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- Appendix B Process Flow Chart
- Appendix C Operations and Maintenance Plan
- Appendix D RCC Permit Annual Certification Form & Report

## **1. Overview**

This application was prepared by Green Seal Environmental, LLC (GSE) on behalf of SLT Construction Corporation (SLT, the Applicant) in accordance with the requirements of 310 CMR 16.05 to apply for a Recycling, Composting, or Conversion (RCC) Operation Permit to operate a 250 ton per day Asphalt, Brick, and Concrete (ABC) recycling facility in Plympton, Massachusetts (the Site).

SLT is an excavation contractor with a corporate address of 3 Marion Drive in Carver, Massachusetts with expertise in the processing of earth materials. At their Carver facility, SLT processes and sells bank gravel, processed gravel, compactable fill, screened sand, screened loam, crushed stone, and recycled asphalt. SLT is proposing to utilize their experience processing earth materials to operate a recycling facility to process clean ABC rubble generated from construction and demolition projects. The property has been previously used for sand and gravel mining operations, and is well suited for the processing of ABC materials. The proposed Site Plan depicting the property and operational layout is provided in Appendix A.

This document follows the general format of the Massachusetts Department of Environmental Protection (MassDEP) RCC Operation Permit Application BWP SW 46.

## **2. Pre-Application Meeting**

In accordance with 310 CMR 16.05(2)(a), a pre-application meeting was held on March 22, 2022 and conducted via teleconference with Mark Dakers, Douglas Coppi, and Michelle McCloud of the Massachusetts Department of Environmental Protection, Solid Waste Division with representatives from SLT and GSE in attendance to discuss the proposed project and appropriate permitting pathway.

## **3. General Application Requirements**

### **a. Other Applicable Permits Required**

A number of local, state, and federal permitting authorities were considered during the development of this application to determine any additional permitting requirements. As discussed below and outlined in Table 1, only Site Plan Review through the local Planning Board has been determined as necessary due to the proposed construction of a scale house and maintenance building on the site.

The eastern portion of the Site contains approximately 50,200 square feet of wetlands and associated buffer zone. The northern portion of the Site is partially located within a Zone II associated with a well located 1,800 feet northwest of the Site. No construction or recycling operations are proposed within an area subject to protection or jurisdiction under the Wetlands Protection Act or the Town of Plympton Wetlands Protection Bylaw, specifically no construction or recycling operations are proposed within the 100-foot buffer to the wetlands or within the Zone II protection area. Therefore, no permitting is required through the Plympton Conservation Commission.

The recycling operations will be conducted outdoors and not within any proposed building. As such, Site Plan Review through the Plympton Planning Board has been determined as necessary due to the proposed construction of a scale house and maintenance building on the site.

The Site is located within the Town of Plympton Industrial District. The Town’s Zoning Bylaw does not designate a zone for recycling operations within the Industrial District. The historical use of the Site as a sand and gravel mining operation suggests that the processing and recycling of ABC materials is an allowed use due to similar operational procedures as those currently employed at the site. Therefore, a zoning variance from the Town of Plympton Zoning Board of Appeals is not required.

The proposed recycling activities will not produce effluent wastewater or leachate. Therefore, a Title 5 system permit from the Plympton Board of Health or a sewer connection permit from MassDEP are not required.

Dust emissions resulting from the periodic crushing of ABC materials will be controlled with water misting as needed to maintain dust levels below applicable Air Pollution Control thresholds. As such, an air emission permit pursuant to 310 CMR 7.00 is not required.

Pursuant to 310 CMR 16.05, RCC operations do not require a site assignment or a solid waste management facility permit. On July 1, 2006, the MassDEP ban on disposal, incineration, or transfer for disposal of ABC at solid waste disposal facilities went into effect. This application is consistent with the statewide requirements for the recycling of ABC and the Solid Waste Master Plan.

