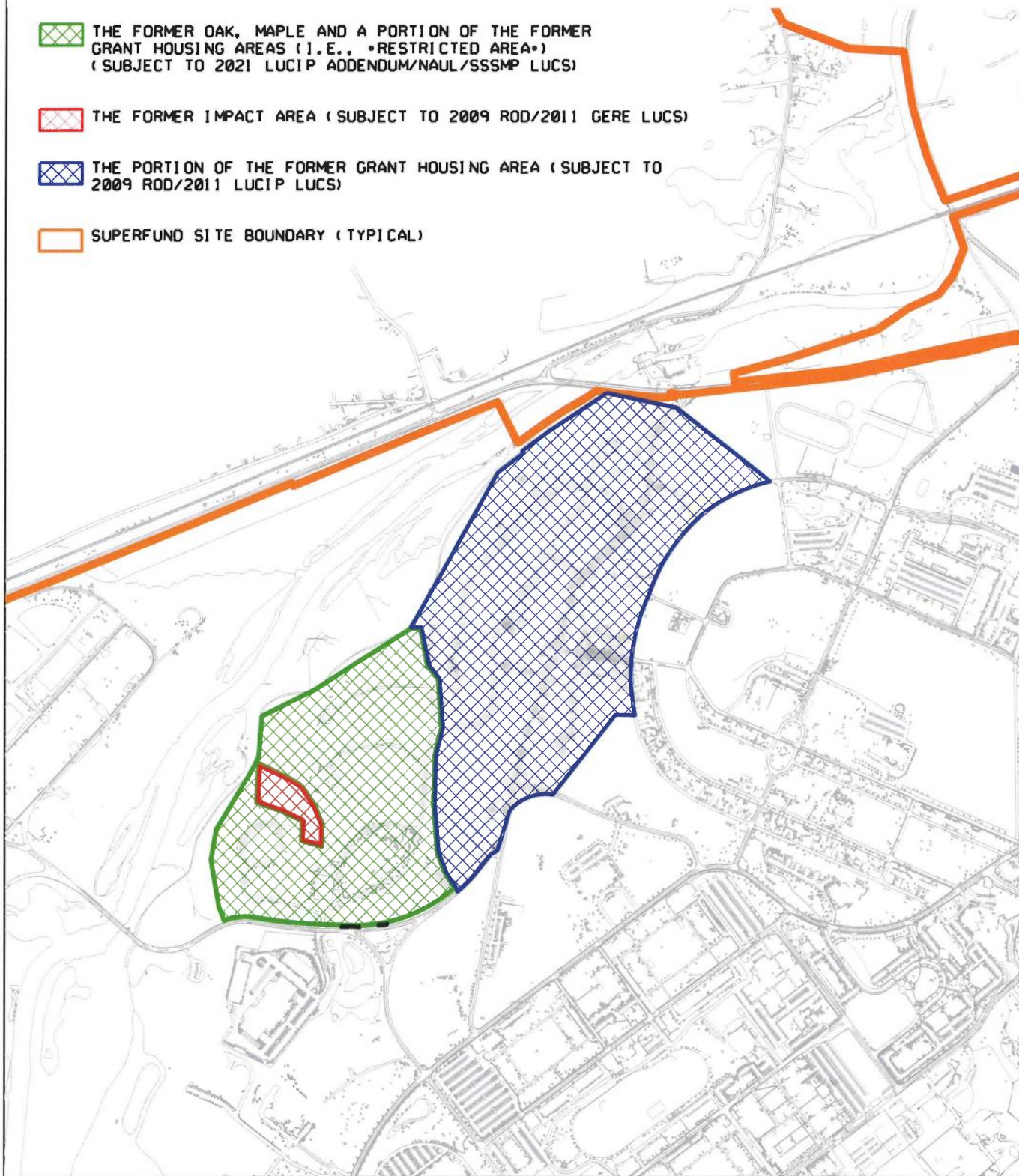
ATTACHMENT A

Figures Depicting the Portion of the Former Grant Housing Area (subject to 2009 ROD/2011 LUCIP LUCs) that is suitable for residential use, the Former Impact Area (subject to 2009 ROD/2011 GERE LUCs), and the former Oak, Maple and a Portion of the former Grant Housing Areas (i.e., "Restricted Area") (subject to 2021 LUCIP Addendum/NAUL/SSSMP LUCs), all in relation to Devens

ATTACHMENT A: LAND USE CONTROLS (LUC)S IN THE VICINITY OF THE "RESTRICTED AREA"


LEGEND:

-  THE FORMER OAK, MAPLE AND A PORTION OF THE FORMER GRANT HOUSING AREAS (I.E., "RESTRICTED AREA") (SUBJECT TO 2021 LUCIP ADDENDUM/NAUL/SSSMP LUCS)
-  THE FORMER IMPACT AREA (SUBJECT TO 2009 ROD/2011 GERE LUCS)
-  THE PORTION OF THE FORMER GRANT HOUSING AREA (SUBJECT TO 2009 ROD/2011 LUCIP LUCS)
-  SUPERFUND SITE BOUNDARY (TYPICAL)



ATTACHMENT A: Former Oak, Maple and a Portion of the Grant Housing Areas ("Restricted Area") LUC Boundaries in Relation to Devens

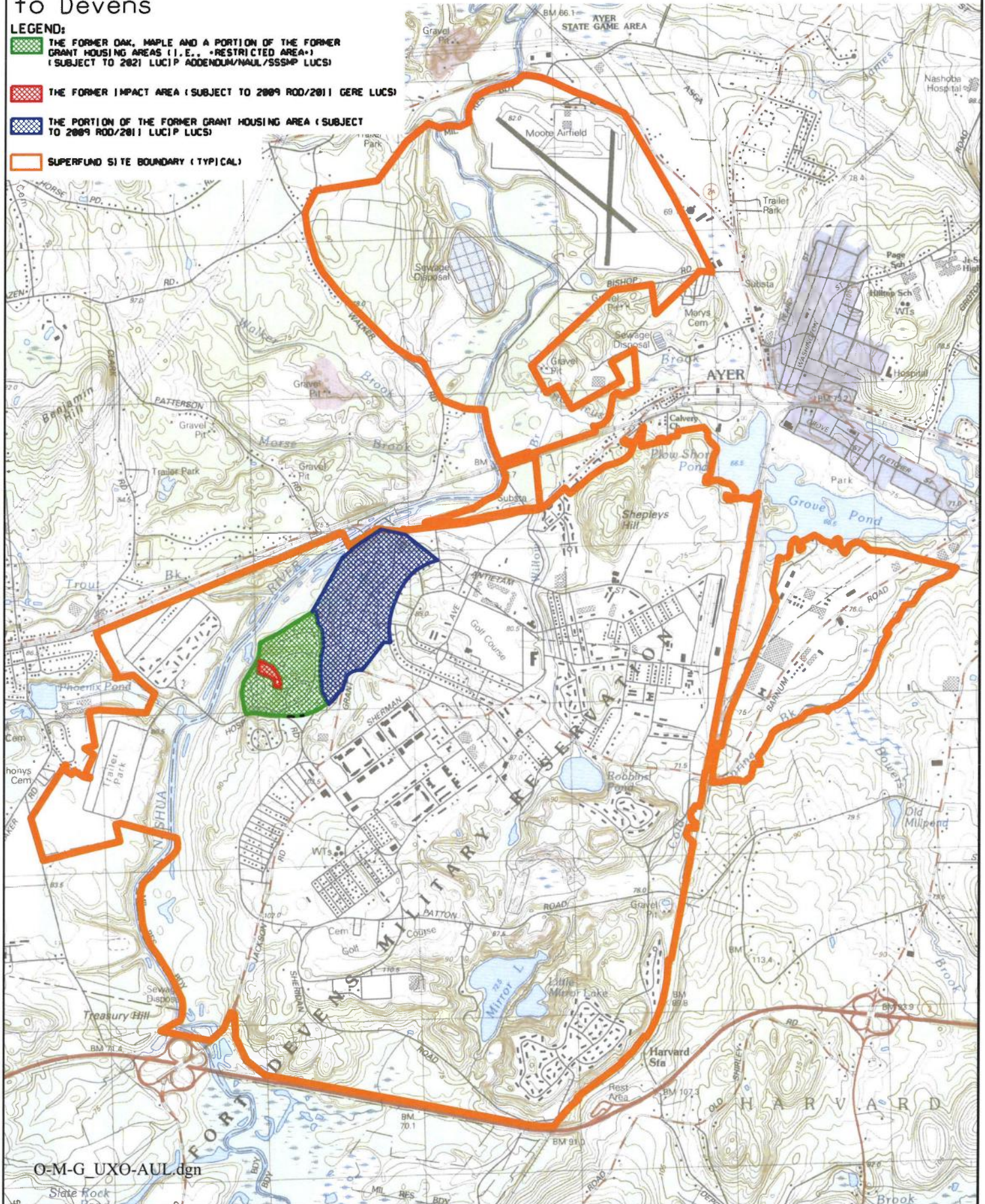
LEGEND:

 THE FORMER OAK, MAPLE AND A PORTION OF THE FORMER GRANT HOUSING AREAS (I.E., "RESTRICTED AREA") (SUBJECT TO 2021 LUCIP ADDENDUM/NAUL/SSMP LUCS)

 THE FORMER IMPACT AREA (SUBJECT TO 2009 ROD/2011 GERE LUCS)

 THE PORTION OF THE FORMER GRANT HOUSING AREA (SUBJECT TO 2009 ROD/2011 LUCIP LUCS)

 SUPERFUND SITE BOUNDARY (TYPICAL)



ATTACHMENT B-1

**Legal Description of LUC Boundary of the Former Oak, Maple
and a Portion of the Former Grant Housing Areas ("Restricted
Area")**

Legal Description
“Oak, Maple and a Portion of Grant Housing Area” Activity and Use Limitation Area

A certain activity and use limitation area of land located in the Town of Harvard, County of Worcester, Massachusetts situated northerly of land now or formerly The Government Land Bank “Parcel 1”. Said area of land being shown as “Activity and Use Limitation Area Oak, Maple and a Portion of Grant Housing Area” on a plan entitled, “Activity and Use Limitation Plan Former Oak, Maple and a Portion of the Grant Housing Area – Harvard (Devens), Massachusetts”, prepared for Massachusetts Development Finance Agency and prepared by WSP dated April 26, 2021. Said plan to be recorded in the Worcester County Registry of Deeds.

Beginning at a stone bound drill hole located on the northerly sideline of Hospital Road. Said point being the southwesterly corner of the area of land described herein, and having coordinates of Northing: 3,022,252.80 Easting: 620,974.87; thence,

Along land now or formerly The Government Land Bank “Parcel 1” the following two courses:

N 20°24'03" W a distance of four hundred fifty six and 00/100 feet (456.00') to an iron rod found;

N 09°38'22" E a distance of two hundred twenty eight and 42/100 feet (228.42') to a point; thence,

Along land now or formerly United States Department of the Interior Fish and Wildlife Service “Oxbow National Wildlife Refuge” the following six courses:

N 31°41'30" E a distance of three hundred twenty five and 18/100 feet (325.18') to a point;

N 31°18'25" E a distance of one hundred nine and 36/100 feet (109.36') to a disk found;

N 29°04'54" E a distance of one hundred eighty three and 07/100 feet (183.07') to a point;

N 04°12'57" E a distance of three hundred four and 08/100 feet (304.08') to a disk found;

N 63°18'52" E a distance of four hundred twenty eight and 42/100 feet (428.42') to a disk found;

N 57°33'04" E a distance of eight hundred thirty seven and 82/100 feet (837.82') to a disk found; thence,

Along land now or formerly The Government Land Bank “Parcel 1” Existing LUCIP (Grant Housing Area) the following ten courses:

N 90°00'00" E a distance of seventy three and 37/100 feet (73.37') to a point;

S 11°00'24" E a distance of two hundred seventy four and 18/100 feet (274.18') to a point;

S 37°51'41" E a distance of one hundred twenty nine and 95/100 feet (129.95') to a point;

S 03°52'24" E a distance of three hundred fifty six and 57/100 feet (356.57') to a point;

S 13°40'23" W a distance of two hundred four and 32/100 feet (204.32') to a point;

S 01°21'36" W a distance of three hundred seventy one and 39/100 feet (371.39') to a point;

S 04°39'50" E a distance of two hundred fifteen and 34/100 feet (215.34') to a point;

S 22°35'54" E a distance of two hundred fifteen and 83/100 feet (215.83') to a point;

S 28°36'00" E a distance of ninety one and 06/100 feet (91.06') to a point;

S 33°16'32" E a distance of ninety two and 88/100 feet (92.88') to a point on the northerly sideline of Hospital Road; thence,

Along the northerly sideline of Hospital Road the following four courses:

Along a curve to the right having a length of eight hundred seventy four and 43/100 feet (874.43'); a radius of one thousand eighty and 36/100 feet (1080.36'); a chord length of eight hundred fifty and 76/100 feet (850.76') and a chord bearing of S 68°29'05" W to a point;

N 88°19'41" W one hundred eighty eight and 60/100 feet (188.60') to the point;

Along a curve to the right having a length of five hundred thirty seven and 00/100 feet (537.00'); a radius of three thousand six hundred twelve and 74/100 feet (3,612.74'); a chord length of five hundred thirty six and 51/100 feet (536.51') and a chord bearing of N 84°18'19" W; thence,

Along a non-tangent curve to the left having a length of one hundred sixty two and 68/100 feet (162.68'); a radius of four hundred forty five and 76/100 feet (445.76'); a chord length of one hundred sixty one and 78/100 feet (161.78') and a chord bearing of S 87° 55' 57" W to a stone bound with drill hole to be set and the point of beginning.

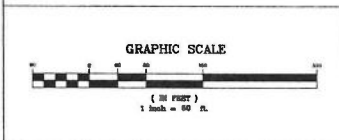
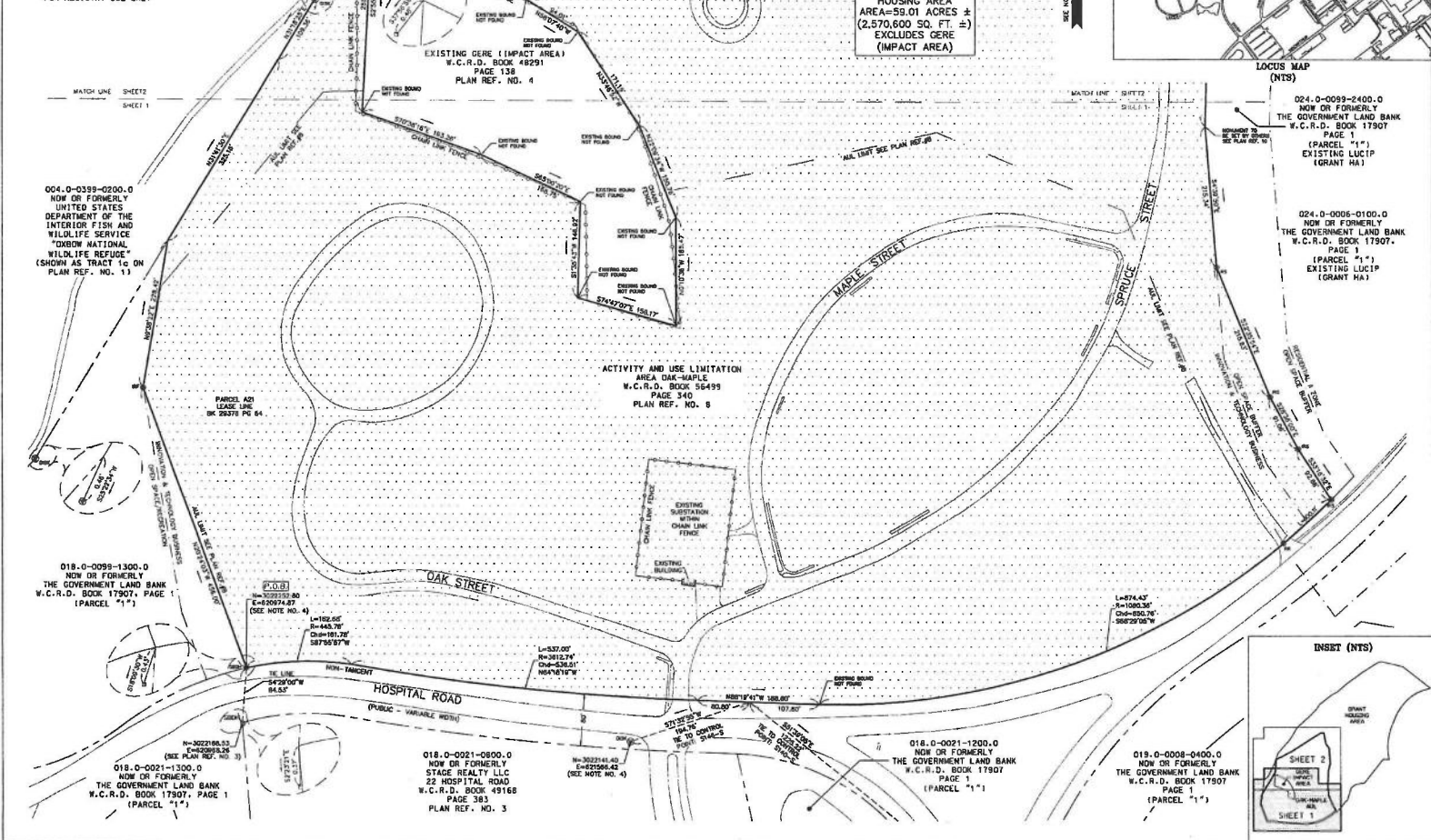
Said activity and use limitation area of land being 2,570,600 S.F. or 59.01 acres of land, more or less. This area excluded the Existing GERE (Impact Area) as shown on said plan and as recorded in W.C.R.D. Book 48291, Page 138 and on W.C.R.D. Plan Book 899 Plan 36.

ATTACHMENT B-2

**Figure Depicting LUC Boundary of the Former Oak, Maple and a
Portion of the Former Grant Housing Areas ("Restricted Area")**

Worcester District Registry
of Deeds Worcester, MA
PLAN BOOK 856 PLAN 37
Received 4/27/2021
9:48 AM
Sheet 1 of 2
Fee \$210.-
ATTEST: *Harvard A. Hardy*
Register

FOR REGISTRY USE ONLY



WSP USA Inc.
9 Executive Park Dr. Suite 101
Methuen, NH 03054
603.324.0885

REV	DATE	DESCRIPTION	BY
REV. 8	-	-	-
REV. 7	-	-	-
REV. 6	-	-	-
REV. 5	-	-	-
REV. 4	-	-	-
REV. 3	-	-	-
REV. 2	-	-	-
REV. 1	-	-	-

- NOTES:**
- 1.) THIS PLAN WAS PREPARED FROM AN ON-THE-GROUND FIELD SURVEY CONDUCTED BY WSP IN MARCH OF 2021.
 - 2.) BEARINGS BASED ON 1983 MASS. STATE PLANE COORDINATE SYSTEM & CONTROL SURVEY BY CHAS. H. SELLS, INC. APRIL 2002. LAST REVISED OCTOBER 2020.
 - 3.) ZONING: INNOVATION AND TECHNOLOGY BUSINESS ZONING DISTRICT.
 - 4.) ALL COORDINATES SHOWN HEREON ARE IN RELATIONSHIP TO THE DEVENS, MA CONTROL NETWORK AND GEODATOMIC INFORMATION SYSTEMS (GIS). REFERENCE IS MADE TO THE CONTROL SURVEY AND REPORT DATED, "SURVEY CONTROL REPORT FOR DEVENS, MASSACHUSETTS" PREPARED FOR MASSACHUSETTS DEVELOPMENT FINANCE AGENCY, BY CHAS. H. SELLS, INC. IN DECEMBER 1995, AND LAST REVISED OCTOBER 2020. ALL COORDINATES ARE ON THE MASSACHUSETTS NAD83 STATE PLANE SYSTEM (1983).
 - 5.) THE PURPOSE OF THIS PLAN IS TO FACILITATE THE CREATION OF AN ACTIVITY AND USE LIMITATION AREA OF PARCEL 1.
 - 6.) THE ACTIVITY AND USE LIMITATION AREA IS ENCUMBERING A PORTION OF PARCEL 1.

- REFERENCES:**
- 1.) PLAN OF LAND CONVEYED TO THE GOVERNMENT LAND BANK BY THE SECRETARY OF THE ARMY, AFTER HARVARD & SHIPLEY, MA, DATED MAY 10, 1996. PREPARED BY HOME SURVEYING, ASSOC. (PARCEL 1) EXISTING LUCIP (GRANT HA)
 - 2.) THE CURRENT OWNER OF RECORD IS THE GOVERNMENT LAND BANK (PARCEL 1) EXISTING LUCIP (GRANT HA)
 - 3.) LEVEL 1 SUBDIVISION, LOT 13A HOSPITAL ROAD HARVARD, MASSACHUSETTS. PREPARED BY CHAS. H. SELLS, DATED JULY 9, 2008 AND RECORDED IN THE V.C.R.D. PL. BK. 870 PL. 122.
 - 4.) PLAN ENTITLED "IMPACT AREA PLAN - GRANT HOUSING AREA/OAK STREET", PREPARED BY WSP USA, DATED APRIL 11, 2011 AND RECORDED IN THE V.C.R.D. PL. BK. 881 PL. 34.
 - 5.) PLAN ENTITLED "PLAN OF IMPACT AREA - GRANT OF ENVIRONMENTAL RESTRICTION AND EASEMENT - GRANT ROAD HOUSING AREA, OAK STREET", PREPARED BY WSP USA, DATED SEPTEMBER 22, 2011 AND RECORDED IN THE V.C.R.D. PL. BK. 890 PL. 106.
 - 6.) LEVEL 1 SUBDIVISION, LOT 13A HOSPITAL ROAD HARVARD, MASSACHUSETTS. PREPARED BY HARVARD ASSOC. DATED JUNE 4, 2012 AND RECORDED IN THE V.C.R.D. PL. BK. 894 PL. 122.
 - 7.) PLAN ENTITLED "ACTIVITY AND USE LIMITATION PLAN - OAK AND MAPLE HOUSING AREAS", PREPARED BY WSP USA, DATED MARCH 12, 2014, REVISED JULY 17, 2015 AND RECORDED IN THE V.C.R.D. PL. BK. 915 PL. 31.
 - 8.) PLAN ENTITLED "ACTIVITY AND USE LIMITATION PLAN - OAK AND MAPLE HOUSING AREAS", PREPARED BY WSP USA, DATED MARCH 12, 2014, REVISED SEPTEMBER 16, 2018 AND RECORDED IN THE V.C.R.D. PL. BK. 924 PL. 34.
 - 9.) FIGURE 1 ENTITLED "PLAN OF GRANT HA", INCLUDED IN THE FINAL LAND USE CONTROL IMPLEMENTATION PLAN PREPARED BY ARMY BASE REALIGNMENT AND CLOSURE DIVISION U.S. ARMY SUBDIVISION FOUR DIVISION, MAY 2011 AND ON FILE.
 - 10.) LEVEL 1 LOTTING PLAN IN DEVENS (HARVARD) MASSACHUSETTS. PREPARED BY VHS, DATED MARCH 10, 2021 AND RECORDED IN THE V.C.R.D. PL. BK. 954 PL. 24.
 - 11.) "UNITED STATES DEPARTMENT OF THE INTERIOR-FISH AND WILDLIFE REFUGE: FORT DEVENS MILITARY RESERVATION, TRANSFER TRACTS 11-a-b-c-d-e-f-g-h-i-j-k-l", DATED 1994, PREPARED BY WSP USA, INC. AND HARVARD & SHIPLEY, MA, AND SUBMITTED FOR THE UNITED STATES DEPARTMENT OF THE INTERIOR-FISH AND WILDLIFE, FILED AT THE UNITED STATES DEPARTMENT OF THE INTERIOR-FISH AND WILDLIFE REGION 5 OFFICE IN HARLEY, MA.

- LEGEND**
- RAILROAD SPUR (FOUND)
 - USDA/USDA (FOUND)
 - IRON ROD (TO BE SET)
 - STONE BOUND (FOUND)
 - IRON ROD (FOUND)
 - ADJUTANT LOT LINE
 - EXISTING IMPACT AREA
 - ZONING DISTRICT LINE
 - CHAIN LINK FENCE
 - EXISTING ACTIVITY AND USE LIMITATION AREA (OAK-MAPLE SEE PLAN REF. 8)
 - ACTIVITY AND USE LIMITATION AREA

CERTIFICATION :

TO THE BEST OF MY PROFESSIONAL KNOWLEDGE INFORMATION AND BELIEF

"I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF OWNERSHIP OR FOR NEW WAYS ARE SHOWN."

"I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS." THE CERTIFICATION SHOWN HEREON IS INTENDED TO MEET REGISTRY OF DEEDS REQUIREMENTS AND IS NOT A CERTIFICATION OF THE TITLE OR OWNERSHIP OF THE LAND SHOWN.

DARRIN A. HARDY, LLC
WSP USA, INC.
9 EXECUTIVE PARK DR., SUITE 101
METHUEN, MA 03054

04/26/2021
DATE

HARVARD (DEVENS), MASSACHUSETTS

TITLE
ACTIVITY AND USE LIMITATION PLAN
FORMER OAK, MAPLE AND A PORTION OF THE GRANT HOUSING AREA

PREPARED FOR: MASSACHUSETTS DEVELOPMENT FINANCE AGENCY
95 HIGH STREET
BOSTON, MA 02110

OWNED: MASSACHUSETTS DEVELOPMENT FINANCE AGENCY
95 HIGH STREET
BOSTON, MA 02110

DATE: 04/26/2021 **SCALE:** 1" = 80' **DWG.** 30900788.001.DGN **SHEET#** 1 OF 2

004.0-0399-0200.0
NOW OR FORMERLY
UNITED STATES DEPARTMENT
OF THE INTERIOR FISH AND
WILDLIFE SERVICE
"OXBOW NATIONAL WILDLIFE
REFUGE"
(SHOWN AS TRACT 1c ON
PLAN REF. NO. 1)

024.0-0006-0100.0
NOW OR FORMERLY
THE GOVERNMENT LAND BANK
W.C.R.D. BOOK 17907
PAGE 1
(PARCEL "1")
EXISTING LUCIP
(GRANT HA)

[illegible][illegible]

RAILROAD LINE (FOUNDED)

USFAS DASH (FOUNDED)

IRON ROAD (TO BE SET)

STONE SOUND (FOUNDED)

IRON ROAD (FOUNDED)

ABUTTERS LOT LINE

EXISTING IMPACT AREA

ZONING DISTRICT LINE

CHAIN LINK FENCE

EXISTING ACTIVITY AND USE LIMITATION AREA
(DASH-MAPLE SIDE PLAIN RT. 8)

ACTIVITY AND USE LIMITATION AREA

TO THE BEST OF MY PROFESSIONAL
KNOWLEDGE INFORMATION AND BELIEF

"I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS
PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THAT THE
LINES OF THE STREETS NEWLY SHOWN ARE THOSE OF PUBLIC
OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT
NO NEW LINES FOR DIVISION OF OWNERSHIP OR FOR NEW WAYS
ARE SHOWN."

"I CERTIFY THAT THIS PLAN WAS PREPARED IN
ACCORDANCE WITH THE RULES AND REGULATIONS OF THE
REGISTERS OF DEEDS." THE CERTIFICATION SHOWN HEREON IS
INTENDED TO MEET REGISTRY OF DEEDS REQUIREMENTS AND IS
NOT A CERTIFICATION OF THE TITLE OR OWNERSHIP OF THE LAND

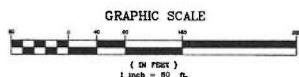


DARRIN J. HARDY, U.S.
REG. NO. 48385
WSP USA, INC.

DATE

TITLE		ACTIVITY AND USE LIMITATION PLAN	
		FORMER OAK, MAPLE AND A PORTION OF THE GRANT HOUSING AREA	
PREPARED FOR:	MASSACHUSETTS DEVELOPMENT FINANCE AGENCY 89 HIGHT STREET BOSTON, MA 02110	OWNER:	MASSACHUSETTS DEVELOPMENT FINANCE AGENCY 89 HIGHT STREET BOSTON, MA 02110

DATE: 04/26/2021 SCALE: 1" = 80' DWG. 30900788.001.DGN SHEET# 2 OF 2



WSP USA Inc.
0 Executive Park Dr, Suite 101
Merrimack, NH 03054
603.324.0885

REV	DATE	DESCRIPTION	BY
REV. 5	--	--	--
REV. 4	--	--	--
REV. 3	--	--	--
REV. 2	--	--	--
REV. 1	--	--	--

EXHIBITS

EXHIBIT A

Reports Related to the Assessment, Investigation and/or Removal of UXO and other MEC at the Former Oak and Maple Housing Areas

Human Factors Applications, Inc. 1996. *Final Removal Action Report, Ordnance, Ammunition and Explosives Removal Action, Devens RFTA, Ft. Devens, Massachusetts*. October 1996.

Ordnance & Explosives Remediation, Inc. 2006. *Site Specific Final Report Digital Geophysical Mapping (DGM) & Unexploded Ordnance (UXO) Removal, Grant Housing Area, Former Ft. Devens, Harvard, Worcester, Massachusetts*. March.

Army Base Realignment and Closure Division. 2009. *Record of Decision for the Grant Housing Area and 37-mm Impact Area, Former Fort Devens Army Installation, Devens, Massachusetts*. September.

Army Base Realignment and Closure Division. 2011. *Land Use Control Implementation Plan, Grant Housing Area and 37-mm Impact Area, Former Fort Devens Army Installation, Devens, MA*, May.

HydroGeoLogic, Inc. (HGL), 2012. *MEC Remedial Investigation, Former Oak and Maple Housing Areas, Former Fort Devens Army Installation*. August.

Sovereign Consulting, Inc. (Sovereign) and HGL, 2013. *Final Focused Feasibility Study, Former Oak and Maple Housing Areas, Former Fort Devens Army Installation*. March.

Sovereign Consulting, Inc., (Sovereign) and HGL, 2014. *Construction Support Work Plan, Former Oak and Maple Housing Areas, Former Fort Devens Army Installation*. July.

2014. *Final Explanation of Significant Differences for Grant Housing Area and the 37-mm Impact Area , Former Fort Devens Army Installation, Devens, MA*. September.

USACE, St. Louis District, 1995a. *U.S. Department of Defense BRAC, Ordnance, Ammunition and Explosives-Archives Search Report Findings, Fort Devens*. May.

USACE, St. Louis District, 1995b. *U.S. Department of Defense BRAC, Ordnance, Ammunition and Explosives-Archives Search Report Conclusions and Recommendations, Fort Devens*. May.

USACE, St. Louis District, 1995c. *U.S. Department of Defense BRAC, Ordnance, Ammunitions and Explosives-Archives Search Report Maps, Fort Devens*. May.

USACE, New England District. 2007. *Performance Work Statement for Completion of CERCLA Documents Related to Munitions and Explosives of Concern at Former Oak and Maple Housing Areas, Devens, MA*. Revised 11 May.

Weston. 2008a. *Final Focused Feasibility Study, Grant Housing Area and 37MM Impact Area, Former Fort Devens Army Installation, Devens, Massachusetts*. April.

USACE, Baltimore District. 2016. *Final MEC Clearance and Construction Support Work Plan for the Former Oak and Maple HAs, Devens, MA*. July.

USACE, Baltimore District. 2017. *Final MEC Summary Completion Report Former Oak and Maple Housing Areas, Former Fort Devens Facility, Devens, MA*. May.

Army Base Realignment and Closure Division. 2021. *Site-Specific Soil Management Plan for the Former Oak, Maple and a Portion of the Former Grant Housing Areas ("Restricted Area")*. April.

EXHIBIT B

FINAL MEC CLEARANCE AND CONSTRUCTION SUPPORT

WORK PLAN

FOR THE OAK AND MAPLE HOUSING AREAS

JULY 2016



**FINAL
MUNITIONS AND EXPLOSIVES OF
CONCERN (MEC) CLEARANCE AND
CONSTRUCTION SUPPORT WORK PLAN
FOR
FORMER OAK AND MAPLE HOUSING AREAS**

FORMER FORT DEVENS, MA

JULY 2016

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4.2 MEC SURVEY AND ANOMALY INVESTIGATION.....	3
4.3 MEC DISCOVERY.....	3
4.4 MATERIAL POTENTIALLY PRESENTING AN EXPLOSIVE HAZARD (M P P E H) PROCESSING	3
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FIGURE 1	Geophysical Survey Grid and Sub-Area Location Map
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APPENDIX B	Site Specific Health and Safety Plan

1.0 INTRODUCTION

This Work Plan addresses the munitions and explosives of concern (MEC) construction support requirements outlined in the Land Use Control Implementation Plan (LUCIP) Addendum for the former Oak and Maple Housing Areas located within the former Fort Devens. The LUCIP Addendum was prepared pursuant to the *Final Explanation of Significant Differences (ESD) for Grant Housing Area and 37-MM Impact Area, Former Fort Devens Army Installation, Devens MA*, dated September 2014. The ESD incorporated additional Land Use Controls (LUCs) as the remedy, beyond what was stipulated in the 2009 ROD, to address the former Oak and Maple HAS based on their immediate proximity to the Grant HA and the 37-mm Impact Area. Based on previous investigations, these areas are classified as low probability for encountering MEC per DoDM 6055.9M and USACE EM 385-1-97 guidance. Army will be using the low probability protocols as outlined in these documents to complete field activities.

2.0 PURPOSE AND SCOPE

The purpose of this work is to support future development and construction activities by providing the following MEC construction support:

- a.) Low probability MEC investigation of ten (10) un-surveyed grids within the former Oak Housing Area. The area is identified in Figure 1 and includes grids F4 through F7, E4, E6, E7, D4, D5, and C4. This work will include low probability MEC investigation beneath remnant concrete building slabs and asphalt roads within the former Oak Housing Area following their removal by MassDevelopment.
- b.) MEC physical preview of any proposed construction footprint within the former Oak and Maple Housing Areas including an instrument assisted surface investigation of any proposed construction footprint within the former Oak and Maple Housing Areas. The construction areas, as designated by MassDevelopment to include all areas where intrusive activities will be conducted, including areas outside of building footprints (e.g., areas to be regraded, landscaped, or covered by pavement or grass), will be investigated by the Army or the Army's contractors by physically walking and performing an instrument assisted visual inspection of the area to ensure no MEC is present.
- c.) Future On-Call MEC construction support for all intrusive activities in geographic areas where construction support has not previously been conducted. Construction support will be performed following low probability protocols in accordance with all applicable DoD and Army directives, policy, and guidance related to explosive safety requirements; including USACE EM 385-1-97, *Explosives Safety and Health Requirements Manual* (April 12, 2013).

