

**ACT 381 WORK PLAN AMENDMENT
TO CONDUCT MDEQ AND MEGA ELIGIBLE ACTIVITIES**

**FOR CITY OF TRAVERSE CITY AND GARFIELD TOWNSHIP
GRAND TRAVERSE COMMONS AND THE VILLAGE AT
GRAND TRAVERSE COMMONS
FORMER TRAVERSE CITY STATE PSYCHIATRIC HOSPITAL SITE**

November 2009

Prepared for:
Michigan Department of Environmental Quality
and
Michigan Economic Growth Authority

Submitted by:
Grand Traverse County Brownfield Redevelopment Authority
400 Boardman Ave.
Traverse City, MI 49684

Prepared with assistance from:
The Minervini Group LLC, Sub-Area 3 LLC
and
Eftaxiadis Consulting Inc
830 Cottageview Drive
Traverse City, MI 49684

TABLE OF CONTENTS

- 1.0 INTRODUCTION
 - 1.1 Eligible Property Information
 - 1.1.1 Location
 - 1.1.2 Current Ownership
 - 1.1.3 Proposed Future Ownership
 - 1.1.4 Delinquent Taxes, Interest and Penalties
 - 1.1.5 Existing and Proposed Future Zoning for Each Eligible Property
 - 1.2 Historical Use of Each Eligible Property
 - 1.3 Current Use of Each Eligible Property
 - 1.4 Summary of Proposed Redevelopment and Future Use for Each Eligible Property
 - 1.5 Information Required by Section 15(15) of the Statute
 - 1.5.1 Benefit to the Public
 - 1.5.2 Reuse of Vacant Buildings
 - 1.5.3 Jobs Created
 - 1.5.4 Unemployment
 - 1.5.5 Contamination
 - 1.5.6 Private Sector Contribution
 - 1.5.7 Greenfield Site Comparison
 - 1.5.8 Creation of Brownfield or Vacant Building
 - 1.5.9 Financial Statements
 - 1.5.10 Incentives
 - 1.5.11 Additional Information
- 2.0 CURRENT PROPERTY CONDITIONS
 - 2.1 Property Eligibility
 - 2.2 Summary of Environmental Conditions
 - 2.3 Summary of Blighted Conditions
- 3.0 SCOPE OF WORK
 - 3.1 MDEQ Eligible Activities
 - 3.1.1 Introduction
 - 3.1.2 Site Assessments and Related Activities
 - 3.1.3 Contaminated Soil Removal and Engineering Controls
 - 3.1.4 Additional Contaminated Soil Removal
 - 3.1.5 Construction Inspections and Confirmatory Sampling
 - 3.1.6 Institutional Controls and Deed Restrictions
 - 3.1.7 Due Care Measures Inspections and Reporting

- 3.1.8 Contingency
- 3.1.9 Interest
- 3.1.10 BRA Plan and Act 381 Work Plan

- 3.2 MEGA Eligible Activities
 - 3.2.1 Public Infrastructure Improvements (Public Entities)
 - 3.2.2 Public Infrastructure Improvements (Developer)
 - 3.2.3 Demolition
 - 3.2.4 Abatement
 - 3.2.5 Site Preparation
 - 3.2.6 Contingency
 - 3.2.7 Interest
 - 3.2.8 BRA Plan and Act 381 Work Plan

- 4.0 SCHEDULE AND COSTS
 - 4.1 Schedule of Activities
 - 4.2 Estimated Costs

EXHIBITS

Exhibit A Legal Description

FIGURES

Figure 1 Scaled Property Location Map

Figure 2 Site Photographs

Figure 3 Development Plan

TABLES

Table 1 MEGA and MDEQ Eligible Activities Costs

Table 2 Tax Capture Table

ATTACHMENTS

Attachment A Approved Brownfield Plan

Attachment B Financial Statements

1.0 INTRODUCTION

1.1 Eligible Property Description

1.1.1 Location

The proposed redevelopment project is comprised of buildings and adjacent vacant lands (hereafter referred to as the "Property"), contained in Sub-areas 2, 3, 5 and 6 of the former State of Michigan Psychiatric Hospital property located in Garfield Township and City of Traverse City, Grand Traverse County, Michigan. The Property is identified by the Site location Map, attached as Figure 1.

