Indiana Brownfields Program
an Indiana Finance Authority Environmental Program

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March 18, 2020

Beth McCord
Division Director
Department of Natural Resources
Division of Historic Preservation and Archaeology
402 W. Washington Street, W 274
Indianapolis, IN 46204

Re: City of La Porte Redevelopment Commission
Verma – New Porte Landing Site
(Former Allis Chalmers Facility)
402 Truesdale Avenue, La Porte
Indiana Brownfields Program

Dear Ms. McCord:

This letter is to serve as the Indiana Brownfields Program's ("Program") formal request for a Section 106 National Historic Preservation Act review by the Indiana Department of Natural Resources' Division of Historic Preservation and Archaeology for the property located at 402 Truesdale Avenue, La Porte, La Porte County. The Program is the recipient of a federal Brownfields Revolving Loan Fund (RLF) grant for environmental remediation awarded by the U.S. Environmental Protraction Agency. As a condition of use of the federal funds, the Program must ensure a review is conducted to determine the potential applicability of the National Historic Preservation Act to the Site. The federal funds will be used to remediate environmental impacts at the Site, including removing drums and soil contamination. The Program is currently using the federal Brownfields grant to address hazardous waste sites through a Rapid RLF Remediation Sub-grant Initiative ("Initiative").

**Federal Funding Source:** The City of La Porte Redevelopment Commission ("City") plans to enter into a sub-grant agreement with the Program and will use federal funds to remediate environmental impacts identified on the Site. A site map is included with this letter as "Exhibit A" for your reference and review. The Remediation Work Plan is also included as "Exhibit B" for your review.

**Site Background:** The Site is a 14-acre vacant property located between Truesdale Avenue on the southeast, Pine Lake Avenue on the southwest, and Hoelocker Drive/Clear Lake on the

northeast side. The Site is a portion of the former Allis Chalmers manufacturing complex, and consists of former manufacturing building foundations and overgrown vegetation.

The site was used from 1912 to 1983 as the Advanced Rumely/Allis Chalmers (Allis Chalmers) farm implements manufacturing facility. Allis Chalmers ceased operating in 1983 and filed for bankruptcy in 1986. The property was sold to the Verma family who manufactured office furniture and electric baseboard/space heaters at the Site under the name of Erincraft and ElectraTek. Erincraft was dissolved in 1989 and the property was vacated. In 1993, the Site was determined to be an attractive nuisance with homeless persons and others occupying the unsecured post-industrial building. In 2005, due to the nuisance aspect of the property as well as code enforcement issues resulting from fires and personal injuries occurring on the property, the City initiated eminent domain proceedings. The property is now owned by the City.

The Site is contaminated with volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals and polychlorinated biphenyls (PCBs) in soils and groundwater above the Indiana Department of Environmental management (IDEM) Remediation Closure Guide (GCG) residential criteria.

Area 4 Remediation: The area of the Site to be addressed with federal funds is Area 4 as shown on the Site Map. A test pit study has been conducted during which the consultant observed large quantities of debris consisting of large concrete pieces, steel girders, cable, wood, brick, drums of paint sludge, and large paint chunks. It is recommended that the remediation consist of a slurry wall, dewatering and water treatment, remediation of the highly contaminated Area 4, including excavation and segregation of soil materials/debris, treatment of materials, waste management/disposal/recycle, and backfill in Area 4. A detailed explanation of the activities is contained in the Work Plan.

**Historical Status of Site:** The Site is not listed on State or National Registries
**Sources of Historical Information:** Indiana DNR SHAARED Database/Indiana Buildings, Bridges, and Cemeteries Map

Thank you for your assistance with the Section 106 review process. In order to facilitate the appropriate review by the U.S. Environmental Protection Agency, the Program requests that all correspondence from your office to the Program be copied to Patricia Polston, Project Manager, U.S. Environmental Protection Agency, Region 5, 77 W. Jackson Blvd., BB-7J, Chicago, IL 60604. Please feel free to contact me at (317) 234-6018 should you have any questions.

