

**ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES &
CONCEPTUAL REMEDIAL ACTION PLAN (ABCA/RAP)
OLD WALDO COUNTY JAIL
45 CONGRESS STREET
BELFAST, MAINE**

Prepared for:

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Belfast, Maine
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1.0 INTRODUCTION

Ransom Consulting, Inc. (Ransom) has completed this Analysis of Brownfields Cleanup Alternatives (ABCA) for the Old Waldo County Jail property (the Site), located at 45 Congress Street in Belfast, Maine. This report summarizes the evaluation of remedial alternatives for previously identified hazardous building materials (HBM) at the Site, including asbestos containing material (ACM), lead based paint (LBP), and universal wastes (UWs). Remedial alternatives evaluated included a “No-Action Alternative,” a “Partial Abatement with Operations & Maintenance (O&M) Plan Alternative,” and a “Full Abatement Alternative.” Each alternative was assessed based on estimated cost, effectiveness, ease of implementation, technical practicality, and reduction of toxicity, mobility, and volume. Following the assessment of each remedial alternative, a recommendation is made, and a Conceptual Remedial Action Plan (RAP) is proposed for the selected alternative. This ABCA/RAP was prepared with funding from a United States Environmental Protection Agency (US EPA) Brownfields Assessment Grant (No. BF96151001-0) awarded to the City of Belfast, Maine.

1.1 Purpose and Scope

The purpose of this report is to screen potential remedial action alternatives for abatement of hazardous building materials identified at the Site. Based on the information obtained during previous environmental investigations (listed in Section 3.0), three remediation options were considered for the Site and evaluated based on feasibility, effectiveness, cost, and required time schedule. Key considerations were given to eliminating or reducing, to the extent possible, the risk of exposure for potential future Site occupants, workers, and trespassers to the hazardous building materials identified on-Site, based on the proposed future reuse of the Site.

1.2 Objectives

The overall objectives of this ABCA include the following:

1. Evaluating the remedial alternatives against specific evaluation criteria, including overall protection of human health and the environment, technical practicality, ability to implement, reduction of toxicity, mobility, and volume, time required until remedial action objectives are attained, and costs;
2. Selecting the remedial alternative that best meets the objectives and considerations of the project;
3. Presenting a work plan for implementing the selected remedial alternative.

Remediation alternatives evaluated include the following: 1) “No Action” alternative, 2) “Partial Abatement with Operations & Maintenance Plan” alternative, and 3) “Full Abatement” alternative. The Evaluation of Remediation Alternatives (Section 6.0) discusses the requirements for each alternative. The alternatives are evaluated on the previously mentioned criteria, and one alternative is recommended to be implemented at the Site.

2.0 BACKGROUND

2.1 Site Description

The Site, collectively referred to as the “Old Waldo County Jail”, is located at 45 Congress Street in Belfast, Maine. The Site is identified as a portion of Lot 36 on Tax Map 10, encompassing approximately 0.35 acres in the northeastern section of the 3.5-acre Waldo County Public Safety Complex. The remaining portions of the Waldo County Public Safety Complex, including the current Emergency Operations Center, Dispatch Center, and Waldo County Jail buildings are not considered part of the Site. Refer to Figures 1, 2, and 3, Site Location Map, Site Area Plan, and Site Plan, for the layout of the Site and the adjoining properties.

The Site is currently owned by Congress Street Hill Property, LLC, and is improved with three buildings: the former Sheriff’s Office (aka, the former Jailer’s House), the former Sheriff’s Office Barn (aka, the former Jailer’s House Barn), and the Old Waldo County Jail. The remainder of the Site is improved with associated driveways and parking areas and limited landscaping. The buildings have been vacant or have seen limited use, since the new Waldo County Emergency Operations Center was constructed at the Waldo County Public Safety Complex in 2011.

Based on available information, the Site reportedly consisted of undeveloped land, prior to 1828. In 1828, the Site was developed with the original Waldo County Jail and Jailer’s House. The existing Old Waldo County Jail was constructed in 1851. The Jailer’s Keep and Barn were reportedly constructed at the Site circa 1887. The following is a brief description of each current Site building:

- The Sheriff’s Office is a rectangular-shaped, 2-story, wood-frame, and wood-sided building, occupying an approximate footprint of 1,640 square feet. This building was reportedly constructed circa 1887 on a field stone and brick foundation with a full basement. The building was originally utilized as the sheriff’s residence, until the late 1980s, and was most recently utilized as the Sheriff’s office, including a booking room, visiting room, and deputies’ offices.
- The Sheriff’s Office Barn is a rectangular-shaped, 2-story, wood-frame, and wood-sided building, occupying an approximate footprint of 1,000 square feet. The building was reportedly constructed circa 1887 with no basement and its concrete slab floor was constructed at a later unknown date. The building was historically utilized as a barn for the Sheriff’s residence/office and is currently utilized for county vehicle and miscellaneous storage purposes.
- The Old Waldo County Jail is a rectangular-shaped, 2-story, brick and granite block building, occupying an approximate footprint of 1,725 square feet. The building was reportedly constructed circa 1850/1851 on a concrete slab floor with no basement and replaced the former jail building, which was reportedly constructed at the same location. The building is utilized for miscellaneous storage purposes and evidence storage for Waldo County.

The Waldo County Public Safety Complex, including the Site, is connected to municipal water and sewer systems provided by the City of Belfast. Electrical service at the Site is provided by Central Maine Power Company (CMP). A former cistern or well was reportedly located in the basement of the Sheriff's Office and was utilized for public water consumption at the Site, prior to connection to public water service. A drilled well reportedly located in the northwestern portion of the Waldo County Public Safety Complex was reportedly utilized for emergency water at the jail complex. Untreated wastewater generated at the Site, prior to circa 1970, was reportedly discharged directly to Belfast Bay, via the municipal stormwater system.

The Sheriff's Office Barn was reportedly never heated and the Old Waldo County Jail is currently not heated. The Sheriff's Office building is heated with fuel oil-fired furnace/boiler, which also formerly supplied heat to the Old Waldo County Jail. No. 2 fuel oil is stored in two 275-gallon aboveground storage tanks (ASTs) located in the basement of the Sheriff's Office building. One 500-gallon underground storage tank (UST) that contained leaded gasoline was removed from the Site in July 2000. The UST was reportedly located along the northwestern corner of the Sheriff's Barn and was utilized to fuel county fleet vehicles from circa 1964 to circa 1980.

2.2 Surrounding Land Use

The Site is bordered to the north, northwest, and northeast by residential properties; to the southwest by the off-site portions of the Waldo County Public Safety Complex; and to the south and southeast by residential properties.

2.3 Potential Future Site Use

The Old Waldo County Jail Buildings comprise the center of the northern boundary of the City of Belfast's Historic District, a district listed in the National Register of Historic Places. These buildings are the most concentrated assemblage of historic properties in Waldo County.

If the Old Waldo County Jail and Jailer's House remain vacant, the historic properties will continue to deteriorate, be subject to vandalism and blight, and will negatively impact the Congress Street neighborhood and adjacent downtown business district. As a result of currently being unused, they will also represent an ongoing drain on the County's finances, since the properties are bringing in no property tax revenues, but require policing and upkeep, and present significant potential liability risks. Of greater concern is not restoring and failing to reuse and reoccupy these buildings, depriving the community of these significant historic assets and degrading the historic district. Delaying the rehabilitation will lead to increasing deterioration, increasing the probability that any future redevelopment efforts would not be able to incorporate the historic and culturally significant elements of the structures.

Following cleanup and abatement of the hazardous building materials, the buildings will be renovated and restored and the Site redeveloped and revitalized as mixed-use redevelopment, likely including commercial office, public institutional, artist studios, and/or residential uses (mixed-use). It is important to note that final abatement of hazardous building materials including specific abatement options for lead-based paint is dependent upon final selected reuse. However, it is assumed that at least a portion of the facility to be redeveloped as residential will require full abatement/removal of lead-based paint, and that other portions considered for commercial reuse will only require partial abatement and/or encapsulation of lead-based paint. These options are further discussed under Sections 6.0 and 7.0.

