

**ACT 381 WORK PLAN**

**TO CONDUCT**  
**ELIGIBLE DNRE RESPONSE**  
**AND**  
**MEGA NON-ENVIRONMENTAL**  
**ACTIVITIES**

**EAST BAY PLAZA**  
**722 – 752 Munson Avenue**  
**Traverse City, Michigan**

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Prepared by:  
Inland Seas Engineering, Inc.  
for  
Grand Traverse County  
Brownfield Redevelopment Authority  
400 Boardman Avenue  
Traverse City, Michigan 49684

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## 1.0 INTRODUCTION

### 1.1 Eligible Property Information

#### a. Property Eligibility

The subject eligible properties are located in a qualified local governmental unit, being Traverse City, Michigan. The basis of eligibility for the properties in the East Bay Plaza Brownfield Plan is the environmental site conditions of the property being a "facility" as defined under Part 201 of the Natural Resources and Environmental Protection Act. In addition, some properties in the East Bay Plaza are eligible properties under Act 381 since they are located adjacent or contiguous to the properties that qualify due to their "facility" status. The bases qualifying properties in the Brownfield Plan are described below for each property.

#### b. Location

The East Bay Plaza Brownfield Site is located as shown on Figure 1. The individual properties within the Brownfield Plan (BP) are shown on Figure 2, which identifies these by their street address and indicates the basis for each parcel's eligibility status. Figure 6A presents a current aerial photograph showing existing occupations and surrounding land uses. The following table summarizes relevant information for each of these properties:

**ELIGIBLE PROPERTY QUALIFYING CHARACTERISTICS SUMMARY**

| OWNER                                  | TAX ID NUMBER | Address           | Occupation                 | Acres | Part 201 Facility | Adjacent / Contiguous to Facility |
|----------------------------------------|---------------|-------------------|----------------------------|-------|-------------------|-----------------------------------|
| TC Resort Properties, LLC              | 112-001-50    | 704 & 704 Munson  | Travel Lodge & Outbuilding | 3.35  | NO                | 708 Munson & Plaza Plume          |
| Woodland Properties, LLC               | 007-007-00    | 708 Munson        | Marathon Station           | 0.54  | YES               |                                   |
| Schelde-Kowalewski Partnership II, LLC | 007-006-00    | 714 Munson        | Schelde's Building         | 0.88  | NO                | 708 Munson & Plaza Plume          |
| Schelde-Kowalewski Partnership II, LLC | 007-005-01    | 716 Munson        | Schelde's Parking Lot      | 0.45  | NO                | 718 Munson & Plaza Plume          |
| East Bay Plaza II, LLC                 | 007-001-10    | 718 Munson        | Mall Retention Basin       | 0.31  | YES               |                                   |
| East Bay Plaza, LLC                    | 007-008-01    | 720 Munson        | Mall Drive & Vacant Land   | 0.46  | NO                | 718 Munson & Plaza Plume          |
| East Bay Plaza II, LLC                 | 007-001-01    | 722 to 746 Munson | Plaza:11 addresses         | 8.24  | YES               |                                   |
| East Bay Plaza II, LLC                 | 007-001-30    | 748 Munson        | Mall Parking Lot           | 0.30  | YES               |                                   |
| East Bay Plaza II, LLC                 | 007-001-20    | 850 Avenue B      | Vacant Land                | 1.15  | NO                | Plaza Plume                       |

**c. Current Ownership**

The current ownership for each eligible property is summarized above.

**d. Proposed Future Ownership**

Proposed future ownership for each eligible property is likely an affiliate of East Bay Plaza, LLC, similar to East Bay Plaza II, LLC. The future ownership of the Woodland Properties, LLC parcel is not determined at present. The Michigan Department of Environmental Quality (MDEQ) is undertaking corrective actions at this leaking, underground storage tank (UST) site. Ownership interest transfer may be considered upon completion of MDEQ corrective actions. Redevelopment of this parcel is slated for latter stages of site redevelopment activities as described in the BP.