**Table 1 – Permit Evaluation**

<b>Agency</b>	<b>Permit Type</b>	<b>Required?</b>
Plympton Conservation Commission	310 CMR 10.00 Wetlands Protection	No
Plympton Board of Selectmen	Earth Removal Permit	Yes
Plympton Planning Board	Site Plan Review	Yes
Plympton Zoning Board of Appeals	Zoning Variance	No
Plympton Board of Health	310 CMR 15.000 Title 5	No
MassDEP	314 CMR 7.00 Sewer Connection	No
MassDEP	310 CMR 7.00 Air Pollution Control	No
MassDEP	Site Assignment	No

**b. Financial Assurance**

In the event that the proposed facility closes due to unforeseen circumstances, a third-party crushing operation could be hired to process the uncrushed and stockpiled ABC material. This material would be added to the existing stockpiles of processed materials and sold at market rates.

Table 2 below provides a cost estimate for processing stockpiled material, the market value for processed materials, and the net profit of the facility upon closure. This cost estimate conservatively assumes 80 percent of the facility’s allowed 18,000-ton storage capacity consists of unprocessed material at the time of closure, and 20 percent (3,600 tons) is stockpiled processed material. Third-party crushing costs are

assumed to range from \$4.00 to \$5.00 per ton. The daily cost of operating the facility during closure, including equipment and labor to load and transport materials, is estimated to be \$1,000 per day. Residuals management is assumed to cost \$100/ton, and it is anticipated that residuals will be generated at a rate of 2.5 percent and consist primarily of steel rebar. The market value for processed ABC material ranges from \$10 to \$14 per ton.

The most conservative cost estimate, which assumes the highest crushing costs, lowest product market value, and longest material sales duration approximates a net profit of \$7,500. A mid-range estimate predicts a net profit of \$64,800. A best-case scenario estimate, which assumes the lowest crushing costs, highest product market value, and shortest operational duration forecasts a net profit of approximately \$122,100.

In all examined closure scenarios, the facility’s net profit is estimated to be positive.

**Table 2 – Closure Cost Estimate**

<b>Scenario</b>	<b>Third-Party Crushing Costs</b>	<b>Sales Duration &amp; Loading Costs</b>	<b>Residuals Management Cost</b>	<b>Total Processed Material Value</b>	<b>Net</b>
Worst-Case	14,400 tons at \$5.00/ton = <b>(\$72,000)</b>	60 days at \$1,000/day = <b>(\$60,000)</b>	360 tons at \$100/ton = <b>(\$36,000)</b>	17,640 tons at \$10/ton = <b>\$175,500</b>	<b>+\$7,500</b>
Mid-Range	14,400 tons at \$4.50/ton = <b>(\$64,800)</b>	45 days at \$1,000/day = <b>(\$45,000)</b>		17,640 tons at \$12/ton = <b>\$210,600</b>	<b>+\$64,800</b>
Best-Case	14,400 tons at \$4.00/ton = <b>(\$57,600)</b>	30 days at \$1,000/day = <b>(\$30,000)</b>		17,640 tons at \$14/ton = <b>\$245,700</b>	<b>+\$122,100</b>

### **c. MEPA Compliance**

Massachusetts Environmental Policy Act (MEPA) regulations at 301 CMR 11.00 were reviewed to determine if the proposed project meets or exceeds any MEPA review thresholds. Pursuant to 310 CMR 16.05, the proposed recycling facility is exempt from site assignment requirements and therefore does not require MEPA review under the Solid and Hazardous Waste category pursuant to 301 CMR 11.03(9). The proposed project does not meet or exceed any other MEPA review thresholds. Therefore, the recycling operation is not subject to MEPA review.

### **d. Local Board of Health**

A complete copy of this application has been submitted to the Town of Plympton Board of Health pursuant to 310 CMR 16.05.

## 4. Specific Application Requirements

### a. Recyclable or Organic Material

#### i. Type, Quantity, and Source

SLT anticipates accepting 250 tons per day of clean asphalt, brick, and concrete (ABC) rubble from various construction, renovation, and demolition projects. The source of materials received will be materials generated from SLT projects as well as other sources. Annual intake shall not exceed 80,000 tons. A maximum of 18,000 tons gross unprocessed and processed material is permitted to be stored on-site at one time. Table 3 below lists the type, quantity, and source of the materials to be accepted for recycling and processing at the Site.