2.4 Physical Setting and Site Geology

The topography of the Site slopes downward to the northeast. Based on the Belfast, Maine USGS Quadrangle, the general elevation of the Site is approximately 180 feet above mean sea level (msl), as referenced to the National Geodetic Vertical Datum (NGVD). Regional topography generally slopes downward to the northeast and east.

During the Phase II Environmental Site Assessment (ESA) performed by Ransom in 2012, shallow soils at the Site contained fill, which consisted of brown, fine sandy loam with cobbles to depths ranging from 0 to 4 feet below ground surface (bgs) bgs. Shallow fill soils at the Site appear to be underlain by naturally deposited glacial till, consisting of brown to gray silt and sand with varying amounts of gravel and clay. Probe refusal (presumed bedrock) was encountered at depths ranging from 10.5 to 12 feet bgs, with the exception of the sub-slab boring advanced beneath the Old Sheriff's Barn (B101), which encountered refusal (presumed cobbles) at depths of 0.8 to 4 feet bgs.

According to information provided in the EDR Radius Map with GeoCheck® Report (EDR Report) prepared by Environmental Data Resources, Inc. (EDR) of Milford, Connecticut, soils in the vicinity of the Site are identified by the U.S. Department of Agriculture (USDA) Soil Conservation Service (SCS) as silt loam (Peru Series).

According to the *1986 Surficial Geology Map of the Belfast Quadrangle* (Open File No. 86-7), surficial soils at the Site are identified as till (Qt), which consists of a heterogeneous mixture of sand, silt, clay, and cobbles. Soils observed during UST removal activities at the Site in 2000 consisted of shallow granular fill, underlain by dense till to 15 bgs, which was the maximum depth of the excavation during UST removal activities.

According to *1985 Bedrock Geologic Map of Maine*, bedrock in the area of the Site is identified as the thick-bedded metasandstone member of the Penobscot Formation (OCps), which consists of medium and thick beds of dark gray, well sorted, fine-grained and very fine-grained quartz meta-arenite. Ransom did not observe bedrock outcrops at the Site during previous Site reconnaissance.

2.5 Site Hydrology

During a UST removal operation in 2000, groundwater was reportedly encountered approximately 15 feet bgs. Based on field observations and Site topography, the localized shallow groundwater flow is presumed to be to the northeast. During the Phase II ESA performed by Ransom in 2012, groundwater was encountered at an approximate depth of 11.2 feet bgs at the Site. It should be noted that groundwater flow direction at the Site cannot be confirmed without a groundwater elevation survey. Shallow groundwater flow may also be influenced by underground utilities, heterogeneous subsurface soil strata, and/or other subsurface structures, which may act as preferred pathways of flow.

3.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

The Site has been the subject of Phase I and Phase II Environmental Site Assessments conducted by Ransom Consulting, Inc. A Hazardous Materials Inventory (HMI) has also been prepared. These reports are summarized below.

“Phase I Environmental Site Assessment: Old Waldo County Jail, 45 Congress Street, Belfast, Maine.” Ransom Consulting, Inc., November 19, 2012.

A Phase I ESA was completed by Ransom on November 19, 2012. Both the Maine Department of Environmental Protection (ME DEP) and US EPA reviewed and approved the Phase I ESA and agreed that the recognized environmental condition listed in the report is appropriate and inclusive, based on the data and information researched and presented. Based on the information obtained during the Phase I ESA, Ransom identified one *REC* associated with the Site: Known residual petroleum-impacted soil and soil vapor in the vicinity of the Sheriff’s Office Barn and westerly property line, and potential petroleum-impacted groundwater at the Site, associated with a leaking 500-gallon gasoline UST that was removed from the Site in 2000.

Considering the proposed redevelopment of the Site, Ransom recommended that a Phase II environmental investigation be performed to address the identified *REC*. In addition to those items and findings discussed above, certain potentially hazardous building materials were identified in connection with the Site buildings that will require abatement or disposal as a special waste if they are disturbed during building renovations. These materials include suspect asbestos-containing materials, lead-based paint, polychlorinated biphenyls (PCBs), and/or mercury-containing fluorescent lamps. Ransom recommended that a Hazardous Materials Inventory (HMI) also be conducted in conjunction with the Phase II ESA.

“Phase II Environmental Site Assessment: Old Waldo County Jail, 45 Congress Street, Belfast, Maine.” Ransom Consulting, Inc., March 20, 2013.

In March 2013, Ransom finalized a Phase II ESA for the Site. The Phase II ESA was conducted to confirm or dismiss the presence of contamination in association with the *REC* identified during the Phase I ESA. As part of the Phase II ESA, three soil vapor samples were collected from beneath the concrete slab foundations of the Sheriff’s Office, the Old Jail, and the Barn. Three borings were advanced in the vicinity of the former UST, and temporary monitoring wells were installed in three locations. Only one monitoring well produced a sufficient volume to collect a sample.

Results of laboratory analysis of soil samples collected at the Site indicated that petroleum compounds were not detected in any of the soil samples. Lead concentrations detected during analysis were comparable to site-specific background concentrations. Trace concentrations of volatile petroleum hydrocarbons (VPH) and lead were detected in the water sample collected from the western border of the property. The concentrations did not exceed drinking water standards; therefore, they are not expected to present a vapor intrusion risk to the Site or surrounding properties. No other petroleum compounds were detected in the water sample.

Soil vapor samples collected from beneath the concrete slabs of the Barn structure and the Sheriff's Office contained trace concentrations of petroleum compounds and fractions. The concentrations detected in these samples did not exceed the residential or commercial Soil Gas Targets established by the ME DEP. Therefore, soil vapor conditions at the Site are not expected to present a vapor intrusion risk to the Site or surrounding properties.

“Hazardous Building Materials Inventory: Old Waldo County Jail, 45 Congress Street, Belfast, Maine.” Ransom Consulting, Inc., March 20, 2013.

Ransom also completed a Hazardous Building Materials Inventory (HMI) in March 2013. The HMI was conducted to address potentially hazardous materials observed during the Phase I ESA. During the HMI, Ransom determined that asbestos is present in the gold linoleum sheet flooring, wood paneling glue daubs, green linoleum sheet flooring, sink undercoating, bathroom wallboard glue daubs, vermiculite insulation, and steam and/or water pipe insulation and associated fittings.

Painted surfaces in several interior and exterior sample locations contained lead at concentrations ranging from 0.12 to 18% by weight. The U.S. Housing and Urban Development (HUD) Lead-Based Paint Guidelines define paint containing lead concentrations greater than 0.5% by weight as “Lead-Based Paint.” In the event that Site building(s) are to be redeveloped for residential use or HUD funding is sought for redevelopment work, lead-based paint abatement will likely become necessary. Additionally, any renovation or demolition activities that disturb surfaces containing any amount of lead must be conducted in accordance with Occupational Health and Safety Administration (OSHA) Regulation 29 CFR 1926.62 “Lead Exposure in Construction: Interim Final Rule.”

Caulking samples collected during the HMI did not contain poly-chlorinated biphenyls (PCBs) at concentrations constituting “Unauthorized Use,” as defined by 40 Code of Federal Regulations (CFR) Section 761. Universal wastes, including potentially PCB-containing electrical ballasts and mercury-containing fluorescent lights and thermostats, were identified at the Site.

Based on the quantities of hazardous building materials identified during the HMI, Ransom estimated the cost of hazardous materials removal and disposal to be \$182,945.00, without engineering design, construction oversight, or Brownfields programmatic costs, assuming US EPA Brownfields cleanup funding is utilized.