**e. Delinquent Taxes, Interest, and Penalties**

There are no delinquent taxes, no interest charges or penalties due for any of the eligible properties within the BP.

**f. Existing and Proposed Future Zoning**

The predominant zoning for properties within the BP is designated C-3, Community Center District. The eligible property at the intersection of US-31 (Munson Avenue) and Airport Access Road (704 Munson) is the sole property within the small Hotel Resort District zone present at this intersection. The City of Traverse City has concurred with the BP, which identifies a prospective mixed use of commercial/retail and residential for this eligible property. In the latter stages of redevelopment under this BP, the 704 Munson eligible property may require rezoning or a text amendment to the current zoning district. The future Land Use Map within the current Traverse City Master Plan shows no change to the current zoning for this area.

**1.2 Historical Use of Each Eligible Property**

Past land uses within the Plaza include a dry cleaning operation and prior to the Plaza's development; the property included two (2) service stations fronting Munson Avenue. One (1) of the service stations (752 Munson Avenue) reported a release from an underground storage tank (UST) and the other (748 Munson Avenue) was demolished prior to the development of laws requiring registration of USTs or clean-ups from UST releases.

The dry cleaning operation within the Plaza (west end- 726 Munson Avenue) experienced a release of dry cleaning fluids which contaminated soil and groundwater. Some efforts to clean-up soil were advanced by the dry cleaning operator; however the operator went out of business and is now deceased. The dry cleaning fluids (solvents) clean-up is incomplete and natural groundwater movement has caused the spread of solvents to occur. Groundwater flows naturally toward East Grand Traverse Bay, causing the migration of dissolved solvents away from the west end of the Plaza toward the Bay to the northeast. This situation poses an ongoing threat to surface water quality (the source of Traverse City's potable supply) and the residents living between the plume and the Bay.

The release from the former service station once located at the intersection of Munson Avenue and Avenue B (752 Munson: United Station #6257) also underwent partial clean-up. Residual contamination of soil is known to remain below the building currently occupying this area of the Plaza. A deed restriction was placed on the property and recorded by the party liable for the clean-up. The restrictive covenant prohibits the use of groundwater beneath a portion of the UST release site, evidencing the fact that a continued threat to health and surface water quality remains as a result of past land use. In addition, a Right of Way (ROW) Permit was issued to the liable party by the Michigan Department of Transportation (MDOT), allowing the MDOT ROW to be used as an institutional and engineering control to limit exposures to contamination remaining beneath the MDOT ROW.

The other service station (748 Munson) was formerly located in the area east of the Plaza entrance and west of the leaking UST (LUST) site described above. Some assessment of this property was recently undertaken by both the Michigan Department of Natural Resources & Environment (DNRE) and the US EPA at the request of the Grand Travers County (GTC) Brownfield Redevelopment Authority (BRA). The preliminary findings from the GTCBRA's requested assessment indicate that the former USTs associated with the service station have likely been removed. Some evidence of buried metal objects remains, though not apparently large enough to clearly indicate a UST. No obvious contamination is evident from the preliminary assessment efforts of DNRE and EPA. Unexplained geophysical anomalies remain present at this address, suggesting the relic elements of the former service station may be encountered during redevelopment.

The historic land uses for the site and vicinity are summarized within a Phase I Environmental Site Assessment prepared in conjunction with the East Bay Plaza LLC's Baseline Environmental Assessment completed in 2005. The following is an excerpt from that report:

### **3.0 HISTORICAL REVIEW OF SITE AND VICINITY**

Interviews with those knowledgeable of the site, aerial photographs, and city directories (predating 1940) were utilized in determining historical uses of the property. Sanborn maps were not available for this portion of Traverse City, Michigan. The subject property has been used as a major mall and strip center since its original development in the mid 1960s, and renovated in 1994 for East Bay Plaza.

Prior to the construction of the current structures, the property was vacant undeveloped land since at least 1952. AEI was not able to ascertain the history of the subject property back to 1940 (due to data failure) as none of the historical sources utilized as part of this assessment covered the period from 1940 to 1952 (first available aerial photograph). However, based on the rural and undeveloped nature of the site in the 1952, this limitation is not expected to alter the conclusions of this report. With the exception of the environmental concerns discussed in the executive summary, no indications of any environmentally sensitive practices were identified.