3.0 PROJECT MANAGEMENT

a.) PROJECT ORGANIZATION

See Appendix A - Work Plan Addendum

b.) SITE PERSONNEL

See Appendix A - Work Plan Addendum

c.) SITE-SPECIFIC HEALTH AND SAFETY PLAN

See Appendix B - Site Specific Health and Safety Plan

d.) PROJECT DELIVERABLES

- **Summary Field Reports**

A summary field report will be prepared for all low probability MEC Construction Support activities that are specified in this work plan. These reports will document the work carried out and will include appropriate field data collected from the site including site survey information and control points, if applicable. The report will identify any discoveries of MEC and material potentially presenting an explosive hazard (MPPEH) within the survey and construction support areas and will include a Daily field report. All summary field reports will be submitted to MassDEP, USEPA and MassDevelopment within 30 days of completing any discrete MEC Construction Support activity.

- **Project Data**

All project supporting data will be assembled in electronic format and included in the summary report. The data will include survey and investigation data, MEC discoveries and disposition and MPPEH processing data, as well as copies of the completed and signed certification and chain-of-custody forms e.g. DD Form 1348-1.

- **Project Schedule**

To be provided in a future Work Plan Addendum based on the schedules for site development (to be provided in coordination with MassDevelopment).

4.0 MEC CONSTRUCTION SUPPORT ACTIVITIES

- a.) Low probability MEC investigation of ten (10) un-surveyed grids within the former Oak Housing Area and within Foundation Slab and Asphalt Road Removal areas at the former Oak Housing Area:

Prior to MEC clearance of the ten grids, MassDevelopment will be removing the remnant foundation slabs and asphalt roads within the former Oak Housing Area. The MEC construction support team will provide support to this work and coordinate the work with the low probability MEC investigation within the 10 grids in the former Oak Housing area. In addition to the 10 grids, low probability MEC investigation will be provided in areas within the former Oak Housing area where slabs and asphalt road are removed as necessary based on review of prior site survey information.

- b.) Instrument assisted visual inspection of any proposed construction footprint to include all areas where intrusive activities will be conducted, including areas outside of building footprints (e.g., areas to be regraded, landscaped, or covered by pavement or grass) within the former Oak and Maple Housing Areas. The MEC construction support team will perform a visual inspection of the area and will discuss any visual observations and potential areas of concern. In the event that surface MEC is discovered or suspected, the support team will place flagging adjacent to the discovery for subsequent visual reference, select a course around the item, and lead any on-site personnel out of the area.
- c.) Future On-Call MEC construction support for all intrusive activities in geographic areas where construction support has not previously been conducted. Construction support will be performed following low probability protocols in accordance with all applicable DoD and Army directives, policy, and guidance related to explosive safety requirements; including USACE EM 385-1-97, *Explosives Safety and Health Requirements Manual* (April 12, 2013).

4.1 SURVEY AND CONSTRUCTION SUPPORT AREA MARKING

The following procedures will be implemented for low probability MEC investigation and Construction Support activities as specified in Section 4.0 above:

The MEC construction support team will place identifying markers (i.e., wood stakes and flagging) at the corners of all areas that require MEC Construction Support. The locations of the markers will be documented in the daily report. All survey markers will be removed by USACE at the conclusion of the field work.

4.2 MEC SURVEY AND ANOMALY INVESTIGATION

The following procedures will be followed to implement MEC Construction Support Activities specified in Section 4.0 above:

- Low probability MEC investigations will be conducted following industry standard mag & flag/dig protocols. Each area will be divided into sweep lanes by laying ropes 5 feet apart. Each sweep lane will be swept with overlapping techniques into the neighboring lanes to ensure 100% coverage using a handheld magnetometer. Detected anomalies will be hand excavated to the depth of detection of magnetic signature through the use of standard hand tools.
- Instrument assisted visual inspection of any proposed construction footprint or any proposed intrusive activity will be conducted by a meandering path approach. The entire construction area will be covered by the instrument assisted visual survey with a focus in areas where intrusive work will be performed.
- Once a suspect anomaly is revealed it will be positively identified through assessment by the excavation team. MPPEH and scrap will be removed from the excavation and the hole checked for any additional anomalies. If a suspect MEC item is encountered it will be marked with a pin flag and guarded by the team until disposal. At the completion of disposal operations the hole will receive a final check for anomalies.
- Once each hole has been cleared, an area of 1-meter radius around the identified anomaly will be checked to ensure that the primary anomaly was not masking additional anomalies and to ensure that all anomalies are investigated. All excavations will be backfilled to grade.

4.3 MEC DISCOVERY

The Army will provide notification to MassDEP, USEPA and MassDevelopment within 24 hours of discovery of MEC. Disposition of suspect MEC will be accomplished by the Army or Army's contractor or if necessary, through use of local EOD assets. Suspected MEC items will remain under the control of the Army or Army's contractor until final disposition.

4.4 MATERIAL POTENTIALLY PRESENTING AN EXPLOSIVE HAZARD (MPPEH) PROCESSING

A MPPEH processing area will be established within the boundaries of the former

Oak and Maple Housing Areas site. MPPEH brought to the processing area will be inspected in accordance with DoD Instruction 4140.62/DoDM 6055.9M. The Army or the Army's contractor will 100% inspect, certify and verify all MPPEH. As a result of the inspection process, the item will be classified as either Material Documented as an Explosive Hazard (MDEH) or Material Documented as Safe (MDAS) following the guidelines and definitions in DoD Instruction 4140.62. MDEH items will be disposed of in the same manner as MEC. The Army will provide notification to MassDEP, USEPA and MassDevelopment within 24 hours of classifying any material as MDEH.




Once certified as MDAS material will be held in a secure container until final disposition. A DD Form 1348 will be completed for each sealed container prior to release to the public. At the conclusion of the investigation, the sealed MDAS containers will be provided to a local scrap dealer for recycling. MDAS will be secured and chain of custody maintained until release.

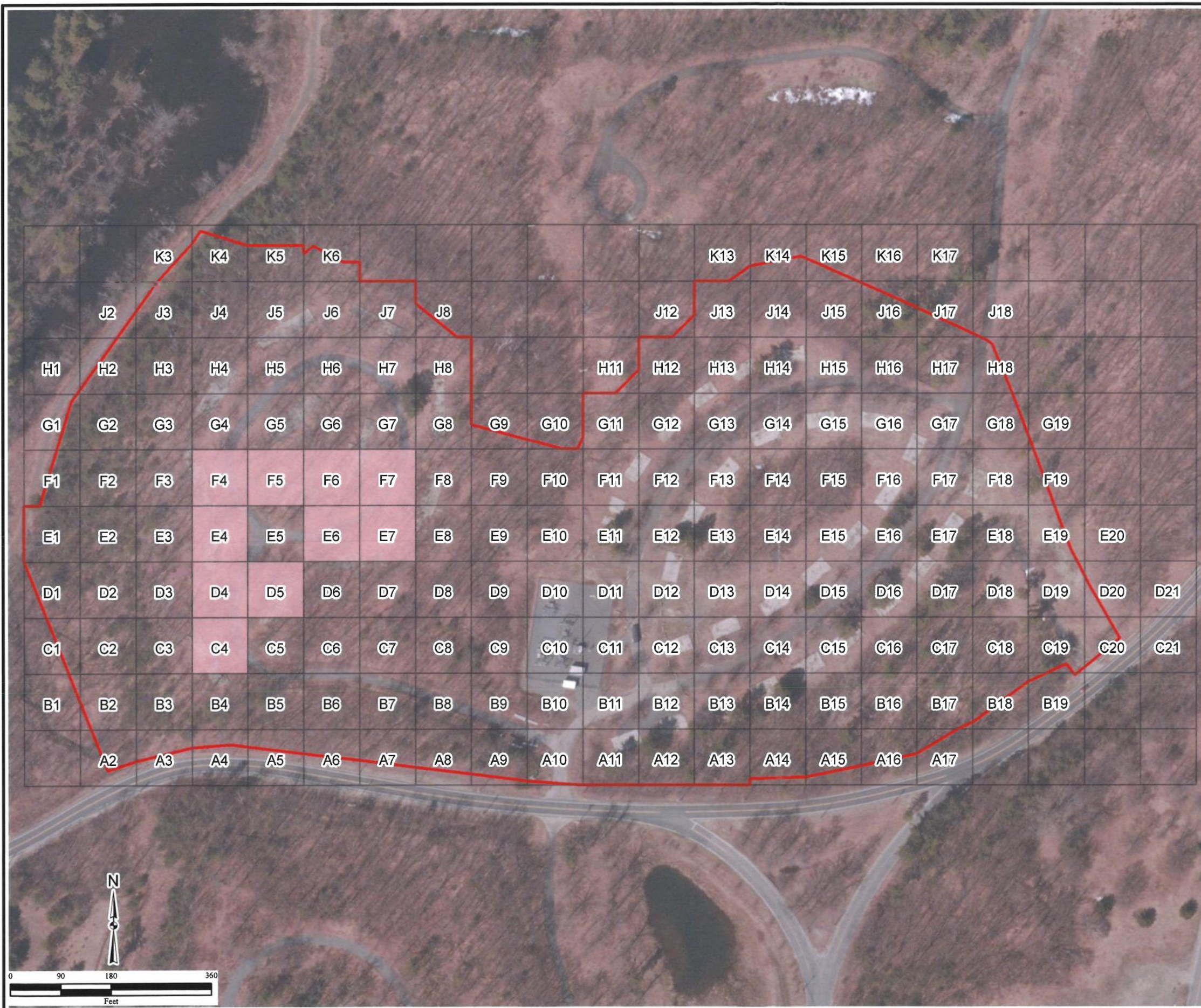
5.0 COMPLETION SUMMARY REPORT

Upon completion of site development activities and/or each site development phase, a summary report will be prepared which documents all MEC construction support activities on the site. This report will be submitted to MassDEP, USEPA and MassDevelopment within 60 days of completion of site activities.

Figure 1
Ten Grids to be Investigated for MEC
within the Oak and Maple Housing
Areas

Legend

-  100' x 100' Survey Grid
-  Grid to Investigate
- A2 Grid Identification
-  Former Oak and Maple Housing Study Area



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4/8/2015 CNL
Source: HGL, ESRI Online Aerial Imagery



APPENDIX A

Work Plan Addendum

Work Plan Addendum:

3.0

a. Project organization

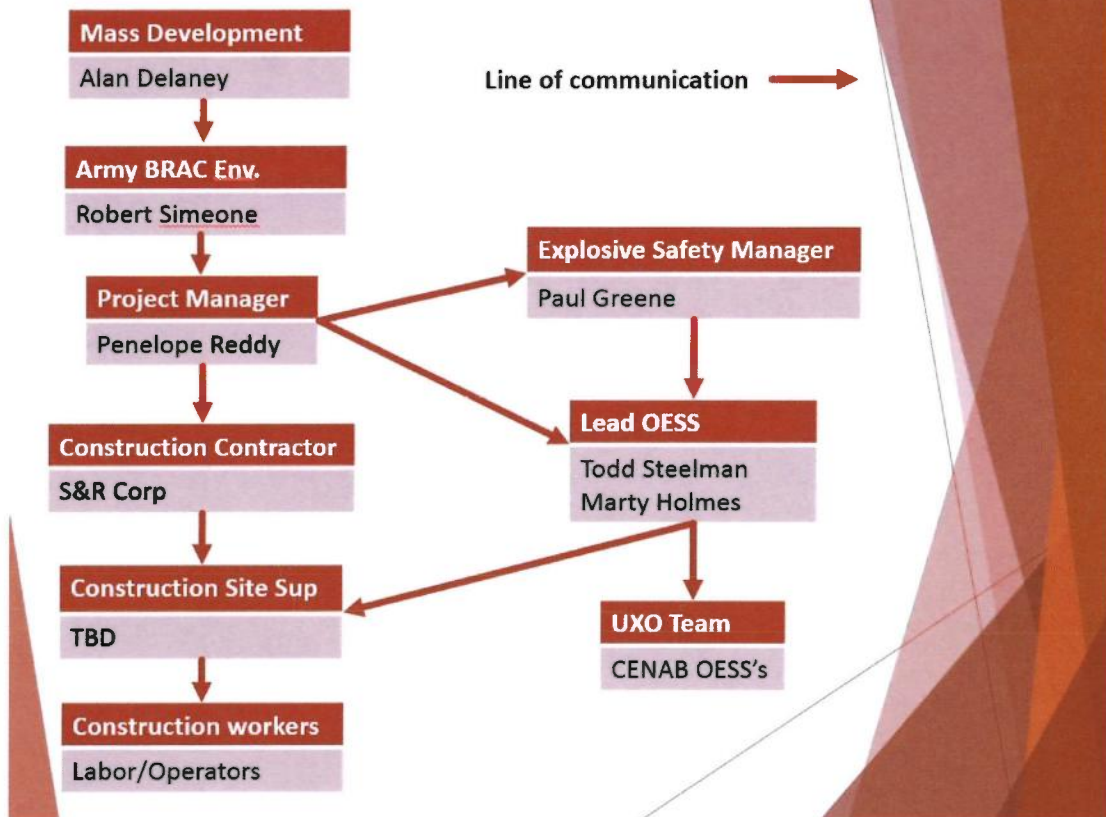


Figure 1. Org chart

b. Project Personnel and Qualifications

Role	Responsibility
CENAE Project Manager Penelope Reddy	<ul style="list-style-type: none"> • Overall management and responsibility for the project. • Primary POC and directly interacts CENAB personnel & S&R Corp. • Maintains the Project Management Plan. • Ensures on time completion and approval of deliverables. • Ensures implementation of project health and safety (H&S) and quality control (QC) procedures.
Lead OESS (SUXOS) Todd Steelman Marty Holmes	<ul style="list-style-type: none"> • Primary on-site POC. Functions as Site Manager. • Plans, coordinates, and supervises on-site activities. • Implements procedures and guidance for Low Probability operations. • Certifies materials documented as safe (MDAS) and signs Form 1348-1A. • Prepares daily field report. • Maintains field records for the project. • Supervises multiple project teams during the performance of field activities. • Provides subject matter expertise and leadership to ensure the team's safety and the project's quality. • Will meet the qualifications of a SUXOS according to TP-18.
Quality Control (QC) Safety *CENAB OESS	<ul style="list-style-type: none"> • POC for quality procedures pertaining to UXO operations. • Monitors activities affecting quality during Low Probability operations. • Performs QC to ensure that procedures are carried out in accordance with established requirements and protocols. • Prepares the Daily Quality Control Report (DQCR). • Provides subject matter expertise and leadership to ensure the project's quality. • Will meet the qualifications of a UXOQCS at a minimum according to TP-18.
UXO Tech II *CENAB OESS	<ul style="list-style-type: none"> • Primary workers on-site and report directly to the SUXOS. • Perform UXO operations, mag and dig, reacquisition, removal, and disposal operations. • Will meet the qualifications of a UXO Technician II at a minimum according to TP-18 and be under the direct supervision of the SUXOS

* All CENAB OESS's meet TP-18 requirements for Senior UXO Supervisor

Technical Paper-18 Requirements for Minimum Qualifications for Unexploded Ordnance Technicians and Personnel

Position Description	Training Required	Minimum MEC-related Experience	Minimum MEC-Supervisory Experience	Minimum Total EOD/MEC Experience
SUXOS	Notes 5, 7, 8, 9, 10, and 11	2 years	1 year	10 years
	Notes 6, 7, 8, 9, 10, and 11	10 years	5 years	13 years
UXOSO	Notes 5, 7, 8, and 9	1 year	0.5 year	8 years
	Notes 6, 7, 8, and 9	8 years	2 years	10 years
UXOQCS	Notes 5, 7, 8, 10, and 11	1 year	0.5 year	8 years
	Notes 6, 7, 8, 10, and 11	8 years	2 years	10 years
Dive Qualified	Note 12	As indicated above for the position description.		

Notes:

1. By definition, UXO-TII and UXO-TIII are UXOQP (minimum qualifications for UXO-T are provided on Table 4.2).
2. Graduate of an Occupational Safety and Health Administration (OSHA)-compliant (29 CFR 1910.120) 40-hour HAZWOPER course.
3. Limited to performance of MEC-related activities as a UXOT or UXOQP or similar civilian government service (e.g., Ordnance and Explosives Safety Specialist (OESS)). Conduct of activities performed as an SP or SW are not considered MEC-related experience and are not counted toward the experiential requirements for UXOQP.
4. Limited to experience in UXO supervisory positions (i.e., UXO-TIII, UXOQCS, UXOSO, OESS).
5. Graduate of a military EOD School of the United States, Canada, Great Britain, Germany, or Australia. (See Paragraph 4.6. for EOD personnel who were terminated for gross negligence in the performance of assigned duties, a flagrant violation of EOD safety procedures or regulation, or who self-terminated the performance of EOD duties before reaching 18 consecutive months.)
6. Graduate of a UXO-TI Course (see Chapter 3), the EOD assistant's course or pass a comprehensive assessment.
7. Graduate of an OSHA-compliant (29 CFR 1910.120(e)(4)) 8-hour Management and Supervisor Training course, if supervising other personnel.
8. Possesses an understanding of applicable explosives safety criteria and experience in the various phases of a munitions response to MEC or the conduct of range clearance activities, as appropriate for the operations to be performed.
9. Must have completed a 10-hour OSHA Construction Safety and Health Training and earned a Department of Labor Construction Safety Course Completion Card.
10. UXOQCS must have either:
 - a. Successfully completed training as a quality professional (i.e., International Standards Organization 9001 internal auditor, American Society of Quality Certified quality auditor);
 - b. Possess a quality-professional certification by a recognized organization (e.g., U.S. Army the Corps of Engineers Naval Facility Engineering Command Training Course Construction Quality Management for Contractors; or
 - c. Receive company- and project-specific QC training and work under the supervision of a certified quality professional.
11. UXOQCS must demonstrate an understanding of QC and QA practices associated with MEC-related activities and managing and processing MPPEH, including documentation of its explosives safety status.
12. Divers who are independently performing the duties of a UXOT or UXOQP must:
 - a. Meet this TP's criteria for the duties performed and the requirements of 29 CFR 1910, Subpart T.
 - b. Possess the dive-related certifications required for the tasks they are to perform or supervise. (Note: Certifications (dive or training) must be from an accredited school and meet the requirements contained in ANSI/ACDE Standard-01; be documented as valid by an ADC Commercial Diver Certification Card for the appropriate training level; and/or have documentation of successful completion of an appropriate level of training from an ACDE accredited school.)

C. Site Specific Health and Safety Plan

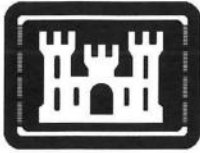
See Appendix B

d. Project Schedule

The anticipated start date is 6 July 2016. A kick-off meeting and health and safety meeting will be conducted prior to commencement of work. Following removal of the slabs, the UXO team will complete the low probability MEC investigation of the 10 grids. The MEC construction team will then provide instrument assisted surface investigation of any proposed construction footprint with the Oak and Maple Housing Area as discussed in Section 4.0 of the work plan.

APPENDIX B

Site Specific Health and Safety Plan



**US Army Corps
of Engineers**

BALTIMORE DISTRICT

**FINAL
SITE SAFETY AND HEALTH PLAN**

**Munitions and Explosives of Concern
Military Munitions Response Program (MMRP)
Construction Support
Oak and Maple housing area
Former Ft Devens**

**Prepared by:
Engineering Division
U.S. Army Engineer District, Baltimore
10 South Howard Street
Baltimore, MD 21201**

June 2016

**FINAL
SITE SAFETY AND HEALTH PLAN**

**Munitions and Explosives of Concern
Military Munitions Response Program (MMRP)
Construction Support
Oak and Maple housing area
Former Ft Devens
PLAN APPROVAL PAGE**

This Site Specific Safety and Health Plan was prepared by the following:

Signature _____ **Date:**

Marty A Holmes

Environmental and Explosive Safety Section

Environmental and Munitions Design Center

This Site Specific Safety and Health Plan was approved by the following:

Signature _____ **Date:**

Paul E. Greene

Chief, Environmental and Explosive Safety Section

Environmental and Munitions Design Center

[To Be Signed When Finalized]

**FINAL
SITE SAFETY AND HEALTH PLAN**

**Munitions and Explosives of Concern Military Munitions Response Program
(MMRP)**

**Construction Support Oak and Maple housing area
Former Ft Devens**

SITE SAFETY AND HEALTH PLAN REFERENCES

The purpose of this Site Safety and Health Plan (SSHP) is to assign responsibilities, establish personnel protection standards, and state mandatory safety practices and procedures for project personnel during the field work activities for munitions and explosives of concern. The procedures outlined in this SSHP have been developed to comply with applicable local, State, Federal and US Army Corps of Engineers (USACE) safety requirements.

This SSHP has been prepared to ensure the work to be conducted is in compliance with the most current versions of the following regulatory and guidance documents:

USACE, Safety and Health Requirements Manual, EM 385-1-1, November, 2014

USACE, Safety and Occupational Health Document Requirements for Hazardous, Toxic and Radioactive Waste (HTRW) Activities, Appendix B, ER 385-1-92;

Occupational Safety and Health Administration (OSHA) Construction Industry Standards, 29 CFR 1926, especially 29 CFR 1926.65;

Department of Defense Explosives Safety Manual 6055.09-M, August 2010

Department of the Army Pamphlet (DA Pam) 385-64

US Army Corps of Engineers (USACE) Explosive Safety Manual, EM 385-1-97

NIOSH/OSHA/USCG/EPA, "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities", October 1985; and other applicable Federal, State and local safety and health requirements;

FINAL SITE SAFETY AND HEALTH PLAN

Munitions and Explosives of Concern Military Munitions Response Program (MMRP) Construction Support Oak and Maple housing area Former Ft Devens, MA

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APPENDIX A

ACTIVITY HAZARD ANALYSIS (AHA's)

FINAL
SITE SAFETY AND HEALTH PLAN
Munitions and Explosives of Concern Military Munitions
Response Program (MMRP)
Construction Support Oak and Maple housing area
Former Ft Devens

1.0 BACKGROUND INFORMATION

The purpose of this Accident Prevention Plan (APP) is to establish site-specific safety and health procedures to be used during field activities at the former Fort Devens Army Installation (Figure 1.1). USACE will conduct a low probability sweep in 10 grids and provide construction support in the former Oak and Maple Housing Areas. The SSHP assigns responsibilities, establishes standard operating procedures, and provides for contingencies that may arise during field activities at Oak and Maple Housing Areas. The procedures outlined have been established based on a preliminary analysis of potential hazards at the site.

2.0 SITE DESCRIPTION

2.1 SITE LOCATION

Former Ft Devens Oak and Maple housing area, which covers approximately 38 acres, is located in Devens MA.

2.2 SITE HISTORY

The Oak and Maple Housing Areas project site is located off Hospital Road within the former Main Post parcel in the vicinity of the former Grant, Locust, and Cavite Housing Areas. The terrain at the former Oak and Maple Housing Areas site varies from flat/level areas where former residential housing once stood to steep hillsides towards the northern boundary of the site. The vegetation consists of various grasses and trees. Portions of the site are heavily wooded. The site is considered accessible as it was once a former housing areas and a road exists through the site. The road has not been maintained since the areas were closed under the BRAC program.

Soil conditions of the site are very similar to that of the adjacent former Grant Housing Area. The site is located on a former glacial outwash plain consisting of mostly sand and gravel deposits. The glacial outwash sediments have been reworked by the Nashua River along the northwestern edge of the Grant Housing Area and are part of the Nashua River Floodplain.

3.0 PURPOSE AND SCOPE

3.1 SITE TASKS

The objectives of the Field work is to provide construction support for the removal of concrete housing pads & pavement removal at the former Oak and Maple housing area and to conduct a Low Probability sweep of 10 grids in this same area. In addition, applicable hazard analyses or screening level risk assessments will be utilized to determine the effect of any MEC on human health and the environment. This response action is being performed under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and is part of the overall Remedial Action Process. The Proposed Action consists of providing constructing support at Oak and Maple Housing area at Devens. The Oak and Maple housing area totals approximately 38 acres and defines the limits of the project area.

The specific field tasks required to meet the project objectives are:

- Site Mobilization
- Screening Level Assessment to determine the presence or absence of MEC at the DEVENS site location.
- Demobilization

An objective of this SSHP is to ensure that operations, materials, and equipment will be evaluated to determine the presence of hazardous environments or if hazardous or toxic agents could be released into the work environment.

The Activity Hazard Analysis (AHA) system for the project is presented in Attachment B. The AHAs identify substances, agents, actions, and environments that present a hazard and recommend hazard control measures.

Key elements of the AHAs that are required for a Health Hazard Control Program are:

- The written procedures and AHAs are included in Attachment B as part of the hazard/risk assessment process;
- Each AHA identifies the workplace and activity evaluated;
- The AHA identifies the name of the person who prepared the AHA and the evaluation has been performed; and
- The analysis identifies the date of the evaluation.

Hazard and risk assessments have been conducted by the Health and Safety Manager (HSM) to ensure that operations, materials, and equipment were evaluated and that the hazards and risks associated with the work will be communicated to the personnel.

The Unexploded Ordnance (UXO) Safety Officer (UXOSO) Ordnance and Explosive Safety Specialists (OESS) will manage the AHAs on site, and with the help of the crew, improve upon or add to existing AHAs as new potential hazards are encountered. The AHAs will be reviewed throughout the field effort. At the start of a new activity, the UXOSO will review the AHA with applicable personnel.

4.1 Hazard Communication Program

The Hazard Communication Program elements for this project are presented below in accordance with the requirements of EM 385-1-1 Section 06.B.01 and as required by the Occupational Safety and Health Administration (OSHA) Global Harmonized Standard (GHS). Materials expected to be brought on site include explosives for demolition/demilitarization purposes.

As part of the MC activities, an inventory of hazardous materials will be prepared and maintained. The inventory will be updated if any additional materials are brought on site, and as frequently as necessary to reflect accurate quantities.

Labels on incoming containers of hazardous materials will not be removed or defaced. Containers not already affixed with appropriate labeling will be labeled by the Project Team with the following information:

1. Product name and identity of the hazardous chemical(s).
2. Appropriate hazard warnings.
3. Name and address of the chemical manufacturer, importer, or other responsible party.

Labels are also required when a hazardous substance is transferred from a primary container to a secondary container. Labels on secondary containers must indicate the product name or the names of the hazardous substances contained therein, as well as related physical and health hazards and their associated target organs. Labels may incorporate words, pictures, symbols, or combinations thereof to ensure the appropriate information is provided to the end user.

4.2 Safety Data Sheets

Safety Data Sheets (SDSs) are required for hazardous materials brought on site by project personnel. SDS information will be followed in the use and disposal of material and selection of hazard control and emergency response measures.

The UXOSO/OESS will obtain an SDS for each chemical before it is used. SDSs will generally be received by the person ordering the product. SDSs for products frequently used will be kept on file in the event that additional copies are not included in repeat shipments. The UXOSO will review each SDS when it is received to evaluate whether the information is complete, and to determine whether existing protective measures are adequate.

The UXOSO/OESS will maintain a collection of applicable and relevant SDSs in an area that is accessible by employees. An electronic database is an acceptable and Maple Housing is a viable method of maintaining the SDSs. The UXOSO/OESS will amend SDSs when updated sheets are received and will communicate any significant changes to those who work with the chemical.

General household products to be used for their specific purpose, as well as food, drugs, and cosmetics brought into the workplace for employee consumption, are exempt, as are supplies in the first-aid kit, such as isopropyl alcohol and antibacterial wipes.

Employees bringing hazardous materials on to a site or project must submit SDSs to the UXOSO/OESS. The UXOSO/OESS may restrict the use of certain hazardous materials on a site or project due to occupational health risk, hazardous physical properties of the material, or potential employee sensitivity to odor or irritating properties of the material.

Personnel working in the vicinity of hazardous substances shall be provided with the following information on chemicals used by or provided to field team personnel:

1. Names of hazardous chemicals to which they may be exposed while on the jobsite.
2. Precautions the employees may take to lessen the possibility of exposure by usage of appropriate protective measures, such as ventilation or isolation of the work. In some cases, as an administrative control measure, a task may be delayed to a time when a minimal number of employees are present in the area.

4.3 Training

Employees will be trained initially and periodically when use of hazardous or toxic agents are altered or modified to accommodate changing on-site work procedures.

Training shall cover the following topics:

1. Requirements and use of the hazard communications program on the project;
2. The location of hazardous or toxic agents at the project;
3. Identification and recognition of hazardous or toxic agents on the project;
4. Physical and health hazards of the hazardous or toxic agents pertinent to project activities; and
5. Protective measures employees can implement when working with project-specific hazardous or toxic agents.

Employees may be required to perform hazardous non-routine tasks. Prior to starting work on such tasks, each employee must be provided with information about hazards to which they may be exposed, as follows:

1. Specific chemical hazards;
2. Protective/safety measures that must be taken; and
3. Measures that have been taken to lessen the hazards, including ventilation, respirators, presence of another employee, and emergency procedures.

Training will be provided to employees who have the potential to be exposed to hazardous materials: (a) at the time of the initial task assignment; (b) whenever new chemicals are introduced into the workplace; and (c) more frequently where required by site-specific conditions or client-specific requirements.

This training will include the following:

1. Applicable regulatory requirements.
2. Location of the program, inventory, and SDS.
3. Site-specific chemicals used and their hazards (chemical, physical, and health), including:
 - a. General characteristics of chemicals
 - b. Signs and symptoms of exposure.

4. How to detect the presence or release of chemicals including the location, types, and usage of any portable and fixed monitoring or detection equipment and their associated alarms, where applicable.
5. Safe work practices and methods employees can take to protect themselves from chemical hazards, including the use of respiratory protection.
6. How to read an SDS.
7. Site- or project-specific information on hazard warnings and labels in use at the location, if applicable.
8. Site-specific evacuation and rescue procedures in the event of chemical release, including the location of staging areas and personnel accounting procedures.

5.1 HAZARD ANALYSIS

There is the potential for exposure to physical and biological hazards during removal action. It should be recognized that knowledge of physical, or biological, which may be encountered, or concentrations of contaminants that may be found can only be assumed based on a review of available site information and recommendations. However, the maintenance of good health and the provision for the safety of on-site personnel should be regarded at all times during the performance of field activities. Workers shall institute good personal hygiene practices to minimize contact with potentially contaminated soil and water.

The potential hazards associated with work on the site include physical and biological hazards. AHAs have been and will be reviewed by the HSM, to ensure that operations, materials, and equipment involved in the field effort were evaluated. The hazards and risks associated with the work will be communicated to personnel. Risk Assessment Codes. Hazards are assessed using a scale of 1-5 with 1 being high risk and 5 being low risk. Using this method, the majority of the site hazards were associated with a low to moderate risk.

Activity Hazard Analysis (AHA)

Activity/Work Task:	Overall Risk Assessment Code (RAC) (Use highest code)					
Project Location:	Risk Assessment Code (RAC) Matrix					
Contract Number:	Severity	Probability				
Date Prepared:		Frequent	Likely	Occasional	Seldom	Unlikely
Prepared by (Name/Title):	Catastrophic	E	E	H	H	M
	Critical	E	H	H	M	L
Reviewed by (Name/Title):	Marginal	H	M	M	L	L
	Negligible	M	L	L	L	L
Notes: (Field Notes, Review Comments, etc.)	<p>Step 1: Review each "Hazard" with identified safety "Controls". Determine RAC (See above)</p> <p>Probability: likelihood the activity will cause a Mishap (near miss, incident or accident). Identify as Frequent, Likely, Occasional, Seldom or Unlikely.</p> <p>Severity: the outcome if a mishap occurred. Identify as Catastrophic, Critical, Marginal, or Negligible</p> <p>Step 2: Identify the RAC (probability vs. severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.</p>					
	<p>RAC Chart</p> <p>E = Extremely High Risk</p> <p>H = High Risk</p> <p>M = Moderate Risk</p> <p>L = Low Risk</p>					
Job Steps	Hazards	Controls			RAC	
1.	1.	1.			1.	
2.	2.	2.			2.	
Equipment to be Used	Training Requirements & Competent or Qualified Personnel name(s)	Inspection Requirements				

5.2 Flammable and Combustible Materials

Work areas shall be kept free of unnecessary debris. During on-site activities, the following practices will be used for fire prevention and protection:

- Smoking on site is prohibited outside of designated smoking area(s).
- Smoking area(s) will vary based upon site activities and work areas; crew will be advised of changes, as necessary.
- Fire extinguishers will be available in project vehicles.
- Fire extinguishers will be inspected monthly.
- Defective firefighting equipment will be replaced immediately.
- Fires in the incipient stage may be addressed using portable fire extinguishers. Regardless of the size and nature of the fire, and the project team's ability to respond, fires will be reported to the local fire department.

If a fire should occur, it will be classified as Class A, B, or C. These classifications are defined as follows:

- Class A – Fires in ordinary combustible materials such as wood, cloth, paper, trash, rubber, and plastic.

- Class B – Fires in flammable liquid, oil, grease, tar, oil-based paint, lacquer, and flammable gas.
- Class C – Fires involving energized electrical equipment or systems, resulting in the extinguishing media conducting electricity. When electrical equipment or systems are de-energized, extinguishers for Class A or B fires can be used safely.

Extinguishers are rated according to the classification and size of the fires against which they are effective. Extinguisher ratings are found on the extinguisher label. A rating consists of a letter indicating the classification of fire on which the extinguisher is effective and a rating number indicating the relative extinguishing effectiveness. The significance of the rating number varies with the classification of fire for which the extinguisher is rated. The following rating criteria are used:

- For extinguishers rated for Class A fires, the rating number indicates relative effectiveness, the higher the number, the more effective the extinguisher. The minimum recommended rating for extinguishers rated for Class A fires is 2A.
- For extinguishers rated for Class B fires, the rating number represents the average size (in square feet) of the fire the extinguisher could put out.
- No number is used for extinguishers rated for Class C fires, because Class C fires are essentially either Class A or B fires involving energized electrical wiring and equipment.

5.3 Slip, Trip, and Fall Hazards

Uneven work surfaces and other slipping or tripping hazards may be present. Personnel must use caution when walking on unstable or uneven terrain. Site personnel are responsible for proper site housekeeping which includes removal of trash, and orderly stacking and removal of materials to prevent slipping and tripping hazards.

5.4 Electricity

Ground circuit fault interrupters will be used for outdoor power tool use.