4.0 SITE CHARACTERIZATION AND ABATEMENT GOALS

Several environmental investigations were previously completed for the Site. During the supplemental Phase II ESA investigations, no soil, soil vapor, or groundwater contamination was detected above applicable regulatory guidelines. Hazardous building materials, including asbestos-containing materials, lead-based paint, and universal wastes, were identified at the Site. The location, quantity, and nature of hazardous building materials and the site-specific abatement goals are addressed below.

4.1 Asbestos-Containing Materials (ACM)

A Hazardous Building Materials Inventory (HMI) was prepared by Ransom in March 2013. In this report, Ransom identified the following asbestos-containing building materials at the Site:

1. Gold Linoleum Sheet Flooring;
2. Wood Paneling Glue Daubs;
3. Green Linoleum Sheet Flooring;
4. Sink Undercoating;
5. Bathroom Wallboard Glue Daubs;
6. Vermiculite Insulation; and
7. Steam and/or Water Pipe Insulation and Associated Fittings.

The cleanup goal for the Site pertaining to the ACM is to eliminate the risk of human contact to ACM during renovation activities and future Site reuse. Cleanup actions including removal and/or long-term maintenance of ACM should be completed to meet US EPA and ME DEP regulatory requirements and to eliminate human exposure through inhalation.

4.2 Lead-Based Paint (LBP)

As part of the HMI, Ransom also collected paint chips from various interior and exterior surfaces at the Site building for lead content analysis. Paint chip samples were collected from the following locations:

1. Sheriff's Office, 1st Floor – Peach wood window sill;
2. Sheriff's Office, 1st Floor – White tin ceiling;
3. Sheriff's Office, 1st Floor – Beige drywall;
4. Sheriff's Office, 1st Floor – White wood window sill;
5. Sheriff's Office, 1st Floor – Gray brick wall;
6. Sheriff's Office, 1st Floor – White/tan brick wall;

7. Old Jail Interior – White/gray brick wall; and
8. Barn Exterior – White wood siding.

Samples collected from the Peach wood window sill and white wood window sill in the Sheriff's Office, the white/gray brick wall of the Old Jail Exterior, and the white wood siding of the Barn Exterior contained lead concentrations greater than or equal to 5% by weight. The threshold of 5% by weight is a guideline set forth by the U.S. Department of Housing and Urban Development (HUD) and is not an enforceable guideline in the current use scenario; as such, no abatement is required for current use of the property. However, in the event that the property is redeveloped for mixed commercial and residential use, abatement would likely be required. In addition, any renovation or demolition activity disturbing paint with any amount of lead must be completed in accordance with the Occupational Safety and Health Administration, 29 CFR 1926.62 "Lead Exposure: Interim Final Rule."

The cleanup goal for the Site pertaining to the LBP is to eliminate the risk of human contact to lead during renovation activities and future Site reuse. Cleanup/abatement activities, such as lead removal and/or encapsulation, should be completed to meet Occupational Safety and Health Administration (OSHA), ME DEP, and US EPA regulatory requirements, and to eliminate lead-contaminated dust exposure to contractors and the general public.

4.3 Universal Waste

Universal waste is a general term used to describe hazardous wastes that are generated by a large, diverse population. Businesses as well as unregulated households generate universal waste. This term is intended to be broad so that a wider range of wastes may be managed under the reduced requirements of the US EPA's Universal Waste Rule.

US EPA's universal waste regulations streamline hazardous waste management standards for federally designated "universal wastes," which include:

- Batteries;
- Pesticides;
- Mercury-containing equipment; and
- Bulbs (lamps).

The State of Maine has expanded the designation of universal waste to include, in addition to those items listed above, automobile mercury switches and totally enclosed non-leaking PCB containing ballasts.

The regulations govern the collection and management of these widely generated wastes, thus facilitating environmentally sound collection and proper recycling or treatment.

Universal wastes present at the Site include, but are not limited to, fluorescent light bulbs and compact fluorescent lamps containing mercury, thermostat switches of the type observed on-Site which may also contain mercury, and presumed fluorescent light ballasts. The clean-up goal for universal waste is to prevent these wastes from entering the general waste stream through proper removal, storage, and transport to an appropriate off-Site recycling or disposal facility as universal waste.

5.0 DESCRIPTION OF EVALUATION CRITERIA

Comparison of the remediation alternatives was conducted, using the evaluation and threshold criteria discussed below.

5.1 Overall Protection of Human Health and the Environment

Alternatives must pass this threshold criterion to be considered for implementation as the recommended alternative. The goal of this criterion is to determine whether a remediation alternative provides adequate protection of human health and the environment. It also addresses how identified risks are eliminated, reduced, or controlled. Protection of human health is assessed by evaluating how Site risks from each exposure route are eliminated, reduced, or controlled through the specific alternative.

5.2 Technical Practicality

The focus of this evaluation criterion is to determine technical practicality of instituting the specific alternative. This criterion evaluates the likelihood that the alternative will meet project specifications.

5.3 Ability to Implement

This criterion analyzes technical feasibility and the availability of services and materials. Technical feasibility assesses the ability to implement and monitor the effectiveness of the alternative. Availability of services and materials evaluates the need for off-Site treatment, storage or disposal services and the availability of such services. Necessary equipment, specialists and additional resources are also evaluated.

5.4 Reduction of Toxicity, Mobility, and Volume

This criterion evaluates the ability of the remediation alternative to significantly achieve reduction of the toxicity, mobility, and volume of the hazardous substances present at the Site. This analysis evaluates the quantity of oil, hazardous materials, hazardous and universal wastes, and/or chemical containers to be removed, the degree of expected reduction in toxicity, the type and quantity of residuals to be reduced, and the manner in which the principle threat is addressed through the remediation alternative.

5.5 Short Term Effectiveness

This criterion addresses the period of time needed to complete the remediation, any potential adverse impacts on human health and the environment that may exist until the clean up goals are achieved, and the time frame for accomplishing the associated reduction in the identified environmental conditions.

5.6 Cost

The cost criterion for the remediation alternatives evaluates the estimated capital, operation and maintenance costs of each alternative. Capital costs include direct capital costs, such as materials and equipment, and indirect capital costs such as engineering, sampling contingencies, and licenses. Costs were developed as a balancing criterion for the remedial alternatives and should not be construed as bid costs or engineer's cost estimates. Cost may be used as a distinguishing factor in the selection of the remedial action. The costs developed should not be interpreted as a cost proposal, but rather a guide for selecting a remedial action.

6.0 EVALUATION OF REMEDIATION ALTERNATIVES

Based on proposed future reuse of the Site for mixed residential and commercial purposes, the alternative evaluation and threshold criteria, and the potential exposure pathways, the remedial actions selected for the Site should accomplish the following primary objectives:

1. Minimize the potential for human exposure to hazardous building materials; and
2. Reduce the toxicity, mobility, and volume of hazardous building materials.

To achieve these objectives, three remedial options were considered to address the identified environmental conditions and are discussed in the following subsections.

6.1 Considered Remediation Alternatives

Three remedial alternatives were considered for the Site, including the “No Action” alternative, the “Partial Abatement with Operations & Maintenance Plan” alternative, and the “Full Abatement” alternative. These alternatives were evaluated using the criteria described in Section 5.0 and are summarized below. The attached Table 1 includes a Summary of the Evaluation and Comparison of the Remedial Alternatives.

6.2 No-Action Alternative

A “No Action” alternative signifies that no remediation activities would be conducted at the Site. The “No Action” alternative does not include a means for mitigating exposure to identified hazardous building materials; therefore, the potential for human exposure through direct contact, ingestion, and inhalation continues to exist for potential future Site occupants, workers, or trespassers. The “No Action” response is not protective of human health and the environment and does not meet the threshold criteria. The “No Action” alternative would not significantly achieve reduction of the toxicity, mobility, and volume of the hazardous materials present at the Site. In addition, the “No Action” alternative would not be an effective remediation alternative, and potential impacts to human health and the environment would remain at the Site. The “No Action” alternative was not selected for implementation because the presence of hazardous building materials would continue to pose a health risk to potential future Site occupants, workers, and trespassers, and, therefore, does not meet the threshold criteria.

