1. ENVIRONMENTAL MANAGEMENT: All work is to be performed in a manner that prevents pollution, protects the environment and conserves natural resources.

CONTRACTOR ENVIRONMENTAL DELIVERABLES:

The following contract deliverables are due to the Joint Base Langley Eustis (JBLE)-Langley project manager and Contracting representative who will in turn provide them to the Environmental Element (633 CES/CEIE).

Before Contract Start (60 - 90 days)(if applicable):
- Wetland Permits if applicable (Joint Permit Application (JPA) submitted to and approved by the Virginia Marine Resources Commission
- Nationwide Permit (USACE) *Allow 45 days (if applicable)
- Submit required technical data sheet(s) for each emergency generator and/or fire pump installed to 633 CES/CEIE sixty days prior to installation. Contractor shall provide to the 633 CES/CEIE a copy of the manufacturer's certification of compliance with applicable New Source Performance Standards for stationary diesel engines.
- As applicable for construction projects involving historic buildings, contractor shall submit package with building elevations showing proposed building modifications as well as photographs of the existing condition to support base consultation with the State Historic Preservation Office.

Before Contract Start (30 days) if applicable to the project
- Asbestos Abatement Plan
- Lead-Based Paint Abatement Plan
- Hazardous Material Usage Request Forms
- Green Procurement Planning Use Forms
- Environmental Management System (EMS) training certifications
- DEQ Construction General Permit Registration Statement
- DEQ Construction General Permit Coverage Letter - Virginia
- Stormwater Pollution Prevention Plan (SWPPP) (SWPPP includes three plans below)
  - Erosion and Sediment Control Plan (ESC Plan)
  - Pollution Prevention Plan (P2 Plan)
  - Stormwater Management Plan (SWM Plan) include Runoff Reduction Calculation
- Clean Soil Certifications
- Storage Tank Registration Notification
- Notify 633 CES/CEIE 30 days prior to a storage tank being put into service to meet regulatory documentation requirements.
- EPA Certificate(s) of Conformity for generator(s) to be installed (including portable units to be used during construction activities)

During Contract
- Monthly Hazardous Materials Usage Report
- Quarterly Refuse/Recycling Reports
- Generator permit information
- Hazardous Waste/Lead/Asbestos Manifests (to be signed by JBLE-Langley Environmental Reps)

End of Contract before contract close

Revised 5 Oct 17
1.1. WASTE DISPOSAL:

1.1.1. SOLID WASTE DISPOSAL.

1.1.1.1. COMPLIANCE WITH REGULATIONS: All waste materials generated by any work under this contract performed on a Federal Government installation shall be handled, transported, stored, recycled, and disposed of by the Contractor and by his/her subcontractors at any time in accordance with these specifications, all applicable federal, State, or local laws, ordinances, regulations, court orders, or other types of rules or rulings having the same effect of law. These include but are not limited to the Resource Conservation and Recovery Act (RCRA) (40 CFR 260-270); Federal Water Pollution Control Act, as amended (33 USC Sec 1251 ET SEQ); The Clean Air Act, as amended (42 USC Sec 1857 ET SEQ); The Endangered Species Act, as amended (16 USC Sec 1531, ET SEQ); The Toxic Substances Control Act, as amended (15 USC Sec 2601, ET SEQ); The Solid Waste Disposal Act, as amended (42 USC 6901 ET SEQ); the Archaeological and Historic Preservation Act, as amended (16 USC Sec 469, ET SEQ), and the Virginia Solid Waste Management Regulations (9VAC20-81).

The Contractor shall collect all solid wastes generated during the performance of the contract in a container/area provided by the Contractor and approved by the Contracting Officer. The Contractor shall provide appropriate containers for the collection and segregation of solid wastes, recyclables and C&D debris generated directly and indirectly by work under this Contract. The Contractor is prohibited from using base dumpsters or other Federal Government owned/leased waste receptacles for the disposal of any solid wastes. All solid wastes shall be reclaimed, recycled or disposed of prior to completion of work on JBLE-Langley.

As proof of proper disposition of solid wastes, the Contractor shall provide legible weight receipts for solid waste disposed and materials recycled bearing the name, address, and phone number of the receiving facilities for every load of materials delivered. The weight ticket shall detail the type of material, weight of the material in pounds or tons, the date of the transaction, and a signature from a representative of the receiving facility. Receipts shall be submitted to the Contracting Officer and Project Manager within ten calendar days after the transaction.

Under no circumstances will any solid waste or hazardous materials be left at JBLE-Langley at the end of the project. Before the project is turned over to the Federal Government, the Contractor will remove all solid wastes and hazardous materials from the installation. Those items include but are not limited to dirt piles, concrete piles, asphalt piles and rubbish piles. No materials will be left for the future use of the Federal Government UNLESS instructed to do so in writing by the Federal Government. This is to include the before mentioned items and also regular or touch-up paint, plaster, solvents, etc. If it is determined that the Contractor left materials behind, services may be terminated and/or a penalty payment to include the cost of disposal of the material by the Federal Government may be withheld from the project payment.
NOTE: Hazardous materials are different from hazardous wastes so be careful not to confuse the two. Hazardous Wastes will not be removed from the installation without the 633 CES Hazardous Waste Managers signing the Hazardous Waste Manifest. The JBLE-Langley Hazardous Waste Managers can be contacted at 757-764-1133/1132 if needed.

1.1.1.2. REFUSE CONTAINERS: All refuse containers shall be free from graffiti, and be equipped with a securable water proof tarpaulin or cover (NOTE: THE WATER PROOF COVER SHALL BE IN PLACE AT ALL TIMES, EXCEPT WHEN WASTE IS BEING DEPOSITED OR REMOVED). Location of all refuse containers shall be annotated on the Worksite Layout Plan.

1.1.1.2.1. CONSTRUCTION/DEMOLITION DEBRIS DIVERSION: As good stewards of the environment, the Federal Government is committed to diverting its waste away from landfills to the greatest extent possible. This can be done through recycling, reusing (when directed by the Federal Government), and donating construction and demolition debris materials. The Contractor shall recycle all construction/demolition debris to the maximum extent possible. The Contractor shall make every effort to recycle materials such as but not limited to concrete (including concrete with rebar), brick, asphalt, all metals, wood, roofing materials, wallboard, ceiling tiles, etc. With prior coordination through the CO and 633 CES/CEIE, the Contractor may take scrap metals to the JBLE-Langley scrap metal yard for recycling. The following are some suggested local sites for recycling construction and demolition debris:

<table>
<thead>
<tr>
<th>Local Sources of Recycling</th>
<th>Address</th>
<th>City</th>
<th>Phone</th>
<th>Acceptable Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tidewater Fibre</td>
<td>5602 Chestnut Ave</td>
<td>Newport News</td>
<td>247-5766</td>
<td>paper, cardboard, plastics, aluminum, glass, tin cans</td>
</tr>
<tr>
<td>Old Dominion Recycling</td>
<td>1618 W. Pembroke Ave.</td>
<td>Hampton</td>
<td>723-2942</td>
<td>Aluminum, copper, steel, iron, metals, paper, tires</td>
</tr>
<tr>
<td>S.B. Cox, Inc.</td>
<td>217 Cox Drive</td>
<td>Yorktown</td>
<td>969-1409</td>
<td>All C &amp; D, i.e. concrete, concrete w/rebar, wood, brick, block, steel, all metals, sheetrock, asphalt, cardboard, paper, plastics</td>
</tr>
<tr>
<td>Butler Paper</td>
<td>324 Newport St</td>
<td>Suffolk</td>
<td>539-2351</td>
<td>Industrial &amp; Commercial Paper Recycling</td>
</tr>
<tr>
<td>Gutterman Iron &amp; Metal</td>
<td>706 May Ave.</td>
<td>Norfolk</td>
<td>627-1095</td>
<td>Scrap Brass, Copper &amp; Aluminum</td>
</tr>
<tr>
<td>Sims Metal</td>
<td>2116 George Washington Memorial Hwy</td>
<td>Tabb</td>
<td>599-4940</td>
<td>Steel, aluminum, brass, copper, stainless steel, radiators</td>
</tr>
</tbody>
</table>
1.1.1.2.2. RECYCLING AND DISPOSAL REPORTING: The Contractor shall report on a quarterly basis the tonnage of the items recycled and the amounts disposed of by landfill and amounts disposed of by regular or waste-to-energy incineration to the Project Manager, the Contracting Officer, and 633 CES Environmental Element (633 CES/CEIE) by the 5th day of each quarter (Jan, Apr, Jul, Oct) during the period of performance. This report will be for the previous quarter. The report shall list the title of the project, the project number, the Contractor’s company name and point-of-contact, phone number, the type items (i.e. concrete, concrete with rebar, asphalt, brick, scrap metals, wood, wallboard, etc.) and the tonnage of those items recycled. For all items that could not be recycled, the Contractor will provide a brief reason as to why the items could not be recycled.

For items disposed of, one total tonnage can be given for items landfilled and one total tonnage for items incinerated (specify waste incinerator or waste-to-energy incinerator) instead of reporting disposal figures for the various items. For items that cannot be accurately measured, estimates will be sufficient. Use the form at Attachment 1 (Construction/Demolition Debris Recycling and Reporting) to report this information to the Contracting Officer, Project Manager, and to 633 CES/CEIE.

To send it to 633 CES/CEIE, email it to 633ces.cei@us.af.mil or mail it to:

633 CES/CEIE
Attn: Pollution Prevention Mgr.
Bldg. 328, Room 253
37 Sweeney Boulevard
JBLE-Langley, VA 23665

1.1.1.3. CONTAIN LOOSE DEBRIS: Loose debris on trucks leaving the site shall be loaded in a manner that shall prevent dropping/releasing of materials on streets and conform to local ordinances/laws. Fasten a suitable water proof cover, such as a tarpaulin, over the load before entering surrounding streets.