**Table 3 – Type, Quantity, and Source of Materials**

Material	Quantity	Source
Asphalt, Brick, and Concrete	250 tons per day	Construction, renovation, and demolition projects

#### ii. Chemical and Physical Characterization

All accepted materials will be inert and non-reactive, presorted and source-separated at the point of generation. Incoming material shall be clean, free from paint or other coatings, and not impregnated with other chemicals or substances. Materials containing greater than *de minimis* levels of organic material or solid waste will not be accepted. Materials contaminated with any amount of asbestos or hazardous waste will not be accepted. Demolition projects are required to be assessed for and abated of asbestos containing materials.

### b. Site

#### i. Site Description

The proposed SLT facility is located immediately east of the intersection of State Highway Route 44 and Spring Street on the border of Plympton and Carver in Massachusetts. The entire Site includes two contiguous parcels of land owned by RPBP, LLC, with a total combined acreage of approximately 24.3 acres.

The larger northern parcel is located entirely within the Town of Plympton and is identified by the Town of Plympton Assessor's Department as Parcel ID 19-2-4. This parcel contains approximately 23.4 acres of land. All proposed RCC operations will occur on this parcel.

The southern parcel is located within the Town of Carver and is identified by the Carver Assessor's Department as Parcel ID 32-1-6. This parcel contains approximately 0.9 acres of land and will be utilized by SLT solely for Site ingress and egress.

According to the Town of Plympton Zoning Map accessed through the Town's online Assessor's Map database, the Site is located within the General Industrial Zone (I).

According to the Town of Carver Zoning Map accessed through the Town's online Assessor's Map database, the 0.9-acre portion of the Site is located within the Spring Street Innovation Zone. As this parcel is to be utilized solely for Site access, there are no conflicts between the proposed use and the parcel's zoning.

The Site borders Route 44 to the north and west, solar farms to the east and south, and Ricketts Pond and Ricketts Pond Business Park (under development) to the south with Spring Street beyond. An 80-foot utility easement runs north to south bisecting the easterly portion of the Site. The property vicinity is characterized as moderately populated industrial use. The property has previously been used for sand and gravel mining operations.

Please see the attached Figures and Site Plans for depictions of the area.

## **ii. Locus Map**

A USGS Locus Map and a general site Locus Map depicting the location of the Site has been included with this application as Figure 1 and Drawing C-1, respectively.

## **iii. Site Map**

### *a. Site Map - Geographical and Geological Features*

The Site is located in a topographic depression resulting from historic sand and gravel mining operations. The proposed ABC recycling area is undeveloped and consists of loose sand and gravel.

The eastern portion of the Site contains approximately 50,200 square feet of wetlands and associated buffer zone. The northern portion of the Site is partially located within a Zone II associated with a well located 1,800 feet northwest of the Site.

The USGS topographic map included as Figure 1 depicts the Site's geologic characteristics.

### *b. Site Map - Manmade Structures and Features*

A ½ mile radius map has been included with this application as Figure 2. The map shows several manmade structures including buildings, roads, transmission lines, and solar farms. There are no parks within a ½ mile of the site.

### *c. Site Map - Environmental Receptors*

The closest wetland resource areas are two manmade detention ponds located 250 feet east and 650 feet north of the proposed ABC recycling area. Ricketts Pond is located approximately 650 feet south of the proposed recycling area.

The closest public water supply well is a non-transient non-community (NTNC) water system operated by Sysco Boston LLC located approximately 2,000 feet northwest of the proposed recycling area. A mapped



Zone I and Zone II associated with this well are shown on Figure 3. Please note that the Zone II associated with this well is a questionable narrow delineation that traverses the north-eastern portion of the site, connecting the Zone I to another larger Zone II to the east. Nevertheless, the proposed ABC recycling operations is not located within the Zone II contribution area to this well.