6.3 Partial Abatement with Operations & Maintenance Plan

The second remediation alternative evaluated in this ABCA is the “Partial Abatement with Operations & Maintenance (O&M) Plan” alternative. This alternative involves mitigating the potential for human exposure through direct contact, ingestion, and inhalation of the hazardous building materials identified at the Site through the following proposed activities:

1. Full abatement of identified asbestos-containing materials (ACM) and universal wastes throughout the Site. Existing ACM identified at the Site will be affected by any proposed demolition or renovation activities. Current federal and state regulations require the removal of friable (easily reduced to powder using hand pressure) ACM, prior to conducting renovation or demolition activities. To meet these federal and state regulations, the identified ACM at the Site is planned to be completely removed.

2. Partial abatement of lead-based paint (LBP) identified in the Sheriff's Office Building, the Barn, and the Jail, utilizing a combination of targeted removal and stabilization and maintenance in accordance with State and Federal regulations. For the purposes of this ABCA, it is assumed that the interior of the Sheriff's Office Building would be de-leaded (within potential residential areas), and the Old Jail interior and Barn exterior would be encapsulated and maintained (within potential commercial areas) and stabilized (in outdoor areas) as part of this alternative.
3. Development of an Operations & Maintenance (O&M) Plan to dictate proper procedures for maintaining the integrity of encapsulation or stabilization measures. Adherence to the Operations & Maintenance Plan will reduce the potential risk of exposure of future Site occupants to LBP. The Operations & Maintenance Plan will outline the management of lead-paint and include requirements for training, monitoring and hazard communication.

The evaluation of the "Partial Abatement with Operations & Maintenance Plan" alternative is discussed below. The attached Table 1 includes a Summary of the Evaluation and Comparison of the Remedial Alternatives.

6.3.1 Overall Protection of Human Health and the Environment

This "Partial Abatement with Operations & Maintenance Plan" alternative provides adequate protection of human health and the environment through mitigating or eliminating the risk of human exposure to the hazardous building materials identified at the Site through a combination of abatement and stabilization/maintenance of hazardous building materials.

6.3.2 Technical Practicality

Completing the remedial actions specified within this "Partial Abatement with Operations & Maintenance Plan" alternative is technically practical and can be completed utilizing accepted construction techniques. Both contractors and disposal facilities with experience with similar type projects are readily available in the region. The goal of reducing or eliminating the risk of human exposure to hazardous building materials would be achieved through the completion of hazardous building materials abatement and encapsulation/maintenance activities.

6.3.3 Ability to Implement

The remediation tasks proposed to be completed as part of this alternative are technically feasible and are effective actions for reducing or eliminating the risk of human exposure to the hazardous building materials at the Site. Services and materials necessary to conduct this "Partial Abatement with Operations & Maintenance Plan" alternative are likely readily available.

6.3.4 Reduction of Toxicity, Mobility and Volume

This alternative does significantly reduce the toxicity, mobility, and volume of ACM at the Site and LBP within potential residential redevelopment areas; however, this alternative does not significantly reduce the toxicity and volume of the lead-based paint to be encapsulated or stabilized at the Site. Lead-based paint will remain within select areas at the Site, but the paint will be encapsulated or stabilized, greatly reducing the mobility of LBP. Therefore, the goal of reducing or eliminating the risk of direct contact to lead-based paint by potential future Site occupants, workers, and trespassers is moderately achieved.

6.3.5 Short Term Effectiveness

The remedial action objective would be attained when the hazardous building materials are removed or stabilized and encapsulated. A potential for adverse impacts to human health from exposure to the remaining lead-based paint would still exist in the extreme case that the encapsulated surface is disturbed, such as future renovation and building repair activities. The greatest risk of disturbance would involve future renovation projects. However, an effective O&M Plan would significantly reduce the risk of exposure to lead.

6.3.6 Cost

The estimated costs associated with this “Partial Abatement with Operations & Maintenance Plan” alternative are outlined in the attached Table 2A - Summary of Estimated Remediation Costs – Partial Abatement with Operations & Maintenance Plan. The estimated cost for this alternative is \$180,930 or between the range of \$175,000 to \$200,000, including engineering design and construction oversight. Capital costs include direct capital costs, such as materials and equipment and maintenance, and indirect capital costs, such as engineering and sampling contingencies. These cost estimates are for budgetary purposes only and in no way should be construed as a cost proposal.

6.4 Full Abatement Alternative

The third remediation alternative evaluated in this ABCA is the “Full Abatement” alternative. This alternative involves mitigating the potential for human exposure through direct contact, ingestion, and inhalation of the hazardous building materials identified at the Site through the following proposed activities:

1. Full abatement of identified ACM and universal wastes throughout the Site. Existing ACM on the Site would be affected by any future demolition and renovation activities. Current federal and state regulations require the removal of friable (easily reduced to powder using hand pressure) ACM prior to conducting renovation or demolition activities. To meet these federal and state regulations, the identified ACM at the Site is planned to be completely removed.
2. Full abatement of LBP identified in the Sheriff’s Office Building, the Old Jail, and the Barn by removal. For the purposes of this ABCA, it is assumed that the Sheriff’s Office Building, Old Jail, and Barn would be de-lead as part of this alternative.

The evaluation of the “Full Abatement and Removal” alternative is discussed below. The attached Table 1 includes a Summary of the Evaluation and Comparison of the Remedial Alternatives.

6.4.1 Overall Protection of Human Health and the Environment

This “Full Abatement” alternative provides adequate protection of human health and the environment through mitigating or eliminating the risk of human exposure to the hazardous building materials identified at the Site through removal of the hazardous building materials.

6.4.2 Technical Practicality

Completing the remedial actions specified within this “Full Abatement” alternative is technically practical and can be completed utilizing accepted construction techniques. Both contractors and disposal facilities with experience with similar type projects are readily available in the region. The goal of reducing or eliminating the risk of human exposure to hazardous building materials would be achieved through the removal of hazardous building materials from the Site.

6.4.3 Ability to Implement

The remediation tasks proposed to be completed as part of this alternative are technically feasible and are effective actions for reducing or eliminating the risk of human exposure to the hazardous building materials on the Site. Services and materials necessary to conduct this “Full Abatement” alternative are likely readily available.

6.4.4 Reduction of Toxicity, Mobility and Volume

This alternative significantly reduces or eliminates the toxicity, mobility, and volume of the ACM and lead-based paint. The hazardous building materials would be removed from the Site as part of this alternative.

6.4.5 Short Term Effectiveness

The remedial action objective would be attained when the hazardous building materials are removed from the Site.

6.4.6 Cost

The estimated costs associated with this “Full Abatement” alternative are outlined in the attached Table 2B - Summary of Estimated Remediation Costs – Full Abatement. The estimated cost for this alternative is \$234,930 or between the range of \$225,000 to \$250,000, including engineering design and construction oversight. Capital costs include direct capital costs, such as materials and equipment, and indirect capital costs, such as engineering and sampling contingencies. These cost estimates are for budgetary purposes only and should not be construed as a cost proposal.

6.5 Selection of Proposed Remediation Alternative

Based on the results of the initial screening of each alternative, as shown on Tables 1, 2A, and 2B, and discussed above, the “Full Abatement” alternative has been selected as the preferred remediation alternative. This alternative is proven to protect human health and the environment and is effective, technically feasible, and practical. The potential exposure risks at the Site would be eliminated through the completion of this alternative. The “Full Abatement” alternative was also selected over the “Partial Abatement with Operations & Maintenance Plan” because of the flexibility it lends to future redevelopment or renovations of the Site. Implementation of this alternative will eliminate the risk of exposure to future Site occupants and eliminate the need for further abatement activities and/or maintenance that would be associated with the “Partial Abatement with Operations & Maintenance Plan” alternative.