1.1.2 Current Ownership

The sub-areas comprising the Property are currently owned by the following entities:

- Sub-Area 2: The Minervini Group and the co-owners of the Site Condominium of the Village of Grand Traverse Commons.
- Sub-Area 3: Sub-Area 3 LLC.
- Sub-Area 5: Traverse Bay Area Intermediate School District
- Sub-Area 6: Traverse City – Garfield Township Recreational Authority

1.1.3. Proposed Future Ownership

The proposed ownership of the Property will be by the current owners or entities yet to be named by the current co-owners.

1.1.4 Delinquent Taxes

The Property currently does not have delinquent property taxes.

1.1.5 Existing and Proposed Future Zoning

The Property has been zoned [for](#) Mixed-Use which will support the proposed commercial, retail and housing development along with recreational and public resources, identified within the Master Plan of this property.

1.2 Historical Use of Property

The Property has historically been operated as a Psychiatric Hospital by the State of Michigan before it was abandoned in the late 1980's. The historic uses of the more than 30 buildings in this formerly self-sufficient Property included numerous patient treatment facilities and support services, from food production and processing to vehicle and equipment maintenance.

1.3 Current Use of Property

The undeveloped portion of the Property consists of numerous vacant blighted and/or functionally obsolete brick and concrete block buildings and adjacent vacant lands, various underground services tunnels and spaces, obsolete utilities. Portions of the overall property (approximately 25%) have been, or are in the process of being redeveloped into retail, commercial and residential spaces. The undeveloped portions of the Property are plagued by vandalism, debris, machinery and equipment, hazardous material (asbestos, lead-based paint, mold and animal waste), and other various industrial items. Site Photographs are included as Figure 2.

1.4 Proposed Redevelopment and Future Use

The proposed redevelopment project presents Traverse City, Garfield Township, Grand Traverse County and the State of Michigan with a virtually unprecedented opportunity to transform this site into a vibrant and economically robust community, while simultaneously remediating the region's most blighted area.

The project consists of asbestos, lead-based paint, mold and animal waste abatement, interior and exterior demolition of obsolete structures, remediation of soil to applicable State cleanup criteria, Due Care maintenance and monitoring activities where applicable, site preparation activities, and public infrastructure improvements.

The proposed economic development project will consist of the historic rehabilitation, redevelopment and new construction of over 900,000 square feet of commercial, retail and residential space, public indoor educational and recreational spaces and associated updated and new infrastructure. An additional 54 acres will be redeveloped by the Joint Parks City of Traverse City and Charter Township of Garfield Recreational Authority. The development will impact the entire Garfield - Traverse City area by removing a stain of blight and improving the quality of life for local residents, and enhancing the image of the Village at Grand Traverse Commons as a tourism destination location. The increase in retail and residential options will further spur relocation and reinvestment in the Village.

1.5 Information Required by Section 15(15) of the Statute

1.5.1 Benefit to the Public

The redevelopment of this property is a component of the overall redevelopment of the former Traverse City State Psychiatric Hospital whose public benefits to the Township, City and County include:

- Promotion of the reuse of vacant and environmentally distressed property.
- Rehabilitation and reuse of historically significant buildings, and preservation of architectural elements.

- Remediation of contamination and abatement of significant quantities of hazardous substances, thus enhancing the public health.
- Opportunities for new business to move to Michigan and Grand Traverse County, and for local entrepreneurs to expand close to home.
- Creation of permanent jobs, new investment and increased economic activity.
- Substantial enhancement of the tax base for [Traverse City, Garfield](#) Township and Grand Traverse County after the tax increment capture is completed and/or the Renaissance Zone expires.
- Creation of a walkable neighborhood with a strong sense of community where people can live, work, and play.

The addition of owner-occupied units will increase the stability of the neighborhood as well as increase the options available to individuals wishing to relocate to this thriving community.