A non-transient non-community (NTNC) water system operated LiteControl Co. is located approximately 2,600 feet west of the proposed recycling area, with a mapped IWPH and Zone I as shown on Figure 3.

A Town of Kingston municipal well is located approximately 4,100 feet northeast of the proposed recycling area. The associated Zone II contribution area is located approximately 1,600 feet northeast of the proposed recycling area.

No private water supply wells were identified within 100 feet of the proposed recycling area.

The closest residential property is located approximately 815 feet east of the proposed recycling area. Figure 2 shows the distance to the two closest residential receptors.

A map of environmental receptors within the vicinity of the Site is included as Figure 3.

## **c. Design & Operation**

### **i. Technology Description**

The recycling operations will be conducted outdoors. Two buildings are proposed as part of this project which include a scale house and maintenance building.

Unprocessed ABC materials will be stored in designated stockpiles on-site until crushed and screened, then stored in stockpiles of processed materials until sold for reuse. SLT anticipates accepting up to 250 tons per day of ABC materials and stockpiling a maximum of 18,000 tons of combined unprocessed and processed material on-site at any time. There will be three stockpiles for unprocessed materials and three for crushed and screened materials. Each stockpile will store up to 3,000 tons of material, approximately 1,500 cubic yards. The piles have been estimated to have a maximum height of 15 feet, a slope of about 3H:1V, and approximate footprint area of 7,000 square feet.

The facility will use excavators and front-end loaders to move unprocessed materials on-site to designated stockpile and processing areas. A jaw crusher and cone crusher will be used to crush materials. Screeners will be used to ensure material has been crushed to the appropriate size. Conveyors will move the processed material to the appropriate stockpiles for storage prior to its sale.

#### *a. Process Flow Chart*

Please see Appendix B for the generalized flow chart depicting the proposed ABC recycling operations.

#### *b. RCC Handling Methods and Requirements*

ABC rubble is generated during construction, renovation, and demolition projects. Clean ABC is sorted into dump trailers or roll-off containers at the project site. Only uncoated and unimpregnated ABC will be

selected for transport to the facility. Suspected asbestos-containing materials must be tested by a licensed asbestos inspector and confirmed to be asbestos-free before loading for transport to the facility. When materials are sourced from demolition projects subject to MassDEP AQ-06 notification requirements, the notification form and supporting documents must be provided to the facility.

Upon arrival at the facility, the separated ABC loads will again be visually inspected from an elevated platform for unacceptable material. If unacceptable material is identified, it will be diverted to the appropriate waste pile or container for proper disposal. If diversion is overly difficult or impractical, the entire load will be rejected. Once accepted, the material will be dumped and consolidated into the appropriate stockpile by support equipment, including excavators and front-end loaders. Records will be made of all incoming loads and will include the date, time of entry, vehicle type and registration, and load weight. Rejected loads and diverted wastes will be noted. The total weight or volume of incoming materials will be estimated on a daily basis from the hauling capacity of vehicles transporting the materials and the type(s) of material(s) being transported.

Raw materials from the stockpiles will be loaded into crushing equipment by front-end loader or excavator. Crushing equipment will include a jaw crusher equipped with a scrap magnet and dust suppression spray bars and onboard water pump, and a track-mounted cone crusher. These units will be run in series. Raw materials will be fed into the jaw crusher to reduce the aggregate materials down to 2 feet minus, then fed into the cone crusher system for further reduction to 6-inch minus or less. The product will then be screened through mobile scalpers, and any material that does not pass through the first screen will be rerouted back through the crushers. Mobile conveyors will move processed material to the appropriate stockpile. Materials will be kept separate throughout the intake, stockpiling, and crushing processes to generate a final product consisting of solely crushed asphalt, brick, or concrete, free of other materials.

If incidental debris is encountered, it will be separated out and stored in roll-off containers for proper disposal. Rebar, reinforcing mesh, and other metals collected by the crushers' scrap magnets will be segregated and stored for future recycling. Processed material will be conveyed to appropriate stockpiles for sale and distribution.

The Site will operate Monday through Friday from 7:00am to 5:00pm and Saturday from 7:00am to 1:00pm, excluding holidays.