7.0 CONCEPTUAL REMEDIAL ACTION PLAN

Because the “Full Abatement” alternative meets the evaluation criteria and is not cost-prohibitive, it is recommended to be completed for the Site remediation. The Conceptual RAP for the “Full Abatement” alternative including the abatement of asbestos, lead-based paint, and universal wastes on the Site is provided below. The remediation design will be finalized as part of the development of the bidding specifications for this project. Remedial tasks will be completed in accordance with the US EPA’s green remediation policy, where practical and appropriate.

7.1 Asbestos Abatement/Removal

Asbestos fibers present potential health hazards when they become airborne. ACM may be managed in-place as long as it remains intact, undamaged, and in good condition. Current regulations require that asbestos-containing building materials be removed if they will be disturbed by renovation, demolition, or other building maintenance activities. Since the Sheriff’s Office, Old Jail, and Barn are proposed to be redeveloped and renovate, ACM identified within interior and exterior portions of these buildings will be impacted by the proposed activities and will require removal prior to the initiation of these activities.

ACM abatement should be performed using approved methods in accordance with applicable regulations established by the US EPA, OSHA, and the State of Maine. ACM will be removed by a licensed asbestos abatement contractor and in accordance with a project design prepared by a certified Abatement Project Designer.

Key elements of any asbestos abatement include the following:

- a. Notification: A notification is required to be filed prior to any removal repair, demolition, enclosure, encapsulation, or handling of more than three linear or square feet of an asbestos-containing material with the exception of demolition of single family owner-occupied residential dwellings. This notification requirement is designed to provide the ME DEP with adequate information to effectively schedule compliance inspections.

The notification must be postmarked at least 10 calendar days, or received by the ME DEP at least 5 working days, prior to commencement of the asbestos abatement project. The start date on the notification should encompass the set-up of the regulated area, including any pre-cleaning and the hanging of polyethylene sheeting.

- b. Asbestos Abatement Contractor:
 - i. License Requirements: A company engaged in an asbestos abatement activity must hold a valid Asbestos Abatement Contractor license.
 - ii. Personnel Requirements: A licensed Asbestos Abatement Contractor must have a certified Asbestos Abatement Project Supervisor employed on staff.

Asbestos abatement work must be completed by individuals trained in accordance with OSHA, US EPA and ME DEP requirements. Individuals must possess a valid ME DEP certification.

- c. Asbestos Abatement Activities: Asbestos abatement activities in the state of Maine are subject to the following work practice requirements:
- i. All projects must be performed in accordance with a project design by a ME DEP-certified Asbestos Project Designer.
 - ii. A certified Asbestos Abatement Project Supervisor must be designated as the lead supervisor for the project and must be present at the work Site at all times personnel are within the regulated area.
 - iii. Prior to starting an asbestos abatement activity, the Asbestos Abatement Contractor must establish the regulated area. For activities where containment is not required, the regulated area must be demarcated with barrier tape marked "ASBESTOS HAZARD" (or equivalent wording) and OSHA warning signs, and located such that it protects persons from exposure to asbestos and minimizes the number of persons in the area. In facilities where plastic barrier tape may cause a safety hazard, red cloth tape may be used.
 - iv. The regulated area must include a polyethylene-enclosed structure formed by partitions or framing or by covering walls and ceilings with a minimum of two layers of 4-mil polyethylene sheeting or one layer of 6-mil polyethylene sheeting, and by covering the floor with a minimum of two layers of 6-mil polyethylene sheeting. The surface to be abated does not need to be covered with polyethylene sheeting. Exterior walls must have critical barriers and any seams must be fiber tight.
 - v. Access into the polyethylene-enclosed containment area is provided through a decontamination unit. The decontamination unit consists of aluminum, tin, fiberglass, preformed plastic, or other impervious surface, or two layers of 6-mil polyethylene sheeting. Decontamination units must have 6-mil polyethylene sheeting flaps or air-locks between each chamber.
 - vi. A ventilation system providing an exchange of at least four volumes of air per hour at a volume sufficient to establish and maintain a pressure differential within the ambient environment of negative 0.02 inches of water column. The ventilation units must be operated in accordance with US EPA recommendations set forth in Appendix J of US EPA Guidance Document EPA 560/5-85-024 (effective June, 1985) or in Appendix F to 29 CFR Part 1926.1101 (effective August 10, 1994). Make-up air entering the containment must pass through the decontamination system whenever possible, or through waste load-out and/or make-up air intakes specified by the project design. The exhaust air must be HEPA filtered before being discharged outside of the work area and must be discharged to the outside.
 - vii. Individuals not directly involved in the asbestos abatement activity must be excluded from the regulated area. Warning signs, meeting the requirements established by OSHA (29 CFR 1926.1101), are required at all approaches to the regulated area, and at the decontamination and waste load out unit's outermost boundaries.

- d. Personal Protective Equipment: An individual involved in an asbestos abatement activity or an individual who enters the regulated area, excluding the clean room, must be provided with and wear appropriate respiratory protection and personal protective clothing. Minimum respiratory protection shall be half-faced negative pressure respirator equipped with HEPA filters. Minimum protective clothing shall be disposable full body suits, including head and foot coverings. OSHA also regulates asbestos activities involving respirators and personal protective equipment. OSHA regulations may require a higher degree of respiratory protection and/or protective clothing.
- e. Wetting of ACM: Prior to removal of ACM, including removal of components covered with thermal system insulation, all ACM must be adequately wetted with water. Throughout the removal, storage, transport, and disposal processes, ACM must be kept adequately wet.
- f. Containerization of Asbestos Waste: Prior to removal from the regulated area, asbestos waste must be containerized in fiber-tight leak-proof packaging and properly labeled, in accordance with OSHA requirements (29 CFR 1926.1101). Fiber-tight packaging must be maintained throughout the storage, transport, and landfilling processes.

Friable asbestos waste that does not contain components with sharp edges must be adequately wetted and then containerized in two polyethylene bags with a 6-mil minimum thickness for each bag.

Exterior cementitious asbestos-containing materials must be wetted and containerized in leak-proof containers for delivery to a landfill licensed to accept non-friable waste. Other non-friable waste may be packaged as friable or must be adequately wetted and thoroughly wrapped in a minimum of two layers of 6-mil or one layer of 12-mil polyethylene sheeting with all joints, seams, and overlaps sealed in a fiber-tight manner. Containerization in disposable leak-proof fiber-tight containers, such as fiber-tight drums, is also acceptable. Non-friable waste also may be packaged in large containers, such as dumpster or roll-offs, as long as the container is lined with two layers of 6-mil or one layer of 12-mil polyethylene sheeting and secured fiber-tight prior to transport and the ACM is maintained in a non-friable state when placed in the dumpster. Fiber-tight packaging must be maintained throughout storage, transport, and off-loading at the landfill.

- g. Close-out: Following the initial visual evaluation and receipt of acceptable air clearance sampling results from a ME DEP-Certified Asbestos Air Monitor, the contractor can remove the containment, critical barriers, and the decontamination unit from the work Site. The contractor must clean up any visible dust or debris resulting from teardown activities prior to the final inspection after removal of containment. An asbestos abatement activity is not considered complete and acceptable for regulated area release until a visual evaluation and final air clearance standards have been met.

7.2 Lead-Based Paint Abatement & Encapsulation/Stabilization

Lead-based paint identified in the Sheriff's Office, Old Jail, and Barn will be fully abated in accordance with State and Federal regulations. Abatement activities will be completed prior to redevelopment or renovations. The future Site use has not been fully defined at this time; however, future utilization of the Site will most likely be a mix of commercial and residential space. Therefore, this RAP has been designed to lend the greatest flexibility to the Owner moving forward. Implementation of this RAP will eliminate the risk of exposure to future Site occupants and eliminate the need for further abatement activities and/or maintenance that would be associated with the "Partial Abatement with Operations & Maintenance Plan" alternative. LBP abatement conducted as part of this cleanup project will include full de-leading of the lead-painted surfaces/materials identified at the Site.