1.1.1.4. TRIP TICKETS: Contractor shall submit all trip tickets from the landfill facility, incinerators and recycling companies to show all debris is being landfilled, incinerated or recycled in accordance with all Federal requirements and in an approved location. These trip tickets will be submitted to the Contracting Officer who will in turn give them to the Project Manager.

1.1.2. SOIL AND PETROLEUM CONTAMINATED WASTE:
1.1.2.1. CONTAMINATED ABSORBENTS: All petroleum spills/releases must be cleaned up using absorbent materials. Spills caused by the Contractor will be the Contractor’s responsibility to containerize and dispose of the contaminated absorbent material. Spills caused by the Federal Government will be the responsibility of the Federal Government and shall contact the base Hazardous Waste Contractor at 633.CES.HAZ@us.af.mil or 225-5808 to arrange for pick-up.

1.1.2.2. SOIL. ALL soil must be tested to determine if it contains any contaminants prior to relocating it on base or disposing of it off-base. Testing and disposal of soil shall follow Virginia Solid Waste Management Regulations 9VAC20-81-660 (soil contaminated with petroleum products). Testing shall include items specified in the solid waste regulations to include but not limited to: RCRA hazardous waste characteristics (i.e., corrosivity, ignitability, reactivity, and toxicity); total metals; volatile organic compounds; semi-volatile compounds; total petroleum hydrocarbons (TPH), pesticides/herbicides; polychlorinated bi-phenyls (PCBs); presence of liquids (paint filter); Benzene, Toluene, Ethyl Benzene, and Xylene (BTEX); Toxicity Characteristic Leaching Procedure (TCLP); and total organic halides (TOX). If test results determine “other than clean”, the material will have to be transported to an appropriate landfill or processing center based on the contaminants identified. Contaminated soils, in sludge or slurry form, shall be containerized and managed as either hazardous waste or non-regulated waste, depending on what contaminant was spilled. It shall be the responsibility of the Contractor to dispose of such containerized contaminated soil. CEIE must review the sample results and must sign all hazardous/nonhazardous waste manifests prior to disposal. Contact 633 CES/CEIE Hazardous Waste Program Managers, 757-764-1133/1132 for additional information.

One composite sample (combined number of samples collected into a single sample) is required for every 250 cubic yards of soil to be disposed.

NOTE: UNDER NO CIRCUMSTANCES shall soil, clean or contaminated, from JBLE-Langley be delivered to or donated to off-base sources for use. Clean or contaminated soil shall be taken to an appropriate landfill or processing center based on the contaminants identified by analysis.

1.1.2.3 SOIL BROUGHT ONTO BASE FROM OFF-BASE SOURCES. ALL soil brought onto the installation for use will meet the terms of “Environmentally clean” soil. See guidelines established in section 1.10 of this document.

1.1.3. UNIVERSAL WASTE:

1.1.3.1. Fluorescent Lamps. The Contractor shall use environmentally-friendly green tip (i.e., low mercury) fluorescent lamps during lamp replacement. All fluorescent lamps shall be managed as Universal Waste. Contractor shall manage all Universal Waste Lamps in accordance with federal, state, and Air Force laws, regulations, directives, and plans. Contractor can contact the base hazardous waste Contractor at 633.CES.HAZ@us.af.mil or 225-5808 to arrange for pick-up, except in cases where lamp replacement is part of the contract. If part of the contract lamps will be properly disposed of by the Contractor and the waste manifest will be signed by 633 CES/CEIE Hazardous Waste Program Managers.

NOTE: UNDER NO CIRCUMSTANCES shall lamps be crushed on JBLE-Langley.

1.1.4. HAZARDOUS WASTE (HW).
1.1.4.1. SITE MANAGEMENT. All waste containers (HW, non-regulated, used oil, etc.) must be closed when not in use. Waste containers shall be stored undercover as to protect from the elements. All liquid waste shall be on secondary containers. Each waste container is to be properly labeled. Do not store waste containers near storm drains. Upon completion of this project, the Contractor shall remove all waste containers from the installation (for associated manifest requirements see paragraph 1.1.4.3.)

1.1.4.2. WASTE CHARACTERIZATION SAMPLES FOR FLOOR RENOVATION. Waste characterization samples must be collected to determine if its meets the RCRA definition of a hazardous waste. It is the responsibility of the contractor to collect the sample and provide analysis to 633 CES/CEIE. Waste debris from floor stripping or floor blasting performed on JBLE-Langley must be sampled for TCLP Metals for solid debris and must add corrosivity test for liquid stripping. Additionally, it is the contractor’s responsibility to dispose of the waste generated on this project. See manifest requirement in 1.1.4.3.

1.1.4.3. MANIFESTS. 633 CES/CEIE shall review all lab analyses and/or Safety Data Sheets (SDSs) of wastes prior to signing manifests. All hazardous waste manifests must be signed by appointed 633 CES/CEIE personnel prior to removal of such waste from the base. The generators initial copy must be provided after the approved person signs the manifest. The destination to generator copy of the manifest must be returned to 633 CES/CEIE, 37 Sweeney Boulevard, JBLE-Langley VA 23665.

1.2. FUEL, SEWAGE AND OTHER SPILLS: CALL 911 – FIRE AND EMERGENCY SERVICES IMMEDIATELY in the event of a spill where assistance is needed to stop or contain the spill. In the event of a fuel, sewage, and/or other toxic spillage during the performance of this contract, the Contractor shall be responsible for its containment, clean up, and related disposal costs. The Contractor shall have sufficient spill response supplies readily available on site to contain any spillage. In the event of any Contractor-related release, even if Fire and Emergency Services are not needed, the Contractor shall immediately notify the Contracting Officer and 633 CES/CEIE (764-757-3906) and take appropriate actions to correct its cause to prevent future occurrences. If the federal, State, or local authorities assess any monetary fine, penalty, or assessment related to the release of any substance by the Contractor, his/her employees, or agents during the performance of this contract, the Contractor shall be solely liable for its payment, authorizes the United States Air Force (USAF) to withhold such from payment and otherwise indemnify and hold the USAF harmless.

1.3 ASBESTOS OR LEAD BASED PAINT [Contact 633 CES/CEIE to determine any known presence of these materials]

1.3.1. ASBESTOS PRESENCE: [Tests have indicated that asbestos is not present in the areas affected by this work //or// Tests have indicated the presence of asbestos in the areas affected by this work.] If asbestos not previously known to exist is exposed, the Contractor shall cease work in the affected area and notify the Contracting Officer.

1.3.1.1. ABATEMENT PLAN: [Include if project requires asbestos removal] Abatement plans are to include but not limited to the description of how abatement is to be accomplished, required
notifications, required licensing, employee safety requirements, and air sampling. The Abatement Plan shall be submitted to 633 CES/CEIE for review.

1.3.1.2. **ASBESTOS ABATEMENT OR REMOVAL NOTIFICATION:** [Include if project requires asbestos removal] Contractor is responsible for disposal of asbestos debris. Contractor is subject to OSHA, EPA and Commonwealth of Virginia compliance and inspection for asbestos removal. Contractor must perform asbestos abatement in accordance with these specifications and EPA National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for asbestos and any subsequent updates thereto. This includes State and EPA Region 3 notifications that shall be accomplished at least 20 days prior to starting any asbestos abatement or removal. A copy of the notification shall be submitted to the Contracting Officer and to 633 CES/CEIE.

1.3.1.3. **ASBESTOS MANIFESTS:** [Include if project requires asbestos removal] All asbestos waste manifests shall be signed by 633 CES/CEIE (37 Sweeney Boulevard) prior to removal of asbestos waste from the base. A copy of the completed manifest (signed by the receiving landfill) shall be submitted to 633 CES/CEIE.

1.3.2. **LEAD BASED PAINT PRESENCE:** [Tests have indicated that lead based paint is not present in the areas affected by this work //or// Tests have indicated the presence of lead based paint in the areas affected by this work.] If lead based paint not previously known to exist is exposed, the Contractor shall cease work in the affected area and notify the Contracting Officer.

1.3.2.1. **ABATEMENT PLAN:** [Include if project requires lead based paint removal] Abatement plans are to include but not limited to the description of how abatement is to be accomplished, required licensing, employee safety requirements, and air sampling. The Abatement Plan shall be submitted to 633 CES/CEIE for review.

1.3.2.2. **LEAD BASED PAINT DISPOSAL.** Disposal of lead debris containers is the responsibility of the Contractor. Lead contaminated debris must be sampled to determine the concentration level of lead. The analysis will determine waste management procedures. 633 CES/CEIE will inform the Contractor on management procedures. If wastes are determined to be hazardous by regulatory criteria, the containers cannot leave the installation until a completed manifest is reviewed and signed by 633 CES/CEIE. The Contractor must contact JBLE-Langley Hazardous Waste Contractor at 633.CES.HAZ@us.af.mil 225-5808 to store full drums of lead contaminated waste at the <90 day site located at 510 Poplar Road. The drums must be in good condition, labeled properly and closed. The Contractor has less than 90 days of storage on base before the containers must leave the installation.

1.4. **AIR QUALITY**

1.4.1. **VOLATILE ORGANIC COMPOUNDS:** All coatings and solvents used in the performance of this contract shall meet the required performance specifications and shall not exceed the volatile organic compound limits of the Air Pollution Control District(s) where they are used. Coatings and solvents shall be registered with the base HAZMART as described is Section 1.7.