The redevelopment of the Property will include a park between Buildings 57 and 61 along the creek to provide open space and recreational opportunities for residents and users. The paths to the trailhead for the [Township](#) Park located on the west portion of the property will be enhanced to enable members of the community to more easily and environmentally safely access this protected natural feature.

The Historic Barns Park, often referred to as the Barns Area, is a beautiful 56-acre park held for the public's use by the Traverse City and Garfield Township Recreational Authority. Through an intensive public visioning process, where the Recreational Authority asked the public how they would like this beautiful property leveraged - the public gave four consistent themes: Agriculture, Arts, Recreational and Community. These four themes will guide the current and future use and enjoyment of this property for years to come. However, substantial remediation efforts need to be undertaken to allow this community treasure to realize its full use potential, which include a variety of local community supported agriculture-type endeavors and a potential Botanical Garden – which could serve as a local and regional attraction.

1.5.2 Reuse of Vacant Buildings

Numerous vacant and functionally obsolete buildings within the eligible Property will be rehabilitated in accordance with the requirements of the State Historic Preservation Office (SHPO) and the Secretary of Interior standards and will be redeveloped as part of the proposed project. Additional commercial and residential space may be added to existing buildings as allowed by the site zoning and SHPO guidelines.

1.5.3 Jobs Created

The redevelopment of the former Hospital Property will result in significantly measurable economic benefit, impacting the City, Township and surrounding areas by creating approximately 800 new full time and part time jobs in the commercial and retail spaces. The new jobs will be associated with the creation of professional office spaces, retail stores, restaurants, value-added agricultural operations, high-tech operations [and other uses](#).

1.5.4 Unemployment

According to the Michigan Department of Labor and Economic Growth, the Michigan unemployment rate for September 2009 was 15.9%. The same source reports rates at 11.4% for Grand Traverse County.

1.5.5 Contamination

The Property was previously owned and operated by the State of Michigan as a regional Psychiatric Hospital from the late 1880's to the late 1980's. During its occupation of the facility, the State of Michigan operated it as a self-sufficient entity that produced, processed and used food for its residents and staff. The operations included fabrication, repair and maintenance of equipment and facilities, including, but not limited to, laundry facilities and power generation and distribution. Coal was the original source of fuel, replaced later by oil [and natural gas](#). Large quantities of Lead powder were used as additive to paint for the maintenance of both exterior and interior surfaces and walls. While the majority of hazardous substances used in the Hospital operations have been removed, large quantities of Asbestos Containing Material (ACM), Lead Based Paint (LBP) residue, mold and animal waste remain at numerous locations throughout the Property.

Several surface and subsurface soil and groundwater and baseline assessments have been performed at the Property by the MDEQ and various environmental consulting firms on behalf of former and current property owners. Analytical data indicate that soil and groundwater contamination is present at various locations as a result of the former operations by the State of Michigan; no new contamination has been ever documented at the Property. Contamination mainly consists of heavy metals and polynuclear aromatic hydrocarbons in soils, to a lesser degree, in groundwater. Lead associated with paint residue, and Arsenic and Selenium associated with coal residue, are the most prominent contaminants.

1.5.6 Private Sector Contribution

The following financial commitments have been made, or are in the process of being made to the project:

- 1 Private Developer Equity and Bank Financing
- 2 MEGA MBT Credit (applications in progress)
- 3 MEGA/MDEQ TIF for Eligible Activities

The capture of school taxes by the Grand Traverse County Brownfield Redevelopment Authority (GTCBRA) for reimbursement of eligible activities is essential to reimburse the developers of Sub-Areas 2 and 3 for financing and undertaking the eligible activities.

1.5.7 Greenfield Site Comparison

A Greenfield site was not considered for this development. The project is well-suited to the proposed location and would provide the most benefit by locating at the proposed Property.

1.5.8 Creation of Brownfield

There is no possibility that a new Brownfield will be created elsewhere as a result of this proposed project. All uses will be new.

1.5.9 Financial Statements

Please see Attachment B, which includes the Pro Forma and Sources and Uses Statement for the private investment.