Lead in paint was detected on various materials throughout the Site. Handling of components coated with lead-containing paint requires compliance with the OSHA lead standard ("Lead in Construction," 29 CFR 1926.62). Under the existing conditions, renovation/demolition contractors may perform demolition, renovation, abatement, stabilization, cleanup, and daily operations in buildings that have lead-based paint or lead-containing coatings, provided that the following regulatory requirements are met:

1. Renovation or demolition activities that disturb surfaces that contain lead must be conducted in accordance with the OSHA regulation 29 CFR 1926.62 "Lead Exposure in Construction: Interim Final Rule." This regulation requires that a Site-specific health and safety plan be prepared before conducting activities that create airborne lead emissions such as cutting, grinding, or sanding surfaces coated with lead-containing paint. Such a plan must include the identification of lead components, an exposure assessment, and, if applicable, the required work procedures and personal protective equipment to be used.
2. The US EPA and ME DEP regulate the disposal of potentially hazardous wastes. Such wastes include paint chips and residue generated during abatement or repainting work, or whole components, such as wood windows, doors, and trim coated with lead-containing paint and disposed of as a result of renovation or demolition work. Metal components are not regulated if they will be recycled and not disposed of in a landfill.
3. To minimize exposure to airborne dust or fumes containing lead and avoid the requirement to implement a lead exposure assessment, torch burning, cutting, grinding, or similar high impact work on components covered by lead-containing paint should be avoided. Such work would need to be conducted by properly trained workers using appropriate worker protection and engineering controls. For work activities that may generate airborne lead, the employer should perform an initial exposure assessment (personal air monitoring) for each individual task (e.g. demolition, abrasive blasting, and painting) that has the potential for causing worker exposure to be at or above the OSHA Action Level (30 micrograms of lead per cubic meter of air). In lieu of monitoring, recent historical data from similar operations may be used to comply with OSHA requirements.

4. Upon completion of the project, remaining lead-based paint, if any, will require proper management. A Lead-Based Paint O&M Program, outlining the management of lead-paint including training, monitoring, and hazard communication will be developed to ensure that lead is managed properly, is necessary.

7.3 Universal Waste Removal

Universal waste will be handled, transported disposed in accordance with ME DEP regulations. Trained individuals will package the waste in appropriate containers with proper labeling. Shipment of waste will be conducted in accordance with established Maine Department of Transportation protocol.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Previous environmental investigations conducted on the Site identified environmental concerns associated with historic building materials and techniques utilized at the Site, namely the presence of hazardous building materials. Three remediation alternatives were evaluated in this report, including a “No Action” alternative, a “Partial Abatement with Operations & Maintenance Plan” alternative, and a “Full Abatement” alternative. The attached Table 1 includes a Summary of the Evaluation and Comparison of the Remedial Alternatives.

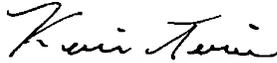
The “No Action” alternative is unacceptable due to the fact that it does not meet threshold criteria of the overall protection of human health and the environment. The “Partial Abatement with Operations & Maintenance Plan” alternative was also not selected, due to the likelihood of additional abatement activities required in the future, depending on Site reuse plans. The “Partial Abatement with Operations & Maintenance Plan” alternative was also not selected due to the long term costs and effort associated with the required Operations & Maintenance Plan. The “Full Abatement” alternative protects human health and the environment and is effective, technically feasible, and practical. Because the “Full Abatement” alternative meets the evaluation criteria and the cost is not prohibitive, it is recommended to be implemented as the Site remediation plan.

We also recommend that this analysis of cleanup alternatives and conceptual RAP be submitted to the ME DEP VRAP for review and approval (i.e., to obtain a No Action Assurance letter). Upon acceptance, the remedial actions will be required to be documented and the results of the actions presented in a completion report submitted to the ME DEP VRAP to obtain a Certificate of Completion.

9.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

The following Ransom personnel possess the sufficient training and experience necessary to conduct an Analysis of Brownfields Cleanup Alternatives and Conceptual Remedial Action Plan, and from the information generated by such activities, have the ability to develop opinions and conclusions regarding remediation alternatives and a remedial action plan for the Site.

Environmental Professionals:



Kevin J. Trainor, E.I.
Project Engineer

Peter J. Sherr, P.E.
Senior Project Manager/Belfast Brownfields Program Manager

**TABLE 1 – SUMMARY OF THE EVALUATION AND COMPARISON OF REMEDIAL ALTERNATIVES
Old Waldo County Jail (45 Congress Street)
Belfast, Maine**

Remedial Action Alternative (RAA)	Overall Protection of Human Health and the Environment	Technical Practicality	Ability to Implement	Reduction of Toxicity, Mobility and Volume	Short Term Effectiveness	Estimated Cost
1) No Action	<ul style="list-style-type: none"> Not protective of human health and the environment and does not meet the threshold criteria 	<ul style="list-style-type: none"> Not Applicable 	<ul style="list-style-type: none"> Not Applicable 	<ul style="list-style-type: none"> No Reduction of Toxicity, Mobility and Volume 	<ul style="list-style-type: none"> Not Applicable 	<ul style="list-style-type: none"> Not Applicable
2) Partial Abatement with Operations & Maintenance Plan Alternative	<ul style="list-style-type: none"> Provides adequate protection of human health and the environment through mitigating or eliminating the risk of human exposure to the hazardous building materials identified on the Subject Property 	<ul style="list-style-type: none"> Completing the remedial actions specified within this alternative is technically practical. Paint stabilization and removal can be completed utilizing accepted construction techniques. Contractors and disposal facilities with experience with similar type projects are readily available in the region. <p>The goal of reducing or eliminating the risk of human exposure to hazardous building materials would be achieved through targeted removal, stabilization, and maintenance.</p>	<ul style="list-style-type: none"> This alternative is technically feasible and is an effective action for reducing the risk of human exposure. Services and materials necessary to conduct this alternative are likely readily available. 	<ul style="list-style-type: none"> Achieves a significant Reduction of Toxicity, Mobility and Volume of asbestos-containing building materials This alternative provides some reduction to the toxicity and volume of the lead paint at the Subject Property. Lead-based paint will remain at the site; however, the paint will be encapsulated and/or stabilized, and therefore the goal of reducing or eliminating the risk of direct contact by potential future site occupants, workers, and trespassers is moderately achieved. 	<ul style="list-style-type: none"> The remedial action objective would be attained when hazardous building materials are abated and stabilized and/or encapsulated. A potential for adverse impacts to human health from exposure to lead-based paint would still exist in the extreme case that the encapsulated surface is disturbed. The greatest risk of disturbance would involve future renovation projects. An effective O&M plan would reduce the risk of exposure. 	<ul style="list-style-type: none"> The estimated cost associated with this alternative is approximately \$180,930 or between the range of \$175,000 to \$200,000. Capital costs include direct capital costs, such as materials and equipment and maintenance; indirect capital costs include engineering and sampling. These cost estimates are for budgetary purposes only and in no way should be construed as a cost proposal. The costs associated with this alternative are not prohibitive.
3) Full Abatement Alternative	<ul style="list-style-type: none"> Provides adequate protection of human health and the environment through mitigating or eliminating the risk of human exposure to the hazardous building materials identified on the Subject Property 	<ul style="list-style-type: none"> Completing the remedial actions specified within this alternative is technically practical. The goal of reducing or eliminating the risk of human exposure to the recognized environmental conditions would be achieved through the removal of the hazardous building materials at the site. 	<ul style="list-style-type: none"> This alternative is technically feasible, and is an effective action for reducing or eliminating the risk of direct human contact to hazardous building materials. The necessary services and materials to complete the remedial tasks are readily available, including the necessary equipment and contractors 	<ul style="list-style-type: none"> Complete Reduction of Toxicity, Mobility and Volume of the identified hazardous building materials 	<ul style="list-style-type: none"> This alternative removes the hazard from the site and is therefore effective in the short term as well as the long term. 	<ul style="list-style-type: none"> The estimated cost associated with this alternative is approximately \$234,930 or between the range of \$225,000 to \$250,000. Capital costs include direct capital costs, such as materials and equipment, and indirect capital costs such as engineering and sampling. These cost estimates are for budgetary purposes only and in no way should be construed as a cost proposal. The costs associated with this alternative are not prohibitive.