1.4.2. **DUST:** [If the project is likely to create dust emissions, the following requirement applies] Mitigation of fugitive dust emissions shall be accomplished in accordance with 9 VAC5-40-90, Standard for Fugitive Dust/Emissions.
1.4.3. FOSSIL FUEL-FIRED BOILERS / WATER HEATERS / HVACS: [Include if a boiler / water heater / HVAC is installed as part of this project]: To assist JBLE–Langley in meeting permit requirements, the Contractor shall submit necessary information for each fossil fuel-fired boiler / water heater / HVAC to 633 CES/CEIE no less than sixty days prior to the anticipated boiler / water heater / HVAC installation date. Necessary information includes but may not be limited to the following (for each boiler, water heater, and/or HVAC):

- Technical specification sheet (e.g., unit manufacturer, model no., maximum heat input, fuel type(s), burner data, etc.)
- Describe the intended purpose of the boiler / water heater / HVAC (i.e., industrial activity, commercial, institutional)

1.4.4. GENERATORS: [Include if an emergency generator is installed as part of this project]

To assist JBLE–Langley in meeting permit requirements, the Contractor shall submit necessary information for each generator to 633 CES/CEIE no less than sixty days prior to the anticipated generator installation date. Necessary information includes but may not be limited to the following (for each generator):

- Technical specification sheet (e.g., manufacturer make, model no., maximum engine power rating, fuel type, fuel consumption rates, specifies conformance with EPA emission standards, etc.)
- Describe the intended purpose of the generator (i.e., stationary emergency, stationary non-emergency, portable/temporary (Note: if designated as portable/temporary; Contractor shall provide estimate for the total duration the generator is to remain on base)
- EPA Certificate of Conformity

If installing a generator set with an incorporated fuel tank (i.e., “belly tank”), the contractor shall comply with the conditions under paragraph 1.5, Storage Tanks.

1.4.5. OZONE DEPLETING SUBSTANCES (ODS)

Contracts may not include any specification, standard, drawing or other document that requires the use of a Class I ODS in the design, manufacture, test, operation or maintenance of any system, subsystem, item, component or process. Contracts may not require the delivery of any items of supply that contains a Class I ODS or any service that includes the use of a Class I ODS.

1.5. STORAGE TANKS: [Include only if work includes or is in area of storage tanks; contact 633 CES/CEIE to determine any known history or presence of storage tanks]

1.5.1. STORAGE TANK REGISTRATION NOTIFICATION: [Include if an AST or UST is going to be installed]: Notify 633 CES/CEIE 30 days prior to the tank being put into service to meet regulatory documentation requirements.

1.5.2. DISPOSAL OF PETROLEUM CONTAMINATED SOIL: [Include if excavating around any removed, abandoned, or in-service AST or UST]: Contaminated soil may be encountered in proximity to previous and current tank sites. Disposal of such soil must be funded as part of this project. Waste must be disposed of IAW previous WASTE DISPOSAL paragraph, 1.1.2.2,
along with applicable State and Federal regulations. If contaminated soil is discovered, notify 633 CES/CEIE Hazardous Waste Program Managers prior to disposal.

1.5.3. **ABOVEGROUND STORAGE TANKS (ASTs):** [Include if there is going to be an AST temporarily or permanently installed]: Any ASTs allowed on site shall have secondary containment, venting and spill/overfill protection. Anti-siphon valves are required. The Contractor shall visually inspect such tanks daily for leaks. All ASTs shall be installed or erected in accordance with 9 VAC 25-91, NFPA 30, and 40 CFR 112.7.

1.5.3.1. **NOTIFICATION:** If AST is removed or re-located, the Project Manager is required to notify the 633 CES/CEIE prior to the action so regulatory documentation can be initiated and submitted.

1.5.4. **UNDERGROUND STORAGE TANKS (USTs):** [Include if there is going to be construction or excavation where there is an abandoned UST]. USTs located within project area present an underground hazard and the work should to be routed around the site or other provisions made. Contact 633 CES/CEIE for additional information.

1.6. **WATER QUALITY:** [Include if there is going to be exterior material laydown, construction or excavation].

1.6.1. **EROSION AND SEDIMENT CONTROL:** Regardless of project size amount of land disturbance, the Contractor is responsible for ensuring that adequate erosion and sediment controls are utilized on site to prevent sediment from leaving the activity at all times. ESC practices selected for use shall be designed, installed and maintained in accordance with the Virginia Erosion and Sediment Control Handbook. The Contractor shall provide erosion control fencing (silt) to prevent site runoff. Black or brown silt fence color is approved, no other color will be accepted. Hay bales must not be used for erosion control and inlet protection from stormwater run-off. The Contractor shall submit alternate methods of protection to the Contracting Officer at the preconstruction conference for review and approval from the Water Program Manager. The Contracting Officer will notify the Contractor of his/her decision prior to issuance of Notice to Proceed (NTP).

Land Disturbing Activities (LDAs) that are 2,500 square feet up to 10,000 square feet require the Contractor to develop a site specific Erosion and Sediment Control Plan that complies with Virginia Erosion and Sediment Control Law and Regulations (9 VAC 25-840) and meets the state’s 19 minimum standards outlined in 9 VAC 25-840-40 as applicable. The ESC Plan shall include site plan(s) / detailed maps for the work site that clearly show the siting of the ESC practices and best management practices. The Virginia Uniform Coding System for ESC Practices shall be used on all site plan submittals. The ESC Plan shall include a statement describing the Contractor’s maintenance responsibilities required for the ESC controls. The Contractor shall submit the ESC Plan to the Contracting Officer for an initial review. Once reviewed and approved, the Contractor will submit to VDEQ for final approval.

1.6.2. **STORMWATER MANAGEMENT PLAN (SWM Plan):** For LDAs disturbing over 10,000 square feet, projects shall comply with VSMP Regulations Part II B - Technical Criteria for Regulated Land-Disturbing Activities (9 VAC 25-870-32 through 9 VAC 25-870-92). A complete SWM Plan must meet the requirements of 9 VAC 25-870-55. This includes the following
ENVIRONMENTAL MANAGEMENT SPECIAL CONDITIONS

elements: (1) Information on the type of and location of stormwater discharges, information on the features to which stormwater is being discharged including surface waters or karst features if present, and pre-development and post-development drainage areas; (2) Contact information including the name, address, telephone number, and email address of the owner; (3) A narrative that includes a description of current site conditions and final site conditions; (4) A description of the proposed stormwater management facilities (aka Best Management Practice (BMPs)) and the mechanism through which the facilities will be operated and maintained after construction; (5) Information on the proposed stormwater management facilities, including the type of facilities, location including geographic coordinates; acres treated; and the surface waters into which the facility will discharge; (6) Hydrologic and hydraulic computations, including runoff characteristics; (7) Virginia Runoff Reduction Method (VRRM) compliance sheets; (8) Documentation and calculations verifying compliance with the water quality and quantity requirements (Part II B of the regulations) of these regulations; and (9) A map or maps of the site that depicts the topography of the site.

For projects with a VDEQ approved SWM Plan (completed during the design phase, primarily large construction projects) it is the construction Contractor's responsibility to implement the Plan and its design features.

For projects that do not have an approved SWM Plan associated with the design (primarily demolition and smaller projects), it is the Contractor's responsibility to develop and implement a SWM Plan. At the completion of the project, a construction record drawing(s)("as-built") for permanent stormwater management facilities shall be provided bearing the seal and signature of a Virginia registered professional, certifying that the stormwater management facilities have been constructed in accordance with the approved SWM plan.

1.6.3. STORMWATER POLLUTION PREVENTION PLAN (SWPPP): For LDAs over 1 acre, a full SWPPP submittal shall be developed in accordance with 9 VAC 25-870 and 9 VAC 25-880 and submitted to VDEQ for approval. No LDAs may commence without an approved SWPPP.

All SWPPPs must contain the following:

- Erosion and Sediment Control Plan (See Section 3.3.3);
- Stormwater Management Plan (See Section 3.3.4);
- Pollution Prevention (P2) Plan; and information specifying any additional control measures to meet the requirements of existing Total Maximum Daily Loads (TMDL).

Within the SWPPP the Contractor shall develop a site specific Pollution Prevention (P2) Plan in accordance with 9 VAC 25-870-56. The P2 Plan must identify potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from the construction site and a description of control measures that will be used to minimize pollutants in stormwater discharges from the construction site must be developed before land disturbance. This Plan shall be included in the Contractor's SWPPP submittal. At a minimum, the P2 Plan must be designed,
installed, implemented, and maintained to: (1) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge; (2) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and to stormwater; and (3) Minimize the discharge of pollutants from spills and leaks. The SWPPP must also address the following requirements to the extent otherwise required by state law or regulations and any applicable requirements of a state permit: (1) Control stormwater volume and velocity within the site to minimize soil erosion; (2) Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion; (3) Minimize the amount of soil exposed during construction activity; (4) Minimize the disturbance of steep slopes; (5) Minimize sediment discharges from the site - erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site; (6) Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible; (7) Minimize soil compaction and, unless infeasible, preserve topsoil; (8) Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating, or other earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days; and (9) Utilize outlet structures that withdraw water from the surface, unless infeasible, when discharging from basins and impoundments.