Sincerely,

Cindy Shively Klem
Program Counsel

cc: *via electronic transmission*
Patricia Polston, U.S. EPA

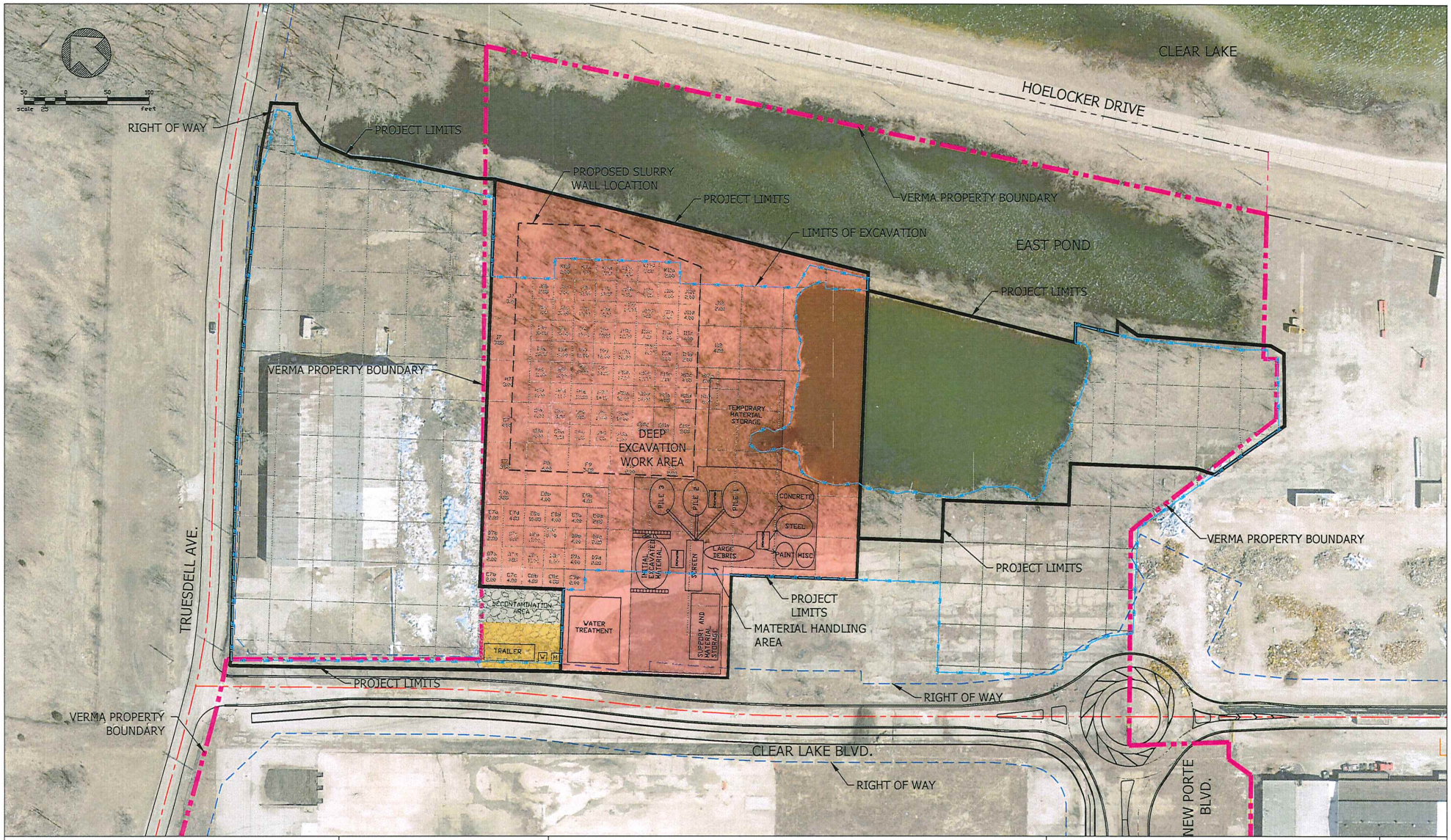


Exhibit A

City of LaPorte
INDIANA

ENGNEERING DEPARTMENT
801 MICHIGAN AVENUE
LA PORTE, INDIANA 46350
PH 219-362-2327
FAX 219-362-1325

DEEP EXCAVATION WORK AREA
DEEP EXCAVATION CELLS
CURRENT REMEDIATION ACTIVITY, NOT A PART
LIMITS OF EXCAVATION
VERMA PROPERTY