1.5.10 Incentives

The Property is included in an approved Brownfield Plan (Attachment A). Tax increment revenues will be captured to reimburse the developer for the cost of the eligible activities and interest. The eligible activities which are to be performed are estimated to total \$26,770,457. Michigan Business Tax credits are also being sought for the developer's portion of the investment.

1.5.11 Additional Information

The proposed project is consistent with the Grand Traverse Commons District Plan [as amended](#) by the City of Traverse City and Garfield Township in 2006. It is anticipated that the project will result in increased and accelerated investment and continuous redevelopment in the other areas of the City-Township adjacent to the Property that are currently in the process of being redeveloped.

2.0 CURRENT PROPERTY CONDITIONS

2.1 Property Eligibility

According to the Brownfield Plan Amendment approved by the Grand Traverse County Board of Commissioners on October 28, 2009, the Property is the location of known and suspected releases of hazardous substances and qualifies as a “facility” under Part 201 of NREPA. Various environmental challenges are known to be located on the Property, including known areas of soil and groundwater contaminated by the former Hospital operations. Most or all of the Property is subject to Due Care obligations under Michigan law.

2.2 Summary of Environmental Conditions

The property was previously owned and operated as a psychiatric hospital by the State of Michigan. Coal was stored on site and used in the production of electricity. Airborne coal dust powder accumulated at various locations on the Property. Additionally, during its operation of the site the State of Michigan used large quantities of Lead powder mixed in the paint used for the maintenance of building walls and other structures. Upon abandonment of the buildings by the State, deterioration of the buildings and the painted surfaces contributed significant quantities of LBP in the soils surrounding the buildings.

Subsequent investigations by the MDEQ in 1999 through 2001, and by various environmental consulting firms as part of subsequent Baseline Environmental Assessments (BEA) and Due Care related assessments, have verified the presence of metals (primarily Lead, Arsenic, Selenium and Chromium), and various PNAs in soils at the site. Metals have been also documented in low concentrations in groundwater. The concentrations of the metals and PNAs exceed the applicable Part 201 cleanup criteria and values, specifically the Direct Contact and Groundwater - Surface Water Interface Protection criteria; metal concentrations exceeding the Statewide Background Default values are widespread.

3.0 SCOPE OF WORK

This work plan amends to include the 2002 Work Plan approved by MEDC on December 18, 2002 and MEDQ on December 20, 2002. Costs identified and approved by MEDC in 2002 are identified as follows:

- | | |
|--|-------------|
| • Interior Demolition | \$1,045,718 |
| • Power House | \$593,860 |
| • Lead Paint Abatement | \$1,275,200 |
| • Asbestos Abatement | \$546,514 |
| • Public Infrastructure—Sanitary Sewer | \$294,370 |
| • Public Infrastructure – Public Roadway | \$1343,280 |
| • Contingency | \$583,491 |

- Work Plan Preparation \$3,500

The Scope and the costs are for activities that have been added to the Amended Brownfield Plan of October 28, 2009. All major cost items include in this Work Plan will be awarded through a competitive process, and documentation of that process will be provided to the GTCBRA. Estimates for the developer's MEGA activities provided in this Work Plan are based on the experience of the developer with already redeveloped portions of the Property. Estimates for the developer's MDEQ activities in this Work Plan were generated by the developer's environmental consultant based on experience with similar projects. Cost estimates for MEGA and MDEQ activities to be undertaken by the City and Township have been provided by City and/or Township personnel.

3.1 Department of Environmental Quality Eligible Activities

3.1.1. Introduction

The "Scope" includes further site investigations; the remediation of soil "hot spots" that relate to those areas; the development of building-specific Due Care plans; the design and implementation of engineering controls and/or other measures based on the existing and new building-specific Due Care plans; and placement of deed and land use restrictions. The developer will be responsible for undertaking the MDEQ activities for the Project described in this section.