1.6.4. CONSTRUCTION GENERAL PERMIT (CGP) COVERAGE:
LDAs greater than or equal to one (1) acre require Construction General Permit coverage under the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Construction Activities from the Department of Environmental Quality (DEQ). The Virginia Stormwater Management Program Permit Regulations can be found in 9 VAC 25-870 and the General Permit for Discharges of Stormwater from Construction Activities can be found in 9 VAC 25-880. After SWPPP approval (see Section 3.3.5), the Contractor shall register for CGP coverage from DEQ in accordance with 9 VAC 25-880-50. The Contractor is considered the Permit Operator and is responsible for all CGP registration fees. See below for the applicable construction permit fees per 9 VAC 25-870-820:

<table>
<thead>
<tr>
<th>Site Size</th>
<th>DEQ Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to &lt;5 acres</td>
<td>$2,700.00</td>
</tr>
<tr>
<td>&gt;5 acres to &lt;10 acres</td>
<td>$3,400.00</td>
</tr>
<tr>
<td>&gt;10 acres to &lt;50 acres</td>
<td>$4,500.00</td>
</tr>
</tbody>
</table>
The Contractor shall submit a copy of the DEQ Construction General Permit Registration Statement to the Contracting Officer for review and approval prior to submittal to DEQ. Upon approval, the Contractor shall submit the DEQ Construction General Permit Registration Statement and applicable fee to DEQ. The Contractor may begin LDAs once a DEQ Construction General Permit coverage letter has been received. No LDAs shall commence without an approved SWPPP and DEQ-issued CGP coverage. The Contractor shall be responsible for terminating permit coverage once the project site has reached final stabilization and verified by the Inspector and Contracting Officer. Final Stabilization is defined in 9 VAC 25-880-1 as soil disturbing activities have been completed and a permanent vegetative cover has been established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that is uniform, mature enough to survive, and will inhibit erosion.

1.6.5. PROHIBITED ILLICIT DISCHARGES:
The Contractor shall ensure no illicit discharges occur at the project site. An "illicit discharge" is any non-stormwater discharge to the storm drain system, except as expressly allowed by JBLE-Langley’s VPDES permits, the project-specific VSMP General Permit for Discharges of Stormwater from Construction Activities, and/or a discharge approved in writing by JBLE-Langley. Water from firefighting, hydrant flushing, and A/C condensate are not considered illicit discharges. Examples of illicit discharges include the following:

- Dumping of trash or debris
- Disposing of vehicle/equipment maintenance fluids into a storm drain
- Leaking dumpsters flowing into a storm drain inlet
- Pouring paints, stains, hazardous materials into a storm drain
- Cleaning paint brushes/applicators in or near a storm drain
- Allowing wash waters with soaps, detergents, or paint debris into a storm drain inlet
- Washing silt, sediment, concrete, cement or gravel into a storm drain
- Allowing uncontrolled release of sediment into a storm drain inlet
- A measurable flow during dry weather that contains any other pollutants

1.7. HAZARDOUS MATERIALS MANAGEMENT

1.7.1. Hazardous Materials Usage and Reporting: In compliance with AFI 32-7086 *Hazardous Material Management* dated 4 Feb 2015, all Contractors are required to report the usage of all hazardous materials to the Federal Government for all projects and contracts including service contracts executed on JBLE-Langley. In accordance with FAR Clause 52.223-3, each offeror (Contractor) must provide the Contracting Office with a list of proposed HAZMAT that it plans to use on the installation during the performance of the contract. In accordance with AFFARS Clause 5352.223-9303, Contractors must obtain Air Force authorization prior to using HAZMAT on an Air Force installation, and must report usage data to the HAZMART.

Hazardous materials are any substance defined by OSHA as a hazardous substance requiring a Safety Data Sheet (SDS). Hazardous materials that need to be reported include but are not limited to chemicals, paints, thinners, sealing compounds, strippers, glues, solvents, all petroleum products including oils, hydraulic fluids, and fuels stored on-site (fuels in vehicles are exempt), pesticides, adhesives, acids, flammables, corrosives, oxidizers, compressed gases (such as but not limited to...
oxygen, acetylene, propane, flammable and non-flammable gases), all aerosols, and all materials containing hazardous substances.

The Contractor shall request the proposed usage of all Hazardous Materials by completing the “Contractor Hazardous Material Worksheet” at Attachment 2 (Contractor Hazardous Material Worksheet) for each hazardous material and shall submit a copy of the SDS for each item to the Contracting Officer (CO) prior to bringing the items on the installation. The Contractor shall submit to the CO the information for each item within 10 days after award of the contract or project and/or not less than fourteen calendar days prior to bringing the items on the installation. The Contractor shall submit this information to the CO as soon as possible for short notice contracts or projects. An electronic version of the Contractor Hazardous Material Worksheet can be obtained through the Project Manager or 633 CES/CEIE.

The CO will immediately provide this information to the Project Manager who will in turn immediately provide it to 633 CES/CEIE. If possible, it is best to submit this information electronically so it can be distributed to reviewing parties electronically for a faster review. Submit each 3952 followed by the SDS for each hazardous material.

After the project starts, monthly usage information will be provided to the CO who will in turn provide this information to the Project Manager who will in turn provide it to 633 CES/CEIE. Attachment 3 (Monthly Report for HAZMAT) of this section will be used to report monthly usage. For contracts/projects exceeding six months, this form is required to be filled out on a monthly basis. For contracts less than six months, this form is required at the beginning and upon completion of work.

If there are any questions on how to fill out the Contractor Hazardous Material Worksheet or the monthly report, contact the JBLE-Langley HAZMART at 757-764-3837 Monday thru Friday between the hours of 0730-1630 or visit them at:

733 LRS/HAZMART
Bldg. 330
23 Sweeney Boulevard
JBLE-Langley, VA 23665

1.7.2. Hazardous Materials Management Process (HMMP): The JBLE-Langley HMMP team will meet on an as-needed basis to review the Contractor Hazardous Material Worksheets and SDSs to ensure there are no concerns with the chemicals being used and/or stored on the installation. If there are concerns about any chemicals and if it is determined that the Contractor plans to use an extremely hazardous chemical on JBLE-Langley, the HMMP team will notify the Project Manager and the Contracting Officer (CO) who will in-turn notify the Contractor of JBLE-Langley’s concern. The Contractor will not bring any extremely hazardous chemicals on JBLE-Langley or any other chemicals that the HMMP team determines cannot be used on JBLE-Langley. The HMMP team will also notify the Project Manager if all hazardous materials are authorized for use.

If the Contractor requires additional hazardous materials not previously submitted for approval, they shall submit the request as stated above seven days prior to bringing the item on the base.

NOTE: If it is determined at any time that hazardous materials are on site that were not reported in advance, the CO will be notified and the project can be stopped until the materials are submitted as stated above.
1.7.3. Hazardous Material Storage: Hazardous materials will be managed properly at all times while on JBLE-Langley. This means containers will be in good condition and will be properly labeled with the contents and hazard class (flammable, corrosive, oxidizer, etc.) at all times. Containers will be closed at all times when not in use. Hazardous materials shall be kept under cover to protect them from the elements and to prevent stormwater runoff contamination. Tanks and 55-gallon liquid drums shall have secondary containment. Gas cylinders shall be maintained in the upright position with caps on and secured with chains and locks to prevent tampering and from falling over. Gas storage areas will have signs indicating what type gases are stored in the area (i.e. flammable, oxidizer, non-flammable, etc.). NO SMOKING signs will be posted in all hazardous materials storage areas. In addition, all hazardous materials will be segregated in storage according to compatibility (i.e. flammables will not be stored with corrosives, corrosives will not be stored with oxidizers, flammable gases will not be stored with flammable liquids, etc.). JBLE-Langley is subject to inspections at any time from outside agencies (EPA, Virginia Dept. of Environmental Quality and OSHA), any violations by the Contractor will be the responsibility of the Contractor and any fines associated with the violations will be resolved at the Contractor’s expense.

1.8. USE OF RECYCLED-CONTENT PRODUCTS: (GREEN PROCUREMENT): Whenever the potential for use of non-recycled content products exists during the construction stage of the project, the Contractor shall incorporate in this project, as a substitute, recycled-content products that are listed and identified in EPA’s Comprehensive Procurement Guideline (CPG) Program for recycled-content products. The Contractor shall use recycled-content products as required by EPA and other governmental agencies and Federal Acquisition Regulation (FAR) clauses.

It is mandated by Executive Order 13423, (Strengthening Federal Environmental, Energy and Transportation Management) and Section 6002 of the Resource Conservation and Recovery Act (RCRA) that the Federal Government use recycled-content products in the construction and/or renovation of facilities. It is the intent of the Federal Government to comply with the EPA requirement 100% of the time and use as many of the applicable listed recycled-content products as feasible and economically practical. The Contractor shall consider this a standard requirement for all aspects of the project construction.

The recycled-content products listed in the CPG can be found on EPA’s website.¹ These products are also listed in Attachment 4 (Contract Submittal and Contractor Reporting Form). This list is subject to change at any time so it is the Contractor’s responsibility to be aware of any updates or additions.

Such products shall also comply with the requirements of EPA’s Consolidated Recovered Materials Advisory Notice (RMAN). The RMANs recommend recycled-content ranges for CPG products based on current information on commercially available recycled-content products. The recommended recovered materials content percentage can be obtained by clicking on the product on the website.

1.8.1. Green Procurement Forms Before starting the project, the Contractor shall complete Attachment 4 indicating the items he or she plans to use. The Contractor will provide this to the Contracting Officer and the Project Manager. Upon completion of project construction, the Contractor shall complete the form again. At this time, the Contractor shall indicate the use and non-

¹ www.epa.gov/cpg/products.htm
use of products that are contained in the CPG, and shall list the recycled-content percentage for the applicable item. In each instance where a recycled-content construction product is not used, the Contractor shall provide to the Contracting Officer (or his/her designated representative) and the Project Manager a completed Exemption Form, Attachment 5 (Recovered Materials Determination Form).

The Contractor shall complete this form for all items for which he or she desires an exemption from the Green Procurement Program for Recovered Materials that are being procured. Exemptions can only be taken if all of the following conditions are met:

1. The item is not available within a reasonable period of time
2. Item fails to meet a performance standard in the specifications, and
3. The item was only available at an unreasonable price i.e., the recycled-content product costs more than the non-recycled content product.