Details regarding the historical uses of other eligible properties within the BP will be determined in conjunction with All Appropriate Inquiry efforts completed in concert with future ownership interest transfers. Some recent historical information for certain properties are included below in the summary of environmental conditions.

### **1.3 Current Use of Each Eligible Property**

The current use of each eligible property is described in the Qualifying Characteristics Summary Table above. Figure 4 presents selected color photographs for several of the eligible properties. Additional information regarding current land uses are presented below:

#### 702 & 704 Munson

704 Munson is currently operated as a seasonal hotel. 702 Munson, an address associated with the same parcel as 704 Munson, is occupied by an outbuilding related to the hotel. This property is currently leased apartment residential space.

#### 708 Munson

This is an operating Marathon-brand convenience store and gas station. The current operator is Schmuckal Oil Company. The current owner and operator completed and disclosed a BEA in conjunction with their acquisition of the property in 2001.

#### 714 & 716 Munson

This property is currently occupied by a single-story building which operates as a restaurant. Restaurant (Schelde's) operations have been undertaken on this property for the past 20 years or more.

#### 718 Munson

This property has been vacant since the development of East Bay plaza. The property serves as the plaza development's storm water detention and infiltration basin. The groundwater contamination plume emanating from the western end of the Plaza retail building (former One-hour Martinizing) migrates onto this property. The infiltration of storm water at this locations alters the direction and velocity of the groundwater contamination (dry cleaning solvents) plume.

#### 720 Munson

This property remains undeveloped, save the portion occupied by a drive entrance (western-most) into the Plaza. The land is otherwise occupied in vegetative cover.

#### 748 Munson

This property has been occupied as parking area since the plaza was developed.

#### 850 Avenue B

This property is currently undeveloped and occupied in vegetative cover. Sanitary sewer outfalls from the adjacent (south) multi-family residential dwellings run through the property to the gravity sanitary sewer lead present south of the main plaza building.

#### 722 - 746 and 752 Munson

These addresses correspond to the main developed portion of East Bay Plaza. Three (3) separate buildings occupy this property. Jo Ann's is a fabric and tailor-supply retail store located in the building at 724 Munson. Life Story Funeral Home occupies the building present at 752 Munson. The building present at this address

was constructed following demolition of the former United Station #6257. Prior to funeral home use, the original building was constructed as a restaurant.

The third building on this parcel is the main Plaza building. This building consists of leased commercial and retail space which provides the local community with much of its commerce needs. Occupants include, but are not limited to; Tom's Food Market (local grocery), Dunhams (sporting goods & recreation), Dollar Tree (general merchandise), Grand Traverse Bagel & Bakery (bakery and deli), an Asian-cuisine restaurant, a tobacconist and a Hallmark franchise (specialty retail). Limited vacant retail lease space exists currently. One currently vacant space includes banking security infrastructure.

## **1.4 Proposed Redevelopment and Future Use**

### **a. Summary of Proposed Redevelopment**

Figure 6B provides the Conceptual Redevelopment Plan for East Bay Plaza considered in the adoption of the Brownfield Plan (BP). Noteworthy are the increased density of land use and the improvements in connectivity and walkability that this configuration of land use supports. The increased development density is fostered by more effective array of occupations on the land which allows common parking and enhances a pedestrian commerce experience. Figure 6C depicts the progression of redevelopment efforts which are color-coded and numbered in sequence. In general, development enabled by the BP is planned to proceed from east to west across the eligible properties. As existing leases toll and pollution clean-up make western areas suitable for development, then infrastructure and denser land uses can be advanced westerly.

Increased development density is supported by the movement of surface detention of storm water runoff to a network of subsurface detention and infiltration structures. The surface detention area for storm water is located on 718 Munson (a.k.a Parcel A), fronting Munson Avenue and the main Plaza entrance. This detention basin and associated storm water conveyances will be demolished and replaced with the subsurface system. Subsurface detention and infiltration provides a more sustainable storm water management design than do surface detention and release storm water systems. Treatment of storm water runoff is achieved without a conventional surface water discharge. This is accomplished through infiltration, a process that uses surface area and contact time to degrade and absorb pollutants entrained in runoff.