3.1.2. Site Assessments, BEAs and Related Activities

While preliminary site assessment activities were previously performed as needed for the preparation of BEAs for the entire Sub-Areas 2 and 3, location and building-specific assessments are required to generate data for future BEAs and the design of Due Care measures including engineering controls and land use restrictions that will be necessary for the specific future uses at the Property, as follows:

- **Sampling Plans and Health & Safety Plans.** Location-specific Sampling and Analysis Plans will be prepared prior to initiation of the assessments, for review and approval by the GTCBRA and MDEQ. A Health & Safety Plan with necessary amendments will be prepared to guide the investigative activities at all locations. **Cost Estimate = \$3,500.**
- **Assessments - Buildings 56, 57, 60 and 61 and Surrounding Lands.** A Soil Assessment will address the extent and magnitude of the metals contamination detected by the initial MDEQ assessment in 2001 at two locations. The site assessment will consist of collection and analysis of shallow soil samples from up to

20 locations and analysis for selected heavy metals, and preparation of a building-specific report. **Cost Estimate = \$6,000.**

- **Assessments - Buildings 62, 63 and 65, and Surrounding Lands.** Because no assessment has been previously conducted at this location, a surface Soil Assessment will be conducted. The assessment will consist of sampling and analyzing soils for Metals and/or PNAs at up to 30 locations. Cost estimate = **\$6,500.**
- **Assessments – Buildings 30, 32, 34, 36 and 84, and Surrounding Lands.** A Soil Assessment will document the extent of the contamination detected by the initial MDEQ assessment in 2001 at minimal locations. The site assessment will consist of collection and analysis of surface soil samples from up to 50 locations and analysis for selected heavy metals, and preparation of a building-specific report. **Cost Estimate = \$16,200.**
- **Assessments – Buildings 22, 28 and 40, and Surrounding Lands.** A Soil Assessment will document the extent of the contamination detected by the initial MDEQ assessment in 2001 at three locations. The site assessment will consist of collection and analysis of surface and subsurface soil samples from up to 35 locations and analysis for selected heavy metals and/or PNAs, and preparation of a building-specific report. **Cost Estimate = \$10,000.**
- **Assessments – Sub-Area 6 – Recreational Authority Barns area:** A Soil Assessment will document the extent of the contamination detected by the initial MDEQ assessment. The site assessment will consist of collection and analysis of surface soil samples from up to 50 locations and analysis for selected heavy metals, arsenic preparation of a building-specific report. **Cost Estimate = \$20,000.**
- **Supplemental Due Care Assessments.** Limited Supplemental Soil Assessments will be performed at several locations in response to requests by MDEQ to define in more detail the extent of contamination previously documented at selected locations. While the scope of these assessments cannot be anticipated at this time, it may consist of collection and analysis of surface and subsurface soil samples and analysis for compounds of concern, and preparation of a building-specific report. For budgeting purposes it is estimated that up to five assessments will be required involving the collection of up to 20 samples per assessment and analysis for selected metals. **Cost Estimate = \$20,000.**
- **Supplemental Due Care Assessments – Sub-Area 6.** Limited supplemental Soil

Assessments will be performed at several locations to define in more detail the extent of contamination previously documented at selected locations. While the scope of these assessments cannot be anticipated at this time, it may consist of collection and analysis of surface and subsurface soil samples and analysis for compounds of concern, and preparation of a building-specific report. For budgeting purposes it is estimated that up to 3 assessments will be required involving the collection of up to 20 samples per assessment and analysis for selected metals. **Cost Estimate = \$15,000.**