The fourth reason on the Recovered Materials Determination Form (i.e., the item is not available from two or more sources), does not apply to construction/renovation Contractors as the Federal Government will not prescribe where you can get your materials from. The Contractor shall provide specific reasons why an item is exempt, and shall furnish supporting documentation.

The Contractor will sign the completed Attachment 4 form as the “Procurement Originator,” which will also be signed by the 633 CES Engineering Flight Chief or Deputy Flight Chief, 633 CES/CEN. The form(s) will be kept in the project folder indefinitely.

1.9. ENVIRONMENTAL RESTORATION PROGRAM (ERP) REQUIREMENTS:
[Include only if work is in ERP area. Ensure drawings define IRP boundaries and well locations] Appropriate, additional guidance will be provided if project impacts an ERP site.

1.9.1. Contaminated Soil and Free Product: Any material (soil) that is suspected of containing petroleum products shall be reported to the Contracting Officer or his/her designated representative. If discovered, the Contractor shall mitigate any potential threat to the workers, public and environment. The area that will be disturbed under this contract has the potential to have free product migrate into and under the construction site. Comply with VR-680 and record the quantity of any fuel removed from [the line]. Contaminated soil and/or free product shall not be used for backfill or removed from the base without written approval from the Contracting Officer. Once removal is approved, Contractor shall dispose of material under guidance of the Hazardous Waste Manager (633 CES/CEIE). All hazardous waste manifests shall be prepared by the Contractor and shall be coordinated, approved and signed by Hazardous Waste Manager (633 CES/CEIE) prior to removal of such waste from the base.

1.9.2. Site Safety: Site summaries from our Management Action Plan are furnished with this contract to familiarize personnel with the potential hazards associated with construction and demolition work at these sites. Ensure workers are informed of potential hazardous exposures from working at these sites, and that the appropriate precautions are followed to minimize hazards to human health and the environment. Personnel working at these sites shall have 40-hour HAZWOPER Training. At least one individual on site should have completed the OSHA 8-hour supervisor training course. The plans identify the boundary of these IRP sites. To perform work
at these sites, the Contractor must have a Health and Safety Plan and Hazardous Waste Disposal Plan for proper disposal of all regulated materials generated during execution of this project.

1.9.3. Monitoring Wells: There may be several monitoring wells installed in and around the proposed construction area. Site maps and construction drawings provide the location of these wells. The Contractor shall take all precautions to prevent any damage to wells. If the wells and associated structures are damaged during the project, the Contractor shall repair/replace all damages at no additional expense to the Federal Government. Contractor shall dispose of all regulated materials during repair of the damaged structures and remove any free product as required by VDEQ regulations.

1.9.4. Additional Excavation: Prior to any excavation beyond the immediate area or boundary of the construction site, the Contractor shall coordinate with 633 CES/CEI and obtain the Contracting Officer’s approval.

1.10. SOIL SUPPORT PROGRAM (SSP) ACCEPTABILITY

The soils obtained from off-base sources shall meet the criteria outlined below. The soils generated during construction project excavation will be collectively referred to as “soil media.” Soil media is not inherently waste-like, but it may contain waste-like materials, including contaminants associated with historical operations at the site. Given the base history of operations, the Contractor must make a determination as to whether the soil media is contaminated. If soil media is determined to be contaminated, then a hazardous waste determination must be made. Standard test methods are described below. Contaminated soil media shall be managed as a solid waste and removed from base in accordance with applicable requirements for disposal of solid waste. If the soil media is determined to be uncontaminated and not waste-like, then it may be disposed on site in an environmentally sound manner or disposed of at an approved landfill.

1.10.1. Clean Soil. Projects requiring clean soil, including but not limited to topsoil and backfill materials, to be brought onto JBLE-Langley or relocated within base property must meet minimum standards based on results of physical (geotechnical) and chemical testing. All materials will meet geotechnical specifications appropriate for the type of project being accomplished and are typically identified elsewhere in the project specifications. The intent of this section is to prevent cross contamination (i.e. planned excavation) and define clean soil based on chemical/project specifications. Soil contaminant levels shall be tested, with test procedures and results documented to ensure that only the source(s) of topsoil and/or backfill deemed to have acceptable soil contaminant levels be utilized for current and future use. The Contractor shall implement a plan and confirm the proposed source(s) of clean topsoil and/or backfill (borrow source) meet the clean soil specifications for the project. The plan should incorporate borrow source information, sampling data, and testing results. As a minimum, the Contractor shall meet the following standards:

1.10.2. Borrow Source. The Contractor shall provide detailed borrow source information (e.g., location, owner, operator, past and current land use, previous chemical testing results) at the point of planned excavation to 633 CES/CEIE to determine chemical testing requirements. The Contractor shall also submit a certification stating the materials contain no asbestos, no gross contamination have been discerned by visual or olfactory observations, and no spills of a listed hazardous waste (40 CFR 261) have occurred at the borrow site. If previous chemical testing results exist
and are provided, 633 CES/CEIE will evaluate those results to determine if they are sufficient and the proposed borrow soils meet clean soil requirements. If testing is incomplete, 633 CES/CEIE will review borrow source information to determine chemical sample requirements.

1.10.2.1. **On-base Soil Sources.** Unless otherwise provided in the contract, the Contractor shall bear all expenses of developing the source. For the site where soil is reclaimed from Federal Government land, the Contractor may be required to perform final grade and seeding according to project requirements.

1.10.2.2. **Excess Soil Work.** Acceptable excess soil shall be delivered to the designated location(s) following approved haul routes. For the site where excess soil is deposited on Federal Government land, the Contractor may be required to perform final grade and seeding according to project requirements.

1.10.3. **Sample Plan.** At least one composite sample (6-8 grabs) for each undisturbed borrow source would be taken from the original point of excavation and required for each 5,000 CY of soil. For soil taken from disturbed borrow sources, samples are required for each 1,000 CY of soil. The nature of the borrow source is to be considered when determining the quantity and depth of the samples. Additional samples may be required to adequately characterize the proposed borrow source (i.e. laterally and vertically). The Contractor shall submit a Sample Plan (to include site map, excavation area, location and depth of samples) for 633 CES/CEIE review and approval.

1.10.4. **Chemical Testing Standards.** The analysis must be performed by an accredited or certified laboratory approved by the U.S. Environmental Protection Agency and the State of Virginia (e.g., Environmental Laboratory Accreditation Program [ELAP], Virginia Environmental Laboratory Accreditation Program [VELAP]). Submit a copy of the chain of custody and complete validated report of analysis to 633 CES/CEIE for review and approval 30-days prior to use of any borrow soils. Chemical testing of any borrow source will include sampling for the following suite of contaminants (test requirements may be reduced based on borrow source information):

- Total Petroleum Hydrocarbons (TPH) to include Gasoline Range Organics (GRO) and Diesel Range Organics (DRO);
- Volatile Organic Compounds (VOCs) [EPA method 8260B] to include Benzene, Toluene, Ethylbenzene, and Xylene (BTEX);

The soil support test suite shall also include unless generator knowledge suggests otherwise:

- Semi-volatile Organic Compounds (SVOCs) [EPA method 8270];
- Pesticides [EPA method 8081A];
- Polychlorinated Biphenyls (PCBs) [EPA method 8082]; and
- Target Analyte List (TAL) metals (including Mercury) [EPA method 6010B/7470A]
- Volatile Organic Compounds (VOCs) [EPA Method 8260] other than BTEX compound reference in the preceding paragraph.

1.10.5. **Clean Soil Determination.** Soils testing under the EPA screening levels and/or base “background” levels will be considered acceptable “clean” soil. Generally, acceptable clean soil must not exceed EPA Region III “Residential” Risk Based Concentrations (RBC) and the JBLE-
Langley Upper Tolerance Limit (UTL) background soil concentrations. For use in current and future industrial areas, EPA Region III “Industrial” RBCs may be considered but shall not exceed UTL background levels.

**1.10.6. Excavation and Delivery Screening.** Common to any multiple point sampling, composite testing may not accurately characterize the entire site. Should contamination be detected (e.g. free product, stained soils, chemical odors) during excavation or delivery, soil operations shall be immediately discontinued pending 633 CES/CEIE notification and resolution. Additional soil testing and screening may be required to determine if continued use of the borrow site is acceptable.

**1.10.7. Material Physical Characteristics.** All soil obtained from sources within or outside the limits of Federal Government-controlled land shall meet the physical characteristics as defined in project specifications.

**1.11 TREE PROTECTION, PRESERVATION, AND PLANTING**

**1.11.1.** Tree Protection – trees take generations to mature, yet they can be irreparably damaged or killed within seconds, or subjected to conditions which may take five to ten years to kill them. Improper planting may result in short-term death, structural failure, or a long-term senescence. Most situations can be prevented.

**1.11.2.** Because trees contribute so much to our quality of life and because they can be a potential liability, they must be actively conserved, wisely selected, well placed, well planted, routinely maintained and constantly protected. One of the most critical steps in planning for trees and cost effective ways of managing trees is to maintain adequate growing space for each tree’s roots, trunk and crown throughout the tree’s life. Remember that as a tree gets older it gets larger and the growing space it requires increases accordingly.

**1.11.3.** For existing trees, there is a minimum amount of area, above (for the trunk and crown) and below ground (for soil health and the root system) that is required to protect trees and preserve tree health. This area has been identified as the critical root zone (CRZ) or tree protection zone (TPZ) by various experts and is generally agreed to be equivalent to the soil area below ground and the space above ground defined by the tree’s drip line, or the greatest extent of the branches. This is depicted in Figure 1:
1.11.4. However, for small trees, newly planted trees, and trees with narrow crowns, the drip line defines an area that is too small for proper protection. Therefore, it is best to define both the critical root and tree protection zones as the circular area above and below ground with a radius equivalent to the greater of 6 feet or 1.5 feet for every inch in trunk diameter at 4.5 feet above the ground. For example, a tree with a trunk diameter (dbh) of 20 inches has a CRZ and TPZ of 30 feet (20 inches x 1.5) around the tree. While the radius of the CRZ (and TPZ) is 30 feet, the diameter of the entire CRZ (and TPZ) is 60 feet.