Development of sustainable storm water management cannot be achieved until the solvent contamination of groundwater is adequately addressed, allowing construction of infiltration systems in areas currently occupied by pollution. The area of impact and impeded development is shown on Figures 3A and 6A. When the subsurface environment is restored in this area of the Plaza, the improvements to storm water management can begin through installation of infiltrator systems. With this in place, the existing surface runoff detention system can be demolished and the land filled for a development site.

The restoration of groundwater is estimated to require three (3) years following commencement of clean-up activities. Concurrent with land development activities, infrastructure improvements and connectivity improvements must be made. The substantial reshaping of land uses, site preparation activities and infrastructure

improvements will occur in various phases over several years. Due to the existing groundwater pollution in the west and northwest portions of the Plaza properties initial development is limited to northeast areas where land is currently available.

The development of affordable residential dwellings at 802 Avenue B (a.k.a. Parcel B) or upon the 702 Munson envelope (existing rental dwellings) provides an opportunity to bring worker residences in proximity to work places and enhance the Community Center zoning district's quality of life by reducing the need for motor vehicles. While much of life's commerce needs could be provided for in a Community Center such as this, the inclusion of a public transit access site within the Plaza is planned to connect to residential areas beyond the BP boundary to provide pedestrian connectivity for the greater metropolitan area of Traverse City.

Installation of non-motorized paths to connect this Community Center zoning district to the surrounding residential community is also an essential component of the BP. Currently there is no safe, public, non-motorized access connecting this district to either the Traverse Area Recreational Trail or to the residential communities at the base of Old Mission Peninsula. The planned connectivity improvements are shown by Figures 5A and 5B. Reducing the need for motor vehicles and improving access to public transit reduces traffic, its demands on infrastructure and the greenhouse gas emissions associated with internal combustion engines. This enhances the quality of life for residents by promoting clean-air, and a means to accomplish commerce while enjoying the fitness opportunities that walk-able communities foster.

The development of all structures supported by the PLAN is intended to be undertaken using sustainable development, low-impact approaches. The development is planned to utilize the latest in energy efficiency technologies and will endeavor to attain "green" or "sustainable" certification from a third party entity, such as LEED or Energy Star. Sustainable development starts with planning and design and continues through construction and operation. The development will endeavor to accomplish certification through incorporation of established "green" technologies.

Sustainable development concepts currently being planned for application include:

- Pervious pavement to reduce storm water run-off
- Light-emitting diode (LED) area lighting systems to replace high-intensity discharge units
- Green roofing systems, including roof-top agriculture and passive solar systems
- Energy audits and conservation retrofits for existing buildings
- Green-remediation technologies for groundwater contamination plume clean-up

#### **b. Number Type and Purposes of Proposed Structures**

Between seven (7) and 10 new buildings are proposed to be developed through implementation of the Brownfield plan (BP). This figure does not include development of work force housing on Parcel B (820 Avenue B). Feasibility evaluation of affordable housing units on this parcel is on-going and will be dependent upon collaborative cooperation with organizations such as; the Grand Traverse County Land Bank, Grand Traverse County, the Traverse City Housing Commission, Michigan State Housing Development Authority, Homestretch, Habitat for Humanity and other not-for-profit entities.

occupied by the seasonal motel and Schelde's restaurant. The first planned structure is a restaurant totally approximately 5,000 square feet (SQFT). The next phase of development includes a 13,000 SQFT retail/commercial building immediately west of the new restaurant and another 13,000 SQFT retail/commercial building at the corner of Munson Avenue and Airport Access Road, where the season motel exists. This is followed by construction of a 26,000 SQFT commercial building suitable to house a "Super Jo Ann" store that can provide classrooms space for domestic skills learning and additional space for associated services. This enables demolition of the aged and undersized building where the current Jo Ann is housed, opening that area for the next phase of development. This next phase includes two (2) additional buildings, each 4,000 SQFT in size. These locations are ideal for use as a public transportation hub and associated businesses. The last development pod includes space for three (3) additional buildings. Two (2) units of 4,000 SQFT sized are proposed along with a final 13,000 SQFT in retail and mixed use spaces.