- **Surveys.** Topographic and sub-property boundary surveys will be performed to use in the preparation of the BEAs described below. The surveys will be also required in the design of the anticipated engineering controls to be described in the Due Care Plans. Additionally, the sampling locations for the assessments described above will be surveyed as needed for the preparation of assessment reports. **Cost Estimate = \$23,000.**
- **Baseline Environmental Assessments.** Several BEAs will be prepared on behalf of the new owners/tenants of buildings targeted for redevelopment. It is anticipated that four Category D BEAs will be required in the next 36 months. Costs for addressing issues associated with affirmation of the BEAs by MDEQ are included in this estimate. **Cost Estimate = \$24,000.**
- **Baseline Environmental Assessment – Sub-Area 6:** A BEA will be prepared on behalf the Botanical Gardens, Little Artshram, and SEEDS for buildings targeted for redevelopment. It is anticipated that three Category D BEAs will be required in the next 36 months. Costs for addressing issues associated with affirmation of the BEAS by MDEA are included in this estimate. **Cost Estimate = \$15,000.**
- **Due Care Plans.** Building-specific plans will be prepared to describe the required engineering controls and/or use restrictions based on the findings of the assessments. It is anticipated that four Due Care Plans will be required in the next 36 months. Costs for addressing issues associated with affirmation of the Plans by MDEQ are included in this estimate. **Cost Estimate = \$32,000.**
- **Due Care Plans – Sub-Area 6:** Building-specific plans will be prepared to describe the required engineering controls and/or use restrictions based on the findings of the assessments. It is anticipated that three Due Care Plans will be required in the next 36 months. Costs for addressing issues associated with affirmation of the Plans by MDEQ are included in this estimate. **Cost Estimate = \$20,000.**

3.1.3 Contaminated Soil Removal/Disposal and Engineering Controls.

A. Sub-Areas 2&3

It is anticipated that soils around the buildings and elsewhere, impacted with metal and/or PNA contamination at concentrations exceeding Direct Contact criteria, will require removal and disposal. While the actual quantities of soils to be removed / disposed will be determined by the findings of the assessments described in Section 3.1.2 of this Work Plan, experience with other buildings in the Village similarly impacted with metal contamination indicates that approximately 36,000 cubic yards of soil would require management. Depending on the findings of the assessments, alternative means of managing these soils may be selected, including partial removal/disposal, capping, reuse elsewhere on site where they will be capped, and/or placement of use restrictions. It is noted that this cost estimate includes work in Sub-Area 6. **Cost Estimate = \$841,000**

3.1.3 Contaminated Soil Removal/Disposal and Engineering Controls.

B. Sub-Area 6

It is anticipated that soils around the buildings and elsewhere, impacted with contaminants at concentrations exceeding direct Contact criteria, will require removal and disposal. Depending on the findings of any future assessments, alternative means of managing these soils may be selected, including partial removal/disposal, capping, reuse elsewhere on site where they will be capped, and/or placement of use restrictions.

Cost Estimate = \$118,190

3.1.4. Additional Contaminated Soil Management.

The project will include the construction of substantial infrastructure improvements and other site activities that will involve the excavation of trenches for utilities, foundations, basements, etc. Additionally, contaminated demolition debris will require management. Based on our experience with similar activities elsewhere in the Village, we anticipate excavating, removing or managing approximately 10,100 cubic yards of contaminated material at an average rate of \$15 per yard. **Cost Estimate = \$145,000.**

3.1.5. Environmental Construction Inspection and Confirmatory Sampling

The developer's environmental consultant (Consultant) will oversee construction activities involving, or conducted in contaminated media. The Consultant will ensure that all engineering consultants and contractors are completing the tasks for which they are responsible in accordance with the approved Work Plans, Health & Safety Plans, and Due Care Plans. Such activities will include waste removal and disposal activities, waste manifesting, environmental sampling and analysis as necessary, and documentation of due care compliance. Additionally, the Consultant will perform confirmatory sampling as

needed during removal of contaminated material in accordance with MDEQ guidelines for such sampling. The cost to complete this task is based on 8% percentage for oversight and management of the environmental construction cost activities, and 5% of the environmental construction cost activities for confirmatory sampling, analysis and reporting services. **Cost Estimate = \$90,000.**

3.1.6. Institutional Controls and Deed Restrictions

The presence of remnant contamination may not require full removal but will require restrictions in the types of uses by owners, residents and visitors, based on the measures described in the building-specific Due Care Measures Implementation Work Plans. This task will involve the development of location-specific land use management measures, institutional controls and associated deed restrictions, including but not limited to postings, permits, guidance documents, training sessions and material, fencing, deed recordings, notices to visitors/workers/utilities, etc. Based on similar measures implemented in other portions of the Village redevelopment, the cost of legal, professional, administrative and field services and material for this task is estimated at approximately 8% of all environmental construction costs. **Cost Estimate = \$80,500.**