Guide to Working Around Trees –
How Trees Are Damaged During Construction

**Above Ground Physical injury to the trunk and crown**
Construction equipment can injure the above-ground portion of a tree
- Breaking Branches
- Tearing the Bark
- Wounding the Trunk
- These injuries are permanent, and if extensive, can be fatal.

**Below Ground Physical injury to the trunk and crown**
- Soil compaction in the root zone
- Severing of roots
- Smothering roots by adding soil
• Split and broken branches
• New exposure to wind and sunlight

Soil compaction

An ideal soil for root growth and development is about 50% pore space. These pores, the spaces between soil particles, are filled with water and air. The heavy equipment used in construction compacts the soil and can dramatically reduce the amount of pore space. This not only inhibits root growth and penetration but also decreases oxygen in the soil that is essential to the growth and function of the roots.

The roots of a tree will extend far from the trunk and will be found mostly in the upper 18 inches of the soil.
GENERAL NOTE:
SET TOP OF ROOTBALL FLUSH TO
GRADE OR 25-50 MM (1-2 IN.)
HIGHER IN SLOWLY DRAINING
SOILS

NOTE: FOR DETAILED REQUIREMENTS
RELATED TO THE STAKING OF THE
TREE, SEE "TREE STAKING DETAIL."

IF PLANT IS SHIPPED WITH A WIRE BASKET
AROUND THE ROOT BALL, CUT THE WIRE
BASKET AT BASE OF ROOTBALL AND REMOVE
ACCESSIBLE PORTIONS

100 MM (4 IN.) HIGH EARTH SAUCER
BEYOND EDGE OF ROOT BALL

EXISTING SOIL

TAMP SOIL AROUND ROOT BALL
BASE FIRMLY WITH FOOT
PRESSURE SO THAT ROOT
BALL DOES NOT SHIFT.

REMOVE ALL TWINE, ROPE, WIRE
AND BURLAP FROM ACCESSIBLE
PORTIONS OF ROOTBALL

COMPLETELY REMOVE CONTAINER AND RESTORE ORIGINAL ROOT FLARE
ELEVATION WHEN PLANTING POT-N-POT, BOX, OR CONTAINER GROWN.

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LANGLEY AFB TREE PLANTING DETAIL - developed 23 DEC 2004

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INTERNATIONAL SOCIETY
OF ARBORICULTURE

INTERNATIONAL SOCIETY OF ARBORICULTURE
1400 WEST ANTHONY DRIVE
CHAMPAIGN, IL 61821
(217) 355-9411
(217) 355-9516 FAX

Revised 5 Oct 17
DEVELOPED FROM:
INTERNATIONAL SOCIETY
OF ARBORICULTURE

WIRE OR CABLE SIZES SHALL BE AS FOLLOWS:
TREES UP TO 65 MM (2.5 IN) CALIPER - 14 GAUGE
TREES 65 MM (2.5 IN) TO 75 MM (3 IN) CALIPER - 12 GAUGE

TIGHTEN WIRE OR CABLE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. PLASTIC HOSE
SHALL BE LONG ENOUGH TO ACCOMMODATE 35MM (1.5 IN) OF GROWTH AND BUFFER ALL BRANCHES FROM THE WIRE.
TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WRAP SO THAT NO SHARP WIRE ENDS ARE EXPOSED.

13 MM (0.5 IN) DIAM.
PLASTIC HOSE

ALL STAKES SHALL BE DRIVEN OUTSIDE THE EDGE OF THE ROOT BALL.

ASSURE THAT THE BEARING SURFACE OF THE PROTECTIVE COVERING OF THE WIRE OR CABLE AGAINST THE TREE TRUNK
IS A MINIMUM OF 12 MM (0.5 IN).

REMOVE ALL STAKING AS SOON AS THE TREE HAS GROWN SUFFICIENT ROOTS TO OVERCOME THE PROBLEM
THAT REQUIRED THE TREE TO BE STAKED. STAKES SHALL BE REMOVED NO LATER THE END OF THE FIRST
GROWING SEASON AFTER PLANTING.

NOTES
1. PLEASE REFER TO INTRODUCTION AND USE CRITERIA PRIOR TO USING THIS DETAIL.
1.11.5. Tree Protection Zone Structures
- Chain link fence – 48-inch minimum height
- Snow/Sand fence – 48-inch minimum height
- Safety fence – 48-inch minimum height

Cutting of roots
The digging and trenching that are necessary to construct a structure and install underground utilities will likely sever a portion of the roots of many trees in the area. It is easy to appreciate the potential for damage if you understand where roots grow. The roots of a mature tree extend far from the trunk of the tree. In fact, roots typically will be found growing a distance of 1-3 times the height of the tree. The amount of damage a tree can suffer from root loss depends, in part, upon how close to the tree the cut is made. Severing one major root can cause the loss of 5-20% of the root system. Tree death due to severing of critical roots is generally not immediately apparent. Contractors who destroy trees as a result of cutting critical roots, will be responsible for removing and/or replacing the tree with another of similar size and quality.

1.12. COMPLYING WITH WETLAND REGULATIONS

1.12.1. 633 CES/CEIE is not responsible for project compliance with federal, state and local wetland regulations. It is incumbent upon design and contracting personnel and contractors to deter-
ENVIRONMENTAL MANAGEMENT SPECIAL CONDITIONS

time wetland permitting and mitigation requirements. This process should begin with the preparation of the DD 1391 and DD 813. Please note that your proposed activity may be covered by a Nationwide Permit (NWP) or a State Program General Permit (SPGP). A Joint Permit Application (JPA) will be required to determine if either a NWP or a SPGP is appropriate for the proposed activity. Allow at least 60 – 90 days after application submission for the acquisition of a wetlands permit if one is required. For additional information on the application process please refer to this link: http://www.deq.virginia.gov/Programs/Water/WetlandsStreams/PermitsFeesRegulations.

1.12.2. All wetlands permitting shall be completed prior to the start of construction activities which will affect the waters of the United States.


1.12.4. To delineate wetlands and other waters of the United States, the consultant you select should be familiar with and utilize the current 1987 Corps Wetlands Delineation Manual, and subsequent guidance, to perform a wetland(s) delineation. The consultant's findings should then be provided to the Corps in the form of a report. Corps staff will review the validity of the report and make a written and appealable agency determination on the presence and extent of wetlands and other waters of the United States on the property.

1.12.5. A Joint Permit Application (JPA) is used to apply for standard permits, also known as individual permits, for work in the waters of the United States (including wetlands) within Virginia. Such work may include construction, dredging, filling or excavation in the waters or in wetlands. The JPA may be optionally used for a Nationwide Permit (NWP) Preconstruction Notification (PCN), but if used for a PCN must be boldly marked as a PCN and check marked on page 7 of the July 2008 revision as a PCN. These applications are used to apply for permits from the Norfolk District Army Corps of Engineers, the Virginia Marine Resources Commission (VMRC), the Virginia Department of Environmental Quality (VDEQ) and local wetlands boards. The JPA process and JPA forms are used by the United States Army Corps of Engineers (USACE), the Virginia Marine Resources Commission (VMRC), the Virginia Department of Environmental Quality (VDEQ), and the Local Wetlands Boards (LWB) for permitting purposes involving water, wetlands and/or dune/beach resources, including, but not limited to, construction, dredging, filling or excavation. Read the directions on the application carefully to determine how many copies must be submitted to the VMRC, who acts as the clearinghouse for permit applications. Permit applicants may obtain paper copies of the Joint Permit Applications by calling the Corps at 757.201.7652, or by download: http://www.nao.usace.army.mil/Missions/Regulatory/JPA.aspx

There are two different Joint Permit Applications available for use depending on the type of activity that you are proposing. If you propose to impact tidal waters, or wetlands, or dunes / beaches in the Tidewater area of Virginia, you may be eligible to use the TIDEWATER JPA, an abbreviated version of the Joint Permit Application. Activities eligible to use the Tidewater JPA include piers, boathouses, boat ramps, moorings, marinas, aquaculture facilities, riprap revetments, bulkheads, marsh toe stabilizations, breakwaters, beach nourishment, groins, jetties, road crossings
over tidal waterways, and utility lines over or under tidal waterways. Dredging and excavation projects in tidal waterways / wetlands MUST use the Standard JPA.

1.12.6. Your complete JPA shall be submitted to 633 CES/CEIE for review and routing to 633 ABW for the signature of 633 ABW/CC. 633 CES/CD shall be designated as the agent.

1.12.7. Contracts, specifications and bid documents/advertisements should clearly indicate that it is the general contractor’s responsibility to determine and verify the presence and location of jurisdictional wetlands, prepare permit applications and other documents for the 633 ABW per 1.12.6, submit permit fees and make any required payments in lieu of mitigation to the Virginia Aquatic Resources Trust Fund or its legal designee.

1.12.8. Contractors and Federal Government representatives must make themselves aware of all specific conditions associated with the approved permit. Therefore, the approved permit must be read by both Contractor and Federal Government representatives. Please note the majority of permits approved will have conditions specific to the permitted project and such conditions must be adhered to. For example: a condition may require photos taken during specific phases of the project and submitted to a regulatory agency for review.