5.5 Equipment

Hand tools to be used include, but are not limited to: digging tools, multi-tools, and knives. Hand tools will be maintained in a safe condition and in good repair. Field personnel will not issue or use unsafe tools. Procedures for safe hand tool use include:

- Do not use excessive force on a tool; this indicates that the wrong tool is being used.
- Keep tools clean and properly stored when not in use.

5.6 Manual Lifting

Back injuries such as muscle pulls and disc impairments can be reduced by using proper manual lifting techniques. Leg muscles are stronger than back muscles; workers should lift with their legs and not with their backs. If the load is too heavy, workers should not attempt to lift it alone. Manual or mechanical assistance should be used when appropriate.

The following guidelines will be followed when lifting objects that are of odd size or shape, or that weigh over 50 pounds:

1. Get help when lifting heavy loads.
2. Plan the lift. If lifting a heavy object, plan the route and where to place the object. In addition, plan communication signals to be used (i.e., "1, 2, 3, lift," etc.).
3. Wear sturdy shoes that are in good condition and supply traction when performing lifts.
4. Keep the back straight and head aligned during the lift and use leg muscles to lift the load; do not twist or bend from the waist. Keep the load in front of the person; do not lift or carry objects from the side. Keeping the heavy part of the load close to the body will help maintain balance.

5.7 Vehicle Safety

Personnel must use caution when traveling to and from the site in personal or company vehicles. The following field/site vehicle safety items shall be followed:

1. Staff members operating a motor vehicle must possess a current, valid driver's license.
2. Local and facility speed limits and traffic regulations will be followed. Headlights will be used, as appropriate. Uncontrolled intersections (no traffic lights or traffic signs) will be treated as a four-way stop. The driver will exercise extreme caution at uncontrolled intersections.
3. Cell phone use (even with a hands-free device) is prohibited when driving. The use of any other portable headphones, earphones, or other listening devices is also prohibited. Operators will not eat, drink, or smoke, while the vehicle is in motion. If a GPS is used, it must be mounted such that it does not interfere with the driver's range of vision. The GPS will not be programmed while driving. A non-mounted GPS will only be programmed while the vehicle is in a stopped position.
4. Rental vehicles are expected to be maintained by the rental company and inspected prior to release. Employees will physically inspect vehicles and test the safety systems (lights, flashers, wipers, etc.) each working day.
5. Traffic cones, or other markings, will be used as needed, to define roads and parking. If parking on the shoulder of an active road, employees will park as far off the road as possible. If work is required alongside an active road, the vehicle will be parked behind the area of work to provide a barrier against out-of-control vehicles.
6. The operator and passengers shall use seat belts when a motor vehicle is in motion. No employee may ride in the bed of a pickup truck unless seating and restraints are provided for this specific use. Articles, tools, equipment, etc. placed in vehicles will be stored so as not to interfere with vision or the proper operation of the vehicle in any way. Items in the vehicle must be secured to prevent them from flying about or out of the vehicle during sudden stops, turning, etc. Liquids will be packaged to prevent spillage.
7. Trucks or vehicles with obstructed rearview mirrors must observe the following procedures when backing up: Position an employee to act as a spotter at the rear of the vehicles, in the driver's line of sight, to ensure that the area behind the truck is clear. If no other employee is present, then the driver must step out of the vehicle and check the area behind the vehicle before backing up. As an added precaution, avoid backing up whenever possible.

5.8 Illumination

Site activities will be conducted during daylight hours.

5.9 Explosives Ordnance and Explosives

UXO personnel will not bring explosives to the site during this phase of work.

5.10 Chemical Hazards

MC that may be present on site include, are limited brass and metal components. As dictated by good work practices, Project Team personnel will be expected to:

1. Properly use Personal Protective Equipment (PPE) – safety glasses and nitrile gloves, as appropriate.
2. Practice contaminant avoidance.
3. Follow proper decontamination procedures (disposal of gloves, wash safety glasses, as needed).
4. Observe good personal hygiene practices (wash hands after removing gloves; wash hands and face prior to eating, drinking, or smoking).

Hazardous chemicals brought on site by Project Team personnel will be managed.

5.11 Physical Hazards

Tasks required for activities associated with this project will involve exposure to noise, slipping, tripping, falling, heat/cold stress, and other physical hazards associated with the work activities conducted in an outdoor environment. The workers should be made aware of the potential problems associated with uneven work surfaces. The following sections provide reminders for safe behavior to mitigate physical hazards.

5.12 Noise

Hearing protection will be worn if noise levels reach 85 decibels. Hearing protection devices (HPDs) will be used when decibel levels continuously exceed 85 decibels; however, employees may wear HPDs at their own discretion when sound levels are below 85 dBA.

5.13 Work Near Water

This project is not anticipated to be near water, therefore there is no need for personal protective equipment (PPE) needed for working near water.

5.14 Temperature Extremes

Local weather conditions and the required use of PPE may produce an environment that requires restricted work schedules to protect employees from heat or cold stress. The UXOSO will observe workers for any potential symptoms and address concerns in accordance with the

5.15 SEVERE WEATHER HAZARDS/ HEAT STRESS/COLD EXPOSURE MONITORING

Severe weather hazards include, but are not limited to: heavy rains, damaging winds, thunderstorms, tornados, hurricanes, floods, and lightning. Weather forecasts will be checked prior to site work each day and will be monitored throughout the day, as needed.

If threatening weather conditions are predicted, the UXOSO/OESS will determine if work can continue without endangering the health and safety of site personnel by assessing the probability of the following:

1. Potential for lightning strikes;
2. Potential for heat or cold stress;
3. Limited visibility;
4. Inclement weather-related working conditions; and
5. Roads becoming impassable.

Work may be suspended during severe weather, including electrical storms. In the event of a lightning strike, 30 minutes must pass from the last observed strike within a 5-mile radius before site personnel can be allowed out of vehicles to go back to work. Personnel will seek shelter in the vehicles or a nearby building, as necessary. Sustained winds in excess of 35 miles per hour shall result in a stoppage of work. Tornado warnings issued for the work site area shall result in a stoppage of work for the duration of the warning – all site personnel will report to the location established by the UXOSO/OESS. During mobilization the UXOSO/OESS will establish tornado/hurricane evacuation routes and shelters. Because these weather conditions are a possibility in the area the UXOSO/OESS will coordinate with the base staff to find out if severe storm shelters already exist. In the event of a flood personnel will move immediately to higher ground if possible. If driving, personnel will not drive through flooded areas.

5.16 Ionizing Radiation

Ionizing radiation is not anticipated to be an issue at the site while performing the UXO clearance work activities.

5.17 Biological Hazards

Potential biological hazards associated with this site are those which would be encountered while working outside. Employees should exercise caution when encountering hazardous plants such as cow parsnip and wild calla, and animals and insects such as spiders, bees, wasps, ticks, mosquitoes, ants, etc. at the work-site. Field personnel should wear adequate clothing to deny access to the skin and should examine themselves carefully every day for the presence of ticks. Employees who are known to be highly sensitive to insect stings should carry a "sting kit" and notify the UXOSO/OESS prior to commencing work at the work-site.

Biological agents that may cause health hazards are diverse; consequently, their health effects are also diverse. Biological hazards include Blood borne pathogens, microorganisms, insects, wildlife, and poisonous plants. The effects range from mild skin irritation to debilitating or life-threatening illness.

5.17 Bloodborne Pathogens

During site activities, workers can potentially be exposed to Bloodborne pathogens when rendering first aid or CPR. Avoiding contact with Bloodborne pathogens is the best way to prevent adverse health effects caused by them. Recognition of potential hazards is essential. As a general rule, employees shall not come into contact with any item that may appear to result from medical waste disposal. When avoidance is impractical or impossible, such as when administering first aid, PPE and personal hygiene will be used to prevent adverse effects.

Employees are at risk of contracting infectious diseases each time they are exposed to bloodborne pathogens. Because it is possible to become infected from a single exposure incident, it is the practice of the project team to prevent exposure incidents whenever possible.

To ensure that personnel working on the project team are effectively informed concerning potential workplace health hazards, and in accordance with the requirements set forth in 29 CFR 1910.1030 and EM 385-1-1 Section 3, the project team has established the following site-specific exposure control plan (ECP) for Bloodborne pathogens for the planned field activities. The purpose of this plan is to identify those project tasks and procedures for which occupational exposure to Bloodborne pathogens may occur, to identify the positions whose duties include those tasks, and to implement controls that will significantly reduce the risk of infection by Bloodborne pathogens. The site-specific ECP provides for the following.

- **Work practice controls:** Adequate supplies for administering first aid and CPR will be available. Project team personnel will treat contact with human blood and bodily fluids as potentially infectious. Hand washing facilities/supplies shall be made readily accessible for personnel working on site.
- **PPE:** PPE will be provided to field personnel, as appropriate. Typical equipment includes, but is not limited to, gloves, face masks, eye protection, and CPR shield. PPE will be considered appropriate if it does not permit blood or other potentially infectious materials to reach or pass through clothes, skin, or mucous membranes of the eyes or mouth under normal conditions of use and for the duration of time the equipment will be used. PPE will be maintained readily accessible and will be removed prior to leaving the work area.
- **Housekeeping:** Universal precautions will be used when cleaning or decontaminating a surface or equipment that may be contaminated. Appropriate PPE will be used for protection during decontamination.
- **Post-Exposure Activities:**
 - Occupational Bloodborne pathogen exposures will be reported to the UXOSO/OESS. Following the report of an exposure incident, a confidential medical evaluation with an occupational physician will be arranged as soon as possible.
 - The UXOSO/OESS will complete the proper incident report forms, as appropriate. The HSM and Program Safety Manager will review the circumstances of each exposure incident to determine if the appropriate work procedures were being followed at the time of the incident, and to assess and implement any necessary corrective actions, including changes required in the ECP.
- **Hepatitis B Vaccine:** Employees identified as having jobs where there is a risk of exposure have been offered the hepatitis B vaccine free of charge; records are maintained in each employee's confidential medical file. If employee refuses to receive the hepatitis B vaccine, he or she must sign and date a refusal document or letter.

5.18 Microorganisms

Factors that may allow microorganisms' access to site personnel include poor hygiene and eating habits. Good personal hygiene practices will be observed (washing hands and face prior to eating, drinking, or smoking). Employees will be encouraged to ensure that packed snacks or meals are maintained at a safe temperature.

5.19 Biting/Stinging Insects and Spiders

Insects that may be present on site include bees, mosquitoes, wasps, black flies, horse flies, deer flies, stable flies, chiggers, midges, and ticks. The UXOSO/OESS will inform personnel about the potential insect and spider hazards and preventive measures, such as the use of insect repellent. If a bite or sting occurs, personnel with current certification in first-aid procedures will administer first aid, as necessary.

Bees

Site workers who have a history of allergic reactions to bee stings will inform the UXOSO/OESS by completing the medical information questionnaire during the initial site-specific safety training and will personally carry an epinephrine auto-injector (e.g., Epi-Pen), if required. If there is an insect bite or sting emergency, the victim will be transported to the hospital for treatment.

Mosquitos, Wasps, Flies, Chiggers, and Midges

West Nile virus and La Cross encephalitis are transmitted by infected mosquitoes. In addition, mosquitoes, wasps, flies, chiggers and midges' bites and stings can leave itchy welts on the skin. To protect against stings and bites, personnel are advised to wear long sleeves and long pants, with pant legs tucked into or taped around socks. Spray clothing and exposed skin with a repellent, as needed.

Ticks

Deer ticks and dog ticks are found throughout Massachusetts. Ticks are eight-legged and generally have a narrow head with a bulbous abdomen.



Dog Tick



Deer Tick

Lyme disease, Colorado tick fever, and human anaplasmosis are transmitted by infected ticks. Lyme disease, if transmitted will generally cause a characteristic rash that may develop a few days to a few weeks after the bite of an infected tick. The rash generally looks like an expanding red ring with a clear center. It can vary from a blotchy appearance to red throughout the rash; however, it is important to note that some victims never exhibit a rash. Lyme disease symptoms include flu-like symptoms such as headache, stiff neck, fever, muscle aches, and/or general malaise. If Lyme disease is not treated early with antibiotics, the early symptoms may disappear, but more serious problems may follow. Long-term effects of Lyme disease may include arthritis of the large joints, meningitis, neurological complications (e.g., numbness, tingling in extremities, loss of concentration and memory retention, Bell's palsy), withdrawal, lethargy, or cardiac symptoms. Most cases of Lyme disease can be treated successfully with a few weeks of antibiotics. The vaccine for Lyme disease is no longer available. It was discontinued by the manufacturer in 2002, citing low demand and reported adverse reactions from some patients.

The symptoms of anaplasmosis include fever, headache, chills, muscle pain, confusion and a rash (though does not appear in all who are infected). While there is no vaccine, anaplasmosis is rarely fatal and is treated with antibiotics; recovery can take up to three weeks.

Personnel should use the following prevention tactics when working outside:

1. Dress in light-colored clothing to make adhering ticks more visible. Wear long-sleeved shirts and tuck pants into or tape around socks. Personnel will be advised that it may be advantageous to use double-sided tape around socks or gaiters.
2. Use a tick repellent containing diluted DEET or permethrin as needed.
3. Perform self-searches to check for ticks. Check body areas where ticks are commonly found: behind the knees, between the fingers and toes, under the arms, in and behind the

ears, and on the neck, hairline, and top of the head. Check places where clothing presses on skin.

4. Shower and perform a careful whole body search for ticks.
5. If any ticks are found attached, remove using fine tweezers or a “tick tool.”

Spiders

The poisonous black widow spider is known to be located in Massachusetts.

5.20 Wildlife

Wildlife that are common near the site include: coyotes, fox, wolf, bear, moose, elk, and deer. These animals may bite or scratch if cornered or threatened. Field personnel will not approach wildlife.

5.21 Snakes

The two venomous species, the timber rattlesnake and northern copperhead, are very rare, and prefer rocky, forested hillsides. There are no water moccasins, cobras, or other exotic venomous snakes native to Massachusetts.

5.22 Poisonous Plants

There are many different types of plants that are poisonous to watch out for in Massachusetts which include the following: Cow Parsnip, Poison Ivy, Giant Hogweed, Stinging Nettles, Wild Parsnip, and Poison Sumac.

Stinging Nettles- There’s no mistaking the stinging nettle. Sure, its paired, heart-shaped, coarsely-toothed leaves are easy to spot. But it’s the painful burning sensation one gets from even a light brush against a stem or leaf that makes the stinging nettle memorable.

Poison Ivy - The king of Northeastern rash plants is, of course, poison ivy (*Toxicodendron radicans*). The plant can be identified by its almond-shaped leaves that have subtle teeth along the edge. The leaflets appear in clusters of three, and the middle leaflet has a longer petiole. Poison ivy grows both as a ground cover and as a woody vine that climbs trees by means of aerial roots. Western poison ivy (*Toxicodendron rydbergii*) is also found in the region, and appears as a straggling shrub. Both types of poison ivy prefer warm, rich sites over cooler, thinner, higher elevation sites.

If you brush up against any part of a poison ivy plant (or come in contact with a pet or a garden tool that has brushed up against a poison ivy plant), you might contract a rash. Rashes typically appear a day or two after you’ve touched the plant and are characterized by red swelling and small blisters. The intensity of the rash varies among individuals.

Giant Hogweed/Wild Parsnip - To the untrained eye, many members of the carrot family look alike. Poison hemlock and spotted water hemlock can be confused with Queen Anne’s lace; wild parsnip can be confused with cow parsnip, which can be confused with giant hogweed, which can

be confused with great angelica. Of all the plants just mentioned, though, only wild parsnip and giant hogweed contain sap that will significantly irritate your skin.

Poison Sumac - In terms of its potential to cause urushiol-induced contact dermatitis, poison sumac is more toxic than its relative's poison ivy and poison oak. According to some botanists, poison sumac is the most toxic plant species in the United States (Frankel, 1991).

The differences in toxicity in poison ivy, poison oak, and poison sumac are due to differences in the side chains of the chemicals in these plants. In general, poison ivy has a CI5 side chain, poison oak has a CI7 side chain and poison sumac has a CI3 side chain.

The dermatitis shows itself in painful and long continued swellings and eruptions. In the worst case, smoke inhaled by burning poison sumac leaves results in a life-threatening medical condition pulmonary edema whereby fluid enters small air sacs of lungs.



Cow Parsnip

Scientific Name: *Heracleum maximum*

Habitat: This plant grows in moist, shaded habitats and can thrive in multiple types of soil.

Leaves: Cow Parsnip is a tall herb, reaching to heights of over two meters. The leaves are very large, up to 18 inches across and divided into lobes.

Flowers: Cow Parsnip has characteristic flower umbels that are about 20 cm across; these may be flat-topped or more rounded, and are always white.

Fruit: Not Applicable

Effects: The sap of this plant contains various phototoxic chemicals that can make the skin (especially light skin) extremely sensitive to sunlight and more prone to sunburn. Skin contact with juice from the plant followed by exposure to sunlight can cause dermatitis, which can range from a mild, red rash to severe skin blistering. Simply avoid touching the plant with bare skin by wearing long sleeves and long pants.

NPS

Cow Parsnip



poison ivy



giant hogweed

-
-



stinging nettles

-
-



stinging nettles

-



wild parsnip

-
-



poison sumac

-

First aid/response to poison plant exposure:

1. Immediately wash skin thoroughly with soap and water, taking care not to touch the face or other parts of the body prior to washing.
2. Wash tools and contaminated clothing in strong soap and water because the plant oils can remain active for months.

3. Apply cool compresses for 15 to 30 minutes at a time.
4. Seek medical attention if necessary.
5. Oral antihistamine may also help, but avoid topical antihistamines, which may make skin more sensitive.
6. Seek medical attention for severe cases, if the rash covers a large part of the body, or if the person has blisters or can't sleep. Steroids may be prescribed by a physician to help stop the spread of the rash in severe cases.
7. The organizational structure and responsibilities are designed to ensure adequate project control and proper quality assurance for the field program at the Oak and Maple Housing area Site located at the Devens, Morris County, New Jersey. Key Baltimore District personnel and their responsibilities are provided below:
8. Health & Safety Manager (HSM) Paul E Greene
9. CENAB-EN-HI (410) 962-6741
10. Unexploded Ordnance Safety Officer /Site Safety and Health Officer (UXOSO/OESS)
11. CENAB-EN-HI 410-982-9724

6.1 Roles and Responsibilities

The following sections describe the personnel required for oversight and implementation of the safety and health requirements for the project.

6.2 Health and Safety Manager

The HSM is the Chief, Environmental and Explosives Safety and is responsible for:

1. Reviewing, approving, and overseeing implementation of the SSHP;
2. Visiting the project site, as needed, to audit the effectiveness of the SSHP;
3. Remaining available for project emergencies;
4. Developing modifications to the SSHP, as needed;
5. Evaluating occupational exposure monitoring/air sampling data and adjusting SSHP requirements, as necessary; and
6. Approving the SSHP by signature.
7. Developing, writing, and overseeing implementation of the SSHP;
8. Visiting the project site, as needed, to ensure enforcement of the SSHP;
9. Remaining available for project emergencies;
10. Developing modifications to the SSHP, as needed;
11. Evaluating occupational exposure monitoring/air sampling data and adjusting SSHP requirements, as necessary; and
12. Approving the SSHP by signature.

6.3 Unexploded Ordnance Safety Officer [Site Safety and Health Officer]

The UXOSO /OESS will act as the Site Safety and Health Officer and will provide safety oversight for field personnel. The UXOSO/ OESS will have 1-year of experience implementing safety and occupational health procedures at cleanup operations. In addition, the UXOSO/ OESS will have the training and experience to conduct exposure monitoring, as needed and to select/adjust protective equipment use. The UXOSO/ OESS has the authority and is responsible for:

1. Serving as a QC staff member;
2. Concurring with the SSHP by signature;
3. Being present during all field operations to implement the SSHP;
4. Inspecting and overseeing site activities to identify safety and occupational health deficiencies and correcting them;
5. Coordinating changes/modifications to the SSHP with the HSM, UXOSO/ SUXOS/OESS, and Project Personnel.
6. Conducting project-specific training.

6.4 Project Personnel

The project will be executed using in-house USACE personnel including: Ordnance and Explosive Safety Specialists (OESS), Unexploded Ordnance (UXO) technicians, and support laborers. The responsibilities for key positions for the field effort are described below:

- Site Manager (SUXOS) – The site manager is responsible for day-to-day operations and completing the field effort. This includes, but is not limited to, safety, field coordination, field planning tasks, tracking progress of work, communicating with Project Manager, maintaining and submitting documentation, and schedule. The Site Manager coordinates resources in coordination with the Project Manager.
- Contract Support – The contract support person(s) will be responsible for assisting with contracting needs. Several blanket purchase agreements exist and will be utilized to support the project. The support person will engage with the contractors and team leader to provide the request for proposals (RFP) and resources.
- OESS Safety – The OESS is the senior subject matter expert in the field during the execution of the work. In addition to ordnance and explosive safety concerns, the OESS will also be responsible for the overall site safety.
- Field Support Team – The field support team members will be utilized to perform tasks which primarily require physical abilities and effort. They report to their assigned team supervisor.
- All project personnel are responsible for understanding and complying with all requirements established in plans, procedures, and regulations for executing their work in accordance with standard and accepted procedures. In addition, all personnel will be required to comply with the medical, training, experience and requirements for their respective field.

7.1 Training

Training requirements are discussed in accordance with EM 385-1-1, EM 385-1-97, and 29 CFR 1926.

7.2 General Training

Personnel shall comply with the following general and project-specific training requirements:

- 40-hour Hazardous Waste Operations (HAZWOPER) training in compliance with 29 CFR 1926.65;
- 8-hour annual refresher training for the 40-hour HAZWOPER course in compliance with 29 CFR 1926.65; and
- 3 days of field experience under the direct supervision of a trained, experienced supervisor.

7.3 Supervisor Training

Field supervisors shall have the following additional training: 8-hour OSHA Supervisory training in compliance with 29 CFR 1926.65.

7.4 Project-Specific Training

The following project specific training shall be provided to workers before onsite work begins:

- Training specific to other sections of this project and OSHA standards in 29 CFR 1926 that are applicable to site work and operations; and
- Training covering each element of this SSHP.

The UXOSO/OESS will maintain copies of required training certificates on site and will make them available for inspection upon request.

8.1 Personal Protective Equipment

The below subsections provide a summary of the personal protective equipment (PPE) requirements for the site.

8.2 General

The UXOSO/OESS will conduct a daily hazard assessment to determine the equipment for personal protection. PPE will be selected based on the planned activities, potential for contact with chemicals, site conditions, ambient air quality, and the judgment of the UXOSO/OESS of other potential hazards. The PPE used will be chosen to be effective hazards present on site.

The minimum level of protection that is required of personnel at the site will be Level D. The decision to require the use of optional items (e.g., hearing protection, hard hats, and reflective vests) will be made by the UXOSO/OESS based on the hazard and risk analysis in the field. The UXOSO/OESS may also make the decision to upgrade to Modified Level D, as defined in Section X, if site conditions warrant. The level of protection worn by site personnel will be enforced by the UXOSO/OESS.

Recommended changes in the level of protection that involve the use of protective equipment not covered under this SSHP (e.g., respirators) will be documented, and a revised hazard assessment will be prepared by the HSM and submitted to USACE for review prior to use in the field.

Site personnel will have current HAZWOPER training and appropriate refresher classes. Training includes the identification of PPE necessary for various tasks; how to don, doff, adjust, and wear PPE; limitations of PPE; and proper care, inspection, testing, maintenance, useful life, storage, and disposal of the PPE. The UXOSO/OESS will maintain training certificates in an on-site file. If there is reason to believe that an affected employee who has been trained does not have the understanding and skill required to use the assigned PPE, that employee will be removed from the task until additional training can be completed.

8.3 Level D Protection

Level D PPE provides minimal protection against chemical hazards and should not be worn in any area with respiratory or skin hazards. Level D PPE for this project:

1. Long pants and a shirt with minimum 4-inch sleeves;
2. Safety glasses;
3. Sturdy, high-traction, work boots;
4. Work gloves for materials handling/latex/nitrile gloves for sample collection;
5. Hearing protection (as required);
6. Reflective vests (as required); and
7. Hard hat (as required);

Level D PPE will be adequate for the majority of tasks conducted during this project.

8.4 Modified Level D Protection

Modified Level D PPE includes the items listed above, and one or more of the following items:

1. Regular (white) or poly-coated Tyvek (yellow) or PVC rain suit;
2. Safety goggles/face shield;
3. Chemical-resistant over-boots or chemical-resistant boots;
4. Inner latex or nitrile (i.e., surgical) gloves;
5. Chemical-resistant outer gloves (type: nitrile or butyl rubber); and
6. Tape for sealing arm, leg, and zipper joints.

Modified Level D PPE will be donned, if necessary.

If unexpected conditions arise requiring the use of higher levels of PPE, then work will cease until the relevant AHA is modified a new AHA is completed. PPE requirements will be assessed, and the revised SSHP will be submitted to USACE.

8.5 Level A, B and C Protection

The tasks scheduled for this project should not require the use of Level A, B, or C PPE, and their use is not covered by the APP or this SSHP.

9.1 Medical Surveillance

The project team companies' medical surveillance programs meet OSHA and USACE criteria for hazardous waste investigations. Personnel will have passed a medical surveillance examination within the time frame established (i.e., annual schedule). The UXOSO/OESS will verify that personnel meet applicable OSHA medical surveillance requirements prior to the start of site work. Documentation regarding medical surveillance clearance will be maintained by the UXOSO/OESS.

In general, project team personnel who are designated to work on site will be participating in their respective employer medical monitoring or surveillance program. Medical clearance is a mandatory requirement for participation in the planned field activities.

Accidents and potential exposures must be reported immediately to the UXOSO/OESS who will coordinate with the HSM or Program Safety Manager to arrange for medical exams or tests that may be indicated as part of the medical surveillance program. Depending on the type of incident, it may be critical to perform tests within 24 to 48 hours. Failure to report an injury or incident immediately will result in disciplinary action.

9.2 Documentation

Field personnel will be enrolled in a medical surveillance program that complies with OSHA standards 29 CFR 1926.65(f). Medical surveillance may include:

- General physical;
- Audiogram;
- Vision test;
- Pulmonary function test;
- Chest x-ray;
- Electrocardiogram;
- Blood work (e.g., heavy metals and/or complete blood count).

A written opinion stating fitness to work on a hazardous work site (i.e., physician's statement, work status report) from a licensed physician will be maintained on site for each field employee. This record will include the employee name, date of the exam, and the name of the physician.

9.3 Prevention of alcohol and Drug Abuse

Each of the project team companies has established a Drug Use Policy, meeting the requirements of the Drug Free Workplace Act of 1988. The policy defines the procedures necessary to create and ensure a drug-and alcohol-free workplace, inform and educate our employees of those procedures,

and comply with Federal and State law and client requirements related to the documentation and dissemination of those procedures.

No site personnel may be under the influence of any illicit drug while in the work place, while on duty, or while operating a vehicle or equipment owned, rented, or leased by their employer. "Under the influence of" does not mean a particular legal limit, but merely means that the employee has consumed or otherwise used any such illicit substance contemporaneous with his or her work duties.

Appropriate personnel action, including possible discipline and/or participation in a drug abuse assistance or rehabilitation program, may result should an employee be convicted of a drug related crime that occurred in the work place.

Employees may use physician-prescribed medication, provided that the use of such drugs does not adversely affect job performance or the safety of the employee or other individuals.

Employees must comply with these requirements as a condition of employment. Failure to comply will be grounds for disciplinary action up to and including termination.

10.1 Exposure Monitoring

Chemical exposure monitoring and air monitoring are summarized in the following subsections.

10.2 Chemical Exposure Monitoring

No chemical or air exposure monitoring program is needed for this project.

Work will be stopped if unusual conditions are encountered (e.g., odors, suspect liquids) or if personnel experience symptoms that may associated with site conditions or activities. Site conditions and the need for additional PPE or site controls will be re-evaluated prior to resuming work. If changes are needed, an addendum to this SSHP will be prepared.

10.3 Air monitoring

Based on knowledge of site conditions no monitoring program is needed for dust in the breathing zone. Work will be stopped if unusual conditions are encountered (e.g., dusty conditions) or if personnel experience symptoms that may associated with site conditions or activities. Site conditions and the need for additional PPE or site controls will be re-evaluated prior to resuming work. If changes are needed, an addendum to this SSHP will be prepared.

10.4 Sample Collection

Environmental sampling will not be performed as a part of this site investigation.

11.1 Heat and Cold Stress

1. Heat stress injuries can easily occur when clothing (especially protective clothing) impairs the body's cooling capacity, the internal body temperature rises, and the normal thirst mechanism is not adequate to bring about fluid replacement that is lost through sweat.

11.2 Heat Stress

- Heat stress injuries can easily occur when clothing (especially protective clothing) impairs the body's cooling capacity, the internal body temperature rises, and the normal thirst mechanism is not adequate to bring about fluid replacement that is lost through sweat.

Weather conditions will be monitored for unseasonal temperatures. If temperatures are expected to exceed 90 °F, when personnel are working in Level D PPE, a Wet Bulb Globe Thermometer (WBGT) may be taken on site and used to measure heat stress parameters. Work-rest schedules will be established by the UXOSO/OESS based on the screening criteria presented in Table -1.

Table -1

Work/Rest Regimen

Work/Rest Regimen	Work Load		
	Light	Moderate	Heavy
Continuous Work	87.8	82.4	NR
75% Work, 25% Rest, each hour	87.8	84.2	81.5
50% Work, 50% Rest, each hour	89.6	86.0	84.2
25% Work, 75% Rest, each hour	90.5	88.7	86.9

NR = Not recommended

Values on table are WBGT readings in °F

In general, workloads will fall into the moderate category (walking about with moderate lifting, digging, or pushing, or carrying 10 pounds or less).

Heat Stress Controls

Preventative heat stress measures to be implemented for this project will include:

- Rest Areas** – A relatively cool, shaded area will be provided for breaks when ambient temperatures exceed 80°F and workers are wearing regular work clothes. If shade is not available, a canopy will be constructed, or workers will have access to air-conditioned buildings or vehicles. Employees will have access to these rest areas at break times and when a recovery period is needed.
- Liquids** –Employees will have access to potable drinking water. Workers should drink enough water to stay properly hydrated. Employees will be encouraged to avoid alcohol during non-work hours and caffeine during work hours when heat stress conditions are anticipated.

- **Acclimatization** – When working in a heat stress environment, employees will need to adapt to the hot conditions. Workloads should start at 50% capacity and increase 10 % each day to achieve 100% capacity.

If the WBGT reading exceeds the values on Table -1 for the identified work-rest regime, the UXOSO/OESS will monitor workers for heat stress by measuring temperature and pulse, as appropriate. The UXOSO/OESS will further adjust individual work/rest schedules based on results of physiological monitoring.

2. When body temperatures taken at the beginning of a rest period indicate temperatures exceeding 99.6 degrees F (37.6 degrees C), the next work cycle should be shortened by 1/3. Another indication of rising internal temperatures is the heart rate. Heart rates can be obtained by counting the radial pulse during a 30 second period (and double it) as early as possible in a work period. If the heart rate exceeds 110 beats per minute shorten the following work cycle by 1/3.

3. The symptoms of heat stress in order of increasing severity include:

a. Heat Cramps (inadequate fluid replacement)

- (1) muscle spasms
- (2) pain in hands and feet

b. Heat Exhaustion (inadequate blood circulation)

- (1) pale, cool, moist skin
- (2) heavy sweating
- (3) dizziness
- (4) nausea
- (5) fainting

c. Heat Stroke

- (1) red, hot, usually dry skin
- (2) lack of or reduced sweating
- (3) nausea
- (4) dizziness and confusion
- (5) strong, rapid pulse
- (6) coma

4. Heat stress first aid includes:

a. Heat Cramps

- (1) Replace fluids
- (2) Monitor for additional symptoms

b. Heat Exhaustion

- (1) Move person to cool place
- (2) Rest with feet elevated
- (3) Give water in small amounts
- (4) Recovery is usually rapid, if not, emergency medical treatment is necessary.

c. Heat Stroke

- (1) Cool body immediately with cool water or cold compresses
- (2) Call ambulance immediately
- (3) Continue cooling until ambulance arrives

5. Heat stress prevention includes;

- a. Adjusting work hours during the coolest hours
- b. Scheduled rest periods
- c. Maintaining body fluids at normal levels by consuming small drinks of moderate temperature every 15 to 20 minutes.

6. Since the ACGIH TLV work/rest schedule is designed for use with ordinary work clothes and not impermeable PPE, and a WBGT meter may not be available; the following modified schedule will be used to accommodate the PPE. If PPE is not being utilized, 10 degrees F should be added to the temperature schedule below.

a. On a cloudy day, continuous work may be performed below 70°F. Above this temperatures be aware of heat stress and use buddy system and guidelines below.

75% work / 25% rest each hour at air temperature 70-79°F
50% work / 50% rest each hour at air temperature 79-85°F
25% work / 75% rest each hour at air temperature above 85°F

b. At temperatures above 85°F everyone should have their heart rate measurements taken at 30 minute intervals stop work in PPE when heart rate reaches 120 beats per minute. This schedule is conservative. If one is under a light work load the work periods can be extended. If under a heavy work load or a sunny day the rest periods can be extended.

Heat Stress Symptoms and Treatment

Symptoms and treatments for heat stress are summarized in Table -2.

Table -2 Conditions Related to Heat Stress

Condition	Signs/Symptoms	Treatment
Heat Rash	May result from continuous exposure to heat or humid air. <ul style="list-style-type: none">• Red papules, usually in areas where the clothing is restrictive• Prickly sensation, particularly as sweating increases	<ul style="list-style-type: none">• Shower after work, dry off thoroughly, and put on clean, dry clothes.• Try to stay in a cool place after work.• See a physician if the rash continues to develop.
Heat Cramps	Caused by heavy sweating with inadequate electrolyte replacement. <ul style="list-style-type: none">• muscle spasms• pain in the hands, feet and abdomen	<ul style="list-style-type: none">• Leave the work area.• Rest in a cool, shaded place.• Drink beverages that contain salt or eat salty food.• Take adequate breaks and drink electrolyte replacement drinks to prevent cramps from returning.

c. Work shall cease at a shaded dry bulb temperature of 98°F.

d. Employees should be aware of their own heart rate. If, between work periods, one feels their heart rate (pulse) may be greater than 120 beats per minute, STOP WORK, notify SSO, go to a shaded area, take heart rate and, if necessary, REST.

11.2 Cold Stress

1. For exposed skin, continuous exposure shall not be permitted when air speed and temperature results in an equivalent chill temperature of -15°F. The ACGIH wind chill chart is presented at Table-3.