### *c. History of Use*

The Site of the proposed ABC recycling facility is located within Plympton's Industrial Zone. Until 2012, most of the area in Plympton's Industrial Zone contained aging bogs, fallow fields, and large sand and gravel mining operations. In 2012, a large industrial distribution center began operating in the Industrial Zone. Several other industrial operations followed suit and opened in the area. During this industrial growth, many of the sand and gravel pits were redeveloped for industrial buildings or converted to solar arrays.

The proposed Site has historically been used for sand and gravel mining operations. The material processing previously conducted at the Site is analogous to the proposed recycling of ABC materials and indicates that the Site is suitable for such operations.

## **ii. Design Plan**

The site layout provided in Appendix A within this application identifies the proposed material handling area, including an equipment staging area and separate stockpile areas for unprocessed and processed asphalt, brick, and concrete as well as containers designated for residuals and scrap metal collection. The plan shows proposed erosion and stormwater controls, including silt fencing, a stormwater conveyance swale, a sediment forebay, and an anti-tracking pad.

### *a. Size of Operation*

The requested permitting capacity under this application is 250 tons per day of incoming unprocessed ABC material, with a maximum of 80,000 tons annually. The maximum quantity of material stored on-site at any time will not exceed 18,000 tons (gross processed and unprocessed). In no case will material from any given load remain on the property for longer than one year.

### *b. Layout Location, Capacity, and Method of Storage*

Material processing operations and storage are to be located on the western and northern portion of the property. Please refer to the site plans in Appendix A for the location and layout of processing operations and material storage stockpiles.

### *c. Equipment*

Equipment to be used at the facility includes crushers, screeners, conveyors, front-end loaders, and excavators. Table 4 below lists the quantity and description of equipment to be used on-site.

**Table 4 – Facility Equipment**

<b>Quantity</b>	<b>Equipment</b>	<b>Description</b>
1	Track-Mounted Crusher	Crusher
1	Track-Mounted Cone Crusher	Crusher
1	Excavator-Mounted Hydraulic Hammer	Process Equipment
1	Excavator-Mounted Concrete Pulverizer	Process Equipment
2	Mobile Scalping/ Screen Plant	Process Equipment
1	100' Mobile Stacking Conveyor	Material Handling Equipment
1	60' Mobile Stacking Conveyor	Material Handling Equipment
1	Water Truck	Support Vehicle
2	10 Yard Front-End Loader	Support Vehicle
3	5 Yard Front-End Loader	Support Vehicle
3	50-ton excavator	Support Vehicle
2	40-ton excavator	Support Vehicle
2	30-ton excavator	Support Vehicle
2	20-ton excavator	Support Vehicle

*d. Emissions and Discharges*

Emissions and discharges from the recycling process potentially include dust from material crushing, exhaust from motorized process equipment, and stormwater runoff.

The crushers and screens utilized on the Site will be equipped with water misters to control dust from material crushing. Crushing equipment will not operate during high wind conditions with wind speeds estimated at 20 miles per hour or greater. Stockpiles will be misted when necessary to control dust. Dust emissions will be below applicable Air Pollution Control Thresholds.

Motorized process equipment and vehicles will be maintained on a regular scheduled and repaired as needed. Process equipment and vehicles have fuel efficient engines and will only operate when necessary, and SLT will avoid leaving any equipment running when not in use.

The process area is an unpaved sandy surface and mist water will infiltrate directly on-site. Recycling and processing activities will not produce effluent wastewater. Stormwater controls on the Site will include silt fencing, a stormwater conveyance swale, a sediment forebay, an anti-tracking pad, and erosion control matting for areas with steep slopes. Stormwater runoff will be treated for 80 percent TSS removal and controlled appropriately. The facility entrance to the proposed scale will be paved once the scale is installed.

*e. Environmental Controls*

Public nuisances such as odors and vectors are not anticipated to be generated at the Site, as no organic materials are to be accepted or processed at the facility. Clean ABC materials do not provide any attraction for vectors, nor do they produce odors. Facility management will take prompt corrective action in response to any excessive noise, vibration, or other complaints made by neighbours. Currently sand and

gravel operations are occurring on property to the southwest, which is expected to end in approximately 12-18 months.