Table 2A: Summary of Estimated Remediation Costs - Partial Abatement with Operations & Maintenance Plan Alternative

Old Waldo County Jail

45 Congress Street, Belfast, Maine

Partial Abatement with Operations & Maintenance Plan Alternative	Number	Units	Unit Cost	Total ⁽³⁾
Hazardous Building Materials Abatement				
Full Asbestos Abatement (Removal) ⁽¹⁾	1	LS	\$35,000	\$35,000
Lead Paint Removal & Encapsulation ⁽²⁾	1	LS	\$70,000	\$70,000
Universal Wastes Removal ⁽¹⁾	1	LS	\$775	\$775
Maintenance	20	Year	\$750	\$15,000
Engineering Design/Oversight/Closure Report				
Design	1	LS	\$5,000	\$5,000
Oversight & Confirmatory Sampling	1	LS	\$12,500	\$12,500
Brownfields Programmatic Activities	1	LS	\$5,000	\$5,000
Operations & Maintenance Plan	1	LS	\$2,500	\$2,500
Closure Report	1	LS	\$5,000	\$5,000
<i>Subtotal</i>				<i>\$150,775</i>
Contingency 20%				\$30,155
TOTAL				\$180,930

NOTES:

- 1 - Cost includes abatement (by removal) of all remaining asbestos and universal wastes on the site.
- 2 - Cost assumes lead-based paint in interior of Sheriff's Office would be removed and lead-based paint in the Old Jail interior and Barn exterior would be stabilized/encapsulated. Cost estimate based on observations made during the lead-based paint survey.
- 3 - The estimates shown above are considered budgetary-level cost estimates for use in project evaluation and planning. Actual construction costs are expected to vary from these estimates, due to site conditions, market conditions, actual cost of purchased materials, quantity variations, regulatory requirements, and other factors existing at the time of construction.

Table 2B: Summary of Estimated Remediation Costs - Full Abatement Alternative

Old Waldo County Jail

45 Congress Street, Belfast, Maine

Hazardous Building Materials Abatement and Soil Removal Alternative	Number	Units	Unit Cost	Total ⁽³⁾
Hazardous Building Materials Abatement				
Full Asbestos Abatement (Removal) ⁽¹⁾	1	LS	\$35,000	\$35,000
Lead Paint Removal (100%) ⁽²⁾	1	LS	\$125,000	\$125,000
Universal Wastes Removal ⁽¹⁾	1	LS	\$775	\$775
Engineering Oversight/Closure Report				
Design	1	LS	\$10,000	\$10,000
Oversight & Confirmatory Sampling	1	LS	\$15,000	\$15,000
Brownfields Programmatic Activities	1	LS	\$5,000	\$5,000
Closure Report	1	LS	\$5,000	\$5,000
<i>Subtotal</i>				\$195,775
Contingency 20%				\$39,155
TOTAL				\$234,930

NOTES:

- 1 - Cost includes abatement (by removal) of all remaining asbestos and universal wastes on the site.
- 2 - Cost assumes 100% of the lead-based paint would be removed from the site by abrasive techniques, such as sandblasting (the site would be de-lead).
- 3 - The estimates shown above are considered budgetary-level cost estimates for use in project evaluation and planning. Actual construction costs are expected to vary from these estimates due to site conditions, market conditions, actual cost of purchased materials, quantity variations, regulatory requirements, and other factors existing at the time of construction.



TAKEN FROM U.S.G.S. 7.5x15 MINUTE SERIES TOPOGRAPHIC MAP OF BELFAST, MAINE—1960 (REVISED 1979).

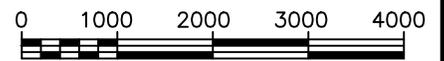
CONTOUR INTERVAL IS 10 FEET

SITE COORDINATES: LATITUDE 44°25'21"
LONGITUDE 69°00'33"

UTM COORDINATES: 49:18:602mN
4:99:272mE



QUADRANGLE LOCATION



SCALE in FEET
1:24,000

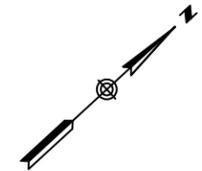
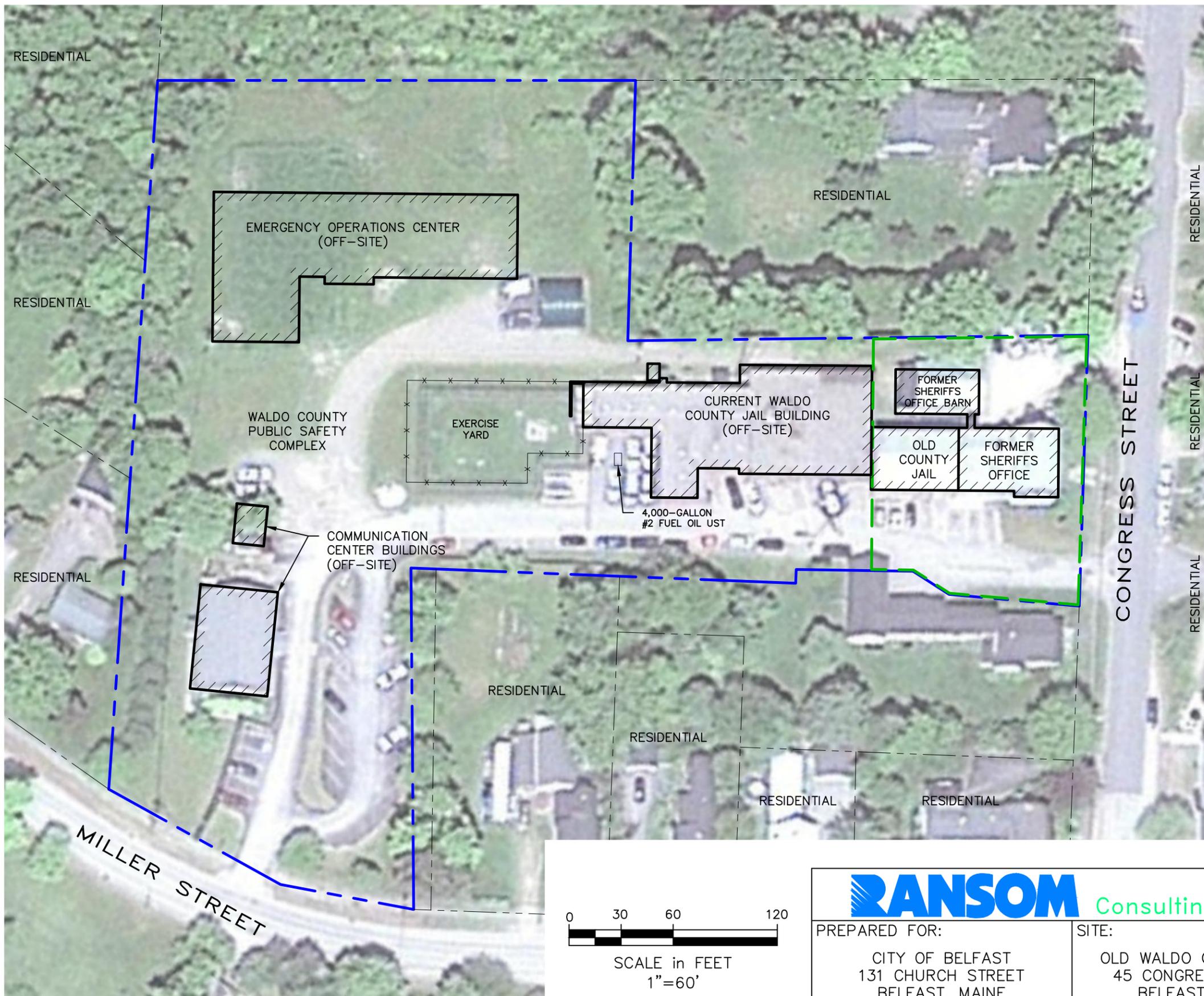
RANSOM Consulting, Inc.