2. At air temperatures of 35°F or less it is imperative that workers who become immersed in water or whose clothing becomes wet be immediately provided a change of clothing, and be treated for hypothermia. At temperatures below wind-chill equivalents of -15°F the following work warm up schedule shall be implemented.

3. Cold stress of hypothermia occurs when the body's core temperature fall below 36°C (96.8°F). Pain in the extremities is the first sign of overexposure. Maximum severe shivering develops when the body temperature falls to 95°F. This sign of danger and exposure to cold should immediately be terminated. The symptoms of hypothermia are presented at Table -4, and Table-5.

Table - 3 Wind Chill Chart

Estimated Wind Speed (in mph)	Actual Temperature Reading (°F)											
	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
	Equivalent Chill Temperature (°F)											
calm	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
5	48	37	27	16	6	-5	-15	-26	-36	-47	-57	-68
10	40	28	16	4	-9	-24	-33	-46	-58	-70	-83	-95
15	36	22	9	-5	-18	-32	-45	-58	-72	-85	-99	-112
20	32	18	4	-10	-25	-39	-53	-67	-82	-96	-110	-121
25	30	16	0	-15	-28	-44	-59	-74	-88	-104	-118	-133
30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	-125	-140
35	27	11	-4	-20	-35	-51	-67	-82	-98	-113	-129	-145
40	26	10	-6	-21	-37	-53	-69	-85	-100	-116	-132	-148
(Wind Speeds >40 mph have little additional effect.)	LITTLE DANGER In <1 hour with dry skin. Maximum danger of false sense of security.				INCREASING DANGER Danger from freezing of exposed flesh within one minute.				GREAT DANGER Flesh may freeze within 30 seconds			
	Trenchfoot and immersion foot may occur at any point on this chart.											

NOTES:

1. Cooling Power of Wind on Exposed Flesh Expressed as Equivalent Temperature (under calm conditions); Developed by U.S. Army Research Institute of Environmental Medicine, Natick, MA

Table - 4 Cold Stress TLV Chart

Air Temperature- Sunny Sky		No Noticeable Wind		5 mph Wind		10 mph Wind		15 mph Wind		20 mph Wind	
°C (approx.)	°F	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max Work Period	No. of Breaks
-26 to -28	-15 to -19	(Normal breaks) 1		(Normal Breaks) 1		75 min	2	55 min	3	40 min	4
-29 to -31	-20 to -24	(Normal Breaks) 1		75 min	2	55 min	3	40 min	4	30 min	5
-32 to -34	-25 to -29	75 min	2	55 min	3	40 min	4	30 min	5	Non-emergency work shall cease	
-35 to -37	-30 to -34	55 min	3	40 min	4	30 min	5	Non- emergency work shall cease.			
-38 to -39	-35 to -39	40 min	4	30 min	5	Non-emergency work shall cease.					
-40 to -42	-40 to -44	30 min	5	Non-emergency work shall cease							
-43 & below	-45 & below	Non-emergency work shall cease									

Notes:

1. Threshold Limit Values Work/Warm-up Schedule for Four Hour Shift*
2. Schedule applies to moderate to heavy work activity with warm-up breaks of ten(10) minutes in a warm location. For Light-to-Moderate Work (limited physical movement): apply the schedule one step lower. For example at -30⁰F with no noticeable wind (step 4), a worker at a job with little physical movement should have a maximum of work period of 40 minutes with 4 breaks in a 4-hour period (step 5).
3. The following is suggested as a guide for estimating wind velocity if accurate information is not available: 5 mph-light flag moves; 10 mph-light flag fully extended; 15 mph-raises newspaper sheet; 20 mph-blowing and drifting snow.

Table - 5 Progressive Clinical Presentations of Hypothermia

Core Temperature		Clinical Signs
°C	°F	
37.6	99.6	"Normal" rectal temperature
37	98.6	"Normal" oral temperature
36	96.8	Metabolic rate increases in an attempt to compensate for heat loss.
35	95.0	Maximum shivering.
34	93.2	Victim conscious and responsive, with normal blood pressure.
33	91.4	Severe hypothermia below this temperature
32	89.6	Consciousness clouded; blood pressure becomes difficult to
31	87.8	obtain; pupils dilated but react to light; shivering ceases.
30	86.0	Progressive loss of consciousness; muscular rigidity increases;
29	84.2	pulse and blood pressure difficult to obtain; respiratory rate decreases.
28	82.4	Ventricular fibrillation possible with myocardial irritability.
27	80.6	Voluntary motion ceases; pupils non-reactive to light; deep tendon and superficial reflexes absent.
26	78	Victim seldom conscious.
25	77.0	Ventricular fibrillation may occur spontaneously.
24	75.2	Pulmonary edema.
22	71.6	Maximum risk of ventricular fibrillation.
21	69.8	
20	68	Cardiac standstill.
18	64.4	Lowest accidental hypothermia victim to recover.
17	62.6	Isoelectric electroencephalogram.
9	48.2	Lowest artificially cooled hypothermia patient to recover.

12.1 Standard Operating Safety Procedures, Engineering Controls, and Work Practices

Site rules, work permit requirements, material handling requirements, drum/container/tank handling, and activity hazard analyses are discussed in the sections below.

12.2 General Site Rules

1. The buddy system will be observed.
2. Notify the UXOSO/OESS of an injury or illness.
3. Each tool will be inspected for serviceability prior to use.
4. PPE will be maintained in good condition. Worn or torn PPE will be repaired or replaced.
5. Site personnel who wear corrective lenses will provide their own prescription safety glasses if needed.
6. Horseplay will not be tolerated.

7. Proper site housekeeping (including removal of trash and orderly stacking and removal of materials to reduce slipping, tripping, and fire hazards) will be the responsibility of site personnel on a daily basis.
8. If unusual site conditions are noted (odors, presence of unknown liquids, suspect biohazards) or any symptoms are experienced, work will be stopped until site hazards can be evaluated.
9. Smoking, eating, drinking, and applying cosmetics are prohibited during sampling activities or when handling potentially contaminated material.
10. Wash hands and face prior to eating, smoking, drinking, or applying cosmetics.

12.3 Work Permit Requirements

In general, work permits are not anticipated for this field effort. Hot work permits may be necessary for demilitarization of MD. If necessary, the UXOSO/OESS will issue the hot work permit, if allowed by the installation.

12.4 Material Handling Procedures

Spill mitigation measures are provided in Section 15.15. Waste handling is presented in WP.

12.5 Comprehensive Activity Hazard Analysis

AHAs are provided as Attachment A.

12.6 Communications

Radios will be the primary method of communication on site. The UXOSO/OESS and SUXOS will coordinate with installation personnel to ensure radio communications are in compliance with installation policy and procedures. Cellular phones will be used for emergencies. Emergency numbers will be provided to project personnel and will be available when workers are on site.

13.1 Site Control Measures

Site visitors, exclusion zones, and security are discussed in the following sections.

13.2 Site Visitors

1. Upon arrival, each visitor will report to the UXOSO/OESS for a safety briefing.
2. Visitors are required to sign in and out using the Visitor Log.
3. Site personnel will wear PPE as required.

13.3 Exclusion Zones

Exclusion zones (EZs) and team separation distances. Only properly trained and outfitted (i.e., PPE) personnel will be allowed to enter the EZ. All work will stop if non-essential personnel enter the EZ.

Numbers of personnel will be minimized to reduce potential exposure.

EZs for intrusive investigation and demolition/demilitarization may affect nearby roads and the general public. Temporary markers (e.g., barricades, flagging) may be used to delineate EZs.

13.4 Security

If an MEC item is not able to be destroyed on the day it is discovered, the item will be guarded until demolition can be safely performed.

14.1 Personal Hygiene and Decontamination

14.2 Sanitation

Employees will not be required to perform work under unsanitary conditions. Sanitation issues for this site will include the following:

1. Drinking/potable water (bottled water) will be kept in each vehicle during field activities. This will be replenished, as necessary, to provide adequate supplies of potable water.
2. Containers used for drinking water will be clearly marked and not used for any other purpose.
3. Cups must not be shared by employees.
4. Outlets for non-potable water (i.e., firefighting purposes) are not to be used by employees for drinking, washing, or cooking purposes.
5. Soap and water and/or baby wipes will also be available at the jobsite for washing body parts.
6. A minimum of two portable toilets will be provided to site personnel.

Disposable PPE will eliminate the need for a Personnel Decontamination Station. Used PPE and refuse generated during field activities will be collected in trash bags and disposed of properly.

14.3 Contamination Prevention

Good work practices will be followed during the use of hazardous chemicals (e.g., sample preservatives). Personnel should also be alert to other potential contamination on site. Procedures to be followed include:

1. Do not walk through areas of suspected contamination.
2. Do not handle or touch materials suspected to be contaminated.
3. Ensure PPE is free of cuts or tears prior to donning.

4. Particular care should be taken to protect skin injuries. If open wounds exist on hands or forearms, handling of chemicals or samples should be restricted or eliminated.
5. Do not carry cigarettes, gum, chewing tobacco, cosmetics, etc. into work areas.

14.4 Decontamination

Site personnel will follow proper decontamination procedures, which include disposal of gloves, and washing of safety glasses as needed after sample collection. Good personal hygiene practices will be observed (washing hands after removing gloves; washing hands and face prior to eating, drinking, or smoking).

15.0 Equipment Decontamination

MEC investigation equipment may require decontamination.

16.0 Emergency Equipment and First Aid

A supply of emergency PPE and equipment will be maintained in sufficient quantities to ensure an adequate supply for emergency response. Emergency equipment will be fully stocked and readily accessible. The following emergency supplies will be available:

- One ANSI Z308.1 compliant first-aid kit will be available for every 25 persons or fewer.
- A Type II first-aid kit will be available in each site vehicle.
- Eye wash bottles will be available in each site vehicle.
- Fire extinguishers will be available in each site vehicle.
- Emergency contact information and hospital routes will be available in each site vehicle.
- A spill kit will be maintained in the UXOSO/OESS vehicle.
- An eye wash station will be maintained by the UXOSO/OESS as necessary.
- A trauma kit will be maintained in the UXOSO/OESS vehicle.

17.1 Emergency Response and Contingency Procedures

The below sections summarize emergency response and contingency procedures.

17.2 General

Pre-emergency planning for the site includes the following tasks:

1. Developing and approving the Emergency Response Plan
2. Review of this Emergency Response Plan with Project Team personnel prior to starting work.

3. Coordinating the Emergency Response Plan with Devens stakeholders and local health and emergency response agencies.
4. Training site personnel in appropriate emergency procedures.
5. Maintaining emergency response equipment on site, such as fire extinguishers, first-aid supplies, and spill response equipment.
6. Conducting an emergency response practice drill during site mobilization and before site activities begin.
7. Modifying the Emergency Response Plan, if necessary, as work progresses.

17.3 Lines of Authority

Lines of authority are as follows:

Health & Safety Manager (HSM)

Paul E Greene
CENAB-EN-HI (410) 962-6741

Unexploded Ordnance Safety Officer /Site Safety and Health Officer (UXOSO/OESS)

Marty A. Holmes
CENAB-EN-HI 410.982.9724

17.4 Emergency contacts are presented below:

Table 6

EMERGENCY POINTS OF CONTACT

Fire Department:	Emergency – 911
Ayer Fire Department	Non-Emergency – (978) 772-8231
Devens Fire Department	Emergency – 911
	Non-Emergency – (978) 772-2700
Emergency Medical Care:	Emergency – 911
Deaconess- Nashoba Community Hospital	Non-Emergency – (978) 772-0200
Police:	Emergency – 911
Massachusetts State Police	Non-Emergency – (978) 772-8800
Deaconess-Nashoba Community Hospital 200 Groton Road Ayer, MA	(978) 772-0200
Poison Control	(800) 682-9211
National Response Center Environmental Emergencies	(800) 424-8802

17.5 Evacuation Routes and Procedures

In a severe emergency such as a large fire, explosion, or large chemical release, site evacuation may become necessary. The UXOSO/OESS will be responsible for informing site personnel of the anticipated routes of evacuation during the morning safety briefings; routes may change based upon site conditions and weather patterns. The evacuation route and assembly area will correlate to the wind direction, topography, and the nature of the incident. Personnel will be advised to move to an upwind location at least 100 yards from any fires and/or releases, and will be advised to continually monitor wind direction for changes.

If moving upwind is not possible without encountering the incident, personnel will be advised to move crosswind or downwind to a distance out of the path of vapor releases, smoke, odors, or spills.

Table -7 Site Evacuation Procedures

Step	Site Evacuation Procedures
1	Site personnel will be notified of an emergency evacuation via horn, signal, or verbal command. Site personnel will immediately stop work.
2	Site personnel will evacuate the work area as quickly as possible and assemble at a location at least 100 yards upwind of the incident, or as instructed during the morning safety briefing.
2	Site personnel will evacuate the work area as quickly as possible and assemble at a location at least 100 yards upwind of the incident, or as instructed during the morning safety briefing.
3	The UXOSO/OESS will contact emergency response personnel as site personnel are being accounted for during roll call.
4	The UXOSO/OESS will ensure that emergency apparatus have adequate site access.
5	The UXOSO/OESS will ensure that combustion equipment has been shut down, if safe.
6	Site personnel assembled at the designated safe evacuation area will wait for further instructions from emergency response personnel.
7	Personnel will comply with any special instructions provided by emergency response personnel.

17.6 Decontamination During a Medical Emergency

For minor medical problems or injuries, regular decontamination procedures will be followed. If emergency, life-saving first aid, or medical treatment is required, additional decontamination procedures may be needed, as follows:

1. If the victim has been contaminated with acid, other chemicals, or contaminated soil, immediately wash or rinse the victim with water to rinse off the material. Consult the SDS to ensure proper actions are taken.
2. Outer garments can be removed if it does not cause a delay, interfere with treatment, or aggravate the problem.
3. PPE can be cut away.

4. If contaminated clothing cannot be safely removed, then the victim may be wrapped in a blanket or plastic sheeting to prevent the contamination of the inside of the ambulance and emergency response personnel.

The UXOSO/OESS will advise the medical staff of the type of contamination.

17.7 Route to Hospital:

From the SR-2A Exit:

- Take right onto SR-2A (South);
- Turn left onto Washington Street (North);
- Continue through a residential area; and

Deaconess-Nashoba Community Hospital will be on the left at 200 Groton Road, Ayer, Massachusetts; phone (978) 772-0200.

17.8 Notification of First Responders

The UXOSO/OESS will be the primary source of communication with first responders. The emergency contact list will be available in site vehicles. Cellular phones will be the primary method of communication with first responders. Those calling first responders will remain calm and give concise, accurate information including:

- Name;
- Location;
- Telephone number;
- Nature of the emergency;
- Number of injured parties; and
- Whether a chemical spill or MEC were involved.

17.9 Safety Data Sheets

Safety Data Sheets will be maintained on site and if necessary, applicable SDSs will be provided to emergency responders.

18.1 Emergency Response Plan

This section provides an emergency response plan for these field activities.

18.2 Operations

Hazardous substances that may be brought on site include demolition/demilitarization (e.g., explosives).

18.3 Pre-Emergency Planning

The UXOSO/OESS will update and maintain the emergency contact list. In addition, the UXOSO/OESS will contact local first responders during mobilization to notify them of the planned activities, confirm contact numbers, and ensure first response is logistically possible.

18.4 Lines of Authority

Lines of authority for emergency situations are presented in Section 17.5. Emergency contacts are provided as Table 6.

18.5 Emergency Recognition and Prevention

Potential emergencies during this field effort include:

- Vehicle incidents
- Unintentional detonation
- Fire
- Injury/illness.

Field personnel will use their safety training to recognize emergency situations. Indicators of an emergency include:

- Unplanned explosion
- Smoke
- Fire
- Personnel appearing injured, dazed, confused.

18.6 Safe Distances and Places of Refuge

Evacuation routes and procedures are provided in Section 17.3. Rally points will vary based upon wind direction and site activities. The USACE staging area (project equipment storage point) will be the final rally point in case of emergency.

18.7 Site Security and Control

A minimum of two personnel will secure the area of the emergency, but remain at a safe distance. They will remain upwind and keep within visual contact of the emergency.

18.8 Evacuation Routes and Procedures

Evacuation routes and procedures are provided in Section 17.3.

18.9 Decontamination

Decontamination procedures are provided in Section 17.5. Table-8 provides procedures to follow in case of chemical exposure.

Table -8 Chemical Exposure First Aid Guidelines

Type of Over Exposure	First-Aid Guidelines
Skin Contact	<u>Skin:</u> Wash/rinse the affected area thoroughly with copious amounts of soap and water.
	<u>Eyes:</u> Eyes should be rinsed for at least 15 minutes following chemical contamination.
	Contact emergency response personnel if required, or transport victim to the hospital.
Ingestion	Contact Poison Control Center.
	Contact emergency response personnel, or transport victim to the hospital.

18.10 Emergency Medical Treatment and First Aid

Table 2 provides site emergency telephone numbers and hospital routes. Two personnel on site will have current first aid/CPR training. In the event of any illness or injury, the following steps will be taken:

- Evaluate the extent of injuries or seriousness of illness.
- When employees require urgent medical attention, transport them to the hospital or call for emergency assistance. Initial first aid will be administered by on-site personnel trained and certified in CPR and first aid while awaiting an ambulance or paramedics. On-site emergency medical treatment, other than first aid, will be administered by the local paramedics. Critical injuries must be immediately referred for professional medical attention.
- Vehicles used to transport injured persons to the off-site medical facility will be provided with directions and a map to the medical facility. Medical information (completed during the initial site-specific safety training) will be referenced in an emergency to assist with the treatment of the victim. The UXOSO/OESS will accompany the victim to the hospital.
- For a non-critical injury/illness, provide first-aid treatment and evaluate the need for further treatment.

18.11 Emergency Alerting and Response Procedures

In the event of an emergency, personnel will be notified by visual instruction, two-way radio, repeated blasts of a vehicle horn, or repeated blasts on an air horn. Personnel will then follow the evacuation instructions given in morning safety meeting.

18.12 Critique of Response and Follow-up

The UXOSO/OESS will conduct incident inspections and reporting, as necessary. The UXOSO/OESS, HSM, Program Safety Manager, will review the incident and documentation. Full coordination will be provided to USACE and with OSHA inspectors.

18.13 PPE and Emergency Equipment

PPE for first aid and CPR will be maintained in the first aid kits. Emergency equipment will be kept in vehicles..

18.14 Response Priorities

It is expected that project team personnel will provide only minimal or first-line response to emergencies.

First Priority: Prevent further injury or illness by:

- Protecting response personnel;
- Isolating the scene to authorized personnel only;
- Notifying emergency response personnel; and
- If possible, rescuing any injured parties.

Second Priority: Provide first aid to persons with life-threatening injuries or illnesses.

Third Priority: Alleviate the immediate hazards by:

- Extinguishing incipient-stage fire; and
- Reporting any spill.

18.15 Emergency Response Plans (Fires)

Procedures for small/incipient fires and large fires are described in the following sections.

18.15.1 Small/Incipient Fire

A small fire is defined as a fire that can be extinguished with an available 10BC fire extinguisher. An incipient fire is a fire that is small because it has just started. In the event of a small or incipient fire, the following minimum actions will be taken:

1. Evacuate nearby personnel from the area to an upwind location if possible, or to an area not affected by smoke or hazardous decomposition products if an upwind location is not feasible.

2. Attempt to extinguish the fire using a portable fire extinguisher or by smothering. Contact emergency response personnel for injuries or exposures to hazardous decomposition products.

After the fire has been extinguished follow notification procedures.

18.14.2 Large Fire/Explosion

An explosion, large fire, or a small fire that cannot be extinguished is beyond the first line capabilities of the project team personnel. Professional emergency response personnel will be needed to provide emergency assistance for these types of incidents. In the event of a large fire, explosion, or a small fire that cannot be extinguished, the following minimum actions will be taken.

1. Evacuate personnel from the site to an upwind location if possible, or to an area not affected by smoke or hazardous decomposition products if an upwind location is not feasible.
2. Take roll call to account for site personnel.
3. Contact installation emergency personnel.
4. Contact emergency response personnel for injuries or exposures to hazardous decomposition products.
5. After the fire has been extinguished follow notification procedures.

18.15 Emergency Response Plan (Spills)

Hazardous substance spill or release situations may differ due to the way the incident occurs, how hazardous the substance may be, and how much has been spilled or released. In the event that a hazardous substance spill or release is observed, the UXOSO/OESS will report the spill to HSM.

19.0 Emergency Response Team

An emergency response team will not be used for this project.

20.1 Confined Space Entry

Confined space entry is not anticipated for this project.

21.1 Logs, Reports, and Recordkeeping

Should an unforeseen hazard become evident during the performance of work, the UXOSO/OESS will notify the HSM. Resolution will be attained as soon as possible. In the interim, necessary action will be taken to reestablish and maintain safe working conditions.

The Safety Exposure Report, a tabulation of field labor hours, lost workday accidents, and number of lost days will be submitted monthly, in accordance with DID WERS-016.

21.2 Required Documentation

The following documentation will be kept on site either electronically or in hard copy, as appropriate:

- OSHA Form 300A, if between February 1 and April 30;
- Current HAZWOPER training certificates (including 8-hour refresher);
- SDSs for hazardous chemicals brought on site;
- OSHA-required medical surveillance physician's statements;
- Field log books;
- Copies of Incident Reports;
- Signed copies of the APP Acknowledgement;
- Daily Health and Safety Meeting Forms;
- Tailgate Meeting Forms;
- Completed Activity Hazard Analysis Forms;
- Medical Questionnaire for site personnel;
- Site Safety Audits and Corrective Actions taken;
- Near miss incidents;
- Medical/Exposure monitoring documents; and
- Respiratory Fit test/Respiratory Physicals.

Files containing sensitive information will be locked and/or password protected.

21.3 Exposure and Medical Monitoring Records

Personal exposure and medical monitoring records will be maintained in accordance with applicable OSHA standards, 29 CFR 1926.

21.4 Training Logs

Training logs will include initial site-specific safety training, daily safety briefings, tailgate meetings, and visitor training. Training records will include the following information, as appropriate:

- The date; Name of training provider/institution;
- Employee's name and company name (attendance check);
- Meeting Minutes (brief description of topics, special concerns and activities discussed);
- Training topic(s); and
- Signature of attendees.

21.5 Field Log Book

The UXOSO/OESS will maintain a log book on site. The following information will be recorded, as appropriate:

- Site conditions (e.g., weather);
- Activities being performed;
- Personnel on site;
- Site visitors;
- Incidents, accidents, and near misses;
- Violations of health and safety procedures; and
- Other significant events.

21.6 Incident Reports

Incidents will be reported in accordance with DID WERS-011 and EM 385-1-1.

APPENDIX A

ACTIVITY HAZARD ANALYSIS (AHA'S)

ACTIVITY HAZARD ANALYSIS

Date Prepared: 05-25-2016

Overall Risk Assessment Code (RAC)
(Use highest code from Job Steps below.)

M

Project Location: Former Ft Devens Oak and Maple Housing area, Devens MA

Prepared By: Marty Holmes

Job: Mobilization and Site Set-up, as well as Site Tear-down and Demobilization

Reviewed By: Paul E. Green, Chief EESS

Risk Assessment Code Matrix

E = Extremely High Risk
H = High Risk
M = Moderate Risk
L = Low Risk

E = Extremely High Risk H = High Risk M = Moderate Risk L = Low Risk		P r o b a b i l i t y				
S e v e r i t y		Frequent	Likely	Occasional	Seldom	Unlikely
	Catastrophic	E	E	H	H	M
	Critical	E	H	H	M	L
	Marginal	H	M	M	L	L
	Negligible	M	L	L	L	L

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
1. Mobilization a. Mobilize equipment and tools. b. Set up work zones, barricades, site control, erosion control c. Test and verify safe operating condition of project equipment and machinery 2. Demobilization a. Tear down work zones, barricades and site control b. Pack and ship equipment c. Load and demobilize machinery	General	Site personnel will be given task-specific briefings daily regarding the hazards associated with the task and the procedures used to control/mitigate the hazards. All personnel inside exclusion zone will wear a minimum of Level D PPE. All USACE will be required to read and sign-off on the SSHP that affect their operations.	NA
	Unauthorized Entry/Site access control	Site personnel will maintain a constant watch for intrusion of unauthorized personnel. Positive site access control will be established prior to on-site operations using barricades, signs or other methods to prevent unauthorized access during tasks that could cause exposure to MEC or other ES&H hazards.	L
	Heat Stress	This project will be conducted during spring to summer weather and as such heat stress will become an issue during site tear-down and demobilization. When ambient temperatures exceed 75°F, USACE will implement the SSHP; Heat Stress Prevention personnel will be monitored for heat stress and will maintain adequate hydration.	M
	Cold Stress	It is not anticipated that this project will extend into winter months and as such cold stress should not become a significant issue for the safety of site personnel. However, should this project extend into fall and winter, and ambient temperatures	L

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
		this project.	
	Cuts and Lacerations	Level D PPE with leather gloves will be used per the SSHP for all tasks with a potential for cuts or lacerations. Personnel will be trained to avoid contact with MEC and MD items littered around the site.	L
	Biological	During this task, it is anticipated that biological hazards will exist and USACE will implement SSHP- Biological Hazards. Biological hazards that may be encountered include stinging and biting insects, hazardous plants, and snakes. Insect repellant will be used by site personnel as needed to repel hazardous insects. Site personnel will report to the SSHO/OESS and their team leader the presence of any hazardous animals, insects or plants.	L
	Eye irritation or burns	Use of insect repellant, fuels and other chemicals on site creates the potential for accidental spraying/splashing of chemicals into the eyes. Portable eye wash bottles will be located in the work zones and a 15-minute eye wash station will be located at the office/equipment storage location.	L
	UV Radiation	Site personnel will be cautioned about the possibility of sunburns and will be use sunscreen with a minimum SPF 30 on exposed skin.	L
	Manual lifting of heavy objects	Personnel will use safe lifting procedures and lift with their legs and not their backs, as outlined in SSHP- Manual Lifting and Material Handling Safety.	L
	Poison ivy rash	Personnel will be briefed on the identification of poison oak, ivy	L

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
		and sumac and will be cautioned to avoid contact with these plants. Personnel will also be provided with decontamination and washing solutions to allow for personal decontamination of skin and equipment.	
	Contamination of equipment by poison ivy/oak	Personnel will decontaminate vegetation removal equipment daily after use to remove poison oak/ivy resins prior to placing equipment in vehicles or storage areas.	L

Equipment to Be Used	Inspections Required	Training Required
1. Hand tools 2. Magnetometer and all-metal detector 3. Stakes, pin flags, and other delineation supplies 4. Fall protection harness, life lines and anchors	Daily inspections and response checks of magnetometers, all-metal detectors and the GPS IAW with the manufacturer and WP requirements.	40-Hour HAZWOPER
		8-Hour Refresher
		Initial Site / Task Hazard Training
		PPE Training
		All personnel operating hand tools, the magnetometer, all-metal detector and GPS will be trained in proper inspection, maintenance and use of the tools and equipment.

Certification Of Activity Hazard Analysis (to meet 29 CFR 1910.132)

The signature below certifies that the above mentioned persons have assessed and reviewed this task to ascertain the potential hazards associated with its conduct, and to determine the control techniques and PPE which will be required to safeguard site personnel from the identified hazards.

Signature of Analyst:	Date: 06-23-2016	Signature of Reviewer:	Date: 06-23-2016

ACTIVITY HAZARD ANALYSIS

Date Prepared: 05-25-2016

Overall Risk Assessment Code (RAC)
(Use highest code from Job Steps below.)

M

Project Location: Former Ft Devens Oak and Maple Housing area, Devens MA

Risk Assessment Code Matrix

E = Extremely High Risk
H = High Risk
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E = Extremely High Risk H = High Risk M = Moderate Risk L = Low Risk		P r o b a b i l i t y				
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	Catastrophic	E	E	H	H	M
	Critical	E	H	H	M	L
	Marginal	H	M	M	L	L
	Negligible	M	L	L	L	L

Prepared By: Marty Holmes

Job: Vegetation Removal

Reviewed By: Paul E. Greene, Chief EESS

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
1. Removal of small trees and ground level vegetation using hand-held weed-eaters and/or chainsaws. 2. Personnel will only remove vegetation that will hinder either the vehicle access lanes or the magnetometer survey.	General	Site personnel will be given task-specific briefings daily regarding the hazards associated with the task and the procedures used to control/mitigate the hazards. All personnel inside exclusion zone will wear a minimum of Level D PPE. All USACE will be required to read and sign-off on the SSHP that affect their operations.	NA
	Unauthorized Entry/Site access control	Site personnel will maintain a constant watch for intrusion of unauthorized personnel. Positive site access control will be established prior to on-site operations using barricades, signs or other methods to prevent unauthorized access during tasks that could cause exposure to MEC or other ES&H hazards.	L
	Blast, over pressure, fire, struck-by fragments	Prior to vegetation removal operations, UXO personnel will conduct a visual surface sweep of the work area to locate and mitigate surface MEC. The MEC survey and clearance operations will be conducted in accordance with (IAW) the procedures in the Work Plan and Explosive Safety Procedures. Personnel will remain alert to and will report any potential surface MEC located during the vegetation removal operations.	M
	Heat Stress	This project will be conducted during spring to summer weather and as such heat stress will become an issue during site tear-down and demobilization. When ambient temperatures exceed	M

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
		75°F, OESS will implement the SSHP- Heat Stress Prevention personnel will be monitored for heat stress and will maintain adequate hydration.	
	Cut, laceration, and flying debris from chain saw use	Each chain saw used on site shall be equipped with a functional chain brake and kick-back device. No chain-saw kickback device shall be removed or otherwise disabled. Chainsaw operators are required to be trained in the operation, inspection and maintenance of the chain saw. The chain saw shall not be used to cut directly overhead and the manufacturer's recommendations for chain saw adjustment and use will be followed at all times. The chain saw should be started on the ground or where the saw is firmly supported. Drop starting a chain saw is prohibited. Hard hat with ear muffs and screened face shield, and Kevlar leg chaps will be worn in addition to standard level D PPE. Consult the SSHP for additional safety measures.	
	Cuts, lacerations, and flying debris from fuel-powered weed eaters	Gas-powered brush cutters/trimmers will be used IAW manufacturer specifications and equipped with a kill-switch. Brush cutter operators will be trained in the operation, inspection and maintenance of the equipment. DO NOT remove or disable guards or other safety devices. Check the cutting blades prior to each use for cracks, missing teeth, and overall condition. Replace bent, warped, damaged or dull blades. Maintain a safety zone of at least 50 feet (100 foot diameter) to avoid injury from thrown objects. Keep the trimmer head below waist level. Consult SSHP for additional safety measures. Hard hat with ear muffs and screened face shield, and shin guards (snake chaps can be used) will be worn in addition to standard level D PPE.	
	Adverse Weather	When there are warnings or indications of impending severe weather, conditions will be monitored and appropriate precaution taken to protect personnel and property as specified in the SSHP. All site operations will be suspended if lightning is detected within 10 miles of the site. The SSHO/OESS will consult the SSHP for other limiting weather conditions such as heavy rains, snow, hail, etc.	M

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
	Slips, trips and falls	All personnel will maintain clean work areas to remove trip hazards and will be aware of uneven walking and working surfaces. Good house keeping procedures will be implemented. Use three points of contact when entering/exiting equipment.	L
	Physical Strain	Personnel will be cautioned about physical strain associated with strenuous activities that may be conducted at the site. Personnel will use caution to not over exert themselves or overstrain muscles and joints. Proper lifting techniques will be emphasized.	L
	Use of Hand and Power Tools	Hand and power tools will be selected to ensure that the right tool is being used for the right job and being used in the manner in which it was intended to be used. All hand and power tools will be inspected daily prior to use and any defective tools will be tagged and removed from service immediately. All portable electrical tools and equipment will be used with a Ground Fault Circuit Interrupter (GFCI) placed inline as close to the electrical supply source as possible. Personnel will follow the other requirements of the SSHP- Hand and Power Tool Safety to ensure proper use of the hand and power tools anticipated for this project.	L
	Cuts and Lacerations	Level D PPE with leather gloves will be used per the SSHP for all tasks with a potential for cuts or lacerations. Personnel will be trained in the proper use and selection of the equipment and tools they must use to complete their tasks and the hazards of exposed metal and other cut hazards.	L
	High Noise levels (>85dBA)	The SSHO/OESS will implement SSHP- monitor noise levels, and establish hearing protection requirements for high noise areas. Personnel involved with the conduct of vegetation removal will wear double hearing protection (ear plugs and ear muffs) during chain saw and weed-eater use.	L
	Biological	During this task, it is anticipated that biological hazards will exist and USACE will implement SSHP- Biological Hazards. Biological hazards that may be encountered include stinging and biting insects, hazardous plants, and snakes. Insect repellant will be used by site personnel as needed to repel hazardous insects. Site	L

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
		personnel will report to the SSHO/OESS and their team leader the presence of any hazardous animals, insects or	
	Skin contact with fuels	Flammable liquids will be kept in closed, approved containers. Chemical protective gloves will be worn when handling fuels.	L
	Eye irritation or burns	Use of insect repellant, fuels and other chemicals on site creates the potential for accidental spraying/splashing of chemicals into the eyes. Portable eye wash bottles will be located in the work zones and a 15-minute eye wash station will be located at the office/equipment storage location.	L
	UV Radiation	Site personnel will be cautioned about the possibility of sunburns and will be use sunscreen with a minimum SPF 30 on exposed skin.	L
	Manual lifting of heavy objects	Personnel will use safe lifting procedures and lift with their legs and not their backs, as outlined in SSHP- Manual Lifting and Material Handling Safety.	L
	Pinch Points	All personnel will be advised of potential pinch points. When pinch points have been identified and cannot be eliminated, guards or barricades will be used. The pinch point area around the counter weight of excavators will be barricaded to prevent personnel from entering the area during operations.	M
	Overhead Hazards	Hard hats will be required in those areas with potential hazard of head injury and when working within 50 feet of heavy equipment operations. All protective head gear shall meet the current requirements of the current ANSI Z89.1.	L
	Struck by equipment or vehicles	If equipment or vehicles are used in the removal or movement of vegetation piles or debris, personnel will wear ANSI Class II or higher reflective vests when working on-site when heavy equipment or vehicles are operating. All heavy equipment will be equipped with a functioning backup alarm and personnel backing site vehicles will sound the horn before backing up in areas with foot traffic.	L
	Heavy Equipment Operation	Heavy equipment operators will be trained on the use, inspection	L

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
		and maintenance of the heavy equipment they use, and all site personnel will be briefed regarding safe operation near heavy equipment. LO/TO will be used as determined by the SSHO/OESS for maintenance of heavy equipment.	
	Poison ivy rash	Personnel will be briefed on the identification of poison oak, ivy and sumac and will be cautioned to avoid contact with these plants. Personnel will also be provided with decontamination and washing solutions to allow for personal decontamination of skin and equipment.	L
	Contamination of equipment by poison ivy/oak	Personnel will decontaminate vegetation removal equipment daily after use to remove poison oak/ivy resins prior to placing equipment in vehicles or storage areas.	L
	Spills / Leaks	A portable spill response kit containing absorbent pillows/pads, non-sparking shovel, PPE and disposal supplies shall be maintained in a readily accessible location per the SSHP.	L
	Fire	Service or refueling areas will have at least one 20 BC fire extinguisher within 25-75 feet of dispenser. Equipment will be "Off" while refueling. Training will be provided to employees handling flammable and combustible liquids, in addition to HAZCOM training.	M

Equipment to Be Used	Inspections Required	Training Required
1. Hand tools 2. Chain saw and weed-eater tools	Daily inspections of hand tools and fuel powered brush clearing tools Special care will be taken in the inspection of blades on the bladed weed eaters. Any blades with visible cracks will be removed from service. The manufacturer's requirements will be used for sharpening.	40-Hour HAZWOPER
		8-Hour Refresher
		Initial Site / Task Hazard Training
		PPE Training
		All personnel operating power tools will be trained in proper inspection, maintenance and use of the tools.
		Personnel conducting maintenance and servicing will be provided LO/TO training as deemed necessary by the SSHO/OESS and as hazardous energy sources are identified.