# NewPorte Landing
## Phase 2A - Contract 2
## Deep Excavation Work Area

DATE 3/16/20

SHEET 1 OF 1

Exhibit B

**Bluff City Materials, Inc.**
Aggregates

**BCM RECCOMENDED APPROACH FOR STABILIZATION OF AREA 4**

In the base bid package for the Phase 2A Remedial Action at the NewPorte Landing Redevelopment site, Drawing #6 identifies two areas of higher contaminant concentrations that are identified to be stabilized utilizing an in-situ stabilization (ISS) approach. During treatability study activities, Bluff City Materials, Inc (BCM) conducted several rounds of test pits to document subsurface conditions and collected samples for mix design testing. During these test pits, BCM observed and documented large quantities of debris consisting of large concrete pieces, steel girders, cable, wood, bricks, drums of paint sludge, and large paint chunks. Some of the test pits were >90% debris and the paint chunks were over three feet in diameter. Due to the amount of debris and large paint chunks, ISS is no longer a viable option for this area because, a homogeneous mixture cannot be guaranteed and the limitations of ISS equipment. It is BCM's understanding that the City needs all this material to be taken offsite for proper of disposal.

Based on the remaining grids in the area (See Figure 1) and the initial design excavation depths for each grid, we estimate there is approximately 14,000 cy of material that will need to be removed, sorted, and disposed offsite. For estimating purposes, BCM has estimated that 75% of this material (~16,093 tons) will require disposal at the landfill and that 25% can be recycled in some manner. BCM has also assumed that 35% of the soil will require stabilization prior to shipment to the landfill.

BCM recommends an ex-situ segregation, treatment, and disposal process to address remediation in this area (see Figure 1). Based on the site conditions and the nature of the subsurface waste debris, BCM recommends the installation of slurry wall and dewatering system. This will allow for a safe and efficient excavation, sorting, and treatment process. The general approach would consist of the following:

1. Geoprobe and Pump test investigation along the route of the slurry wall.
2. Construction of a slurry wall around the treatment area to provide a means for dewatering and additional structural strength during excavation and removal.
3. Dewater the interior area of the slurry wall perimeter to allow removal of the contaminated materials.
4. Construction of a segregation/treatment pad.
5. Excavation and sorting of the materials into separate waste streams: treatable soils, concrete, steel, drums, and large paint sludge.
6. Treatment and stabilization of soil and small paint piece mixture.
7. Offsite disposal of stabilized soil, large paint pieces, and potential recycling of steel and concrete (if noncontaminated).
8. Backfill of excavated areas.

The following sections provided additional details on the above approach.

## 1. Slurry Wall

During the test pits, BCM identified large debris and paint pieces widespread throughout the area. Figure 1 identifies the test pit locations. The installation of a slurry cut-off wall Is necessary to limit the horizontal movement of groundwater and provide a better consistency material during the excavation

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of debris and soils. The slurry wall location was selected based on two criteria: 1) encompassing the originally identified ISS area and 2) furthest extent of identified debris or paint sludge. A 15-20' buffer was added to ensure the wall will be installed in clean material and to allow sufficient sloping for excavation support. It is anticipated that the grids along the path of the slurry wall will be remediated before installation.

Prior to installation of the slurry wall, BCM will collect Geoprobe core samples to identify a consistent aquiclude. The slurry wall will "key" into this aquiclude in order to reduce or eliminate water infiltration. Samples will be collected approximately every 125 feet along the proposed route of the wall and some interior locations for well installation (see Figure 2). BCM will advance 15 soil borings as part of the investigation. The approximate dimensions of the wall will be 298-feet by 220-feet with a total length of 1,036 feet (see Figure 1). The proposed depth of the cut-off wall is 25-feet, historical borings show a clay layer at that depth. The proposed width of the cut-off wall is approximately two feet. The approximate square footage of the slurry wall is 25,000 sq. ft. The slurry cut-off wall will consist of a soil-bentonite mixture due to the amount of fibrous organic peat shown in historic boring logs. A One-Pass trencher will mix the strata of soils from surface elevation to the bottom of the trenching bar to provide a completely homogenized mixed slurry wall. The layers will become intermixed and uniform with the added bentonite clay. A hydraulic barrier slurry wall is formed when the uniformly mixed soils and bentonite becomes fully hydrated. When constructing conventional excavated slurry walls, the backfill operation will displace the peat layers laterally and the trench may be difficult, or impossible to fill to the top. Consolidation may also occur with a One-Pass trencher mixed wall, but the levels are much lower and not noticeable. The quantity of sand present in most of the test pits indicates organic peat consolidation will likely be minimal. During installation of the slurry wall, a water source (fire hydrant) that can produce 250-300 gpm will be needed.