1.13. CONFORMANCE WITH ENVIRONMENTAL MANAGEMENT SYSTEMS

The Contractor shall perform work under this contract consistent with the relevant policy and objectives identified in JBLE-Langley’s Environmental Management System (EMS). The Contractor shall perform work in a manner that conforms to all appropriate Environmental Management Programs and Operational Controls identified by the JBLE-Langley EMS. In the case of a non-compliance, the Contractor shall respond and take corrective action immediately. In the case of a nonconformance, the Contractor shall respond and take corrective action based on the time schedule established by the EMS Site Coordinator. In addition, the Contractor shall ensure that their employees and subcontractors are aware of the roles and responsibilities identified by the EMS and how these requirements affect their work performed under this contract.

All on-site Contractor personnel shall complete yearly EPA sponsored environmental training specified for the type of work conducted on-site. Upon inclusion in the contract Statement of Work, the Contracting Officer's Representative will verify that all contractor personnel have acquired EMS Awareness Training IAW AFI 32-7001, section 5.7 at their appropriate site or location. Training is provided at https://usaf.learningbuilder.com, open in either Chrome or Edge, Internet Explorer is not supported. Instructions follow:

Step 1: Log-in for the first time:

Select “Register for an Account”

If no error message, THEN: Enter your First and Last Name, Email Address and Password on the “Register for an Account” screen.

If you receive an error message your email is registered in the system, “The email address you provided is already in the system.” THEN:
Select the note that states to “reset your email” or return to the main screen; select “Forgot your password”

**Step 2: Enter Account details:**

If you created your own account, THEN follow the screen prompt to Enter Account details (notes are below)

If your email address was already in the system, THEN: Select “My Account” on the Top Right Hand side of the website, select “Enter Demographics” (notes are below)

ESOHTN Unclaimed Account (if applicable): Enter email address related to your ESOHTN account. Note only records from 2013 were imported into TEACH.

Employee Type: Civilian, Air National Guard, Reserves, etc. (Drop-down list)
Position Series: Select the top level group.

Job Focus Tasks: Select closest to what describes your duty title/additional duties.

Installation: Select the base that closest matches, PSUs shall select the nearby installation
Other: Enter Wing/Group/Squadron.

**Step 3: Take a Course & Print Certificate**

On the Home screen, My Transcripts Tab should be available (*account details/demographics must be complete*)

Select “My transcripts” – select “Search for a Course”

Find/Select “+ Select” next to the course required (List can be filtered, if desired) or
(*Note: ESOHTN courses cannot be selected, viewed or re-taken)
(*Note: If a new window does not open – the course will be listed on the “My Transcripts” page – select the button next to the course)

Select “Go To Course”, when finished, select the “X” on the window to close the course.

Complete the Evaluation to received credit for the course – Select “Evaluate Course” –
Complete Evaluation by selecting “submit” on the form.
For a Certificate of Completion: In “My Transcripts” find the course name completed, select the “gear icon” – select “View Certificate”
(*Note: If the gear icon is not available – the course evaluation was not completed)
(*Note: Certificate does not open in a new window – ensure you select the back button in the browser)
(*Note: ESOHTN attendance records from 2013 were imported into TEACH)
You may choose to end your session after completing the training by logging out. The next time you enter the site, you will login by typing the username and password that you just created.

1.14. CULTURAL RESOURCE PROTECTION:

1.14.1. Prior to any excavation on JBLE-Langley’s property the contractor shall complete AF Form 103, Base Civil Engineering Work Clearance Request (Dig Permit) to include coordination with the 633 CES Environmental Element to ensure that excavation is not occurring in known archaeological sites. In the event of the inadvertent discovery of a potential archaeological site, the contractor shall immediately cease work, contact the 633 CES Cultural Resources Manager (CRM), and take steps to secure the site. In the event of the discovery of possible human remains, the contractor shall cease work and contact the 633 Security Forces Squadron to investigate the site.

1.14.2. Prior to rehabilitation, repair or maintenance on historic facilities or; new construction, it is imperative that the Contractor contact the 633 CES CRM to assure Section 106 compliance. All work on historic facilities shall be accomplished in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. For brick repointing work, the contractor shall also comply with the Program Comment for Department of Defense Rehabilitation Treatment Measures Removal of Mortar Joints and Repointing. 1.14.3. Prior to commencing demolition projects, the contractor shall coordinate with the 633 CES CRM to ensure Section 106 compliance has been completed. If, during the demolition process, unknown features of potential historic interest are uncovered, the contractor shall immediately cease work and contact the 633 CES CRM.

1.17 ROOF DESIGN TO MINIMIZE BIRD COLONIZATION As an Air Force Installation the presence of large colonies of birds poses a hazard to the JBLE-Langley mission. Roof design that minimizes bird colonization will reduce the frequency of aircraft impacts with wildlife and protect the life of military personnel in and around the airfield. Colonial shorebirds such as Least Tern, Killdeer, and American Oystercatcher have demonstrated an affinity for rooftop nesting on flat gravel rooftops. In order to prevent Bird Aircraft Strike Hazards, the installation of flat gravel rooftops on new buildings should be avoided. Major roof repair to existing gravel rooftops should include the removal of gravel substrate and replacement with energy efficient materials such as tar shingles, rubber, vinyl, or polyurethane materials.

1.17.1. If a shorebird colony is found to be actively nesting on building during repair or replacement of an existing roof, harassment or take of shorebirds is prohibited by the Federal Migratory Bird Act. If shorebirds are present, the Natural Resources Program Manager should be contacted so that the best course of action in compliance with all State and Federal regulations can be identified.

1.16. DISCREPANCIES. In case of a conflict or discrepancy between Installation Management regulations or laws and the contract specifications, the Contractor shall immediately submit the matter in writing to the Contracting Officer for a determination. Without such determination, any actions taken shall be at the Contractor’s own risk and expense.
ENVIRONMENTAL MANAGEMENT SPECIAL CONDITIONS

References:

1. EPA Region III Risk Based Concentration (RBC) table. As this table is updated every 6 months, analysis is to be determined by the table current at the time of testing. This table can be found at http://www.epa.gov/reg3hwmd/risk/human.

2. Background Chemical Data Document for JBLE-Langley, 21 Oct 97, Table 7-1. The UTL (Upper Tolerance Limit) Summary Table outlines the JBLE-Langley’s background data set. This table can be requested through 633 CES/CEI.
ATTACHMENT 1

CONSTRUCTION/DEMOLITION DEBRIS RECYCLING AND REPORTING

As stewards of the environment and because of the Air Force goals of diverting greater than 40% of its waste away from landfills, Contractors shall recycle C&D debris to the maximum extent possible. There are many sources in the local area that can recycle C&D. A list of sources can be found in the “Special Conditions” portion of JBLE-Langley construction contracts. If you need further assistance finding sources, contact the 633 CES/CEIE Pollution Prevention Manager at 757-764-3987. JBLE-Langley must report recycling metrics to higher Headquarters quarterly. Therefore, complete the form below for each project on JBLE-Langley and submit a copy to the 633 CONS Contracting officer, the 633 CES/CEN Project Manager, and 633 CES/CEIE (Pollution Prevention Program Manager), by the 5th day of each quarter (05 Apr, 05 July, 05 Oct and 05 Jan) for the previous three month period for the duration of the project.

PROJECT NUMBER AND TITLE: ______________________________________________________

PROJECT LOCATION (BLDG # AND STREET ADDRESS): ________________________________
____________________________________________________________________________________

CONTRACTOR NAME:  _______________________________________________________________

CONTRACTOR ADDRESS/PHONE NUMBER: ___________________________________________
____________________________________________________________________________________

TYPE ITEMS RECYCLED:

_____ Concrete without rebar          _____ Concrete with rebar

_____ Scrap Metals                     _____ Wood

_____ Roofing Materials                   _____ Brick

_____ Asphalt

_____ Other: Specify ____________________________

TONNAGE OF ITEMS RECYCLED: _______ TONS

TYPE ITEMS NOT RECYCLED:

_____ Concrete without rebar          _____ Concrete with rebar

_____ Scrap Metals                     _____ Wood

_____ Roofing Materials                   _____ Brick

_____ Asphalt

_____ Other: Specify ____________________________

CONTINUED ON THE BACK
REASONS ITEMS WERE NOT RECYCLED:

_____ No market for the items

_____ No local vendors to recycle the materials

_____ Not economically feasible: Specify:  _________________________________________________

_____ Other: Specify:  __________________________________________________________________

PROVIDE NAME OF COMPANY, POINT-OF-CONTACT AND PHONE NUMBER OF SOURCE BY WHICH RECYCLING AN ITEM(S) WERE ATTEMPTED:

Company Name:____________________________________

Point of Contact:____________________________________

Phone Number:_______________________

C&D ITEMS DISPOSED OF BY LANDFILL:  ________ TONS

C&D ITEMS DISPOSED OF THROUGH REGULAR INCINERATION:  ________ TONS

ITEMS DISPOSED OF BY WASTE-TO-ENERGY INCINERATION:  ________ TONS

_________________________ _______________________
CONTRACTOR SIGNATURE DATE

NOTE: ELECTRONIC SIGNATURE ACCEPTABLE
ATTACHMENT 2
Contractor Hazardous Material Worksheet

FOR ASSISTANCE WITH THIS WORKSHEET CONTACT JBLE-LANGLEY HAZMART AT 757-764-3837
CORRESPONDING SAFETY DATA SHEET MUST BE ATTACHED.