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
Certification Of Activity Hazard Analysis (to meet 29 CFR 1910.132)			
The signature below certifies that the above mentioned persons have assessed and reviewed this task to ascertain the potential hazards associated with its conduct, and to determine the control techniques and PPE which will be required to safeguard site personnel from the identified hazards.			
Signature of Analyst:	Date: 06-23-2016	Signature of Reviewer:	Date: 06-23-2016

EXHIBIT C

FINAL MEC SUMMARY COMPLETION REPORT

FORMER OAK AND MAPLE HAS

May 2017



**Final MEC Summary Completion
Report Former Oak and Maple
Housing Areas
Former Fort Devens Facility**

Devens, MA

Prepared by
Environmental and Munitions Design Center
Baltimore District
U.S. Army Corps of Engineers

May 2017

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1.0 BACKGROUND

The Former Oak and Maple Housing Areas project site is located off Hospital Road within the former Main Post parcel in the vicinity of the former Grant, Locust, and Cavite Housing Areas. The terrain at the site varies from flat/level areas where residential housing once stood to steep hillsides towards the northern boundary of the site. Vegetation consists of various grasses and trees. Portions of the site are heavily wooded. The site is considered accessible as it was once a former housing areas and a road exists through the site. Roads have not been maintained since the areas were closed under the BRAC program.

Fort Devens dates from 1917 when Camp Devens, a temporary training camp for New England Area soldiers during World War I (WWI), was formed. A portion of the installation west of the main post cantonment was used as 37-millimeter (mm) artillery range. Use of the range is thought to have ceased in the 1930s with the construction of Hospital Road along the southern and western extents of the range fan. Sometime after the range was closed, the area was re-developed into residential housing (estimated time frame 1950s), including the Oak and Maple Housing Areas that comprise the current project site. The Oak and Maple Housing Areas were situated at the extreme west end of the firing fan. Oak Hill is thought to have served as a natural backstop behind the direct fire artillery targets.

The Army performed a munitions response investigation (1995) and subsequent removal action (1996) in portions of the former Grant, Oak, and Maple Housing Areas. In 2005, Mass Development completed a geophysical mapping and removal action within a portion of the area investigated and cleared during the 1995/1996 investigations. The 2005 investigation was performed across the presumed former anti-tank range and extended up to the perimeter of Oak Hill and the northern perimeter of the former Maple Housing Area. After completion of the 1995/1996 and 2005 investigations and removal actions, the site was determined to have a reduced probability of additional MEC encounters. Land Use Controls (LUC) were implemented for the Grant Housing Area to ensure future development would use appropriate precautions if the site was redeveloped.

A 2008 PA/SI Supplemental Site Investigation (SSI) recommended that a MEC Clearance Survey be performed for the Oak and Maple Housing Areas in order to characterize the potential MEC safety hazard and determine the need for additional MEC removals and/or LUCs within these areas. Based on these recommendations, the Army surveyed 14 of the 37 acres comprising the former Oak and Maple Housing Areas in late 2010/early 2011 to determine if additional MEC were present within the two former housing areas. As reported in the November 2012 "FINAL MUNITIONS AND EXPLOSIVES OF CONCERN REMEDIAL INVESTIGATION REPORT," 4,211 specific anomalies were identified. Of those, 3,647 were intrusively investigated. Munitions Debris (MD) was encountered at less than 40 locations and only one MEC item (37-mm projectile) was discovered on the east side of Oak Hill.

This response action is being performed per the Final ROD Explanation of Significant Differences for Grant Housing Area and 37-MM Impact Area, Former Fort Devens, September 2014 and under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and is part of the overall Remedial Action Process. The September 2014 ESD amended the 2009 ROD for Grant Housing Area and 37-MM Impact Area by incorporating additional Land Use Controls (LUCs) to address the former Oak and Maple HAs based on their immediate proximity to the Grant HA and the 37-mm Impact Area. The LUCs required Army to conduct a MEC physical previews of proposed construction areas, perform MEC Clearance Surveys in areas not previously evaluated/surveyed, and provide MEC Construction Support during all intrusive activities (e.g., building construction, laying utilities, or road improvements).

This report is issued in accordance with Section 5.0 of the July 2016, "MUNITIONS AND EXPLOSIVES OF CONCERN (MEC) CLEARANCE AND CONSTRUCTION SUPPORT WORK PLAN FOR FORMER OAK AND MAPLE HOUSING AREAS."

2.0 SCOPE

The objectives of the field effort, as identified in Section 2 of the July 2016, "MUNITIONS AND EXPLOSIVES OF CONCERN (MEC) CLEARANCE AND CONSTRUCTION SUPPORT WORK PLAN FOR FORMER OAK AND MAPLE HOUSING AREAS" were to support future development and construction activity in the former Oak Housing Area by performing MEC Clearance Survey of ten (10) un-surveyed grids (i.e. F4 through F7, E4, E6, E7, D4, D5, and C4) and a MEC Clearance Survey from areas beneath 13 remnant concrete building slabs. While the work plan envisioned that a MEC Clearance Survey would be performed beneath asphalt roads, these areas were not screened as part of this work. MEC clearance surveys under roads will occur if roads are removed in the future. In addition, applicable hazard analyses or screening level risk assessments will be utilized to qualitatively evaluate MEC-related explosive hazards under current and future use scenarios. The Proposed Action consists of providing construction support at Oak and Maple Housing area at Devens. The Oak and Maple housing area totals approximately 38 acres and defines the limits of the project area.

3.0 WORK PERFORMED

3.1 STAND BY CONSTRUCTION SUPPORT FOR REMNANT CONCRETE SLAB REMOVALS

On 5 July through 24 July 2016 a USACE OESS provided MEC safety training for all site workers and standby construction support. Using high visual survey tape the OESS marked boundaries requiring MEC support. The OESS periodically scanned materials from the excavations to verify no MPPEH/MEC was present. Once a housing pad was completely removed the OESS scanned 100% of the excavation. This process was

completed on all 13 housing pads. Upon completion of the excavation scan by the OEES the excavation was backfilled with crushed concrete from the old housing pad.

3.2 MEC CLEARANCE SURVEY OF 10 GRIDS

On 23 July 2016 a five man team of Ordnance and Explosive Safety Specialists (OEES) from the USACE Baltimore district established the boundaries of (10) 100' x 100' un-surveyed grids within the former Oak Housing Area. No GPS coordinates were available to mark the corners of the grids so the team used available maps, google earth and landmarks (i.e. house pad corners, road) to delineate the area. The team extended all boundaries to ensure overlap with previously cleared grids. The area is identified in Figure 1 and includes grids F4 through F7, E4, E6, E7, D4, D5, and C4. Per the NAB Construction Support Work Plan, each grid was subdivided into five foot sweep lanes. Each lane was established to ensure overlap with adjacent lanes. Utilizing the industry standard mag and dig protocols (investigate each detected anomaly as the team sweeps down the lane), 100% of each grid was investigated to depth of detection of the hand held analog Magnetometer, typically in the range of 2-4 feet deep. A meandering path technique was used through each grid to ensure that at least 10% of each grid was covered for Quality Control.

4.0 FINDINGS

During the course of this MEC Clearance Survey, 100% of the identified grids and slab footprints were investigated. No material potentially presenting an explosive hazard (MPPEH) or MEC was encountered, which is consistent with work performed in the former housing areas at Devens. Additionally there is no evidence to suggest that MEC/MPPEH exists on this site. Although no MEC and/or evidence of MEC/MPPEH was recovered, given the proximity of these areas to former impact areas it is recommended that they remain classified as low probability for encountering MEC.

Items recovered during the course of this clearance consisted of cultural debris and trash. All recovered items were disposed of appropriately in the contractors trash bin.

5.0 SUMMARY

A total of ten 100' x 100' grids and 13 concrete slab footprints were 100% investigated for MEC to the depth of detection of hand held instrumentation typically in the range of 2-4 feet deep within the former Oak Housing area. No MEC/MPPEH was recovered during this investigation.

6.0 RECOMMENDATIONS

It is recommended that the cleared areas remain classified as low probability for encountering MEC.

APPENDIX A

Figures

Figure 1
Ten Grids to be Investigated for MEC
within the Oak and Maple Housing
Areas

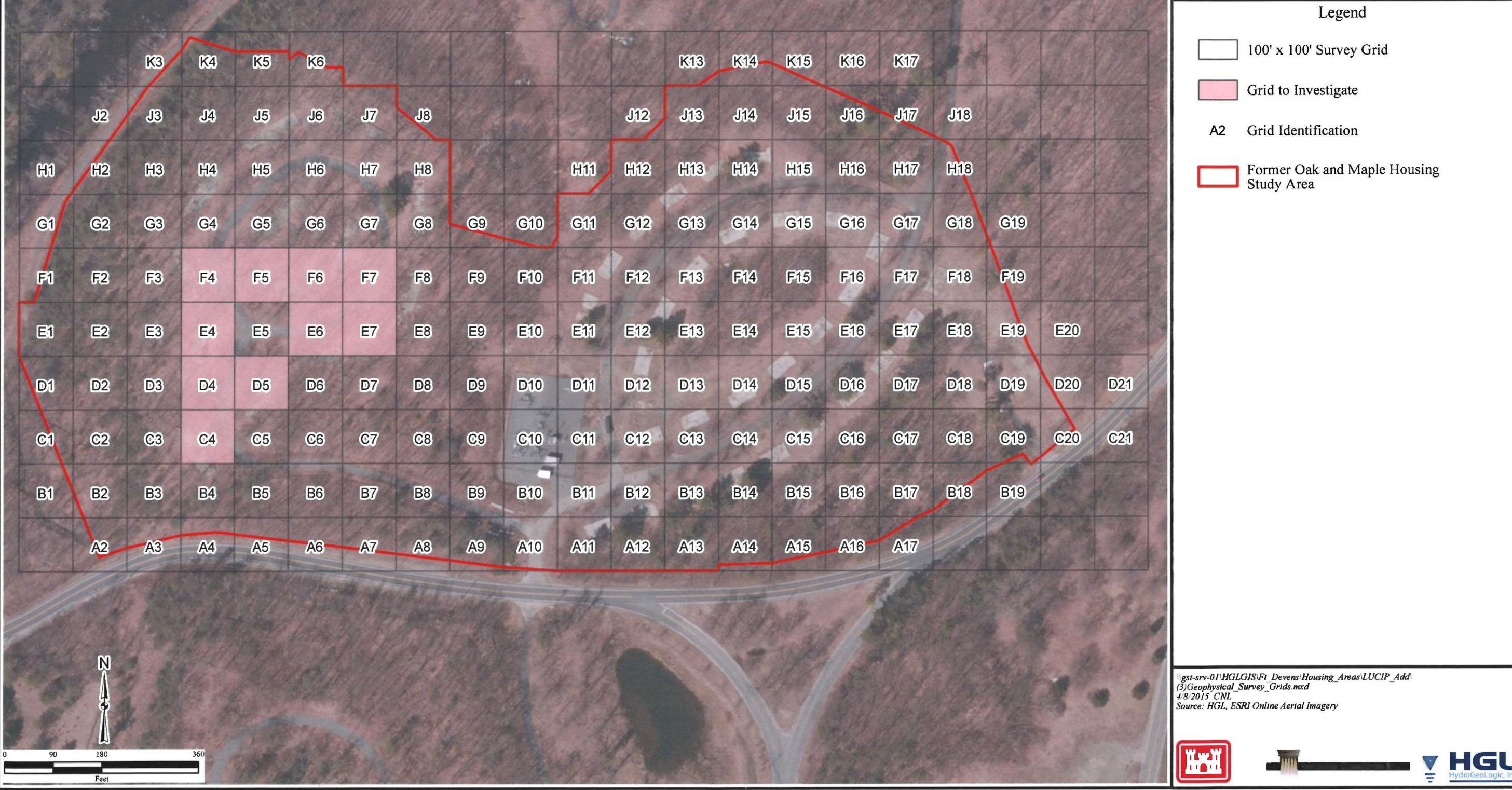
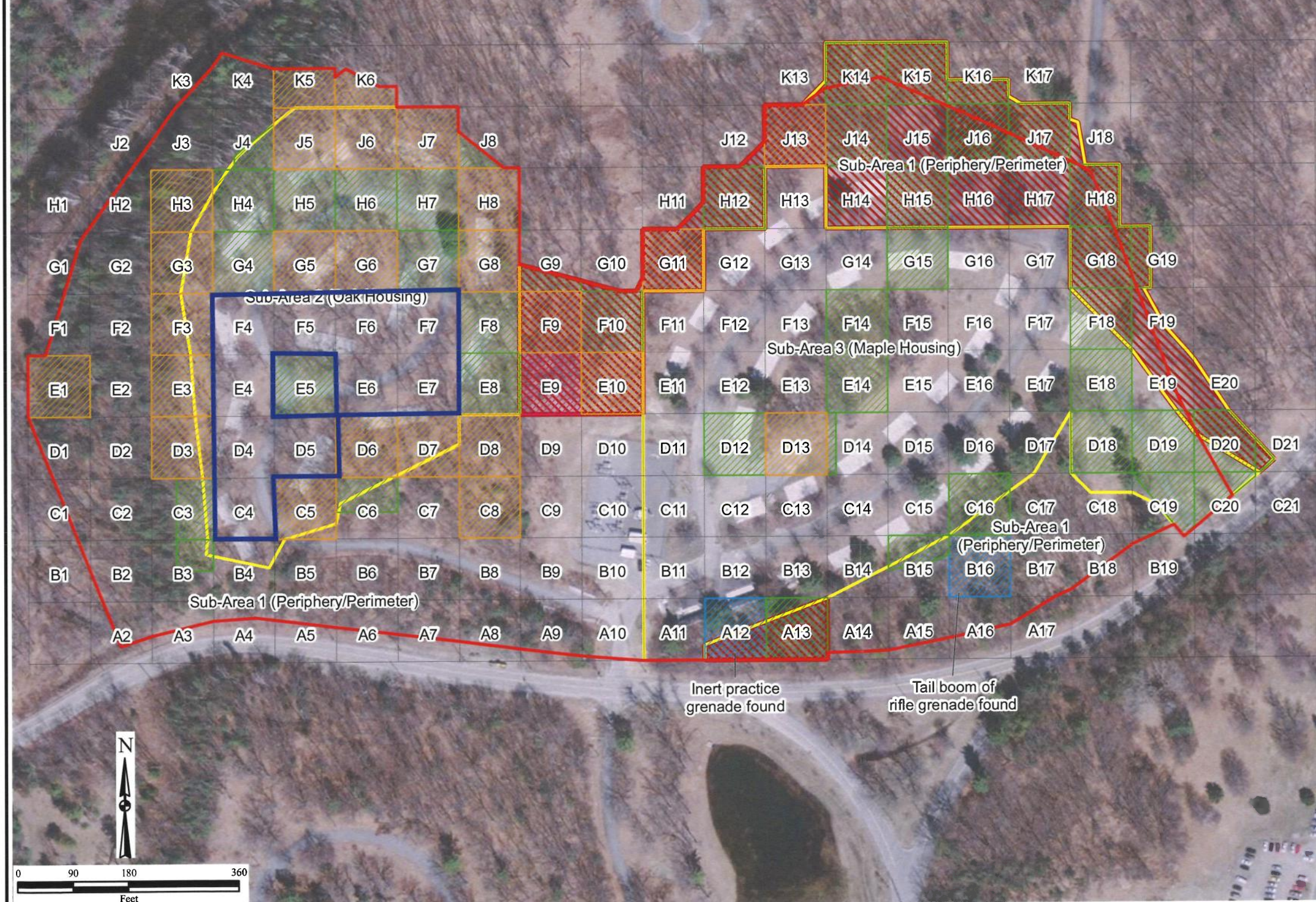


Figure 2
Analog and Digital
Geophysical Survey Grid
Distribution and Summary Findings
November 2010 to April 2011



Legend

- 100' x 100' survey grid
- A2 Grid ID
- Surveyed grid where MEC (37mm projectile) was found
- Surveyed grid where munitions debris (37mm fragments) was found
- Surveyed grid where no munitions debris was found
- Surveyed grid where munitions debris other than 37mm was found
- Cleared by Virtue of OER or HGL Intrusive Activities (2004-2011)
- Housing Sub-Area
- Former Oak and Maple Housing Study Area
- 10 Grids for MEC Clearance Survey

Note:
 Mass.gov aerial photograph dated May 2008.

Y:\Fort_Devens\AE\TO_02\Oak_Maple_RA
 (3-07)Analog_Digital_Findings.mxd
 3/29/2012 CNL
 Source: HGL; ESRI; USACE; Mass.gov

Figure 3

Ft. Devens

13 pads in Oak housing
Approximately '100x'35



Google earth

Image U.S. Geological Survey

500 ft



APPENDIX B PHOTOS



Removal of Former Housing Pads



Grid layout (establish sweep lanes)





Mag and dig of sweep lanes

APPENDIX C

Field reports

Weekly Site Report

Devens, MA

Former Oak Housing area



Document # USACE 2016 - 001	Project Number	DATE; 5 - 8 July 2016
---------------------------------------	-----------------------	---------------------------------

Team 1.

<input checked="" type="checkbox"/> Team check out	<input checked="" type="checkbox"/> Equipment check (instrument verification)
<input checked="" type="checkbox"/> Mag and Dig	<input checked="" type="checkbox"/> Equipment Maintenance.
<input checked="" type="checkbox"/> Administrative operations.	<input checked="" type="checkbox"/> Team tailgate safety brief (conducted by team leader)

OESS: Todd Steelman

Team location: Oak Housing area

Worked performed: Construction support

Comments: Provided MEC training to all site workers during morning safety brief. Set up of the site and removal of the house pads began. Periodic inspections were completed with an analog magnetometer.

Site Visitors:

TRACKING DATA:

MEC Items:

0

MPPEH Items:

0

Other work performed:

*Tailgate Safety brief

PREPARED BY:

Todd Steelman

Weekly Site Report

Devens, MA

Former Oak Housing area



Document #

USACE 2016 - 002

Project Number

DATE;

11-15 July 2016

Team 1,

- | | |
|--|---|
| <input checked="" type="checkbox"/> Team check out | <input checked="" type="checkbox"/> Equipment check (instrument verification) |
| <input checked="" type="checkbox"/> Mag and Dig | <input checked="" type="checkbox"/> Equipment Maintenance. |
| <input checked="" type="checkbox"/> Administrative operations. | <input checked="" type="checkbox"/> Team tailgate safety brief (conducted by team leader) |

OESS: Todd Steelman

Team location: Oak Housing area

Worked performed: Construction support

Comments: Continued removing house pads. Plastic was placed over the pads and a pressure washer was used to remove paint. Inspected excavations and materials from the house pads with a magnetometer. Once a housing pad was completely removed a full sweep was conducted, no contacts were found, and then the excavation was backfilled with the crushed concrete from the former housing pad.

Site Visitors:

TRACKING DATA:

MEC Items:

0

MPPEH Items:

0

Other work performed:

*Tailgate Safety brief

PREPARED BY:

Todd Steelman

Weekly Site Report

Devens, MA

Former Oak Housing area



Document # USACE 2016 - 003	Project Number	DATE; 18-24 July 2016
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Team 1.

<input checked="" type="checkbox"/> Team check out	<input checked="" type="checkbox"/> Equipment check (instrument verification)
<input checked="" type="checkbox"/> Mag and Dig	<input checked="" type="checkbox"/> Equipment Maintenance.
<input checked="" type="checkbox"/> Administrative operations.	<input checked="" type="checkbox"/> Team tailgate safety brief (conducted by team leader)

OESS: Todd Steelman

Team location: Oak Housing area

Worked performed: Construction support

Comments: Continued the removal of house pads. Continued the sweep of the bottom excavations from the house pads and area around them. On 23 July, a USACE UXO team mobilized to the site to perform the clearance of the 10 grids. No MEC or MPPEH was recovered. A tailgate safety brief was given to all team members for the clearance operation.

No MEC/MPPEH was recovered during the course of this field work.

Site Visitors:

TRACKING DATA:

MEC Items:

0

MPPEH Items:

0

Other work performed:

*Tailgate Safety brief

PREPARED BY:

Todd Steelman

EXHIBIT D

SITE-SPECIFIC SOIL MANAGEMENT PLAN

(SSSMP)

FOR THE

FORMER OAK, MAPLE AND A PORTION OF THE FORMER

GRANT HOUSING AREAS

("RESTRICTED AREA")

EXHIBIT D
Site-Specific Soil Management Plan
for the
Former Oak, Maple and a Portion of the Former Grant Housing Areas



**US Army Corps
of Engineers**

FINAL
SITE-SPECIFIC SOIL MANAGEMENT PLAN (SSSMP)
FOR THE
FORMER OAK, MAPLE, AND A PORTION OF THE FORMER GRANT
HOUSING AREAS
(“RESTRICTED AREA”)
FORMER FORT DEVENS ARMY INSTALLATION, DEVENS, MA

April 2021

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EXHIBIT D
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Preamble

The following Site-Specific Soil Management Plan (SSSMP) represents the process and procedures required to ensure proper management of soils disturbed, excavated, relocated and/or removed during performance of any construction-related and/or intrusive soil activity within the boundaries of the former Oak, Maple and a portion of the former Grant Housing Areas (HAs) (collectively the “Restricted Area”) at the former Fort Devens (see Attachment A). Although prior investigations and removal actions have occurred at various locations and varying levels of technical scrutiny, because the Restricted Area is located in areas historically used for military training purposes, it is possible that remnant unexploded ordnance (UXO) and other Munitions of Explosive Concern (MEC) and other contamination may exist.

History

Historical records indicate that training (physical and tactical as well as use of military equipment), including the use of military munitions, occurred throughout the history of Fort Devens, including prior to the late 1950s in the area of the former Grant, Oak and Maple HAs. A 37-mm artillery range was located along the western boundary of the former Grant HA, with an Impact Area on the northern slope of the former Oak HA hillside to the southwest and a firing fan that extended past the Impact Area and overlapped portions of the former Oak and Maple HAs to the south. Historical documentation indicates that the range was likely used between World War I and World War II; however, with the construction of Hospital Road in the 1930s, the range was likely closed around that time for safety reasons. Military training continued through the late 1950s when base housing was constructed, and training activities ceased.

In 1994/1995, the USACE completed a study to document the locations of all known training areas and ranges at Devens. Based on the findings of this study, portions of the former Grant and Oak HAs were identified for a removal action. A munitions response investigation and subsequent removal action were performed in 1995 and 1996, respectively. This removal action identified significant amounts of unexploded ordnance (UXO) and UXO scrap in the Impact Area, southwest of the former Grant HA. In excess of 50 unexploded 37-mm projectiles and a large number of 37-mm fragments were located and disposed. Most of the ordnance located was in two dense clusters indicating former target locations in the Impact Area.

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In 2004 and 2005, the Army conducted Preliminary Assessment/Site Inspection (PA/SI) and Supplemental Site Investigation (SSI) efforts within the former Grant HA and Impact Area to assess whether military activities resulted in the release of munitions constituents (MC) and/or other chemicals of concern (COCs) to soil and groundwater and, if so, what hazard those releases would pose to public health and welfare or the environment. Although COCs potentially related to UXO and other MEC were not detected, site inspections of the Impact Area identified potential UXO on the surface. The PA/SI/SSI Report recommended that a Focused Feasibility Study (FFS) be prepared to evaluate response alternatives involving LUCs that will reduce explosive safety hazards in the Impact Area and portions of the former Grant HA. Additionally, the report recommended that MEC investigation be performed at the former Oak and Maple HAs to characterize potential MEC safety hazards and determine the need for additional MEC removals and/or LUCs within these areas.

Concerns regarding the potential for remnant UXO to exist in soil within the Impact Area and the potential for similar conditions at the former Grant HA resulted in MassDevelopment contracting with Ordnance & Explosive Remediation, Inc. (OER) to conduct a more comprehensive investigation of these areas. In 2004, a digital geophysical survey and *mag and flag* mapping was completed throughout the entire former Grant HA and portions of surrounding former HAs, including the Impact Area, to evaluate whether UXO and other MEC existed. OER identified and successfully removed 31 additional UXO items (20 - 37-mm projectiles, 4 mines, 1 rifle grenade, and 6 stokes mortars) and 17 other ordnance items (1- 37-mm armor piercing round, 8 empty rifle grenades, 3 training hand grenades, 2 empty mine flare bodies, 1 empty anti-tank mine, and 1 French VB2 trainer (rifle grenade)) .

As recommended in the 2008 PA/SI/SSI Report, a MEC Remedial Investigation (RI) of the former Oak and Maple HAs was conducted in 2010/2011 to characterize potential MEC safety hazards and determine the need for additional MEC removals and/or LUCs within these areas. An analog geophysical survey was performed in areas thought to have the greatest likelihood of MEC discovery. Based on the number of anomalies investigated (3,647) versus the number of MEC discovered (1), the investigation determined that the probability of encountering MEC within these areas is low (HGL, 2012). The one MEC item was found halfway across Oak Hill about 10–20 feet downslope of the former Oak housing lot, in an area where MEC had been discovered during previous investigations. At the former Maple HA, 37-mm

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munitions debris (MD) was found scattered across the northern edge, with one 37-mm fragment found in the center of the former HA. While it was possible that the MEC item could have been re-distributed from its original deposition point during construction of the HAs when the local soils were graded and leveled to accommodate construction of the housing units, the presence of MD within already developed areas and the discovery of the one 37-mm projectile between the former Grant and Oak HAs, indicated that additional MD and possibly MEC may exist within portions of the former HAs.

As a result of investigations and removal actions conducted within the former Grant HA and the Impact Area, Army issued a Focused Feasibility Study (FFS) in 2008 that compared remedial alternatives to address potential residual UXO and other hazards and risks to future residents, tenants and construction/utility workers. In September 2009, Army issued the *Record of Decision, Grant Housing Area and 37-mm Impact Area Former Fort Devens Army Installation, Devens, Massachusetts* (“2009 ROD”) that selected LUCs as the remedial alternative to protect public health and welfare or the environment from the hazards associated with the potential existence of UXO and other MEC in these areas. The *Land-Use Control Implementation Plan for the Grant Housing Area and 37-mm Impact Area* (“2011 LUCIP”) was issued in May 2011 to formalize the roles and responsibilities of the Army, EPA, MassDEP, MassDevelopment, and potential future land owners in the long-term administration and management of the ROD-specified LUCs. Institutional controls, access restrictions, and prohibitive directives for the former Impact Area are implemented through the Grant of Environmental Restrictions and Easements (GERE) issued by MassDEP in December 2011 (“2011 GERE”)¹. The 2011 GERE prohibits, in perpetuity, the excavation, removal, or disturbance of any soil or other ground intrusive activity and/or use or redevelopment of the former Impact Area for any purpose, with very limited exceptions.

This SSSMP is not intended to alter, modify, or amend in any way the LUCs for the former Impact Area which are implemented in accordance with the 2009 ROD, 2011 LUCIP and 2011 GERE.

¹ The purpose of the GERE is to establish covenants and restrictions and to convey to the Massachusetts Department of Environmental Protection real property rights involving access and enforcement, all of which shall run with the land in perpetuity, to facilitate the remediation of environmental contamination, and to protect human health and the environment by reducing the risk of exposure to contaminants as specified in the 2009 ROD and 2011 LUCIP.

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In 2012, Army issued an Addendum to the FFS to evaluate potential remedies unique to the former Oak and Maple HAs but within the larger framework of former military training activities. While the FFS Addendum evaluated LUCs similar to those considered for the former Grant HA and the Impact Area, additional LUCs were included to address differences in potential risks resulting from the different levels of MEC clearance activities performed and potential UXO hazards specific to the proposed future use of the former Oak and Maple HAs for commercial (innovation and technology business) purposes.

In September 2014, the *Final Explanation of Significant Differences for Grant Housing Area and 37-mm Impact Area, Former Fort Devens Army Installation, Devens MA* (“2014 ESD”) was issued to include LUCs for the former Oak and Maple HAs. The 2014 ESD expanded the scope of the LUCs, beyond what was stipulated in the 2009 ROD for the former Grant HA, to address differences in potential risks resulting from a different level of MEC investigation and clearance activities performed and to specifically address potential UXO hazards associated with the future use of the former Oak and Maple HAs as commercial redevelopment sites. The intent of the LUCs is to educate future commercial tenants and employees, the public, and construction/utility contractors to the potential presence of UXO, locations where UXO are more likely to be encountered, how to identify UXO, how to minimize the potential of encountering UXO, and what actions to take if suspect UXO is encountered.

In 2016, a portion of the former Grant HA abutting the former Oak and Maple HAs was rezoned as commercial (innovation and technology business) with the effect that no residentially zoned areas would be located adjacent to the former Impact Area. Collectively, the former Oak and Maple HAs (previously zoned as commercial (innovation and technology business)) along with the commercially rezoned portion of the former Grant HA comprise the newly created “Restricted Area” and are the subject of this SSSMP. Because the LUC requirements established in the 2014 ESD for the former Oak and Maple HAs are more restrictive and add additional controls beyond the LUCs applied to the former Grant HA pursuant to the 2009 ROD, these LUCs may be applied to the portion of the former Grant HA that has been zoned commercial (innovation and technology business) and is now part of the newly defined Restricted Area.

In addition to the LUCs discussed above, on December 2, 2016, a Notice of Activity and Use Limitation addressing residual pesticides contamination in the former Oak and Maple HAs (“2016 Pesticides AUL”) was recorded by MassDevelopment at the Worcester District Registry of Deeds at

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Book 56499 on Page 340 pursuant to documentation located under DEP Release Tracking Number 2-0662. The requirements of the 2016 Pesticides AUL are enforced separately by the Massachusetts Department of Environmental Protection, and they cover only the former Oak and Maple HA portion of the Restricted Area. Nothing in this SSSMP is intended to alter any requirements of the 2016 Pesticides AUL. In areas that are restricted by the 2016 Pesticides AUL, to the extent that the SSSMP is inconsistent with the soil management requirements specified in the 2016 Pesticides AUL, the more restrictive, more protective requirements apply.

Purpose and Scope

As stated above, the purpose of this SSSMP is to outline the process and procedures necessary to ensure that soils disturbed, excavated, relocated and/or removed during performance of any construction-related and/or intrusive soil activity within the Restricted Area are managed in accordance with requirements set forth in the 2014 ESD and 2021 LUCIP Addendum (and any subsequent workplans related thereto), applicable DoD and Army directives, policy, and guidance related to explosive safety requirements set forth in USACE EM 385-1-97, *Explosives Safety and Health Requirements Manual (April 12, 2013)*, CERCLA, as amended by Superfund Amendments and Reauthorization Act (SARA) of 1986, the National Contingency Plan (NCP), the Devens Federal Facilities Agreement (FFA) and other federal and state contaminated soil management regulations and supplemental provisions related to the management and relocation of UXO and other MEC.

Army Obligations

While the Army may delegate its responsibility to implement this SSSMP to another entity (such as MassDevelopment or other future property owner) or through a third party by contract or through other means, it retains ultimate responsibility for ensuring the effectiveness and integrity of the Restricted Area remedy as determined by the 2009 ROD, 2011 LUCIP, 2014 ESD, and 2021 LUCIP Addendum through the implementation, maintenance, reporting and enforcement of LUCs until such time that the hazard associated with the remnant UXO or other MEC in soils is at levels to allow unlimited use and unrestricted exposure (UU/UE). Specifically, the Army retains, at a minimum, the following responsibilities:

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- Ensure that this SSSMP (and any subsequent revisions thereto) is distributed to MassDevelopment (and other current/future owners of property within the Restricted Area), Devens Fire Department and local/State Police;
- Ensure that all personnel applying for a building permit for the performance of construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area receive copies of the SSSMP and complete required Devens UXO/MEC Awareness Briefing prior to commencing such work;
- Ensure that all personnel performing, overseeing and/or supervising construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area complete required Devens UXO/MEC Awareness Briefing prior to entering the Restricted Area to commence the foregoing activities;
- Ensure that an instrument-assisted, visual inspection is performed of the entire proposed construction area, including the proposed construction footprint and all construction areas, as designated by MassDevelopment. where intrusive soil activity that disturbs, excavates, relocates and/or removes soil will be conducted, including areas outside of building footprints (e.g., areas to be regraded, landscaped, or covered by pavement or grass);
- Ensure that on-call MEC Construction Support is provided during performance of all construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soils in the Restricted Area;
- Ensure that any construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soils within the Restricted Area is performed in accordance with the requirements set forth in CERCLA, the 2014 ESD, the 2021 LUCIP Addendum, the *Final Munitions and Explosives of Concern Clearance and Construction Support Work Plan for Former Oak and Maple Housing Areas* dated July 2016 (“2016 MEC Construction Support Plan”) (Exhibit B of the 2021 LUCIP Addendum), and this SSSMP; and,
- Conduct periodic reviews of this SSSMP to ensure that future construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soils within the Restricted Area continues to be performed in accordance with the requirements, directives, policies, and guidance specified above and future amendments thereto.