## 2. Dewatering and Water Treatment

During the Geoprobe investigation, BCM will conduct a pump test to quantify the groundwater infiltration rate in the area. One of the Geoprobe locations (center of area, see Figure 2) will be converted to a pumping well and additional wells will be spaced laterally east and west at 25'- 50' intervals to evaluate drawdown. Final dewatering design will depend on the effectiveness of the slurry wall tie into the aquiclude and the pump test information. A primary concern is the rate at which water will need to be pumped in order to drawdown and maintain the water level in the area. During the meeting on February 4, 2020, discussion around using the 18" combined sewer line on the corner of Newport Blvd. and North Madison. It was agreed that we could most likely use this line. BCM has assumed that this line should be able to handle 1,200 gpm. This would require us to temporarily cross Clear Lake Blvd. with some ramps or a directional bored pipe.

BCM will Team with Mersino, local dewatering and slurry wall experts for this project. To provide a worse-case scenario for budgeting purposes we have assume that a complete seal will not be obtained, and a robust dewatering system will be required. This would require extraction wells be placemed on 40' centers, 39 wells total. This system would include twelve 5HP pumps to achieve the 1200 gpm discharge limit. Water would be directed to an 18" header pipe and discharge into the City sewer system. During the Geoprobe and pump test investigation phase Mersino will evaluate the data to

better determine the well spacing. If the slurry wall is successful in keying into a continuous clay layer, Mersino believes that the well spacing could be increased to 75 or 100 feet which would reduce the number of wells and pumps as well as reduce the overall dewatering price. The initial drawdown could take anywhere from 10 to 20 days (with 24/7 pumping) depending on the effectiveness of the slurry wall. During excavation, BCM anticipates pumping only during work hours and not need 24/7 pumping. **Note: Pricing will be adjusted for dewatering after Geoprobe investigation and pump testing are completed.**

Metals in water contamination is typically tied to the fines in the water. During the dewatering operations, the subsurface will not yet be disturbed, and solids should be low. BCM proposes to direct discharge water during the initial dewater phase directly to the City sewer system. Potential water that is encountered during excavation will most likely have higher solids content and need to be treated. It is not anticipated that large volumes of water will be encountered during excavation; therefore, BCM would initially pump the water into a 20,000 gal. frac storage tank for settling and sampling. If the water needs treatment, BCM would pump the water through duplex bag filters prior to discharge to the City POTW or to another 20,000 gal. frac storage tank for resampling.

## 3. Remediation of Highly Contaminated Area

The remediation of the highly contaminated area (Area 4) will consist of 3 major activities: 1) excavation of materials from identified grids; 2) segregation of materials into separate waste streams; and 3) treatment of contaminated soil materials. A restraining concern is the amount of space that will be available to process the material. Due to the size of the remediation area and the development work that will be going on to the north and south, the only area available will be the current laydown area and some of Area 2.

### 3.1. Excavation of Materials

Materials will initially be excavated to the design depths identified in the original design drawings; however, excavation will continue as directed by the City engineers until there is no remaining visible paint material or contaminated debris. All material excavated will be transferred with a haul truck to the material segregation pad for additional processing. Material will be excavated utilizing an approach that BCM feels is the safest (from and excavation support standpoint) and most efficient removal of material.

- As indicated on Figure 1, several grids along the slurry wall location will be remediated during previous phases of work.
- BCM will then excavate the top two feet across the entire area. It is assumed that these materials will not contain any debris and they can either be directly loaded into trucks for offsite disposal or stockpile for disposal in the segregation area (see below). Slopes will be created from the interior of the site to the previously backfilled areas around the outer edges. Some of the outer edge may then be backfilled to provide a good working base around the entire remediation area due to the restraints around the area (development and pond). Haul trucks may need to drive on these areas, and they may need to have

minimal surface removal pending sampling of the roads. BCM anticipates production rates of ~ 750cy per day for these areas.

- BCM will then begin on the eastern edge of the area (J9) and excavate material working to the north along Row J. BCM will use sloping when necessary for excavation support. Material that is pulled out for sloping will be examined for visual contamination and stockpiled to the side for replacement back in the excavation after sampled clean.
- After Row J has been completed to the northern extent, BCM will continue to the west until the western edge of the slurry wall has been reached. The same approach for excavation will be used as described above.
- BCM will then then move back to cell J10 and excavate material using the same approach.