3.1.7. Due Care Measures Inspecting and Reporting

As required by the Due Care Plan for Subarea 2 and 3 as well as by the location-specific Due Care Measures Implementation Work Plans, constructed/installed engineering controls, use restrictions and associated postings will require periodic inspections, documentation and reporting to MDEQ. Due to the very public nature of the Property, this work task will involve the monthly inspection and documentation of the status and condition of the completed Due Care measures and the annual reporting to the MDEQ for ten years. **Cost Estimate = \$56,000.**

3.1.8 Contingency

Due to the unpredictability of the site environmental conditions, a contingency (less than 15%) in the environmental assessment and construction is included in the project budget. **Cost Estimate = \$53,400.**

3.1.9 Interest.

Due to the substantial financial burden on the developer to undertake the eligible environmental activities required to address the contamination caused during and after the operation of the Psychiatric Hospital by the State of Michigan, this cost item involves the financing cost of undertaking the eligible activities by the developer until reimbursement through TIF is completed. It is determined by the Grand Traverse County Brownfield Redevelopment Authority that interest will be negotiated and made part of this work plan

and is part of the Amended Brownfield Plan, and shall not exceed the approved brownfield plan of \$26,766,457.

3.1.10 Brownfield Plan and Act 381 Work Plan

This task includes the preparation of several draft versions of the environmental components of the Brownfield Plan and this Act 381 Work Plan and associated documentation by the developer on behalf of the GTCBRA. **Cost Estimate = \$8,600.**

3.2 Michigan Economic Growth Authority (MEGA) Eligible Activities

MEGA eligible activities will be undertaken by the developer and by public entities to be determined at a future date.

3.2.1 Public Infrastructure Improvements (Public Entities)

The redevelopment is to be served by municipal utilities. These include: water, storm sewer, sanitary sewer, natural gas, telecommunications and electrical power. In addition to the utility improvements needed to extend these lines to serve the redevelopment, this plan also includes street repair, sidewalk replacement, parking structure and trailhead access improvements. It is noted that infrastructure that is located in Garfield Township are identified within this Plan however this activity is contingent upon a Public Act 425 of 1984 as amended being entered into or other binding agreement between the City and Township for activity to be an eligible for reimbursement.

The public infrastructure improvements anticipated, including activities within the Township that will be part of the aforementioned Public Act 425 of 1984 as amended, for which reimbursement through capture of incremental School taxes is proposed in this Work Plan, are as follows:

- Street Improvements
- Parking Structure
- New Campus Entrance
- Water Extension to Recreation Authority
- Replace Pitcast 10" Waterman
- Water Connection for Future Hotel
- Trailhead Improvements
- Engineering Design and Oversight

Cost Estimate = \$9,985,020

3.2.2 Public Infrastructure Improvements

The developer will undertake certain public infrastructure improvements in the portion of the Property located within the City, as needed to serve the redevelopment projects as they are being constructed. As described in Section 3.2.1, governmental entities will implement major public infrastructure improvement projects. The infrastructure improvements on public spaces, right-of-ways and public easements that will be implemented by the developer are as follows:

- Public component of surface parking
- Tunnels reconstruction (public walkway component)
- Water service extensions for fire suppression
- Fire hydrant installation / replacement
- Water service main extensions
- Sanitary sewer extensions / relocations
- Storm water extensions / relocations
- Public Village Square construction
- Public sidewalk construction / replacement

The engineering design and construction oversight services cost (10% of contracted cost) is included in the cost provided herein. **Cost Estimate = \$1,378,000.**