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Implementation

The following activities and procedures are necessary to ensure proper management of soils generated during the performance of construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil within the Restricted Area:

1. **Perform Low-Probability MEC Investigation Prior to Removal of Asphalt Roads and/or Performance of any Intrusive Activity Beneath Existing Asphalt Roads in the Restricted Area**

Prior to commencement of asphalt roadway removal activities and/or performance of any intrusive soil activity that disturbs, excavates, relocates and/or removes soil beneath existing asphalt roadways (as of the date of the 2021 LUCIP Addendum) in the Restricted Area, the Army (or Army's designee with the approval of MassDevelopment) shall perform a low probability MEC investigation. This work shall be conducted in accordance with procedures set forth in Sections 2.0 and 4.0 of the 2016 MEC Construction Support Plan (Exhibit B of the 2021 LUCIP Addendum).

Note that although the 2016 MEC Construction Support Plan originally required a low-probability MEC investigation for areas beneath asphalt roadways in the former Oak HA, it was reported in Section 2.0 of the *May 2017 Final MEC Summary Completion Report for the Former Oak and Maple Housing Areas* ("2017 MEC Clearance Report") (Exhibit C of the 2021 LUCIP Addendum), that this work was not completed. Instead, Army, MassDEP, MassDevelopment and EPA agreed that the required low probability MEC investigation beneath existing asphalt roadways (as of the date of the 2021 LUCIP Addendum) in the former Oak HA would be performed in conjunction with future asphalt roadway removal activities. As such, the requirement for a low-probability MEC investigation in conjunction with the removal of existing asphalt roadways (as of the date of the 2021 LUCIP Addendum) remains outstanding in the entire Restricted Area.

2. **Conduct an Instrument-Assisted, Visual Inspection of Entire Proposed Construction Area, Including Proposed Construction Footprint and All Construction Areas Where Intrusive Soil Activity That Disturbs, Excavates, Relocates and/or Removes Soil Will Be Performed in the Restricted Area** - As discussed in the 2014 ESD, Sections 2.0 and 4.0 of the 2016 MEC

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Construction Support Plan, the 2021 LUCIP Addendum, and 2021 NAUL, the Army (or Army's designee, with the approval of MassDevelopment) shall perform an instrument-assisted visual inspection of the entire proposed construction area, including the proposed construction footprint and all construction areas, as designated by MassDevelopment, where intrusive soil activity that disturbs, excavates, relocates and/or removes soils within the Restricted Area will be conducted, including areas outside of building footprints (e.g., areas to be regraded, landscaped, or covered by pavement or grass).

3. **Provide On-Call MEC Construction Support for All Intrusive Activities in the Restricted Area** - In accordance with the 2014 ESD, Sections 2.0 and 4.0 of the 2016 MEC Construction Support Plan, the 2021 LUCIP Addendum, and the 2021 NAUL, Army (or Army's designee, with the approval of MassDevelopment) shall provide future on-call MEC Construction Support for all construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soils within the Restricted Area ("MEC Construction Support"). Construction support shall be performed following low probability protocols in accordance with all applicable DoD and Army directives, policy, and guidance related to explosive safety requirements; including USACE EM 385-1-97, Explosives Safety and Health Requirements Manual (April 12, 2013) and this SSSMP.

4. **All On-Site Personnel Performing, Overseeing and/or Supervising Construction-Related and/or Intrusive Soil Activity that Disturbs, Excavates, Relocates and/or Removes Soils within the Restricted Area Shall Actively Monitor for Potential UXO or Other MEC.**
If UXO or other MEC is suspected or encountered, all activities shall immediately cease and the UXO/MEC Protocol and Procedures outlined in Attachment B to this SSSMP shall be implemented.

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5. **Submit a MEC Construction Support Summary Report to EPA, MassDEP and MassDevelopment Upon Completion of Any Discrete MEC Construction Support** - Within thirty (30) days of completing any MEC Construction Support activities specified in ¶¶ 1 – 4 above, the Army shall prepare (or shall ensure that the entity to which the Army has delegated this responsibility prepares) a MEC Construction Support Summary Report for submission to EPA, MassDEP, and MassDevelopment, documenting performance of the MEC Construction Support activities specified in the 2016 MEC Construction Support Work Plan and this SSSMP, and shall include, at a minimum, the following:
- Name and Address of Personnel/Company Performing/Completing Work;
 - Purpose/General Description (and Duration) of Work Performed;
 - Confirmation (Date, Time, Place) of Completion of Devens UXO/MEC Awareness Briefing;
 - Detailed description and results of the MEC Construction Support activities performed in conjunction with the construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soils within the Restricted Area;
 - Daily field reports;
 - Field data collected from the site, including site survey information and control points, if available;
 - Description (type and location) of UXO and other MEC encountered, if any;
 - A map showing the specific area of construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soils within the Restricted Area and/or MEC Construction Support activities in the Restricted Area and geographic extent of the area(s) surveyed (and cleared, if relevant);
 - Width, depth, and volume of soil disturbed during construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soils within the Restricted Area and/or MEC Construction Support activities in the Restricted Area; and,
 - Confirmation that all construction-related and/or intrusive soil activities that disturb, excavate, remove and/or relocate soil and/or MEC Construction Support activities in the

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Restricted Area were performed in compliance with the 2016 MEC Construction Support Work Plan and this SSSMP.

6. **To the Extent Reasonably Possible, All Excavated, Disturbed, Removed and/or Relocated Soils Shall Remain Within the Restricted Area.** In the event that excavated, disturbed, removed and/or relocated soils (“excess soils”) *must* be moved/transported beyond the boundaries of the Restricted Area to either 1) another location at Devens, or 2) to an approved, licensed off-site (i.e., outside Devens) treatment or disposal facility, a written “Request to Move/Transport Excess Soils Outside of the Restricted Area” must be submitted to the Army, MassDevelopment, MassDEP and EPA for review and approval *prior to moving/transporting the “excess” soils outside of the Restricted Area* that contains, at a minimum, the following information:
- width, depth, and volume of soil disturbed, excavated, removed and/or relocated during construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soils and/or MEC Construction Support activities in the Restricted Area;
 - volume/quantity of excess soils to be moved/transported;
 - description (type and location) of UXO and other MEC encountered during construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soils within the Restricted Area and/or MEC Construction Support activities, if any;
 - confirmation that all excess soils have been or will be passed through a 1” diameter screen under the supervision of qualified UXO/MEC safety personnel prior to movement/transport outside of the Restricted Area; all tailings (i.e., debris/matter not passing through the screen) must be segregated and brought to a Material Potentially Presenting an Explosive Hazard (MPPEH) processing area (see Section 4.4 of the 2016 MEC Construction Support Plan) proactively established within the Restricted Area, for inspection and classification in accordance with DoD Instruction 4140.62/DoDM 6055.9M and DoD Instruction 4140.62, respectively;
 - confirmation that all excess soils have been characterized for contamination, in accordance with applicable federal, state and local requirements, rules, regulations and policies;

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- laboratory data reports with date(s) of excess_soil sample collection, name and address of laboratory, and analytical method used to characterize soil samples;
- table identifying the name and concentration of each contaminant associated with MEC or UXO (e.g., perchlorate) detected and applicable standards (to be provided by EPA and MassDEP on request) which support unlimited use/restricted exposure and commercial/industrial use/exposure; and,
- confirmation that prior to moving/transporting the excess soils to the location/property within Devens that the excess soils will remain within the Restricted Area and be managed in accordance with applicable federal and state rules and regulations.

For excess soils being moved/transported to another location/property within Devens subject to CERCLA LUCs (e.g., LUCs implemented through deed restrictions or activity and use limitation) prohibiting unrestricted exposure/use and allowing commercial/industrial exposure/use:

- name of property owner and address of location/property within Devens to which excess soils will be moved/transported;
- A written consent/approval from the current property owner receiving the excess soils that includes the following: deed restriction confirming CERCLA prohibition of unrestricted use/exposure but permissible of commercial/industrial exposure/use; date of original consent/approval to receive excess soils; date excess soils (and associated laboratory data) received; volume/quantity of excess soils to be received; and plans for its intended use/final disposition, if any; and
- Submit a work plan, health and safety plan, and transportation plan to MassDevelopment, MassDEP and EPA demonstrating that the movement of soils outside the Restricted Area shall be carried out in accordance with applicable federal, state and local rules, regulations and policies including but not limited to CERCLA, the Massachusetts Contingency Plan (MCP), the 2021 LUCIP Addendum and its attachments and exhibits, and this SSSMP.

EXHIBIT D
Site-Specific Soil Management Plan
for the
Former Oak, Maple and a Portion of the Former Grant Housing Areas

Excess soils shall not be moved/transported outside the Restricted Area until Army has received written approval from MassDevelopment, MassDEP and EPA.

For excess soils being moved/transported off-site (outside of Devens) because (a) no suitable location on Devens was found or (b) contamination was detected in excess soil samples above CERCLA acceptable risk-based levels permissible of commercial and/or industrial exposure/use:

- name (owner and/or operator), address and compliance status of off-site disposal facility to which excess soils will be transported;
- copy of the Off-Site Rule (OSR) Compliance Form (submitted in accordance with Paragraph 5.b.ii above) and verification of the receiving facility's CERCLA compliance status from the EPA OSR Coordinator; and
- Submit a work plan, health and safety plan, and transportation plan to MassDevelopment, MassDEP and EPA demonstrating that the movement of soils outside the Restricted Area shall be carried out in accordance with applicable federal, state and local rules, regulations and policies including but not limited to CERCLA, the Massachusetts Contingency Plan (MCP), the 2021 LUCIP Addendum and its attachments and exhibits, and this SSSMP.

Excess soils shall not be moved/transported outside the Restricted Area until the Army has received written approval from MassDevelopment, MassDEP and EPA.

7. **Submit a Completion Summary Report to EPA, MassDEP and MassDevelopment** - In accordance with Section 5.0 of the 2016 MEC Construction Support Plan (Exhibit B of the 2021 LUCIP Addendum), within sixty (60) days of completion of site development activities and/or each site development phase, a Completion Summary Report shall be submitted to EPA, MassDEP, and MassDevelopment, that documents all of the MEC Construction Support activities performed within the Restricted Area, as described in the Summary Field Reports prepared in

EXHIBIT D
Site-Specific Soil Management Plan
for the
Former Oak, Maple and a Portion of the Former Grant Housing Areas

accordance with Section 5 above, qualitatively evaluates UXO and other MEC-related explosives hazards under current and future use scenarios, and includes the following:

- a) copy of approved "Request to Move/Transport Excess Soil Outside of the Restricted Area"
- b) copy(ies) of the MEC Construction Support Summary Report(s)
- c) one (or more, if relevant) of the following statements and the additional documentation, as specified:
 - i. *Excavated/disturbed soils were not moved beyond the boundaries of the Restricted Area - no additional documentation required.*
 - ii. *Excess soils were generated and moved/transported to another location/property within Devens subject to CERCLA LUCs (e.g., LUCs implemented through deed restrictions or activity and use limitations) prohibiting unrestricted exposure/use and allowing commercial and/or industrial exposure/use - additional documentation required:*
 - written statement from the property owner receiving excess soils confirming the following: date of original consent/approval to receive excess soils, date excess soils (and associated laboratory data) received, volume/quantity of excess soils received, final use/disposition of excess soils, including a map showing where excess soils were placed on property.
 - iii. *Excess soils were generated and moved/transported to an approved, licensed offsite (i.e., off Devens) treatment or disposal facility because (a) no suitable location on Devens was found or (b) contamination was detected in excess soil samples above CERCLA acceptable risk-based levels permissible of commercial and/or industrial exposure/use – additional documentation required:*
 - copy of the manifest, Bill of Lading, or equivalent document from the generator of owner/operator/lessee of the facility receiving owner/operator of the facility property owner/lessee receiving the excess soils confirming the following: date

EXHIBIT D
Site-Specific Soil Management Plan
for the
Former Oak, Maple and a Portion of the Former Grant Housing Areas

excess soils (and associated laboratory data) received, volume/quantity of soils received, volume/quantity of soils received, and plans for final disposition, if any, and a statement of compliance with CERCLA, specifically the Off-Site Rule and other applicable federal and state rules and regulations.

The Completion Summary Report shall be included in the Army's Annual LUC Inspection Reports and Five-Year Reviews for the Restricted Area, as required per the 2009 ROD, the 2011 LUCIP, the 2014 ESD, the 2021 LUCIP Addendum, and 2021 NAUL.

8. Modification or Amendment

Any modification or amendment of this SSSMP requires written approval from Army, MassDEP, and EPA.





EXHIBIT D
Site-Specific Soil Management Plan
for the
Former Oak, Maple and a Portion of the Former Grant Housing Areas

ATTACHMENT A

**LAND USE CONTROL (LUC) BOUNDARIES FOR THE
FORMER OAK, MAPLE AND A PORTION OF THE FORMER GRANT
HOUSING AREAS
("RESTRICTED AREA")
FORMER FORT DEVENS**

ATTACHMENT A: LAND USE CONTROLS (LUC)S IN THE VICINITY OF THE "RESTRICTED AREA"

LEGEND:

-  THE FORMER OAK, MAPLE AND A PORTION OF THE FORMER GRANT HOUSING AREAS (I.E., "RESTRICTED AREA") (SUBJECT TO 2021 LUCIP ADDENDUM/NAUL/SSSMP LUCS)
-  THE FORMER IMPACT AREA (SUBJECT TO 2009 ROD/2011 GERE LUCS)
-  THE PORTION OF THE FORMER GRANT HOUSING AREA (SUBJECT TO 2009 ROD/2011 LUCIP LUCS)
-  SUPERFUND SITE BOUNDARY (TYPICAL)

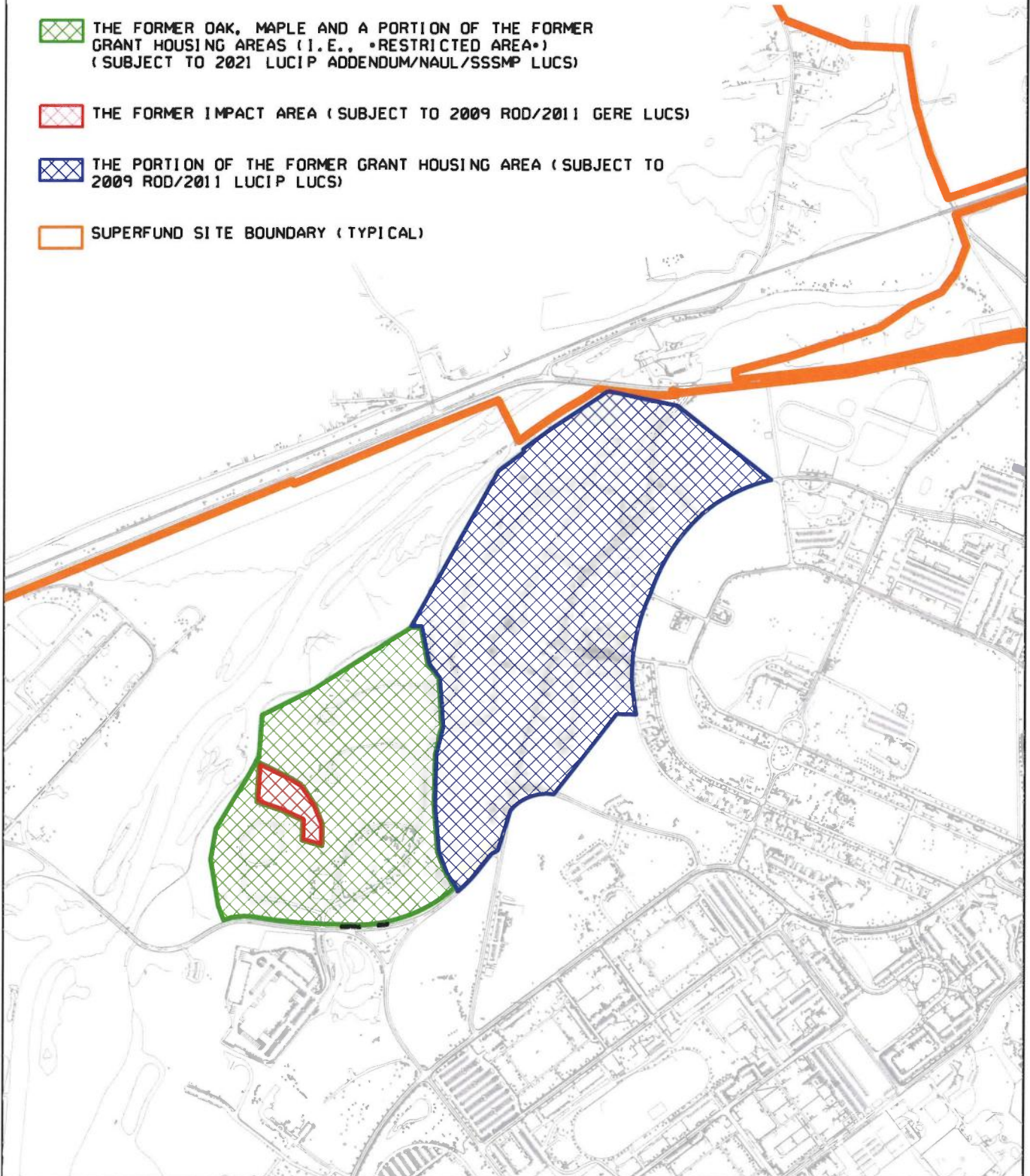


EXHIBIT D
Site-Specific Soil Management Plan
for the
Former Oak, Maple and a Portion of the Former Grant Housing Areas

ATTACHMENT B

**UXO/MEC PROTOCOL AND PROCEDURES
FORMER OAK, MAPLE AND A PORTION OF THE FORMER GRANT
HOUSING AREAS
("RESTRICTED AREA")
FORMER FORT DEVENS**

- A. REQUIRED UXO/MEC AWARENESS BRIEFING.** Prior to performing, supervising, and/or overseeing any construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soils in the Restricted Area (for due diligence, construction, or otherwise), all personnel must view an instructional video describing the types of UXO/MEC that might be present and the procedures to be followed if encountered. Army (or its designated representative) is responsible for coordinating viewing of the instructional video by all personnel (both contractor and sub-contractors). Arrangements can be made for viewing of the instructional video by contacting Army Devens BRAC (978-615-6090) or the Devens Fire Department (978-772-4600).
- B. If UXO/MEC IS ENCOUNTERED OR SUSPECTED,** the Army shall ensure immediate implementation and enforcement of the following:

ALL ACTIVITY/WORK IN THE AREA SHALL CEASE

**NO ONE SHALL APPROACH OR ATTEMPT TO TOUCH THE SUSPECTED
UXO/MEC**

ALL EQUIPMENT SHOULD BE SHUT DOWN AND LEFT IN PLACE

ALL PERSONNEL SHOULD IMMEDIATELY EVACUATE THE AREA

CALL DEVENS EMERGENCY DISPATCH: 978-772-1900

NOTIFY MASSDEVELOPMENT DEVENS: 978-784-2933

NOTIFY THE ARMY BRAC OFFICE: 978-615-6090

Upon investigation of suspected or discovered UXO/MEC, State Police, in conjunction with the Devens Fire Chief, and the Army shall determine the course of action to be followed regarding the relocation, removal, and/or destruction of the UXO/MEC item.

- ***ON-SITE PERSONNEL/ SHALL NOT RETURN TO AND/OR RESUME ANY
ACTIVITY/WORK IN THE AREA UNTIL NOTIFIED BY ARMY, STATE POLICE,
OR THE DEVENS FIRE DEPARTMENT THAT IT IS SAFE TO DO SO.***

EXHIBIT E

NOTICE OF ACTIVITY AND USE LIMITATION (NAUL) (INCLUDING NAUL EXHIBITS A-F)

Worcester South District Registry of Deeds Electronically Recorded Document

This is the first page of the document – Do not remove

Recording Information

Document Number	: 57609
Document Type	: NOT
Recorded Date	: April 27, 2021
Recorded Time	: 12:29:58 PM
Recorded Book and Page	: 65027 / 30
Number of Pages(including cover sheet)	: 43
Receipt Number	: 1335185
Recording Fee	: \$105.00

Worcester South District Registry of Deeds
Kathryn A. Toomey, Register
90 Front St
Worcester, MA 01608
(508) 798-7717

Notice of Activity and Use Limitation

Note: Pursuant to 310 CMR 40.1074(5), upon transfer of any interest in or a right to use the property or a portion thereof that is subject to this Notice of Activity and Use Limitation, the Notice of Activity and Use Limitation shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer. Within 30 days of so incorporating the Notice of Activity and Use Limitation in a deed that is recorded or registered, a copy of such deed shall be submitted to the Department of Environmental Protection.

NOTICE OF ACTIVITY AND USE LIMITATION

42 U.S.C. § 9601, *et seq.*; 40 CFR Part 300; M.G.L. c. 21E, § 6; and 310 CMR 40.0000

[*Note: This Notice of Activity and Use Limitation has been recorded pursuant to 310 CMR 40.0111 as part of an institutional control for a portion of a site that is both a federal Superfund site, listed on the National Priorities List pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, and a disposal site under M.G.L. c. 21E.*]

Superfund Site Name: Former Fort Devens Army Installation
 Site Location: Shirley, Ayer, Lancaster, Harvard (Devens), MA
 EPA Site Identification Number: MA7210025154
 MassDEP Release Tracking No. (s): 2-0000662

This Notice of Activity and Use Limitation ("Notice") is made as of this 23rd day of April 2021, by the Massachusetts Development Finance Agency ("MassDevelopment"), a body politic and corporate, 33 Andrews Parkway, Devens, MA 01434, together with its successors and assigns collectively "Owner"). All capitalized terms used herein without definition shall have the meaning given to them in the Massachusetts Oil and Hazardous Materials Release, Prevention and Response Act, M.G.L. c. 21E, as amended ("Chapter 21E") and the Massachusetts Contingency Plan, 310 CMR 40.0000, as amended (the "MCP").

WITNESSETH:

WHEREAS, MassDevelopment is the owner in fee simple of those certain parcels of land ("Property") which include the former Oak and Maple Housing Areas (HAs) and a portion of the former Grant Housing Area (HA) located in the former Main Post of Fort Devens, located

in Devens, Worcester County, Massachusetts, with the buildings and improvements thereon, pursuant to the following deeds:

(i) a deed, for property known as "Parcel 1", inclusive of portions of the former Oak, Maple and Grant HAs from the United States Department of the Army (the "Army") in favor of MassDevelopment (successor to the Massachusetts Government Land Bank) dated May 9, 1996 and recorded in the Worcester District Registry of Deeds in Book 17907, Page 001. Said Parcel is more particularly bounded and described in Exhibits A-1 and shown on a photo-reduced plan in Exhibit A-2 attached hereto and shown on a plan recorded in the Worcester County Registry of Deeds in Plan Book 703, Plan 112.

(ii) a deed, for property known as "Lease Parcel A.21", inclusive of portions of the former Oak, Maple and Grant HAs from the Army in favor of MassDevelopment dated February 11, 2003 and recorded in the Worcester District Registry of Deeds in Book 29378, Page 064. Said Parcel is more particularly bounded and described in Exhibit B-1 and shown on a photo-reduced plan in Exhibit B-2 attached hereto; and shown on a plan recorded in the Worcester County Registry of Deeds in Plan Book 703, Plan 112.

WHEREAS, the former Oak and Maple HAs and a portion of the former Grant HA (collectively the "Restricted Area"), which are portions of Parcel 1 and Lease Parcel A.21 are subject to this Notice of Activity and Use Limitation ("NAUL"). The Restricted Area is more particularly bounded and described in Exhibit C-1 and shown on a photo-reduced plan in Exhibit C-2, attached hereto and made a part hereof, and is shown on a plan entitled "Activity and Use Limitation Plan, Oak, Maple and a Portion of the Former Grant HAs (collectively the "Restricted Area")" prepared for the Massachusetts Development and Finance Agency by WSP, recorded in the Worcester County Registry of Deeds in Plan Book 956, Plan 37.

WHEREAS, pursuant to Section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. § 9605 ("CERCLA," also commonly referred to as "Superfund") and the National Contingency Plan, 40 CFR §§ 300.1, *et seq.* (the "NCP"), the United States Environmental Protection Agency, an agency established under the laws of the United States ("EPA"), having its New England regional office at Five Post Office Square, Boston, Massachusetts 02109 ("Region 1"), placed the Former Fort Devens Army Installation ("Devens") which includes the Restricted Area on the National Priorities List ("NPL"), set forth at 40 CFR Part 300, Appendix B, by publication in the Federal Register on November 21, 1989, Fed. Reg. 48184-48189, due to a release of hazardous substances, pollutants or contaminants, as those terms are defined by the Section 104 of CERCLA, 42 U.S.C. § 9604 ("Hazardous Substances, Pollutants or Contaminants"), such land being a federal Superfund Site known as the Fort Devens Superfund Site (the "Superfund Site");

WHEREAS, pursuant to Chapter 21E and the MCP, the Massachusetts Department of Environmental Protection, an agency established under the laws of the Commonwealth of Massachusetts, having its principal office at One Winter Street, Boston, Massachusetts 02108 ("MassDEP"), assigned to certain releases of oil and/or hazardous materials occurring at, from or onto the Superfund Site, including the Restricted Area, MassDEP Release Tracking Number 2-0000662, and all places where such oil and/or hazardous materials have come to be located are a disposal site under Chapter 21E and the MCP (the "Disposal Site");

WHEREAS, a sketch plan attached as Exhibit D shows the relationship of the Restricted Area to the boundaries of the Superfund Site and Disposal Site, to the extent such boundaries have been established;

WHEREAS, in documents entitled, "Record of Decision, Grant Housing Area and 37-mm Impact Area, Former Fort Devens Army Installation, Devens, Massachusetts" dated September 2009, and the "Final Explanation of Significant Differences for Grant Housing Area and the 37-mm Impact Area, Former Fort Devens Army Installation, Devens, MA" dated September 2014 (collectively, the "ROD"), said ROD being on file at the Fort Devens BRAC Environmental Office Building 666, 30 Quebec St., Devens, MA 01434, the Army and EPA, with the concurrence of MassDEP, as evidenced by a letter of concurrence, from Benjamin J. Ericson, Assistant Commissioner, Bureau of Waste Site Cleanup to James T. Owens, Director, Office of Site Remediation and Restoration dated October 27, 2014, has selected one or more response actions (collectively, the "Selected Remedy") for the Restricted Area in accordance with CERCLA, the NCP and the Devens Federal Facility Agreement;

WHEREAS, the Selected Remedy is based, in part, upon the restriction of human access to and contact with Hazardous Substances, Pollutants or Contaminants, including unexploded ordnance ("UXO") and other munitions and explosives of concern ("MEC") in soil and the restriction of certain uses and activities occurring in, on, through, over or under the Restricted Area;

WHEREAS, in a document entitled "Institutional Control Design Statement," dated April, 2021 (the "IC Design Statement"), said IC Design Statement being attached hereto as Exhibit E, EPA approved a remedial design for land use restrictions and other institutional controls at the Restricted Area;

WHEREAS, the IC Design Statement contains a description of the basis for land use restrictions, and the release event(s) or site history that resulted in the contaminated media subject to this Notice, including (a) a statement that specifies why the Notice is necessary to the Selected Remedy; (b) a description of the release event(s) or site history that resulted in the contaminated media subject to the Notice (*i.e.*, date of the release(s), to the extent known, release volumes(s), and response actions taken to address the release(s)); (c) a description of the contaminated media (*i.e.*, media type(s) and approximate vertical and horizontal extent) subject to the Notice, (d) a statement of which activities and uses are consistent, and which are inconsistent, with maintaining the Selected Remedy, and (e) a description of all other components of the institutional and land use controls at the Restricted Area;

WHEREAS, pursuant to 310 CMR 40.0111(1), MassDEP shall deem response actions at a disposal site subject to CERCLA adequately regulated for purposes of compliance with the MCP provided certain enumerated conditions are satisfied, including disposal sites subject to CERCLA with respect to which MassDEP has issued a letter of concurrence;

WHEREAS, pursuant to 310 CMR 40.0111, Land Use Controls ("LUCs") may be implemented at disposal sites deemed adequately regulated under CERCLA by means of a Notice of Activity and Use Limitation (NAUL); and

WHEREAS, pursuant to 310 CMR 40.0111(10), disposal sites adequately regulated under CERCLA at which (a) remedial actions have been completed in accordance with the ROD for the site, (b) subsequent design, construction, and other pertinent plans have been approved by EPA, and (c) EPA has certified completion of the remedial action, will be considered to have achieved a Permanent Solution under M.G.L. c. 21E and the MCP for those Hazardous Substances, subject to such remedial actions.

NOW, THEREFORE, notice is hereby given that the activity and use limitations required by the ROD and set forth in the IC Design Statement are as follows:

1. Activities and Uses Consistent with Maintaining the Selected Remedy. The following Activities and Uses are consistent with maintaining the Selected Remedy and, as such, may occur on the Restricted Area without compromising the Permanent Solution that has been achieved for the Site:

(a) Activities and uses consistent with commercial and industrial use, including office, manufacturing, commercial, retail or other similar uses provided that such activities are conducted in compliance with the July 2016, "Final MEC Clearance Survey and Construction Support Work Plan" (the "MEC Construction Support Plan") and the "Site-Specific Soil Management Plan for the Former Oak and Maple HAs, and a Portion of the Former Grant Housing Area ("Restricted Area")" dated April, 2021 (the "SSSMP"), (each of which, for the purposes of this NAUL, is defined to include any amendments thereto made with the written permission of the Army, EPA and MassDEP), and the "Land Use Control Implementation Plan Addendum for the Former Oak, Maple and a Portion of the Former Grant Housing Areas ("Restricted Area")" dated April, 2021 (the "LUCIP Addendum"), copies of which are on file in the Fort Devens BRAC Environmental Office Building 666, 30 Quebec St., Devens, MA 01434 and with the Devens Enterprise Commission, 33 Andrews Parkway, Devens, Massachusetts 01434 (and on its website at www.devensec.com);

(b) Construction-related activities and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area provided that such activities are conducted in compliance with the MEC Construction Support Plan, the SSSMP, and the LUCIP Addendum, copies of which are on file in the Fort Devens BRAC Environmental Office Building 666, 30 Quebec St., Devens, MA 01434 and with the Devens Enterprise Commission, 33 Andrews Parkway, Devens, Massachusetts 01434 (and on its website at www.devensec.com);

(c) Emergency excavation as described in Paragraph 4 below.

2. Activities and Uses Inconsistent with Maintaining the Selected Remedy. The following Activities and Uses are inconsistent with maintaining the Selected Remedy, and, as such, may not occur on the Restricted Area without compromising the Permanent Solution that has been achieved for the Site:

(a) Residential use including, but not limited to, construction of single family or multi-family residences, child care facilities and any type of facility or use for children or young adults through grade 12 and nursing home or assisted living facilities. The prohibition on

residential reuse is warranted based on potential human health risks and explosive safety hazards associated with UXO or other MEC that may still be present in these areas;

(b) Commercial and industrial use, including office, manufacturing, commercial, retail or other similar uses that do not comply with the requirements set forth in the MEC Construction Support Plan, the SSSMP, and the LUCIP Addendum, copies of which are on file in the Fort Devens BRAC Environmental Office Building 666, 30 Quebec St., Devens, MA 01434 and with the Devens Enterprise Commission, 33 Andrews Parkway, Devens, Massachusetts 01434 (and on its website at www.devensec.com);

(c) Construction-related activities and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area that do not comply with the requirements set forth in the MEC Construction Support Plan, the SSSMP, and the LUCIP Addendum, copies of which are on file in the Fort Devens BRAC Environmental Office Building 666, 30 Quebec St., Devens, MA 01434 and with the Devens Enterprise Commission, 33 Andrews Parkway, Devens, Massachusetts 01434 (and on its website at www.devensec.com);

(d) Any activity or use that would impede, the Army's implementation of the Selected Remedy, including but not limited to denying access for physical inspections and to conduct UXO/MEC surveys and removals, if required, and preventing posting or maintenance of required signage.

3. Obligations and Conditions. The following obligations and/or conditions are necessary and shall be undertaken at the Restricted Area to maintain the Selected Remedy and to avoid compromising the Permanent Solution that has been achieved for the Site:

(a) Army's implementation and maintenance of the Selected Remedy shall not be impeded;

(b) Coordination with the Army (or Army's designee, with the approval of MassDevelopment) for activities in accordance with the MEC Construction Support Plan;

(c) Management of soils disturbed, excavated, relocated and/or removed during performance of any construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area in accordance with the LUCIP Addendum and SSSMP;

(d) All personnel applying for a building permit for the performance of construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area must have received copies of the SSSMP and attended a Devens UXO/MEC Awareness Briefing prior to commencing such work;

(e) All personnel performing, overseeing and/or supervising construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area must have attended a Devens UXO/MEC Awareness Briefing prior to entering the Restricted Area to commence the foregoing activities;

(f) Annual inspections and five-year reviews of the Restricted Area conducted by the Army to evaluate compliance with and overall effectiveness of this NAUL shall not be impeded.

4. Emergency Excavation: Notwithstanding the requirements of Paragraph 2 (Activities Inconsistent with Maintaining the Selected Remedy), excavation, removal, relocation or disturbance of soil and other ground intrusive work on the Restricted Area shall be permitted to conduct emergency repairs or replacements of existing utility lines in accordance with an emergency excavation plan on file with the Devens Fire Department, subject to compliance with the following:

(a) The actual disturbance involved in such activities shall be limited to the minimum reasonably necessary;

(b) A site-specific health and safety plan prepared under the direction of a qualified professional shall be submitted to MassDEP, the Army, and EPA, and all measures necessary to limit actual or potential risk to health, safety, public welfare, and environment and shall be implemented;

(c) Soils excavated, removed, relocated or disturbed during such activities shall be managed in accordance with the LUCIP Addendum, MEC Construction Support Plan, SSSMP and applicable federal and state rules and regulations.

5. Proposed Changes in Activities and Uses; Amendments. Pursuant to 310 CMR 40.0111(8)(c), the Owner must notify and obtain approval from EPA and MassDEP of any proposed change in activities and uses at the Restricted Area that is not provided for in this Notice. The Owner must notify the Army of any proposed change in activities and uses at the Restricted Area that is not provided for in this Notice prior to notifying EPA and MassDEP. Pursuant to 310 CMR 40.0111(8)(d), the Owner must obtain EPA and MassDEP approval of any Amendment or Termination of this Notice. All EPA and MassDEP approvals of any Amendment or Termination of this Notice must be in writing and be recorded and/or registered with the appropriate Registry(ies) of Deeds and/or Land Registration Office(s) to be effective.