BCM estimated approximately 500 cy per day of material will be removed from the deeper cuts of the remediation area. Excavation depths of grids will be based on initial proposed design elevations and visual observations. If debris is present, BCM anticipates further excavation vertically. When an agreed upon depth is determined, BCM will assist the City's engineers with collection of confirmation samples. The excavator can bring up small amounts of materials from several areas for sample collection. Due to the amount of debris, unknown conditions, and deep excavations BCM recommends collecting survey information utilizing the GPS on the excavator that is tied into the same base station that Abonmarche uses when they are onsite.

The western remediation area outside the slurry wall is smaller (~1,500 cy) and it is anticipated that the slurry wall located to the east should inhibit the water flow to this area and that local dewatering can be used in this area. The same approach described above will be used, starting in the center deeper excavations and working outwards to the north and south.

## 3.2. Material Segregation

An initial segregation area (see Figure 2) will be constructed in the western half of the area to manage the materials as they are excavated. Varying types of materials and moisture contents have been observed over several test pit explorations. BCM recommends lining the area with non-woven geotextile overlain by 30 mil PVC liner, non-woven geotextile, and 12" of compacted CA6 base to work on.

- Initially the material would be dumped into a receiving area to be evaluated and the sorting process begun. This area would be sloped to a sump to collect any water that might be entrained in the material.
    - If during excavation no large debris is encountered, then the material could be directly dumped into disposal stockpiles (see below).
- An excavator then will pull out any large debris and place it to the south for final placement in the appropriate stockpile. Material will then be loaded onto the high side of a Powertrak 750 mobile screening unit to further sort the materials. The screen can be sized down to 4". Passing material will go up the conveyor (to the north) where it will be placed in a disposal stockpile for sampling and potential treatment. Large debris that doesn't pass the screen will be moved into the appropriate stockpiles to the south.

Anticipated stockpiles include concrete, steel, large paint chunks, drums, and/or other miscellaneous debris.

**Additional Screen**
Powertrak 750


- Disposal stockpiles will consist of 1-2 days of material based on how much debris vs. soil is encountered in the day's excavation activities. It is anticipated that the disposal piles will between 200-250 cy. This will result in manageable piles for Terrabond stabilization if necessary. If necessary multiple piles could be created each day if less debris is encountered.

## 3.3. Material Treatment

During the current phase of remediation, BCM has observed inconsistent contamination concentrations in materials with visible orange paint materials. BCM will store material from each day that comes off the screen and material that might be directly placed in individual stockpiles. BCM recommends these piles be sampled for total and TCLP metals to determine if the soils need to be treated or can be direct loaded to landfill for disposal. The City had previously completed a treatability study for the treatment of onsite soils to meet disposal criteria. The treatability study that was to be performed by BCM was also to address leaving the materials onsite to meet some structural components. This is no longer the case; therefore, BCM does not recommend a new treatability study and to use the information provided in the Geosyntec report.

- Once sample results are received the pile will be either mixed with Terrabond or moved to the load out stockpile for offsite disposal. Depending on the concentrations 2-4% addition of Terrabond will be mixed with the soils before it is moved to the load out stockpile.
    - BCM would like to discuss the approach of a sliding addition rate based on the concentrations of lead that are observed in the sampled soils. We have previously discussed this with Terrabond and feel it is a good approach.
    - BCM would like to discuss with City and its engineers if the material after mixing could either be directly moved to loadout stockpile or if it needs to be resampled.
    - Calculations will be performed to determine the amount of Terrabond that is added to the soil materials based on the approximate size of the piles and metals

contamination levels. Care will be taken not to overdose the soils which could result in high sulfur readings that were observed during the current phase of remediation.

## 3.4. Waste Management – Disposal/Recycle

BCM anticipates multiple waste streams for offsite disposal and/or recycle on this phase of the remediation.

| Media | Description | Disposal Options |
|---|---|---|
| Non-hazardous Soil | stabilized and unstabilized | Offsite Disposal. |
| Concrete | Large to small pieces in excavation; maybe be broken down to size | Offsite disposal if contaminated; onsite placement if acceptable areas at direction of engineers; or offsite recycling if available. |
| Steel | Girders, rebar, plates, etc. | Offsite recycling, may require decontamination. |
| Drums | Contain liquid and semisolid paint | Sample for offsite disposal (hazardous or nonhazardous). |
| Large paint pieces | Observed both hard and rubbery materials; will attempt to breakdown (2'-3") where feasible to include with soils. | Mix with soils where feasible, sample and offsite disposal. |
| Bricks | Several bricks observed. | If clean can be replaced at site with broken concrete at direction of engineers. If contaminated will require offsite disposal. |
| Other Misc. Debris | Wood timbers, railroad ties, unrecyclable metals. | Place in roll off for sampling and offsite disposal. |