### c. Job Creation/Retention, Private Investment and Project Cost

Private investment will drive the redevelopment of East Bay Plaza. The net increase in new work spaces is approximated by the planned investment in demolition and construction costs are summarized below.

| Development Pod | Demolished Value | New Construction SQ FT | Added Value | Net Increased Value |
|-----------------|------------------|------------------------|-------------|---------------------|
| Phase 1         | \$ -             |                        | \$650,000   | \$650,000           |
| Phase 2         | \$ 1,648,000     | 20,000                 | \$2,700,000 | \$1,052,000         |
| Phase 3         | \$ 864,000       | 25,000                 | \$3,375,000 | \$2,511,000         |
| Phase 4         | \$ -             | 6,000                  | \$810,000   | \$810,000           |
| Phase 5         | \$ 260,000       | 18,000                 | \$2,430,000 | \$2,170,000         |
|                 |                  |                        |             | <u>\$7,193,000</u>  |

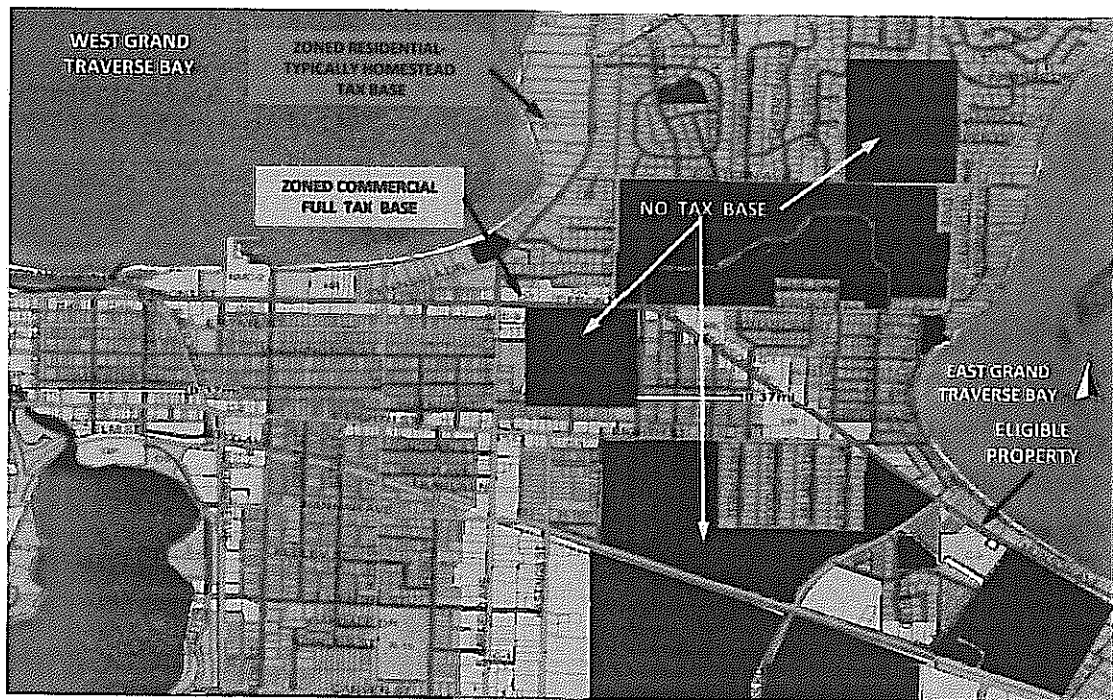
Additional private investment is required to accomplish the redevelopment proposed in the Brownfield Plan (BP). These investments are for demolition costs, site preparation costs, infrastructure improvements and the extraordinary development costs due of environmental contamination of nearly 25% of the existing Plaza real estate. The extraordinary environmental costs are projected at approximately \$700,000 of which approximately \$500,000 is related to clean-up of the dry cleaning solvent plume. Total investment required to implement the BP is estimated to be \$2.5 million dollars. Approximately 20% of the cost to attain the highest and best use of this land is extraordinary cost of clean-up. Site clean-up is required before the development land can become available.