The proposed facility is located on soil composed of primarily sand and gravel, allowing for direct infiltration of stormwater runoff. Stormwater controls on the Site will include silt fencing, a stormwater conveyance swale, a sediment forebay, an anti-tracking pad, and erosion control matting for areas with steep slopes. Stormwater runoff will be treated for 80 percent TSS removal and controlled appropriately.

No wastewater or leachate are anticipated to be generated during the processing of ABC materials.

Dust produced during crushing operations will be controlled with water mist such that no emissions are generated during Site operations above regulatory threshold levels. Crushers and screeners will be equipped with misters to help control fugitive dust emissions.

### **iii. Operations and Maintenance (O&M) Plan**

The facility has been designed to operate in a manner intended to protect human health and the environment. Strict operational procedures will be followed at all times, in accordance with the facility's Operation and Maintenance Plan and all federal, state, and local requirements. The Operation and Maintenance Plan has been included herein as Appendix C.

#### *a. Quality Control / Quality Assurance*

The facility will not accept any hazardous waste as defined in 310 CMR 30.000. Contractors seeking to import raw materials into the Site will be informed of the strict facility acceptance criteria. Only clean ABC materials will be accepted. ABC impregnated with other materials or containing any coatings or paints will not be accepted. Loads will be visually inspected and rejected if they contain other solid wastes, hazardous wastes, or suspected asbestos containing material. Signage posted at the facility will reiterate these policies to drivers. Disposal slips will include certification that the incoming ABC is free from unacceptable material and will be signed by drivers hauling the material. ABC material from demolition projects will only be accepted if an asbestos abatement contractor inspected the demolition project for asbestos containing material prior to the demolition. Any suspected asbestos containing material must be sampled and tested for asbestos at the project site prior to being loaded for transport to the facility.

#### *i. Generator Aids*

Generators will be informed of the facility's policies regarding acceptable and non-acceptable materials. Most if not all materials delivered will be pre-arranged and/or pre-approved. Signage will be present at the entrance and/or the scale house identifying accepted and non-accepted materials.

Loads will be visually inspected and rejected if they contain other solid wastes, hazardous wastes, or suspected asbestos containing material. Disposal slips will include certification that the incoming ABC is free from unacceptable material and will be signed by drivers hauling the material. ABC material from demolition projects will only be accepted if an asbestos abatement contractor inspected the demolition project for asbestos containing material prior to the demolition. Any suspected asbestos containing

material must be sampled and tested for asbestos at the project site prior to being loaded for transport to the facility.

All materials received at the site will be tracked and recorded. Generators shall be responsible for visually inspecting outbound loads at the point of generation for unacceptable materials prior to transport to the SLT facility. Any generator who repeatedly arrives at the facility with unacceptable materials or contaminated ABC will be banned from the facility.

*ii. Sampling and Testing*

ABC rubble entering the facility will be visually inspected for any prohibited materials to mitigate the potential of accepting toxic substances. Any suspected asbestos containing materials will be sampled and abated at the demolition site or point of generation prior to entering the facility. SLT personnel will be trained to identify and refuse loads containing unacceptable materials. Clean ABC material does not require any standard sampling or testing.

*iii. Toxics Control Plan*

Facility personnel will be trained in the identification of suspect asbestos containing material and other hazardous materials. Any questionable loads, in which a determination regarding the presence of prohibited materials cannot be confidently reached, will be rejected and/or not processed. When materials sourced from demolition jobs subject to MassDEP AQ-06 are brought to the facility, the notification form and supporting documents will be required for acceptance.

*b. Odor Control Plan*

The facility will not accept any organic materials that would emit odors but rather only clean inorganic ABC rubble. ABC materials do not generate odors. If nuisance odors are reported on-site, facility management will identify and eliminate the source.