BCM anticipates that existing profiles for stabilized and unstabilized materials will be able to be used for the soil materials. Concrete and steel will be evaluated to determine if they can be recycled or reused for some other purpose. Large paint chunks will be further evaluated to try and determine if hazardous disposal is required. Recent sample results have shown that some of the materials will pass TCLP metals criteria and can be disposed of as nonhazardous materials with the soils. Materials could potential be segregated into like types and sampled to further delineate which type of disposal is required for each type. As materials are sampled and profiled, they will be shipped off for disposal.

## 3.5. Backfill

Backfill can begin when multiple grids in an area are complete (i.e. sampled clean) and several surrounding grids are also clean. We want to limit cross contamination from un-remediated grids. Backfilling operations will start in the furthest eastern portion of the area so that haul trucks carrying excavated materials will not cross over the grids. Original designs called for an engineering barrier in this area. This was when ISS was performed, and the materials were to remain in place. All materials are to be hauled off site; therefore, an engineered barrier should not be required unless all contamination can not be removed in an area.

It is anticipated that several materials will be used for backfilling of this area and BCM will work with the City and its engineers on what types of materials go in each area. BCM anticipates that the following materials will be used: 1) offsite alternate fill (Pavey sand), 2) INDOT 53 stone, 3) foundry sands, 4) City stockpiled materials.

## 4. Schedule

BCM has attached a proposed schedule and key elements of the schedule include the following:

| Key Element | Duration |
|---|---|
| Geoprobe - investigation along slurry wall location, installation pump test wells, pump test | 6-8 days |
| Installation of slurry wall including mobilization | 15 days |
| Dewatering activities | ~30 days |
| Mobilization and construction of segregation area. Will be built during slurry wall installation. | 10 days |
| Excavation, segregation of materials based on ~ 500 -750 cy per day | 26 days |
| Demobilization and removal of segregation area | 8 days |

Schedule is approximate based on current knowledge of what is known to be at the site. Time may vary when actual work begins. It is BCM's goal to produce more than 500 cy per day during subsurface excavation but due to the large amounts of debris actual production rates are difficult to calculate. At times when there is less debris production will increase.

## 5. Cost Structure

Due to the unknown nature of the subsurface in Area 4, BCM does not feel that a lumps sum unit price approach is the correct way to manage the project. BCM has provided the proposals and scoping letters from both of our subcontractors on this project: SRN Testing (Geoprobe) and Mersino (slurry wall and dewatering). These will provide additional detail information for each scope item.

The use of a T&M approach reduces the potential risk on the project. It provides the City the potential cost savings if less debris is encountered and BCM can increase production. It will allow BCM the flexibility to efficiently staff the project. BCM's T&M rate approach would be similar to ones that we have used on other public projects. Before any changes in staffing or resources BCM would coordinate with the City and its engineers and would plan on conducting daily meetings to discuss the next day's work. Similar to work conducted for USACE on cost plus contracts.

- Labor – Union Scale +35%, Union rates provided in attached spreadsheet.
- Equipment – Cost + 10%; two approaches to consider
    - BCM has developed rates for owned equipment that include fuel, parts, maintenance, insurance that we use when bidding on project (see rates in spreadsheet)
    - On DOT project we at times are asked to use blue book rates (typically higher)
- Materials and Subcontractors – Cost + 10%
- Transportation and Disposal – Either current contract rates or Cost +10%

**Bluff City Materials, Inc.**
Aggregates

BCM anticipates the following resources will be needed on the project:

| Equipment | Labor |
|---|---|
| Medium Excavator x4 | Operators: 6-7 |
| Haul Truck | Laborers: 2 |
| Skid Steer | Construction Manager: 1 |
| Loader | Site Engineer: 1 |
| Power-screen | Project Controls: 0.5 |
| Dozer | Project Manager: 0.5 |
| Roller | |
| Water Treatment | |

It should be noted that original Bid Items B-14, B-16, B-18b, B-20, and B22 will be affected by this proposed plan. Some of the original items could be removed or lowered from the base proposal based on work conducted under this proposed plan.

Thank you for the opportunity to support you on this project. We look forward to successfully completing this project.

Chad Gibson
Project Manager
Bluff City Materials, Inc.

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