The increase in work space will allow for job creation that is not possible in the absence of the work space. In addition to the land currently vacant and unavailable due to contamination, the seasonal motel land use does not attain full time year-round employment opportunities. The redevelopment proposed in the BP enhances the ability to support full time employment and work force housing on this land and also stimulates commerce activities in the City Center Zoning District. The addition of space allows for greater diversity of commercial enterprises at this commercial hub. The BP supports full development in this area of the community proximal to residential areas that have no other proximal opportunity to obtain life's needs

through commerce. The essential nature of this commercial area is highlighted by the figure below excerpted from the BP. Whether banking or obtaining essentials such as; food, clothing, health aids, gasoline or even attending to funeral needs, this commerce center supplies the needs of the proximal surrounding community. Addition of diverse work spaces not only supports the local community need and mitigates the need to drive to more developed and distant malls, but additional diversity through growth also supports existing enterprise, such as community grocers, that face pressure from hyper-markets located in area malls a great distance from consumers. Existing job retention is supported through implementation of the BP.

The figure below also highlights the positive improvements to local tax base that can be realized. Area public properties or properties that provide no tax revenue to the City of Traverse City are concentrated in this area of the community. Tax proceeds needed to support infrastructure and services must flow largely from outside the area of demand. The eligible properties included in the BP are among the only properties in this portion of the community capable of increasing in taxable value.

#### RELATIONSHIP OF BROWNFIELD SITE TO COMMUNITY DEMAND AND TAX BASE



Public support and funding is a requisite stimulus to the investment needed to improve the subject eligible properties. In order to safeguard Grand Traverse Bay's water quality, retain existing and essential work-force jobs and improve the community's tax base and access to essential services and commerce- the barriers to private investment need to be offset through public support and incentives.

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

### **a. Background**

Only about 25% of the Plaza property in this Community Center zoning district is occupied by commercial spaces. The configuration of the property and the degree of contamination present over large areas of the Plaza has rendered the fuller economic development of the property infeasible. The extraordinary costs associated with addressing known and suspected contamination is an impediment to investment in the property and diminishes the commerce and community functions of this land. The current Plaza property owner is not liable for clean-up of contamination and there are inadequate funding sources at the local, state or federal level dedicated to clean-up the orphaned contamination sites and eliminate threats to the Bay and human health.

Further, the age and physical limitations of City infrastructure in this part of the City add to the economic barriers to investment caused by contamination. Municipal water service must be extended to support fire suppression flows and any additional user taps. Sanitary sewer infrastructure is of clay-tile vintage and is reported from City Engineering's inspections to root-infested and partially plugged by accumulated organics and grease. Non-motorized pathways to this Community Center district are currently non-existent despite a proximal, demonstrated pedestrian demand. The Plaza entrances are situated remote from traffic signaling on US-31, causing challenges to motor vehicle ingress/egress and driving vehicle traffic through residential neighborhoods to gain access to signalized and safe turning. This adds undue risks to the motoring and pedestrian public alike.

The residents living near this Community Center district and the City of Traverse City suffer substantial detriment to their welfare by the conditions of pollution, inaccessibility/ disconnectivity and impaired economic development described above. The City along with all other taxing jurisdiction drawing tax revenues from this part of the community experience a direct and substantial challenge caused by these adverse conditions. These tax revenues are well below their maximum levels as result of the investment challenges.

### **b. Public Purposes Served by Brownfield Redevelopment**

This Brownfield Redevelopment Plan (PLAN) is assembled to provide a tool to help eliminate the above described barriers to investment and community development. Primary among the public purposes served is the clean-up of contamination that threatens Grand Traverse Bay, human health and welfare and impedes use of the land in this Community Center zoning district for commerce and essential community uses. Secondary to restoration of our community's water quality are the ancillary public purposes that will be realized by the public through investment and redevelopment of the Plaza. Many other public purposes served, such as job creation and retention, tax base improvement have been identified above.