*c. Vector Control Plan*

ABC materials are inorganic and do not attraction vectors. If rodents or other vectors are found to be present, pest control services will be procured.

*d. Environmental Monitoring and Sampling Protocols*

Suspected asbestos containing material must be sampled and tested prior to loading for transport from the demolition site or other source of generation. No other sampling or monitoring is required for clean ABC.

*e. Compliance Inspection Plan*

Site management personnel will inspect the facility on a regular basis to ensure compliance with all components of the RCC permit. Inspections will include verification that incoming loads are being inspected and documented, that required signage is in place, that material stockpiles are separated and maintained and within maximum volume limits, and that process and support equipment is in good

working order. Site managers will utilize a routine inspection checklist, included in the Operation and Maintenance Plan appended to this document.

*f. Record Keeping System*

SLT will maintain records of inbound and outbound material tonnage and routine permit compliance inspections. These records will be maintained on-site and will be available for review in support of annual reporting.

**iv. Contingency Plans**

The O&M Plan includes contingency planning for unscheduled shutdowns, managing unacceptable materials, and spill prevention and clean-up. All facility personnel will be instructed in the principles of first-aid and safety and in the specific operational procedures necessary to prevent accidents. Adequate first-aid supplies will be provided at the facility at all times. The numbers for emergency medical care, ambulances, and the local fire department will be posted at the facility. Section 2.7 of the O&M Plan (Appendix C) addresses safety and accident prevention.

*a. Unscheduled Shutdowns, etc.*

If the ability to process materials is lost due to equipment failure, severe weather, fire, or flood, the facility will stockpile only up to the maximum allotted storage of 18,000 tons of material (total processed and unprocessed). Once this threshold is reached, material acceptance will cease until processing activities can resume. SLT personnel will ensure that equipment is maintained properly and repaired appropriately as needed.

*b. Managing Unacceptable Materials*

Due to the strict acceptance policies communicated to customers and understood by SLT personnel accepting incoming loads, unacceptable materials are not anticipated to be encountered normally. Incoming loads containing unacceptable materials will be refused. In the event that incidental unacceptable materials are identified after load acceptance, the material will be separated from the processing stream, and reloaded on the delivery truck and/or handled/disposed of in accordance with all applicable regulations.

*c. Spills*

Spill kits containing absorbents and booms will be stored at the Site for deployment in the event of a spill of lubricating oil, hydraulic oil, fuel from process equipment or support vehicles, or any other petroleum product. In the event of a spill or more than 10 gallons of a petroleum product, SLT notify all applicable authorities and will commission the services of a Licensed Site Professional to evaluate cleanup efforts and conduct remediation activities in accordance with the Massachusetts Contingency Plan (310 CMR 40.00).

## **v. Products and Residuals**

### *a. Type, Quantity, Composition, and Use of Products*

Asphalt, brick, and concrete rubble resulting from the construction, remodeling, repair, or demolition of buildings, pavements, roads, or other structures will be brought to the SLT facility for processing and recycling. The processed ABC aggregate will then be sold for reuse in various construction applications.

The denseness of concrete and asphalt make these materials particularly well-suited for reuse in infrastructure projects, predominantly the construction of roadways and building foundations. Crushed asphalt can be used as aggregate to produce hot mix bituminous pavement or sub base for road construction, driveways, and parking lots. Crushed concrete can be used as aggregate for road base and concrete mixes for construction projects. Crushed brick is commonly used in the landscaping industry for walkways, driveways, and as an alternative to mulch. When ground finely, crushed brick can be used for running tracks and baseball diamonds. These materials can be screened and divided into different sizes for use in different applications and to meet various material composition requirements.

### *b. Markets for Products*

The use of recycled asphalt, brick, and concrete in building materials is a well-established standard practice in the construction industry. The use of these materials is growing in popularity as a cost effective and sustainable alternative to the extraction and production of new building materials. The market for recycled asphalt and concrete is expected to grow significantly as petroleum prices rise and the cost of new materials increases and as standards for environmentally conscious construction practices become more common.