CONTRACTOR INFORMATION
Prime Contractor name:
Subcontractor name (if applicable):
Project Manager POC name:
Contracting Office POC:
Contract #: 
Project #:
Project title:
Project date range: through (mm-dd-yyyy)

MATERIAL INFORMATION
Part number (from MSDS) or National Stock Number:
Noun/Common Name:
Type of Container (ex - can, bucket, box):
Size (ex -1 gal, 5 gal, 1qt, 500 mL, tank):
Unit of Issue (ex - each, box/12, case/24):

DRAW INFORMATION
Estimated amount of this material to be used for duration of contract*:

* At project completion, submittal summarizing actual usage is required

TASK INFORMATION
Task Description (describe what it is used for):

LOCATION INFORMATION
Will the process be performed in: (check all applicable locations)
☐ A facility, ☐ aircraft, ☐ equipment, ☐ manhole, ☐ other structure? ☐ Outdoors?

Is material going to be used in an area occupied by USAF military or civilians? ☐ Yes ☐ No

What is the storage location of unused materials?

Will respirators be worn? ☐ Yes ☐ No

Will a ventilation system be used? ☐ Yes ☐ No

REMARKS (provide any additional comments or information)

Contractor Point of Contact
Requestor's Name: 
Address:
Phone Number:  
Title:
Date:

Revised 5 Oct 17
To Be Completed by USAF Personnel Only

<table>
<thead>
<tr>
<th>EESOH-MIS Shop Code:__________</th>
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<th>Recommend Disapproval</th>
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<th>Comments:</th>
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<th>Comments:</th>
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<th>HAZMART:</th>
<th>Concur</th>
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<th>Comments:</th>
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ATTACHMENT 3

CONTRACTOR’S MONTHLY REPORT FOR HAZMATS

Contractor:       Shop Code:  
Contract#:      Location:  

The following information is required for tracking of hazardous materials on JBLE-Langley. For contracts exceeding six months, this form is required to be filled out on a monthly basis and returned to the Federal Government project Contracting Officer Representative (COR). For contracts that are less than six months, this form is required at the beginning and at the completion of the work. The COR will provide a copy to the HAZMART Pharmacy located in Bldg. 330. This information is required to comply with State, federal, local, and Air Force laws and regulations.

<table>
<thead>
<tr>
<th>MATERIAL NAME</th>
<th>MANUFACTURER</th>
<th>NSN/PART #</th>
<th>START BALANCE</th>
<th>AMOUNT USED</th>
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Use additional sheets if required.

Contractor Name: _______________________________ Date: ____________  
Signature: ________________________________________________

Federal Government COR: _______________________________ Date: ____________  
Signature: ________________________________________________

Revised 5 Oct 17
ATTACHMENT 4

CONTRACT SUBMITTAL AND CONTRACTOR REPORTING FORM

Comprehensive Procurement Guidelines

(This chart is not intended to replace the EPA guidelines found at http://www.epa.gov/cpg/products.htm. It is the Contractor’s responsibility to stay apprised of any new additions to these guidelines.)

<table>
<thead>
<tr>
<th>Categories and Designated Items (Note: This table includes proposed CPG items as well as items designated final.)</th>
<th>If marked w/ an “X”, item is applicable</th>
<th>Purchased with no recycled content</th>
<th>Purchased with recycled content</th>
<th>Percent of recycled content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VEHICULAR PRODUCTS</strong></td>
<td></td>
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<tr>
<td>Engine coolants - antifreeze</td>
<td></td>
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<tr>
<td>Rebuilt vehicular parts</td>
<td></td>
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<tr>
<td>Re-refined lubricating oils - including motor oil</td>
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<tr>
<td>Retread tires</td>
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<tr>
<td><strong>CONSTRUCTION PRODUCTS</strong></td>
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<tr>
<td>Building insulation products</td>
<td></td>
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<tr>
<td>Carpet (Polyester)</td>
<td></td>
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<tr>
<td>Carpet cushion</td>
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<tr>
<td>Cement and concrete containing coal fly ash, ground granulated blast furnace slag, cenospheres, or silica fume</td>
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<tr>
<td>Consolidated and reprocessed latex paint</td>
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<tr>
<td>Floor tiles</td>
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<tr>
<td>Flowable fill</td>
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<tr>
<td>Categories and Designated Items (Note: This table includes proposed CPG items as well as items designated final.)</td>
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<td>Purchased with no recycled content</td>
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<tr>
<td>Laminated paperboard</td>
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<tr>
<td>Modular threshold ramps</td>
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<tr>
<td>Non-pressure pipe</td>
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<tr>
<td>Patio blocks</td>
<td></td>
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<tr>
<td>Railroad grade crossing surfaces</td>
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<tr>
<td>Roofing materials</td>
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<tr>
<td>Shower and restroom dividers and partitions</td>
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<tr>
<td>Structural fiberboard</td>
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<tr>
<td>LANDSCAPING PRODUCTS</td>
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<tr>
<td>Compost made from yard trimmings or food waste</td>
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<tr>
<td>Garden and soaker hoses</td>
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<tr>
<td>Hydraulic mulch</td>
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<tr>
<td>Lawn and garden edging</td>
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<tr>
<td>Plastic lumber landscaping timbers and posts</td>
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<tr>
<td>NON-PAPER OFFICE PRODUCTS</td>
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<tr>
<td>Binders</td>
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Revised 5 Oct 17
<table>
<thead>
<tr>
<th>Categories and Designated Items (Note: This table includes proposed CPG items as well as items designated final.)</th>
<th>If marked w/ an “X”, item is applicable</th>
<th>Purchased with no recycled content</th>
<th>Purchased with recycled content</th>
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<td><strong>NON-PAPER-OFFICE PRODUCTS (cont.)</strong></td>
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<td>Clip Portfolios</td>
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<td>Presentation Folders</td>
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<td>Office Furniture</td>
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<td>Office recycling containers</td>
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<td>Office waste receptacles</td>
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<td>Plastic trash bags</td>
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<td>Printer ribbons</td>
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<tr>
<td>Toner cartridges</td>
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<td><strong>PAPER AND PAPER PRODUCTS</strong></td>
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<td>Commercial/industrial sanitary tissue products</td>
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<tr>
<td>Miscellaneous papers</td>
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# Environmental Management Special Conditions

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<td>Paperboard and packaging products</td>
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<tr>
<td>Printing and writing papers</td>
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<tr>
<td><strong>PARK and RECREATION PRODUCTS</strong></td>
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<tr>
<td>Park benches and picnic tables</td>
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<tr>
<td>Plastic fencing</td>
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<tr>
<td>Playground equipment</td>
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<tr>
<td>Playground surfaces</td>
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<tr>
<td>Running tracks</td>
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<td><strong>TRANSPORTATION PRODUCTS</strong></td>
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<td>Channelizers</td>
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<tr>
<td>Delineators</td>
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<td>Flexible delineators</td>
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<tr>
<td>Parking stops</td>
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<tr>
<td>Traffic barricades</td>
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<td>Traffic cones</td>
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Revised 5 Oct 17
<table>
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<tr>
<td>Awards and plaques</td>
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<tr>
<td>Bike Racks</td>
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<td>Blasting grit</td>
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<td>Industrial drums</td>
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<td>Manual-grade strapping</td>
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<td>Mats</td>
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<td>Signage</td>
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<td>Sorbents</td>
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ATTACHMENT 5

RECOVERED MATERIALS DETERMINATION FORM

This form is to be completed by the procurement originator for all purchases requesting an exemption from the Affirmative Procurement Program for Recovered Materials being procured. For questions on whether the product is “EPA designated” or what the required recycled content is, refer to the product descriptions on EPA’s website at [http://www.epa.gov/cpg/products.htm](http://www.epa.gov/cpg/products.htm). This form is not required for construction item purchases less than $2,000, or for other purchases less than $3,000.

Procurement Request/Project No. ___________________________________________________

**EPA Designated Eight Product Category Items**

<table>
<thead>
<tr>
<th>Category 1 Paper and Paper Products</th>
<th>Category 2 Non-Paper Office Products</th>
<th>Category 3 Park and Recreation Products</th>
<th>Category 4 Transportation Products</th>
<th>Category 5 Vehicular Products</th>
<th>Category 6 Landscaping Products</th>
<th>Category 7 Construction Products</th>
<th>Category 8 Miscellaneous Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial/industrial sanitary tissue products</td>
<td>Paperboard/packing products</td>
<td>Printing and writing papers</td>
<td>Plastic trash bags</td>
<td>Binders</td>
<td>Plastic envelopes</td>
<td>Office waste receptacles</td>
<td>Presentation folders</td>
</tr>
<tr>
<td>Commercial/industrial miscellaneous papers</td>
<td>Printing and writing papers</td>
<td>Newsprint</td>
<td>Office recycling containers</td>
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<td>Commercial/industrial newsprint</td>
<td>Printing and writing papers</td>
<td>Newsprint</td>
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Revised 5 Oct 17
EXEMPTION CERTIFICATION

___ The following EPA designated guideline item is included in the specifications for the project however, compliance with EPA standards is not attainable.

Item:_________________________________________________

I have determined that the EPA guidelines were considered and determined inapplicable, based on the following:

_____ Item is not available within a reasonable period of time.
   (Need date: ______ Date available: ________)

_____ Item fails to meet a performance standard in the specifications.
   Specifically, ______________________________________
   ______________________________________
   ______________________________________

_____ Item was only available at an unreasonable price (i.e., recycled item cost more than non-recycled item).
   Price of recycled item: ________________
   Price of non-recycled item: ________________

_____ Item is not available from 2 or more sources.
   Market research was performed by calling ____ (insert number) vendors, but only ________________________ (enter name) was able to supply the item.

This determination is made in accordance with FAR 23.405(c).

____________________________________________  ______________________
Procurement Originator/Contractor                                Date

____________________________________________  ______________________
Signature of GPC Approving Official (if GPC used)                                Date
or Project Manager/Supervisor/Flight Chief or Deputy for all other type purchases

Revised 5 Oct 17