### **c. Necessity of Eligible Activities**

Each individual activity included in the work plan is required to complete a development need and overcome the barriers to investment that the contamination and ineffective current land use presents. The key to full development of this Community Center involves:

- cleaning up the contamination that renders existing vacant land unusable
- installing public infrastructure that is aged/lacking in this part of the City
- removal of dated, energy inefficient buildings that block dense land use
- improving access and connections to the proximal community
- investment in “green”, commercial work spaces and affordable housing

These key requirements dictate an approach to investment that is front-loaded with extraordinary development costs. The eligible activities in this work plan are necessary to address the costs associated with contamination & clean-up, lead and asbestos abatement, demolition, site preparation and infrastructure improvements.

The level and extent of contamination alleviated by or in connection with the eligible activities is profound. As shown below, the ground water contamination plume emanating from a former dry cleaning operation occupies a large portion of the available Plaza property and is composed of known toxins and carcinogens. The full extent of impact to groundwater is not fully understood, but it is clear that there is no barrier to continued migration of these toxins to the waters of Grand Travers Bay. Clean-up of the plume protects public health and natural resources while making the land available for productive use.

### **d. Sufficiency of Eligible Activities**

The individual activities included in the work plan are sufficient to complete the eligible activities needed to ameliorate the extraordinary cost barriers to investment. Removing contamination using established and proven technologies is sufficient to allow for unrestricted land uses where restrictions now exist.

Installing public infrastructure to serve future development in areas where infrastructure is aged/lacking is sufficient to eliminate the extraordinary costs associated with providing or updating these essential public facilities. Removal of dated, energy inefficient buildings is sufficient to open land and allow for efficient reuse in a dense, energy efficient manner.

Improving access and connections to the proximal community by eliminating barriers to access that currently exist is sufficient to further the public purposes supported by the City and the County through adoption of the BP. Providing the means for proximal residents and other uses to access life's essential goods and services at this Commerce Center is sufficient to support the public and private investment envisioned by the BP.

**e. Reasonableness of Eligible Activity Costs**

The process by which eligible activity costs were estimated (including their necessity, sufficiency and reasonableness) took well over a year of deliberate planning. This planning was a collaborative effort between the eligible property owner (developer) and:

1. **Grand Traverse County**
2. **The Grand Traverse County Brownfield Redevelopment Authority**
3. **The Michigan Department of Environmental Quality**
4. **The US Environmental Protection Agency**
5. **The City of Traverse City**

All the above entities invested time and resources into identifying and quantifying the challenges and needs facing full development of the eligible properties. The developer retained two (2) different State-licensed, Professional Engineers charged with developing preliminary plans for development and estimating costs associated with same. These licensed professionals used their specific experience and knowledge (along with information derived from the collaborative efforts of those cited above) to develop reliable and reasonable plans and associated costs for Brownfield Redevelopment.

From these efforts a Brownfield Plan (BP) was created. The BP was reviewed and approved by three (3) different public bodies at three (3) different open meetings) in addition, the public was engaged through an additional open meeting that was televised so as to inform the public of the BP and its activities, its costs and necessity to achieve the public purposes sought and supported.

With approval and concurrence of the BP, the developer pursued private financing in order to commence site redevelopment. In this process, plan costs were further scrutinized as private lenders undertake their own due diligence. In summary, the costs are reasonable as they represent the likely cost to accomplish the eligible activity based upon prevailing market rates for such activities and a comprehensive, carefully conceived plan developed by experienced licensed professionals working under the scrutiny of the public and private parties that would support or reject the BP and its costs.

**f. Other Anticipated State/Local Incentives** ( that directly/indirectly benefit this project )

The Grand Traverse County Brownfield Redevelopment authority plans...????