### *c. Stabilization and Pathogen Controls for Land Applied Products*

ABC materials are inert and inorganic. As such, stabilization and pathogen control considerations are not necessary for these materials.

### *d. Quantity, Composition, and Management of Residuals*

It is anticipated that metals, including rebar and reinforcing mesh, will need to be separated from ABC materials during processing and crushing. Metals will be removed and stored in designated roll-off containers located on-site.

Despite the recycling operation's strict acceptance guidelines, it is possible that an extremely limited amount of solid waste residuals (i.e., wood, paper) may be comingled with the ABC materials. If incidental debris is encountered after load acceptance, it will be separated and stored in a dedicated roll-off container for proper disposal off site at a permitted solid waste handling facility.

The amount of rebar and reinforcing mesh found in concrete is dependent on the source of the material, however general estimates range from 50 to 150 pounds of steel per cubic yard of typical unprocessed concrete. For the purpose of determining an appropriate residual management program, it will be



assumed that one cubic yard of unprocessed ABC material contains approximately 100 pounds of residuals. Therefore, residuals are anticipated to make up approximately 2.5 percent of process materials. A threshold of  $\leq 5\%$  residuals will be maintained.

## **5. Review Criteria**

### **a. Recyclable or Organic Material**

The ABC rubble accepted by the facility will meet the definition of said material pursuant to 310 CMR 16.02:

*“...rubble that contains only weathered (cured) asphalt pavement, clay bricks and attached mortar normally used in construction, or concrete that may contain rebar. The rubble shall not be painted, coated or impregnated with any substance. The rubble shall not be mixed with or contaminated by any other wastes or debris.”*

Clients are informed of the stringent acceptance criteria in advance of any material loading and transport from job sites. Facility personnel are trained in identifying unacceptable solid wastes, hazardous wastes, and suspect asbestos containing material. Loads containing any of these materials will be refused. ABC materials from demolition sites will have had an asbestos assessment and/or abatement prior to demolition.

### **b. Design and Operation is Feasible**

Clean ABC materials have a long history of recyclability across Massachusetts and are necessary components for roadway construction projects, reducing costs and promoting sustainability. The quality of inbound materials will consistently be met by conducting visual inspections to identify unacceptable materials and by ensuring that all material sourced from demolition projects is assessed for asbestos containing material prior to being transported to the facility. Clean ABC materials will be crushed and sized to meet material specifications and sold for reuse. Materials will not be stored on-site for longer than one year. Residuals generated from recycling operations will primarily consist of steel rebar and are anticipated to average approximately 2.5 percent of accepted material.

### **c. No Significant Threat to Public Health, Safety, the Environment**

The facility has been designed to operate in a manner that is intended to protect human health and the environment. This application previously described the proposed environmental control, toxic control, and spill contingency plans in-place for facility operations. Operations at the facility will not create a significant threat to public health, safety, or the environment or create a public nuisance.

### **d. No Unpermitted Discharges**

Air and water permit applicability was reviewed for the Site's operation. The proposed recycling operations will not result in unpermitted emissions or discharges to the air, water, or natural resources.

### **e. Operation is Appropriately Sited**

The Site was historically used for sand and gravel mining operations. The material processing previously conducted at the Site is similar to the proposed ABC material processing and indicates that the Site is suitable for such operations. The proposed industrial use is consistent with other industrial property uses within the vicinity of the Site and is buffered by Route 44 to the north and west, solar farms to the east and south, and Rickets Pond and Rickets Pond Business Park (under development) to the south. Therefore, the operation is appropriately sited.

### **f. MEPA Compliance**

MEPA applicability was reviewed for the proposed recycling operation. The proposed project does not trigger review thresholds; therefore, a MEPA review is not required.

### **g. Financial Assurance**

Various facility closure scenarios were evaluated to determine the financial impact of a sudden operational shutdown. In all examined closure scenarios, the facility's net profit (i.e., inherent value of materials on-site) was estimated to be positive. Therefore, a financial assurance should not be required.

### **h. No Adverse Impact on Solid Waste Facility**

The proposed recycling operation is not located at a solid waste facility.