SITE LOCATION MAP

PREPARED FOR:
CITY OF BELFAST
131 CHURCH STREET
BELFAST, MAINE

SITE:
OLD WALDO COUNTY JAIL
45 CONGRESS STREET
BELFAST, MAINE

DATE: APRIL 2013
PROJECT: 111.06134
FIGURE: 1

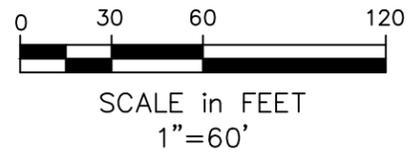


LEGEND:

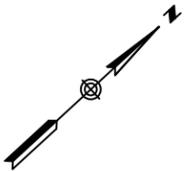
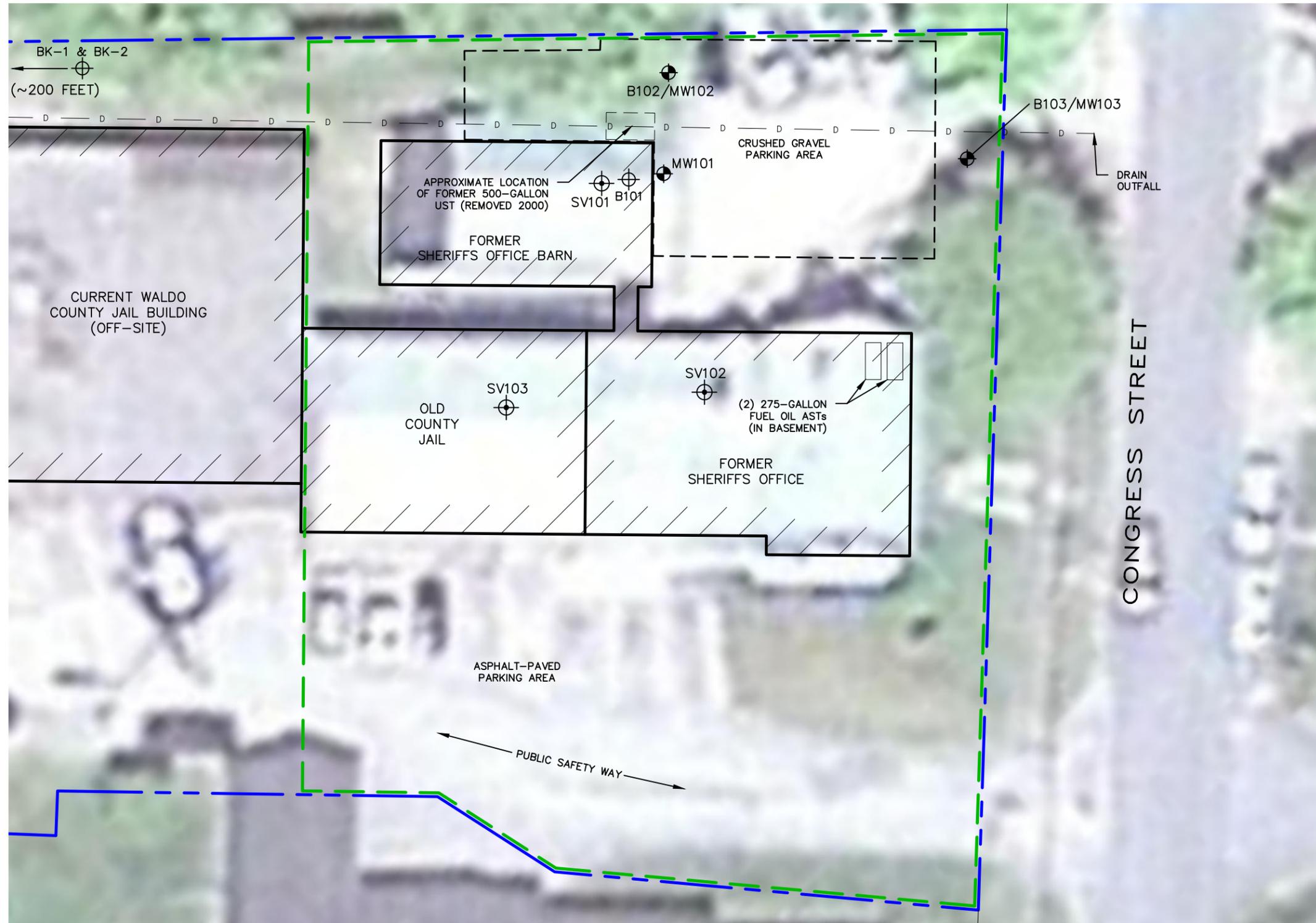
- x — x — x — x — x — FENCE
- — — — — SITE BOUNDARY
- — — — — PARCEL BOUNDARY
- — — — — PROPERTY BOUNDARY

NOTES:

1. SITE PLAN BASED ON "SITE GRADING PLAN" PREPARED BY WBRC ARCHITECTS & ENGINEERS DATED MARCH 18, 2010 AND OBSERVATIONS MADE BY RANSOM CONSULTING, INC. ON JULY 25, 2012. AERIAL IMAGE PROVIDED BY GOOGLE EARTH.
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. THIS PLAN HAS BEEN PREPARED FOR THE CITY OF BELFAST. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM CONSULTING, INC.

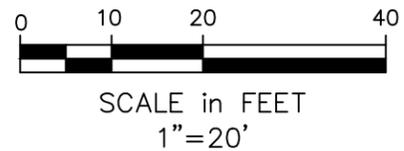


RANSOM Consulting, Inc.		SITE AREA PLAN	
PREPARED FOR: CITY OF BELFAST 131 CHURCH STREET BELFAST, MAINE		SITE: OLD WALDO COUNTY JAIL 45 CONGRESS STREET BELFAST, MAINE	
DATE:	APRIL 2013	PROJECT:	111.06134
FIGURE:	2		



- LEGEND:**
- B102/MW102 SOIL BORING/ MONITORING WELL
 - SV101 SOIL VAPOR POINT
 - BK-1 BACKGROUND SOIL SAMPLE
 - APPROXIMATE LIMIT OF UST EXCAVATION
 - STORM DRAIN UTILITY LINE
 - SITE BOUNDARY
 - PARCEL BOUNDARY
 - PROPERTY BOUNDARY

- NOTES:**
1. SITE PLAN BASED ON "SITE GRADING PLAN" PREPARED BY WBRC ARCHITECTS & ENGINEERS DATED MARCH 18, 2010 AND OBSERVATIONS MADE BY RANSOM CONSULTING, INC. ON JULY 25, 2012 AND NOVEMBER 5 & 8, 2012. AERIAL IMAGE PROVIDED BY GOOGLE EARTH.
 2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
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RANSOM Consulting, Inc.		SITE PLAN	
PREPARED FOR:		SITE:	
CITY OF BELFAST 131 CHURCH STREET BELFAST, MAINE		OLD WALDO COUNTY JAIL 45 CONGRESS STREET BELFAST, MAINE	
DATE:	APRIL 2013	PROJECT:	111.06134
FIGURE:	3		