6. Violations. The activities, uses and/or exposures upon which this Notice is based must not change at any time to (a) cause risks that are not protective of human health or the environment, pursuant to the criteria set forth in the NCP at 40 CFR 300.430(e)(2)(i), (b) interfere with the Selected Remedy, or (c) cause a significant risk of harm to health, safety, public welfare, or the environment pursuant to Chapter 21E and the MCP.

Compliance with the terms and conditions of this Notice is subject to enforcement pursuant to Chapter 21E, the MCP, M.G.L. c. 21A, § 16 and 310 CMR 5.00 and CERCLA and the NCP. Such enforcement may include, without limitation, enforcement with respect to (a) any activities or uses that may occur that are described in Paragraph 2 of this Notice as being inconsistent with the Selected Remedy, (b) any failure to undertake any obligations and conditions described in Paragraph 3 of this Notice as being necessary to maintain the Selected Remedy, and (c) any other failure to maintain the Selected Remedy or Permanent Solution resulting from a failure to act consistently with this Notice.

7. Incorporation into Deeds, Mortgages, Leases, and Instruments of Transfer. This Notice shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer, whereby an interest in and/or a right to use the Restricted Area or a portion thereof is conveyed in accordance with 310 CMR 40.1074(5).

8. Reservation of Rights. This instrument shall not limit or otherwise affect the right of EPA and/or MassDEP to obtain access to, or restrict the use of, the Restricted Area pursuant to CERCLA, Chapter 21E, or any other applicable statute or regulation.

This instrument shall not release the Owner or any other party from liability for releases of oil or hazardous substances or materials, nor shall this instrument excuse the Owner or any other party from complying with CERCLA, Chapter 21E, or any other applicable federal, state or local laws, regulations, or ordinances or by-laws.

Owner hereby authorizes and consents to the filing and recordation and/or registration of this Notice, said Notice to become effective when recorded and/or registered with the appropriate Registry of Deeds and/or Land Registration Office.

WITNESS the execution hereof under seal this 23 day of April, 2021.

Massachusetts Development Finance Agency

By: CMcKenzie

Cassandra McKenzie, its Executive Vice President for Real Estate

COMMONWEALTH OF MASSACHUSETTS

Worcester, ss

On this 23 day of April, 2021, before me, the undersigned notary public, personally appeared Cassandra McKenzie, proved to me through satisfactory evidence of identification, which was personal knowledge, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that she signed it voluntarily for its stated purpose in her capacity as the Executive Vice President for Real Estate of the Massachusetts Development Finance Agency, a body politic and corporate.

Karen Y. Hachey
(official signature and seal of notary)
KAREN Y. HACHEY
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 29, 2026

In accordance with CERCLA, 42 U.S.C. § 9601, *et seq.*, and the National Contingency Plan, the United States Environmental Protection Agency, Region I, hereby approves this Notice of Activity and Use Limitation.

Date: 4-23-21

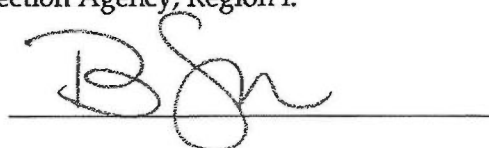


Karen McGuire, Director
Enforcement and Compliance Assurance Division for
Bryan Olson, Director
Superfund and Emergency Management Division
Environmental Protection Agency, Region I

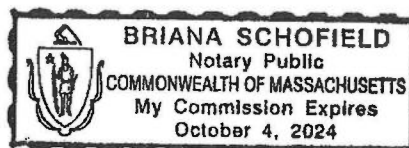
COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss

On this 23 day of April, 2021, before me, the undersigned notary public, personally appeared Karen McGuire, who proved to me through satisfactory evidence of identification, which was MA D.L., to be the person whose name is signed on the preceding or attached document, and acknowledged to me that she signed it voluntarily for its stated purpose in her capacity as the Director of the Enforcement and Compliance Assurance Division of the Environmental Protection Agency, Region I.

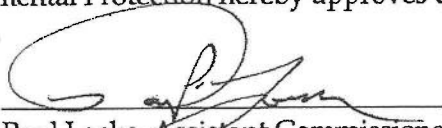


(official signature and seal of notary)



In accordance with M.G.L. c. 21E, § 6, and the Massachusetts Contingency Plan (310 CMR 40.0000), the Department of Environmental Protection hereby approves this Notice of Activity and Use Limitation (as to form only).

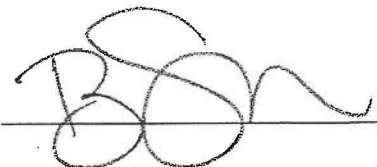
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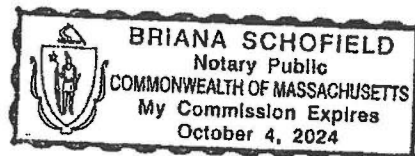

Paul Locke, Assistant Commissioner
Massachusetts Department of Environmental Protection

COMMONWEALTH OF MASSACHUSETTS

Suffolk, ss

On this 23 day of April, 2021, before me, the undersigned notary public, personally appeared Paul Locke, who proved to me through satisfactory evidence of identification, which was MA DL, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose in his capacity as the Assistant Commissioner of the Massachusetts Department of Environmental Protection.


(official signature and seal of notary)



LIST OF EXHIBITS

- Exhibit A-1:** Legal Description for Parcel 1
Worcester District Registry of Deeds
Book 17907, Page 001
- Exhibit A-2:** Photo-reduced Plan for Parcel 1
Original Recorded at Worcester District Registry of Deeds
Plan Book 703, Plan 112
- Exhibit B-1:** Legal Description for Lease Parcel A.21
Worcester District Registry of Deeds
Book 29378, Page 064
- Exhibit B-2:** Photo-reduced Plan for Lease Parcel A.21
Original Recorded at Worcester District Registry of Deeds
Plan Book 703, Plan 112
- Exhibit C-1:** Legal Description for the Former Oak, Maple and a
Portion of the Former Grant Housing Areas ("Restricted Area")
- Exhibit C-2:** Photo-reduced Plan for Former Oak, Maple and a Portion of the Former
Grant Housing Areas ("Restricted Area")
- Exhibit D:** Sketch Plan Showing the Relationship of the "Restricted Area" to the
boundaries of the Former Fort Devens Superfund Site and Disposal Site, to
the Extent Such Boundaries Have Been Established
- Exhibit E:** Institutional Control Design Statement
- Exhibit F:** Evidence of Signatory Authority for Cassandra McKenzie,
MassDevelopment's Executive Vice President for Real Estate

Return to:
MassDevelopment
33 Andrews Parkway
Devens, MA 01434

EXHIBIT A-1
LEGAL DESCRIPTION OF PARCEL 1

Exhibit A-1
Legal Description of Parcel 1

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PROPERTY DESCRIPTIONS

PARCEL 1

A certain parcel of land located in the Town of Ayer, Middlesex County, MA and the Town of Harvard, Worcester County, MA., known as parcel 1, beginning at a point on the northerly sideline of Route 2 and Jackson Gate with the NAD coordinates of N3015446.7100, E620708.8332;

- Thence along Rt. 2, N03°-03'-13"W, five hundred two and sixteen one hundredths feet (502.16') to a point;
- Thence still along Rt. 2, N73°-08'-13"W, ninety and no one hundredths feet (90.00') to a point;
- Thence still along Rt. 2, S23°-40'-06"W, three hundred seventy five and eighty four one hundredths feet (375.84') to a point at the sideline of Jackson Road and parcel 1C;
- Thence along Jackson Road and parcel 1c, N15°-00'-36"E, one thousand eight hundred ten and twenty-nine one hundredths feet (1,810.29') to Fish & Wildlife monument #224;
- Thence along parcel 1c, N66°-24'-13"W, one hundred thirty seven and twenty nine one hundredths feet (137.29') to a point;
- Thence N16°-40'-46"W, four hundred thirty four and ninety one one hundredths feet (434.91') to a point;
- Thence N33°-09'-11"W, three hundred seventy one and seventy eight one hundredths feet (371.78') to a point;
- Thence N36°-49'-52"W, three hundred seventy five and twenty two one hundredths feet (375.22') to a point;
- Thence N09°-40'-16"W, two hundred seventy seven and fourteen one hundredths feet (277.14') to a point;
- Thence N35°-00'-51"W, one hundred forty five and forty one hundredths feet (145.40') to a point;
- Thence N25°-52'-24"W, five hundred seventy six and ninety one one hundredths feet (576.91') to Fish & Wildlife monument #100;
- Thence N08°-32'-20"W, seven hundred four and sixty two one hundredths feet (704.62') to a point;

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2

- Thence N22°-04'-06"E, one thousand one hundred seventy four and thirty seven one hundredths feet (1,174.37') to a point;
- Thence N16°-46'-23"E, three hundred seventy three and eighty nine one hundredths feet (373.89') to a point;
- Thence N59°-45'-06"E, five hundred sixty one and eight one hundredths feet (561.08') to a point;
- Thence N21°-19'-58"E, two hundred thirty six and eight one hundredths feet (236.08') to a point;
- Thence N21°-40'-10"W, ninety and eighty three one hundredths feet (90.83') to a point;
- Thence on a curved line with a radius to the right four hundred forty one and sixty four one hundredths feet (441.64') and a length of eight hundred one and thirty six one hundredths feet (801.36') to a point;
- Thence N39°-27'-48"E, one hundred seventy nine and seven one hundredths feet (179.07') to a point;
- Thence S48°-57'-28"E, fifty nine and thirty five one hundredths feet (59.35') to a point;
- Thence N41°-52'-52"E, five hundred twenty five and sixty and no one hundredths feet (525.60') to a point;
- Thence N31°-38'-38"E, eight hundred twenty six and seventy five one hundredths feet (826.75') to a point;
- Thence N29°-05'-04"E, one hundred eighty three and four one hundredths feet (183.04') to a point;
- Thence N04°-12'-38"E, three hundred four and six one hundredths feet (304.06') to a point;
- Thence N63°-14'-45"E, four hundred twenty seven and ninety four one hundredths feet (427.94') to a point;
- Thence N57°-33'-02"E, eight hundred thirty seven and eighty three one hundredths feet (837.82') to a point;
- Thence N29°-00'-43"E, four hundred nineteen and twenty nine one hundredths feet (419.29') to a point;
- Thence N29°-04'-02"E, eight hundred ninety six and seventy one hundredths feet (896.70') to a point;
- Thence N52°-48'-53"E, two hundred thirty six and ninety three hundredths feet (236.93') to Fish & Wildlife monument #240;
- Thence northwesterly, ninety five feet \pm , (95' \pm) to a point by the sideline of the Nashua River, last 27 courses along parcel 1b;
- Thence by the Nashua River easterly six hundred ninety two feet \pm , (692' \pm) to a point at West Main Street;
- Thence along West Main Street, four thousand one hundred fifty two feet \pm , (4,152' \pm) to a point;
- Thence southeasterly, one hundred forty nine feet \pm , (149' \pm) to a point;
- Thence northeasterly, three hundred three feet \pm , (303' \pm) to a point;
- Thence northeasterly, two hundred twenty seven feet \pm , (227' \pm) to a point;
- Thence northeasterly, two hundred eighteen feet \pm , (218' \pm) to a point;

- Thence northeasterly, one hundred eighty six feet \pm , (186' \pm) to a point;
- Thence northeasterly, one hundred eighty two feet \pm , (182' \pm) to a point;
- Thence northeasterly, one hundred sixty feet \pm , (160' \pm) to a point;
- Thence northeasterly, one hundred one feet \pm , (101' \pm) to a point;
- Thence northeasterly, one hundred eight feet \pm , (108' \pm) to a point;
- Thence northeasterly, seventy four feet \pm , (74' \pm) to a point;
- Thence northeasterly, one hundred seventy five feet \pm , (175' \pm) to a point;
- Thence westerly, two hundred five feet \pm , (205' \pm) to a point ;
- Thence northwesterly, eighty two feet \pm , (82' \pm) to a point;
- Thence northeasterly, fifty feet \pm , (50' \pm) to a point;
- Thence southeasterly, seventy three feet \pm , (73' \pm) to a point;
- Thence easterly, one hundred eighty one feet \pm , (181' \pm) to a point;
- Thence northeasterly, three hundred eighty six feet \pm , (386' \pm) to a point;
- Thence southerly, four hundred eighteen feet \pm , (418' \pm) to a point;
- Thence easterly, three hundred eighty one feet \pm , (381' \pm) to a point;
- Thence northerly, seventy three feet \pm , (73' \pm) to a point;
- Thence easterly, ninety six feet \pm , (96' \pm) to a point ;
- Thence southerly, seventy five feet \pm , (75' \pm) to a point;
- Thence easterly, one hundred ten feet \pm , (110' \pm) to a point;
- Thence northeasterly, one hundred five feet \pm , (105' \pm) to a point;
- Thence easterly, one hundred sixty nine feet \pm , (169' \pm) to a point;
- Thence northerly, ninety one feet \pm , (91' \pm) to a point;
- Thence easterly, five hundred fifty five feet \pm , (555' \pm) to a point;
- Thence southeasterly, one hundred forty one feet \pm , (141' \pm) to a point at the shore of Plow Shop Pond;
- Thence southerly and easterly along Plow Shop Pond three thousand feet \pm , (3000' \pm) to a point;
- Thence easterly, eighty feet \pm , (80' \pm) to the sideline of the B&M Railroad.
- Thence along the sideline of the B&M Railroad, S10°-34'-05"W, five thousand two hundred fourteen and no one hundredths feet (5,214.00') to a point;
- Thence S07°-45'-19"E, fifty nine and forty five one hundredths feet (59.45') to a point;
- Thence S10°-38'-11"W, six hundred eighty four and fifty seven one hundredths feet (684.57) to a point;
- Thence S36°-04'-11"W, fifty five and thirty five one hundredths feet (55.35') to a point;
- Thence S10°-40'-11"W, two hundred forty one and fifty one hundredths feet (241.50') to a point;
- Thence S05°-15'-11"W, two hundred eleven and ninety five one hundredths feet (211.95') to a point;
- Thence S09°-51'-41"W, two hundred seventy and two one hundredths feet (270.02') to a point;
- Thence N82°-36'-49"W, one hundred three and fifteen one hundredths feet (103.15') to a point;
- Thence S30°-48'-11"W, one hundred ninety eight and thirty five one hundredths feet

- (198.35') to a point;
- Thence S13°-50'-49"W, one hundred thirty six and ninety seven one hundredths feet (136.97') to a point;
- Thence S55°-12'-49"E, one hundred eight and eighty two one hundredths feet (108.82') to a point;
- Thence S02°-26'-11"W, one hundred thirteen and twenty six one hundredths feet (113.26') to a point;
- Thence N81°-42'-49"W, one hundred fifty eight and sixty four one hundredths feet (158.64') to a point;
- Thence S16°-09'-41"W, one hundred seventy one and fifty seven one hundredths feet (171.57') to a point;
- Thence S44°-09'-49"E, two hundred fifteen and forty eight one hundredths feet (215.48') to a point;
- Thence S10°-39'-41"W, one thousand one hundred twenty five and fifty seven one hundredths feet (1,125.57') to a point;
- Thence S13°-17'-41"W, forty and fifty three one hundredths feet (40.53') to a point;
- Thence S10°-40'-41"W, one thousand three hundred ten and fifty one one hundredths feet (1310.51') to a point;
- Thence S73°-14'-11"W, sixty four and thirty nine one hundredths feet (64.39') to a point;
- Thence S04°-00'-11"W, four hundred twenty and sixty one hundredths feet (420.60') to a point;
- Thence on a curved line with a radius to the right of two thousand nine hundred eighty three and fifty five one hundredths feet (2983.55') and a length of one thousand three hundred one and eighty two one one hundredths feet (1301.82') to a point;
- Thence N58°-12'-49"W, fifty and fifty three one hundredths feet (50.53') to a point;
- Thence S37°-15'-41"W, four hundred fifteen and thirty seven feet (415.37') to a point;
- Thence S47°-24'-11"W, three hundred twenty five and forty one hundredths feet (325.40') to a point;
- Thence S36°-55'-49"E, twenty eight and fifty one hundredths feet (28.50') to a point;
- Thence S53°-04'-11"W, one thousand three hundred eighty three and twenty one hundredths feet (1,383.20') to a point;
- Thence S38°-27'-57"W, six hundred thirteen and eighty nine one hundredths feet (613.89') to a point on the sideline of Rt. 2, last 28 courses being along sideline of the B&M Railroad;
- Thence along Rt. 2, on a curved line to the right with a radius of two thousand four hundred and twenty nine one hundredths feet (2,400.29') and a length of five hundred twenty four and ninety eight one hundredths feet (524.98') to a point;
- Thence still along Rt. 2, N79°-16'-58"W, nineteen and forty three one hundredths feet (19.43') to a point at the sideline of Rt. 2 and parcel 1d;
- Thence along parcel 1d in 8 courses, N10°-44'-19"E, fifty three and ninety nine one hundredths feet (53.99') to Fish & Wildlife monument #213;
- Thence N67°-07'-17"W, one hundred seventy one and eighty nine one hundredths feet (171.89') to a point;

- Thence N64°-22'-52"W, four hundred ninety six and thirty eight one hundredths feet (496.38') to a point;
- Thence on a curved line with a radius to the right of six hundred fifty three and no one hundredths feet (653.00') and a length of two hundred twenty two and fifty one one hundredths feet (222.51') to a point;
- Thence N44°-51'-29"W, eight hundred ninety four and sixty one hundredths feet (894.60') to a point;
- Thence on a curved line with a radius to the left of two thousand three hundred seventy two and no one hundredths feet (2,372.00') and a length of four hundred forty eight and ninety five one hundredths feet (448.95') to a point;
- Thence in twenty courses, N55°-42'-09"W, four hundred ninety seven and ninety three feet (497.93') to a point;
- Thence on a curved line with a radius to the left of one thousand six hundred twenty two and no one hundredths feet (1,622.00') and a length of three hundred thirty and thirty five one hundredths feet (330.35') to a point on Parcel A;
- Thence, N67°-22'-18"W, one hundred eighty seven and twenty seven one hundredths feet (187.27') to a point at the corner of parcel A, the last 9 courses being along parcel 1D;
- Thence along parcel A, N59°-32'-33"E, nine hundred twenty four and thirty three one hundredths feet (924.33') to a point;
- Thence S86°-51'-39"E, three hundred five and ninety six one hundredths feet (305.96') to a point;
- Thence, N56°-55'-05"E, two hundred seventy seven and seventy six one hundredths feet (277.76') to a point;
- Thence N07°-24'-27"E, one hundred eighty two and twenty one hundredths feet (182.20') to a point;
- Thence N82°-50'-53"W, fifty six and seventy one hundredths feet (56.70') to a point;
- Thence on a curved line with a radius of one hundred and seventy three and thirteen one hundredths feet (173.13') and length of three hundred sixty three and forty two feet (363.42') to a point;
- Thence N37°-25'-24"E, seventy five and fifty eight one hundredths feet (75.58') to a point;
- Thence on a curved line with a radius to the left of one hundred and fourteen and twenty one one hundredths feet (114.21') and a length of eighty eight and three one hundredths feet (88.03') to a point;
- Thence N06°-44'-26"W, three hundred twenty three and seventy one one hundredths feet (323.71') to a point;
- Thence on a curved line with a radius to the right of five hundred twenty five and seventy three one hundredths (525.73') and a length of two hundred eight and twenty two one hundredths feet (208.22') to a point;
- Thence N15°-57'-06"E, three hundred ninety and ninety one hundredths feet (390.90') to a point;
- Thence on a curved line with a radius to the left of one hundred seventy two and forty three one hundredths feet (172.43') and a length of one hundred seventy five and seventy

- nine one hundredths feet (175.79') to a point;
- Thence N42°-26'-43"W, seventy and eighty seven one hundredths feet (70.87') to a point ;
- Thence N81°-50'-32"W, four hundred twenty six and seventy nine one hundredths feet (426.79') to a point;
- Thence N85°-44'-04"W, five hundred seventy seven and thirteen one hundredths feet (577.13') to a point;
- Thence S85°-48'-10"W, three hundred eighteen and sixty six one hundredths feet (318.66') to a point;
- Thence S85°-48'-10"W, two hundred eighty one and four one hundredths feet (281.04') to a point;
- Thence on a curved line with a radius to the right one thousand five hundred eighty four and forty nine one hundredths feet (1,584.49') and a length of two hundred fifty two and sixteen one hundredths feet (252.16') to a point;
- Thence N85°-04'-45"W, one hundred seventy nine and no one hundredths feet (179.00') to the corner of parcel B, ;
- Thence along parcel B, N85°-05'-13"W, three hundred twenty nine and eighty six one hundredths feet (329.86') to a point on parcel A;
- Thence N85°-12'-53"W, thirty three and eighty seven one hundredths feet (33.87') to a point;
- Thence on a curved line with a radius to the left of six hundred fifty one and eighteen one hundredths feet (651.18') and a length of two hundred seventy nine and eighteen one hundredths feet (279.18') to a point;
- Thence S70°-20'-54"W, three hundred ninety one and sixty three one hundredths feet (391.63') to a point;
- Thence on a curved line with a radius to the right eight hundred forty nine and ninety two one hundredths feet (849.92') and a length of four hundred seventy six and thirteen one hundredths feet (476.13') to a point;
- Thence N77°-33'-17"W, six hundred sixty two and fifteen one hundredths feet (662.15') to a point on the sideline of Jackson Road, last 13 courses being along Patton Rd.;
- Thence along Jackson Rd., S15°-09'-51"W, two thousand twenty four and twenty one hundredths feet (2,024.20') to a point;
- Thence S39°-56'-04"E, twenty six and fifty four one hundredths feet (26.54') to Fish & Wildlife monument #194, the last 7 courses being on parcel A;
- Thence S15°-02'-21"W, four hundred eighty two and sixty one one hundredths feet (482.61') to the point of beginning on the sideline of Rt. 2., last three courses being along Jackson Rd.

Said parcel excepting parcels C, D, F, G and J, contains 2,190 ± acres. Leased parcels A1, A3, A4, A7 through A15, A17, A20 through A31 are also excepted from this parcel.

EXHIBIT A-2
PHOTO-REDUCED PLAN OF PARCEL 1



hsc

HOWE SURVEYING
ASSOCIATES, INC.

73 PRINCETON STREET
NO. CHILMARK, MA 01943
(603) 881-5128

day	date	description	pr

RECEIVED BY	DA/RTF
REPLY TO	DJA/RTF
ORIGIN BY	KDA/RTF
PRIORITY	0
APPROVAL	APPROVED
STATUS	Test

PLAN OF LAND CONVEYED TO THE GOVERNMENT LAND BANK
BY THE SECRETARY OF THE ARMY. AYER, HARVARD & SHIRLEY, MA.

NAME	AD 54046	PSN ARE	ORIG PRIN
DATE	10/1/74	COMP	ADVIS

EXHIBIT B-1
LEGAL DESCRIPTION OF LEASE PARCEL A.21

EXHIBIT B-1

BK29378PG090

Legal Parcel Description and Plan of Lease Parcel

Legal Description UXO, Oak Hill Housing Area

Located in the Town of Harvard, Worcester County, MA west of Plum Street, beginning at a point with the NAD coordinates ($\pm 50'$) N3023280, E621680.

- Thence S00° 41'W, six hundred and forty eight feet \pm , (648' \pm) to a point;
- Thence S89° 49'W, one thousand twenty four feet \pm , (1024' \pm) to a point;
- Thence along parcel 1B, N31° -38'-49"E, eight hundred two feet \pm , (803' \pm) to a point;
- Thence N29° -05'-9"E, one hundred eighty three and four one hundredths feet (183.04') to a point;
- Thence N04° -12'-38"E, three hundred four and six one hundredths feet (304.06') to a point;
- Thence N63° -14'-42"E, four hundred twenty seven and ninety four one hundredths feet (427.94') to a point;
- Thence N57° -32'-57"E, one hundred sixty eight feet \pm , (168' \pm) to a point, last 5 courses along parcel 1B;
- Thence S06° 45'W, three hundred feet \pm , (300' \pm) to a point at Beech Street;
- Thence S20° 58'E, two hundred and forty six feet \pm , (246' \pm) to a point;
- Thence S22° 20'W, two hundred and thirty two feet \pm , (232' \pm) to the point of beginning.

Said parcel contains 19 acres \pm . Said parcel also contains Buildings 536, 537, 538, 539, 540, 541, 542, 543, 544, 822, and 823.

EXHIBIT B-2
PHOTO-REDUCED PLAN OF LEASE PARCEL A.21

EXHIBIT B-2

BK29378PG091

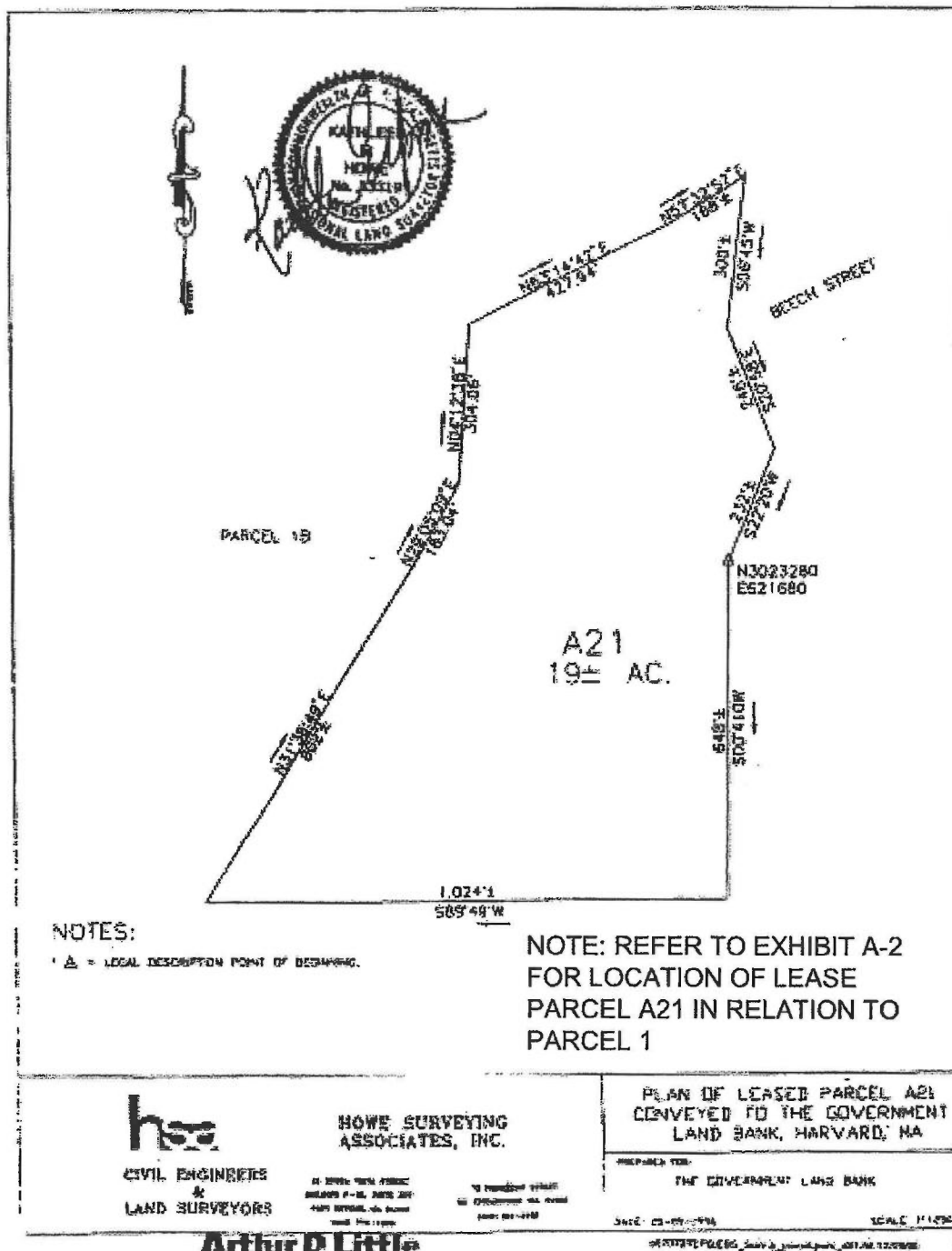


EXHIBIT C-1

**LEGAL DESCRIPTION OF
THE FORMER OAK, MAPLE AND A PORTION OF THE FORMER GRANT
HOUSING AREAS
("RESTRICTED AREA")**

Exhibit C-1: Metes and Bounds Legal Description for the Former Oak, Maple and a Portion of the Former Grant Housing Areas ("Restricted Area")

Legal Description

"Oak, Maple and a Portion of Grant Housing Area" Activity and Use Limitation Area

A certain activity and use limitation area of land located in the Town of Harvard, County of Worcester, Massachusetts situated northerly of land now or formerly The Government Land Bank "Parcel 1". Said area of land being shown as "Activity and Use Limitation Area Oak, Maple and a Portion of Grant Housing Area" on a plan entitled, "Activity and Use Limitation Plan Former Oak, Maple and a Portion of the Grant Housing Area – Harvard (Devens), Massachusetts", prepared for Massachusetts Development Finance Agency and prepared by WSP dated April 26, 2021. Said plan to be recorded in the Worcester County Registry of Deeds.

Beginning at a stone bound drill hole located on the northerly sideline of Hospital Road. Said point being the southwesterly corner of the area of land described herein, and having coordinates of Northing: 3,022,252.80 Easting: 620,974.87; thence,

Along land now or formerly The Government Land Bank "Parcel 1" the following two courses:

N 20°24'03" W a distance of four hundred fifty six and 00/100 feet (456.00') to an iron rod found;

N 09°38'22" E a distance of two hundred twenty eight and 42/100 feet (228.42') to a point; thence,

Along land now or formerly United States Department of the Interior Fish and Wildlife Service "Oxbow National Wildlife Refuge" the following six courses:

N 31°41'30" E a distance of three hundred twenty five and 18/100 feet (325.18') to a point;

N 31°18'25" E a distance of one hundred nine and 36/100 feet (109.36') to a disk found;

N 29°04'54" E a distance of one hundred eighty three and 07/100 feet (183.07') to a point;

N 04°12'57" E a distance of three hundred four and 08/100 feet (304.08') to a disk found;

N 63°18'52" E a distance of four hundred twenty eight and 42/100 feet (428.42') to a disk found;

N 57°33'04" E a distance of eight hundred thirty seven and 82/100 feet (837.82') to a disk found; thence,

Along land now or formerly The Government Land Bank "Parcel 1" Existing LUCIP (Grant Housing Area) the following ten courses:

N 90°00'00" E a distance of seventy three and 37/100 feet (73.37') to a point;

S 11°00'24" E a distance of two hundred seventy four and 18/100 feet (274.18') to a point;

S 37°51'41" E a distance of one hundred twenty nine and 95/100 feet (129.95') to a point;

S 03°52'24" E a distance of three hundred fifty six and 57/100 feet (356.57') to a point;

S 13°40'23" W a distance of two hundred four and 32/100 feet (204.32') to a point;

S 01°21'36" W a distance of three hundred seventy one and 39/100 feet (371.39') to a point;

S 04°39'50" E a distance of two hundred fifteen and 34/100 feet (215.34') to a point;

S 22°35'54" E a distance of two hundred fifteen and 83/100 feet (215.83') to a point;

S 28°36'00" E a distance of ninety one and 06/100 feet (91.06') to a point;

S 33°16'32" E a distance of ninety two and 88/100 feet (92.88') to a point on the northerly sideline of Hospital Road; thence,

Along the northerly sideline of Hospital Road the following four courses:

Along a curve to the right having a length of eight hundred seventy four and 43/100 feet (874.43'); a radius of one thousand eighty and 36/100 feet (1080.36'); a chord length of eight hundred fifty and 76/100 feet (850.76') and a chord bearing of S 68°29'05" W to a point;

N 88°19'41" W one hundred eighty eight and 60/100 feet (188.60') to the point;

Along a curve to the right having a length of five hundred thirty seven and 00/100 feet (537.00'); a radius of three thousand six hundred twelve and 74/100 feet (3,612.74'); a chord length of five hundred thirty six and 51/100 feet (536.51') and a chord bearing of N 84°18'19" W; thence,

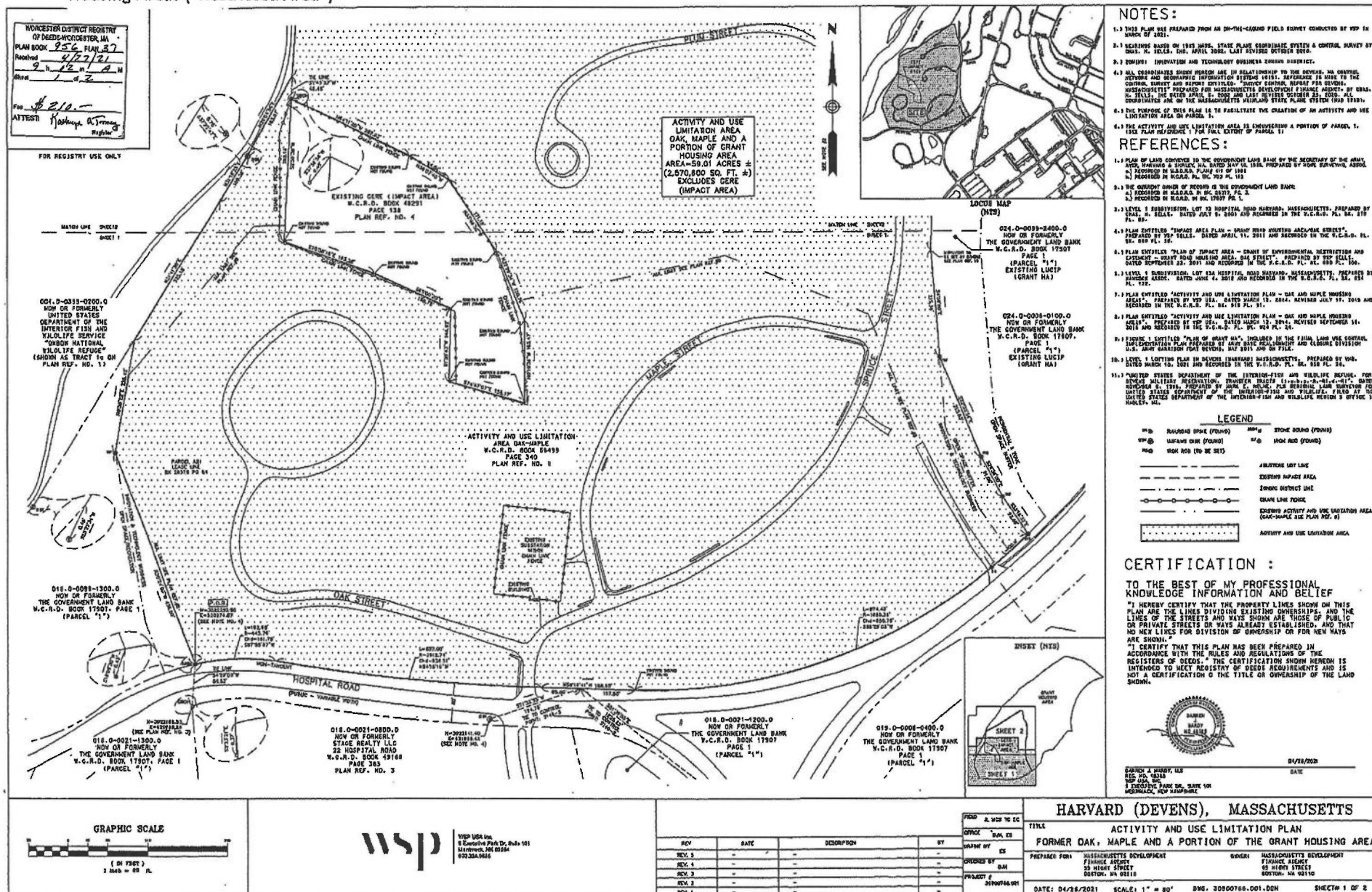
Along a non-tangent curve to the left having a length of one hundred sixty two and 68/100 feet (162.68'); a radius of four hundred forty five and 76/100 feet (445.76'); a chord length of one hundred sixty one and 78/100 feet (161.78') and a chord bearing of S 87° 55' 57" W to a stone bound with drill hole to be set and the point of beginning.