3.2.3 Demolition

A. This line item includes buildings in Subarea 2, 3. Due to the functionally obsolete nature of the buildings and other structures in the Property, demolition and/or removal of existing interior and exterior structures and building segments will be required to transform the buildings into usable commercial and residential spaces. Based on similar work in other historical buildings on the Property, the range of demolition/removal cost is \$7.50 to \$9.50 per square foot depending on the nature of each specific structural element. The demolition/removal includes exterior and interior walls, obsolete aerial and underground utilities, obsolete pavement, sidewalks and concrete structures, as well as tunnels and underground structures which will require partial removal. It also includes removal of equipment and structures from the former Power Plant. The structural inspections, engineering design and demolition oversight services cost (10% of contracted cost) is included in the cost provided herein. **Cost Estimate = \$3,179,000.**

B. Demolition for Sub-Area 6: Due to the functionally obsolete nature of the buildings and other structures in this sub-area, demolition and/or removal of existing interior and exterior structures and building segments will be required to transform the buildings. Based on similar work in other historical buildings on the Property, the range of demolition/removal cost is \$7.50 to \$9.50 per square foot depending on the nature of each specific structural element. **Cost Estimate = \$476,850**

3.2.4 Abatement

A. Sub-Areas 2 & 3

Approximately 420,000 square feet of space in the buildings on the Property will require abatement of ACM and LBP following surveys. Approximately 105,000 square feet of space in the buildings require abatement of mold and animal waste. The tunnels and other underground spaces will require abatement of mold, animal waste, and ACM. The buildings and structures requiring abatement are as follows:

- Cottages 22, 28 and 40
- Cottages 32, 34; and 30, 36 and 84
- Power Plant (building 52)
- Tunnels and underground spaces
- Chapel and Cottage 19
- Buildings 600 and 620
- Buildings 56, 57, 58, 60, 61
- Cellars 62 and 63
- Sub-Area 6 Buildings

The average abatement budget unit rate is \$11.25, based on the cost of the work completed in the previously redeveloped buildings. The ACM/LBP survey, design and abatement oversight services cost (10% of contracted cost) is included in the cost provided herein. **Cost Estimate = \$3,166,900**

B. Sub-Area 6

It is anticipated that the buildings on the Property will require abatement of ACM, LBP, mold and animal waste following surveys. The total extent of necessary abatement is currently undetermined. The ACM/LBP survey, design and abatement oversight services cost (10% of contracted cost) is included in the cost provided herein.

Cost Estimate = \$281,650

3.2.5 Site Preparation

Several activities are required to prepare portions of the Property for redevelopment, as follows:

- Geo-environmental assessments of soils/fill material for foundations
- Site grading and balancing for construction of roadways, surface parking and storm water management
- Debris and fill material management
- Structural improvements of Power Plant
- Erosion control

- Shoreline stabilization

The engineering design and construction oversight services cost (10% of contracted cost) is included in the cost provided herein. **Cost Estimate = \$592,500.**

3.2.6 Contingency

Due to the unpredictability of the redevelopment process, contingency is placed for both public and private activities. **Cost Estimate = \$1,479,418**

3.2.7 Interest.

Due to the substantial financial burden on the developer to undertake the eligible environmental activities required to address the contamination caused during and after the operation of the Psychiatric Hospital by the State of Michigan, this cost item involves the financing cost of undertaking the eligible activities by the developer until reimbursement through TIF is completed. It is determined by the Grand Traverse County Brownfield Redevelopment Authority that interest will be negotiated and made part of this work plan and is part of the Amended Brownfield Plan, and shall not exceed the approved brownfield plan of \$26,766,457.

3.2.8 Brownfield Plan and Act 381 Work Plan

This task includes the preparation of several draft versions of the MEGA components of the Brownfield Plan and this Act 381 Work Plan and associated documentation by the developer on behalf of the GTCBRA. **Cost Estimate = \$8,300.**

4.0 SCHEDULE AND COSTS

4.1 Schedule of Activities

<u>Development Activity</u>	<u>Projected Start/End Date</u>
Act 381 Work Plan approvals	December 2009
Environmental Assessments and Due Care Measures	December 2009 to July 2011
Demolition and Abatement	January 2010 to December 2014
Existing Building Rehabilitation	December 2009 to December 2016

New Construction/Buildings

September 2010 to September 2015

4.2 Estimated Costs

The MDEQ and MEGA eligible costs are shown on attached Table 1.