Said activity and use limitation area of land being 2,570,600 S.F. or 59.01 acres of land, more or less. This area excluded the Existing GERE (Impact Area) as shown on said plan and as recorded in W.C.R.D. Book 48291, Page 138 and on W.C.R.D. Plan Book 899 Plan 36.

EXHIBIT C-2

**PHOTO-REDUCED PLAN OF
THE FORMER OAK, MAPLE AND A PORTION OF THE FORMER GRANT
HOUSING AREAS
("RESTRICTED AREA")**

Plan of the Former Oak, Maple and a Portion of the Grant
Housing Areas ("Restricted Area")



FOR REGISTRY USE ONLY



004.0-0399-0200.0
NOW OR FORMERLY
UNITED STATES DEPARTMENT
OF THE INTERIOR FISH AND
WILDLIFE SERVICE
"EXXON NATIONAL WILDLIFE
REFUGE"
(SHOWN AS TRACT 10 ON
PLAN REF. NO. 1)

024.0-0005-0100.0
NOW OR FORMERLY
THE GOVERNMENT LAND BANK
X.C.R.O. 800X 17907
PAGE 1
(PARCEL "1")
EXISTING LUCIF
(GRANT MA)

NOTES:

- [illegible]

REFERENCES:

- [illegible]

LEGEND

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 8th US ARMY CO (FOUR)
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 10th 11th AID TO 3d BATT
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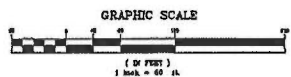
TO THE BEST OF MY PROFESSIONAL
KNOWLEDGE INFORMATION AND BELIEF

"I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF OWNERSHIP OR FOR NEW WAYS

"I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS." THE CERTIFICATION SHOWN HEREON IS INTENDED TO MEET REGISTRY OF DEEDS REQUIREMENTS AND IS NOT A CERTIFICATION OF THE TITLE OR OWNERSHIP OF THE LAND SHOWN.



04/28/52
DARRON J. HARDY, LEO
REG. NO. 46395
WSP USA, INC.
3 EXECUTIVE PARK DR., SUITE 101
LIBERTY, VT 05460



נספח

WEP USA, Inc.
9 Executive Park Dr., Suite 101
Methuen, NH 03054
603.724.0845

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HARVARD (DEVENS), MASSACHUSETTS

TITLE	ACTIVITY AND USE LIMITATION PLAN
	FORMER OAK, MAPLE AND A PORTION OF THE GRANT HOUSING AREA

PREPARED FOR:	MASSACHUSETTS DEVELOPMENT FINANCE AGENCY 90 HIGHT STREET BOSTON, MA 02110	ORDER:	MASSACHUSETTS DEVELOPMENT FINANCE AGENCY 90 HIGHT STREET BOSTON, MA 02110
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DATE: 04/26/2021 SCALE: 1" = 80' DWG. 30900788.001.DGN SHEET 2 OF 2

EXHIBIT D

**THE RELATIONSHIP OF THE "RESTRICTED AREA"
TO THE BOUNDARIES OF THE SUPERFUND SITE AND DISPOSAL SITE,
TO THE EXTENT SUCH BOUNDARIES HAVE BEEN ESTABLISHED**

Exhibit D: Relationship of the "Restricted Area" to the Boundaries of the Superfund Site

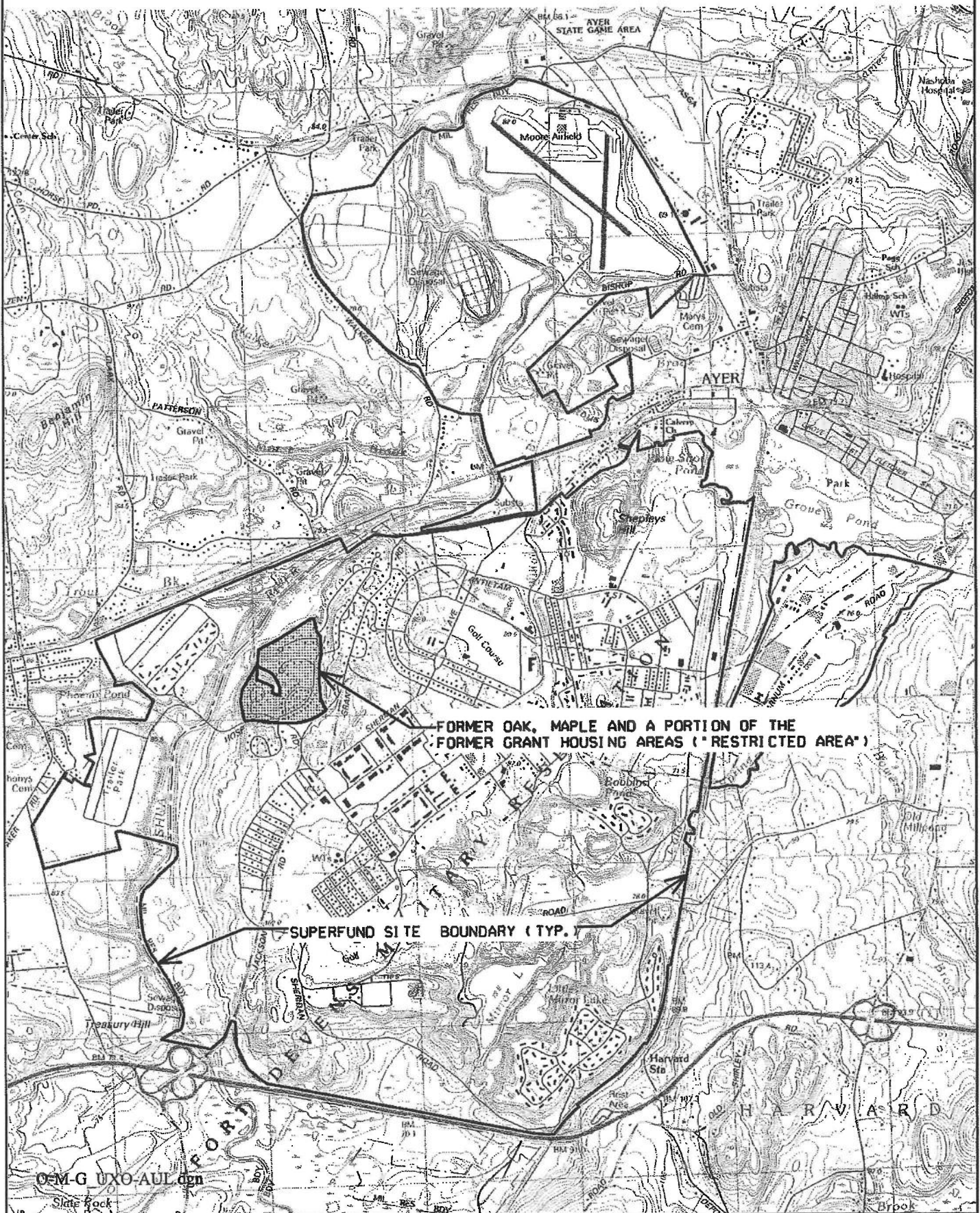


EXHIBIT E
INSTITUTIONAL CONTROL DESIGN STATEMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

New England Region
 Five Post Office Square – Suite 100
 Boston, Massachusetts 02109-3912

IC Design Statement: April 23, 2021

*An Attachment to the Notice of Activity and Use Limitation (NAUL)
 Former Oak and Maple Housing Areas and a portion of the Former Grant Housing Area
 (the "Restricted Area")
 at Fort Devens Superfund Site, Devens, Massachusetts*

INSTITUTIONAL CONTROL DESIGN STATEMENT

1. Introduction

Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601, *et seq.*, ("CERCLA") and the National Contingency Plan, 40 CFR Part 300 (the "NCP"), this document contains a description of the basis for land use restrictions, the release event(s) or site history that resulted in the contaminated media that require institutional controls in the form of Activity and Use Limitations, and uses that are consistent and inconsistent with Selected Remedy (as described below).

A Notice of Activity and Use Limitation (NAUL) is necessary and appropriate for the former Oak and Maple Housing Areas (HAs) and an adjoining portion of the former Grant Housing Area (HA) (collectively referred to as the "Restricted Area") at the Fort Devens Superfund Site, Devens, Massachusetts (the "Superfund Site"), a site listed on EPA's National Priorities List ("NPL"), based on the low probability of encountering Unexploded Ordnance (UXO) and other Munitions and Explosives of Concern (MEC)¹ in the former HAs.

In September 2009, EPA issued a Record of Decision ("ROD") for the "Grant Housing Area and 37-mm Impact Area (Impact Area), Former Fort Devens Army Installation, Devens, Massachusetts dated September 2009" ("2009 ROD") to address hazards associated with the potential existence of UXO in these areas. In September 2014, the "Final Explanation of Significant Differences for Grant Housing Area and the 37-mm Impact Area, Former Fort Devens Army Installation, Devens, MA" ("2014 ESD"), expanded the scope of the LUC remedy in the 2009 ROD to include the former Oak and Maple HAs.

¹ Categories of military munitions that may pose unique explosive safety risks (*i.e.*, unexploded ordnance (UXO); discarded military munitions (DMM) or munitions constituents (MC) present in high enough concentrations to pose an explosive hazard).

2. Site History/Background

Between 1917 and the 1930s, the Army used the former Grant HA, the Impact Area and a portion of the former Oak HA as a firing range. The former HAs and Impact Area were conveyed to the Massachusetts Development Finance Agency (MassDevelopment), pursuant to two deeds from the Army, one in 1996 and one in 2003. Both deeds indicate that remnant UXO and other MEC may remain on these properties from historic military activities.

In 2004 and 2005, the Army conducted Preliminary Assessment/Site Inspection (PA/SI) and Supplemental Site Investigation (SSI) efforts within the former Grant HA and 37-mm Impact Area to assess whether military activities resulted in the release of munitions constituents (MC) and/or other chemicals of concern (COC) to soil and groundwater and, if so, what hazard those releases would pose to public health and welfare or the environment. Although COCs potentially related to UXO and other MEC were not detected in the investigation areas, site inspections of the Impact Area located the presence of potential UXO on the surface.

Concerns regarding the potential for remnant UXO to exist in soil within the Impact Area and the potential for similar conditions at the former Grant HA resulted in MassDevelopment contracting with Ordnance & Explosive Remediation, Inc. (OER) to conduct a survey of the two areas. In 2004 and 2005, a digital geophysical survey and *mag and flag* mapping was completed throughout the entire former Grant HA, the Impact Area, and portions of surrounding housing areas to evaluate whether MEC existed. Based on this survey information, OER conducted a removal action and was successful in identifying and removing additional UXO from the area. In total, 31 additional UXO items (20 37-mm projectiles, 4 mines, 1 rifle grenade, and 6 stokes mortars), and 17 other ordnance items (1 37-mm armor piercing round, 8 empty rifle grenades, 3 training hand grenades, 2 empty mine flare bodies, 1 empty anti-tank mine, and 1 French VB2 trainer (rifle grenade)) were located and removed by OER. The location of the discovered MEC projectile corresponds to an area where MEC was discovered during previous investigations and is in proximity to the presumed impact area and within the likely artillery firing fan. The majority of UXO discovered were located within the Impact Area.

A Military Munitions Response Program (MMRP) Remedial Investigation (RI) of the former Oak and Maple HAs was conducted in 2010/2011 (HGL, 2012). An analog geophysical survey was performed in areas thought to have the greatest likelihood of MEC discovery. Based on the number of anomalies investigated (3,647) versus the number of MEC discovered (1), the investigation determined that the probability of encountering MEC within these areas is low (HGL, 2012). While previous investigations have cleared a considerable portion of the area, the presence of Munitions Debris (MD) within the developed areas and the discovery of the one 37-mm projectile on the slopes of Oak Hill between the two housing areas suggest that additional MD and possibly MEC may exist within the former Oak and Maple HAs.

A Focused Feasibility Study ("FFS") Addendum (HGL, 2012) to the 2008 Grant HA and Impact Area FFS was prepared after completion of the 2010/2011 RI to evaluate potential

remedies unique to the former Oak and Maple HAs but within the larger framework of the former training range.

In September 2009, the United States Department of the Army (Army) and the United States Environmental Protection Agency (USEPA) signed a Record of Decision (ROD) for the former Grant Housing Area (Grant HA) and 37-mm Impact Area. In May 2011, a Land Use Control Implementation Plan (LUCIP) was issued for the former Grant HA and 37-mm Impact Area that outlined the process for implementing the LUCs (*i.e.*, institutional controls, prohibitive directives and other measures) required per the 2009 ROD to address potential risks from remnant UXO and other MEC that may remain on these properties from historic military training activities.

An Explanation of Significant Differences (ESD) for the former Grant HA and Impact Area ROD was signed in September 2014 to incorporate the former Oak and Maple HAs into the 2009 remedy. The addition of the former Oak and Maple HAs to the former Grant HA and Impact Area ROD allows the ROD-stipulated LUC remedy to be applied over the entire former training range. To address difference in potential risks resulting from different levels of geophysical instrumentation and clearance depths and potential hazards associated with the future use of the former Oak and Maple HAs as commercial, the ESD includes additional LUC requirements, above what the ROD prescribed for the former Grant HA. A 2021 LUCIP Addendum has been finalized, which outlines the process for implementing the LUCs (*i.e.*, institutional controls, prohibitive directives and other measures) required per the 2014 ESD to address potential risks from remnant UXO and other MEC that may remain on these properties from historic military training activities.

In 2016, a portion of the former Grant HA abutting the former Oak and Maple HAs and the Impact Area was also zoned as commercial with the effect that no residentially zoned areas would be located adjacent to the Impact Area. Collectively, the former Oak and Maple HAs along with the commercially zoned portion of the former Grant HA are defined as the "Restricted Area" and are the subject of this NAUL. Because the LUC requirements for the former Oak and Maple HAs are more restrictive and add additional controls beyond the LUCs applied to the former Grant HA pursuant to the 2009 ROD, these LUCs may be applied to the portion of the former Grant HA that has been zoned commercial and is now part of the Restricted Area through this NAUL.

Attachment A includes a list of Reports related to the assessment, investigation and/or removal of UXO and other MEC at the former Oak and Maple HAs.

3. Summary of Required Institutional Controls for the Landowners under the NAUL

(a) Activities and Uses Inconsistent with Maintaining the Selected Remedy.

The following Activities and Uses are inconsistent with maintaining the Selected Remedy, and, as such, may not occur on the Restricted Area:

(i) Residential use including, but not limited to, construction of single family or multi-family residences, child care facilities and any type of facility or use for children or young adults through grade 12 and nursing home or assisted living facilities. The prohibition on residential reuse is warranted based on potential human health risks and explosive safety hazards associated with UXO or other MEC that may still be present in these areas

(ii) Commercial and industrial use, including office, manufacturing, commercial, retail or other similar uses that does not comply with the requirements set forth in the July 2016 "Final MEC Clearance Survey and Construction Support Work Plan" (the "MEC Construction Support Plan") and the "Site-Specific Soil Management Plan for the Former Oak and Maple HAs, and a Portion of the Former Grant Housing Area ("Restricted Area")" dated April, 2021 (the "SSSMP"), (each of which, for the purposes of the NAUL and IC Design Statement, is defined to include any amendments thereto made with the written permission of the Army, EPA and MassDEP), and the "Land Use Control Implementation Plan Addendum for the Former Oak, Maple and a Portion of the Former Grant Housing Areas ("Restricted Area")" dated April, 2021 ("the LUCIP Addendum"). Copies of the MEC Construction Support Plan, the SSSMP, and the LUCIP Addendum are on file in the Fort Devens BRAC Environmental Office Building 666, 30 Quebec St., Devens, MA 01434 and with the Devens Enterprise Commission, 33 Andrews Parkway, Devens, Massachusetts 01434 (and on its website at www.devensec.com);

(iii) Construction-related and/or intrusive activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area that does not comply with the requirements set forth in the MEC Construction Support Plan, the SSSMP, and the LUCIP Addendum, copies of which are on file in the Fort Devens BRAC Environmental Office Building 666, 30 Quebec St., Devens, MA 01434 and with the Devens Enterprise Commission, 33 Andrews Parkway, Devens, Massachusetts 01434 (and on its website at www.devensec.com);

(iv) Any activity or use that would impede the Army's implementation of the Selected Remedy, including but not limited to denying access for physical inspections and to conduct UXO/MEC surveys and removals, if required, and preventing posting or maintenance of required signage.

(b) Obligations and Conditions.

The following obligations and/or conditions are necessary and shall be undertaken at the Restricted Area to maintain the Selected Remedy and to avoid compromising the Permanent Solution that has been achieved for the Restricted Area:

(i) Army's implementation and maintenance of the Selected Remedy shall not be impeded;

(ii) Coordination with the Army (or Army's designee, with the approval of MassDevelopment) for activities in accordance with the MEC Construction Support Plan;

(iii) Management of soils disturbed, excavated, relocated and/or removed during performance of any construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area in accordance with the LUCIP Addendum and SSSMP;

(iv) All personnel applying for a building permit for the performance of construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area must have received copies of the SSSMP and attended a Devens UXO/MEC Awareness Briefing prior to commencing such work;

(v) All personnel performing, overseeing and/or supervising construction-related and/or intrusive soil activity that disturbs, excavates, relocates and/or removes soil in the Restricted Area must have attended a Devens UXO/MEC Awareness Briefing prior to entering the Restricted Area to commence the foregoing activities;

(vi) Annual inspections and five-year reviews of the Restricted Area conducted by the Army to evaluate compliance with and overall effectiveness of this NAUL shall not be impeded.

(c) All Other Institutional and Land Use Controls.

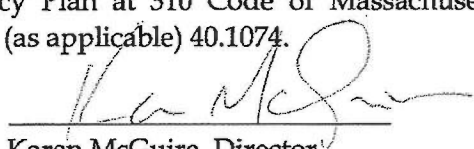
None.

4. Implementation of Notices

For the reasons described above and in relevant EPA decision documents, Notice(s) of Activity and Use Limitations (NAULs) should be implemented and recorded for the Restricted Area pursuant to CERCLA, the NCP, and regulations set forth in the Massachusetts Contingency Plan at 310 Code of Massachusetts Regulations Sections 40.0111(8), 40.1070(4), and (as applicable) 40.1074.

Date:

9-23-21


Karen McGuire, Director

Enforcement and Compliance Assurance Division for
Bryan Olson, Director
Superfund and Emergency Management Division
U.S. EPA, Region 1

ATTACHMENT A TO INSTITUTIONAL CONTROL DESIGN STATEMENT

Reports Related to the Assessment, Investigation and/or Removal of UXO and
other MEC for the Restricted Area

Army, 1996. EPA Federal Facilities Agreement. 26 March.

Army Base Realignment and Closure Division, 2011. *Land Use Control Implementation Plan, Grant Housing Area and 37-mm Impact Area*, Former Fort Devens Army Installation, Devens, MA, May.

Human Factors Applications, Inc. 1996. *Final Removal Action Report, Ordnance, Ammunition and Explosives Removal Action, Devens RFTA, Ft. Devens, Massachusetts*. October 1996.

HydroGeoLogic, Inc. (HGL), 2012. *MEC Remedial Investigation, Former Oak and Maple Housing Areas, Former Fort Devens Army Installation*. August.

MassDevelopment, 1997. *Final Zone II Plan*. MassDevelopment, Devens Commerce Center. 16 September.

Ordnance & Explosives Remediation, Inc. 2006. *Site Specific Final Report Digital Geophysical Mapping (DGM) & Unexploded Ordnance (UXO) Removal, Grant Housing Area, Former Ft. Devens, Harvard, Worcester, Massachusetts*. 22 March.

Sovereign Consulting, Inc. (Sovereign) and HGL, 2013. *Final Focused Feasibility Study, Former Oak and Maple Housing Areas, Former Fort Devens Army Installation*. March.

Sovereign Consulting, Inc. (Sovereign) and HGL, 2014. *Construction Support Work Plan, Former Oak and Maple Housing Areas, Former Fort Devens Army Installation*. July.

Sovereign Consulting, Inc. (Sovereign) and HGL, 2014. *Final Explanation of Significant Differences for Grant Housing Area and 37-mm Impact Area, Former Fort Devens Army Installation, Devens, MA*, September.

USACE, St. Louis District, 1995a. *U.S. Department of Defense BRAC, Ordnance, Ammunition and Explosives-Archives Search Report Findings*, Fort Devens. May.

USACE, St. Louis District, 1995b. *U.S. Department of Defense BRAC, Ordnance, Ammunition and Explosives-Archives Search Report Conclusions and Recommendations*, Fort Devens. May.

USACE, St. Louis District, 1995c. *U.S. Department of Defense BRAC, Ordnance, Ammunitions and Explosives-Archives Search Report Maps*, Fort Devens. May.

USACE, 2013. EM 385-1-97, *Explosives Safety and Health Requirements Manual*, April 12.

USACE, 2006. New England District, *Final Expanded Conceptual Site Model Report*. June.

USACE, New England District, 2007. *Performance Work Statement for Completion of CERCLA Documents Related to Munitions and Explosives of Concern at Former Oak and Maple Housing Areas, Devens, MA*. Revised 11 May.

USACE, Baltimore District, 2017. *Final MEC Summary Completion Report Former Oak and Maple Housing Areas, Former Fort Devens Facility, Devens, MA*. 17 May

U.S. Depart of Defense Explosives Safety Board (DDESB), 2004. *Technical Paper 18 Minimum Qualifications for UXO Technicians and Personnel*. December 2004.

WESTON, 2004. *Draft Final Explosives, Lead, and Perchlorate - Conceptual Site Model Investigation Areas - Grant, Locust, and Cavite Housing Areas, Former Fort Devens, Devens, Massachusetts*. December.

WESTON, 2009a. *Final Release Abatement Measure Completion Report/Partial Response Action Outcome Statement - Grant Housing Area*. June.

WESTON, 2009b. *Record of Decision, Grant Housing Area and 37-mm Impact Area Former Fort Devens Army Installation, Devens, Massachusetts*. September.

EXHIBIT F

**EVIDENCE OF SIGNATORY AUTHORITY
FOR
OFFICERS OF MASSDEVELOPMENT
DULY AUTHORIZED TO SIGN NAUL**

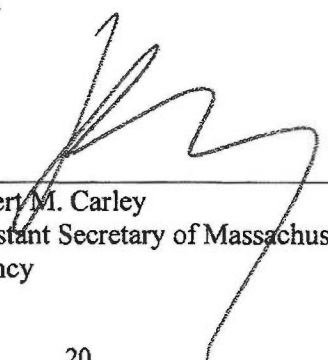
ASSISTANT SECRETARY'S CERTIFICATE

I, Robert M. Carley, duly appointed Assistant Secretary of Massachusetts Development Finance Agency, a body politic and corporate formed under Massachusetts General Laws Chapter 23G, as amended ("MassDevelopment"), do hereby certify that:

1. Set forth below are the names of the officers of MassDevelopment duly authorized by MassDevelopment's Board of Directors (the "Board") in Section 504 of the MassDevelopment By-Laws to singly sign all documents and instruments on behalf of MassDevelopment with respect to real estate matters in the Devens Regional Enterprise Zone, and such persons are duly elected or selected, as the case may be, and currently hold the offices of MassDevelopment set forth opposite their names:

<u>Name</u>	<u>Title</u>
Daniel Rivera	Executive Director & President/CEO
Ricks P. Frazier	General Counsel/Secretary
Simon R. Gerlin	Treasurer/Executive Vice President for Finance and Administration/Chief Financial Officer
Cassandra McKenzie	Executive Vice President for Real Estate
Jessica Strunkin	Executive Vice President, Devens

IN WITNESS WHEREOF, I have duly executed this Certificate solely in the above-named capacity on 23 April, 2021.



 Robert M. Carley
 Assistant Secretary of Massachusetts Development Finance
 Agency

EXHIBIT F

Annual LUC Inspection Checklist

For the Oak, Maple and a Portion of the former Grant Housing Areas ("Restricted Area")		
check✓	task	notes
<input type="checkbox"/>	Interview(s) of property owners, MassDevelopment, Army, Devens Fire Department, State Police and other municipal personnel involved in the discovery, reporting and disposal of UXO/MEC (suspected or confirmed) MEC in past twelve (12) months (i.e. reporting period)	Date of interview; name(s) and title(s) of person(s) interviewed:
<input type="checkbox"/>	Verify if UXO/MEC (suspected or confirmed) was discovered/reported in the past twelve (12) months	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
<input type="checkbox"/>	Verify immediate implementation of UXO/MEC PROTOCOL AND PROCEDURES in SSSMP Attachment B	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
<input type="checkbox"/>	Interview(s) of property owners, MassDevelopment, Army, and others familiar with activities related to the LUCs within the Restricted Area within the past 12 months	Date of interview; name(s) and title(s) of person(s) interviewed:
<input type="checkbox"/>	Verify that the land use within the Restricted Area is consistent with commercial and/or industrial uses	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Verify that the land within the Restricted Area was not used for residential purposes	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Verify availability of Devens UXO/MEC Awareness Briefings and web-based visual and audio media that include information pertaining to the Restricted Area	<input type="checkbox"/> Yes* <input type="checkbox"/> No *Yes – provide link(s) to website(s) below:

<input type="checkbox"/>	<p>If requested, verify that Devens UXO/MEC Awareness Briefings were made available to current and future property owners, lessees, commercial tenants, building occupants, construction and/or utility workers or members of the public</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<p>Verify that operator of the electric utilities at Devens included Educational Pamphlet/ Utility Bill Insert in electric utility bill mailings to owners, lessees and/or tenants of commercial buildings/establishments within the Restricted Area</p>	<input type="checkbox"/> Yes* <input type="checkbox"/> No *Yes - date of last annual mailing and include copy of Insert in Annual Report
<input type="checkbox"/>	<p>Verify existence of kiosk(s) / community bulletin board(s) displaying 11" x 17" permanent laminated format utility bill insert in a central public location or are of construction activity within or near the Restricted Area</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<p>Verify that the locations of kiosk(s) / community bulletin boards / signage are consistent with those on figure in Exhibit H</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No* If No*, show current locations on figure in Exhibit H and include in Annual Report
<input type="checkbox"/>	<p>Verify distribution of SSSMP to all construction and/or utility personnel at the time of application for a building permit for construction in the Restricted Area</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<p>Verify that prior to commencing any construction-related and/or intrusive soil activity involving the disturbance, excavation, removal and/or relocation of soils on any portion of the Restricted Area, that all personnel conducting, overseeing and/or supervising construction-related and/or intrusive soil activity involving the disturbance, excavation, removal and/or relocation of soils on any portion of the Restricted Area have successfully completed Devens UXO/MEC Awareness Briefing</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	<p>Verify if asphalt roadway removal activities and/or any intrusive soil activity that disturbed, excavated, relocated and/or</p>	<input type="checkbox"/> Yes* <input type="checkbox"/> No *If Yes, verify that a low probability MEC

	<p>removed soil beneath existing asphalt roadways (as of the date of this 2021 LUCIP Addendum) was performed in the Restricted Area</p>	<p>Investigation was performed prior to commencement of asphalt roadway removal activities and/or intrusive soil activity beneath asphalt roadway</p>
<input type="checkbox"/>	<p>Verify if any construction-related and/or intrusive soil activity involving the disturbance, excavation, removal and/or relocation of soils was performed within the Restricted Area</p> <p>*If Yes, verify that:</p> <ul style="list-style-type: none"> • prior to commencement of construction-related and/or intrusive activity involving the disturbance, excavation, removal and/or relocation of soils that an instrument-assisted visual inspection of the entire proposed construction area, including areas to be regraded, landscaped, or covered by pavement or grass) was performed • on-call MEC construction support was provided during performance of the construction-related and/or intrusive soil activity provide date(s), brief description of work performed, and name(s) of company that performed the work 	<p><input type="checkbox"/> Yes* <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<input type="checkbox"/>	<p>Verify that a MEC Construction Support Summary Field Report was submitted to EPA, MassDEP and MassDevelopment within 30-days of completing any of the foregoing MEC construction support activities (i.e. low probability MEC Investigation, instrument-assisted visual inspection, and on-call MEC construction support)</p>	<p><input type="checkbox"/> Yes* <input type="checkbox"/> No</p> <p>*If Yes, specify date(s) MEC Construction Support Summary Field Report submitted to MassDEP, USEPA and MassDevelopment upon completion of construction/utility work</p>
<input type="checkbox"/>	<p>Verify if UXO/MEC (suspected or confirmed) was discovered during performance of any of the foregoing work/activities</p>	<p><input type="checkbox"/> Yes* <input type="checkbox"/> No</p> <p>*If Yes, specify date(s), brief description of object(s) discovered, agencies contacted, and action(s) taken in response to discovery</p>

<input type="checkbox"/>	<p>Verify that MassDEP, USEPA and MassDevelopment were notified within 24 hours of discovery</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<input type="checkbox"/>	<p>Verify that a MEC Construction Support Summary Field Report(s) was/were submitted to MassDEP, EPA and MassDevelopment within thirty (30) days of completing any discrete MEC Construction Support activity (see Sections 3.0(d) and 4.0, 2016 MEC Construction Support Plan in Exhibit B).</p>	<p><input type="checkbox"/> Yes* <input type="checkbox"/> No</p> <p>If Yes*, specify date that Summary Field Report(s) was/were submitted to MassDEP, USEPA and MassDevelopment</p>
<input type="checkbox"/>	<p>Verify that a Completion Summary Report was submitted to MassDEP, EPA and MassDevelopment within sixty (60) days of completion of site development activities and/or each site development phase</p>	<p><input type="checkbox"/> Yes* <input type="checkbox"/> No</p> <p>If Yes*, specify date(s) Completion Summary Report(s) submitted to MassDEP, USEPA and MassDevelopment and include a copy of the Report(s) in the Annual Report</p>

CHECKLIST CERTIFICATION:

I hereby certify that this LUC Checklist is accurate under penalty of law.

Designated Army Official Title, Signature and Date:

EXHIBIT G

EDUCATIONAL MATERIALS

UTILITY BILL INSERT FOR RESTRICTED AREA

EXHIBIT H

SIGNAGE LOCATIONS IN THE RESTRICTED AREA

EXHIBIT I

LUCIP ADDENDUM IMPLEMENTATION SCHEDULE

Milestone Activity	Completion Date
<p>MassDevelopment, current owner of the Restricted Area, will prepare and record a NAUL approved by the Army, MassDEP and EPA on the title held by MassDevelopment for the Restricted Area property. (Section 2.0 (b))</p> <p>Insert Copy of Executed NAUL, upon recording in the Worcester County Registry of Deeds, in Exhibit E</p>	<p>Within 60 days of EPA and MassDEP approval of the LUCIP Addendum</p> <p>Within 30 days of recording of NAUL</p>
<p>Amend the Educational Pamphlet / Utility Bill Insert created for the former Grant HA and Impact Area to include a discussion of the Restricted Area and submit to EPA, and MassDEP for review and concurrence (Section 2.0 (c))</p> <p>Reproduce the Amended Educational Pamphlet / Utility Bill Insert, upon receipt of EPA and MassDEP approval, for inclusion in the next annual mailing (or initial utility bill) to property owners, lessees, and/or tenants in the Restricted Area and display in existing kiosks and community bulletin boards (Section 2.0 (c))</p> <p>Replace existing Insert in Exhibit G with the Final Amended Educational Pamphlet/Electric Utility Bill (Section 2.0 (c))</p>	<p>Within 60 days of EPA and MassDEP approval of the LUCIP Addendum</p> <p>Within 60 days of EPA and MassDEP approval of the LUCIP Addendum</p>
Update Devens UXO/MEC Awareness Briefing to Include information pertaining to the Restricted Area (Section 2.0 (c))	Within 60 days of EPA and MassDEP approval of the LUCIP Addendum
Update web-based visual and audio media to include the Restricted Area (Section 2.0 (c))	Within 60 days of EPA and MassDEP approval of the LUCIP Addendum
<p>Send a copy of the LUCIP Addendum (and all Exhibits) to the Towns of Ayer, Shirley and Harvard, Massachusetts, the Devens Fire Department, MassDevelopment and the central Army repository;</p> <p>Place a copy of the LUCIP Addendum (and all Exhibits) in the Former Fort Devens website at https://www.nae.usace.army.mil/missions/projects-topics/former-fort-devens-environmental-cleanup/</p> <p>Ensure that a copy of the LUCIP Addendum is posted on the Devens (www.devens.org) and DEC (www.devensec.com) webpages</p>	<p>Within 30 days of EPA, MassDEP, and MassDevelopment approval of LUCIP Addendum</p> <p>Within 30 days of EPA, MassDEP and MassDevelopment approval of LUCIP Addendum</p> <p>Within 30 days of EPA, MassDEP, and MassDevelopment approval of LUCIP Addendum</p>
Send a copy of the Final SSSMP (and any subsequent revisions thereto) to current/future owners of property within the Restricted Area), Devens Fire Department and local/State Police	Within 30 days of EPA, MassDEP and MassDevelopment approval and MassDEP concurrence