## **2.0 CURRENT PROPERTY CONDITIONS**

### **2.1 Summary of Environmental Conditions**

Current environmental conditions are summarized above and in the BP. The MDNRE Brownfield Assessment Report includes details regarding the most current groundwater sampling data. These data were used to generate Figures 3A, 3B and 3B which depict the areal extent of the dry cleaning solvent plume as well as its vertical distribution in the water table aquifer.

## 2.2 Summary of Functionally Obsolete and/or Blighted Conditions

There are no functionally obsolete or blighted structures on the eligible properties.

## 3.0 SCOPE OF WORK

The scope of work considered under this work plan include all non-environmental eligible activities necessary to accomplish all eligible activities and public purposes of the Brownfield Plan (BP). Only those Part 201 eligible activities which are necessary to clean-up the groundwater contamination are included in this work plan as additional response activities. Other Part 201 eligible activities that require MDEQ approval of this work plan and which are essential for development of Pod 1 or planning for Pod 2 development have also been included in this work plan. Part 201 eligible activities which require only Brownfield Authority review and approval will be dealt with separately from this work plan.

The following table excerpted from the BP summarizes the eligible activities and their type for each parcel of eligible property.

| PLAN ELIGIBLE ACTIVITIES SUMMARY |                    |            |                   |                 |      |          |                     |
|----------------------------------|--------------------|------------|-------------------|-----------------|------|----------|---------------------|
| ELIGIBLE PROPERTY                |                    | MEGA       |                   |                 | MDEQ |          |                     |
| TAX ID NUMBER                    | Address            | DEMOLITION | SITE PREP-ARATION | INFRA-STRUCTURE | BEA  | DUE CARE | ADDITIONAL RESPONSE |
| 51-112-001-50                    | 704 Munson (& 702) | SB         | Y                 | Y               | N    | N        | N                   |
| 51-007-007-00                    | 708 Munson         | SB         | Y                 | Y               | Y    | Y        | N                   |
| 51-007-006-00                    | 714 Munson         | SB         | Y                 | Y               | N    | N        | N                   |
| 51-007-005-01                    | 716 Munson         | S          | Y                 | Y               | N    | N        | N                   |
| 51-007-001-10                    | 718 Munson         | S          | Y                 | Y               | N    | Y        | Y                   |
| 51-007-008-01                    | 720 Munson         | S          | Y                 | Y               | N    | Y        | Y                   |
| 51-007-001-01                    | 722 to 746 Munson  | SB         | Y                 | Y               | N    | Y        | Y                   |
| 51-007-001-30                    | 748 Munson         | S          | Y                 | Y               | N    | Y        | Y                   |
| 51-007-001-20                    | 850 Avenue B       | S          | Y                 | N               | N    | N        | N                   |

Notes :    B = Building Demolition                      N = None Planned  
              S = Site Demolition                        Y = Planned  
              SB = Building & Site Demolition

### 3.1 DNRE Eligible Activities

#### a. Baseline Environmental Assessment

No BEA activities are included with this work plan

#### b. Due Care

Due Care response activities requiring State review/approval necessary for redevelopment and that will likely arise during the initial stages of redevelopment include activities associated with the former undocumented service station at 748 Munson (Parcel C). Underground relics of piping and/or small USTs or hydraulic hoists may still exist. Similarly, dry wells or buried wastes may be encountered during construction, therefore development of this portion of the Plaza must consider eligible activities to address such contingencies, should they be discovered during construction.

Brownfield assessment collaboration with MDEQ and US EPA identified geophysical anomalies within this development pod. Though preliminary sampling efforts by MDEQ did not detect obvious soil or groundwater contamination, such conditions may still be present and localized. In addition, dewatering activities in this area of the Plaza may affect the solvent plume and cause it to spread if not carefully and diligently undertaken.

Therefore the Due Care eligible activities proposed in support of initial development include:

|                                                          |           |               |
|----------------------------------------------------------|-----------|---------------|
| Phase II Environmental Site Assessment Activities        | \$        | 18,000        |
| Building Matl & Universal Waste Assessment               | \$        | 4,800         |
| Fate/Transport Assessment                                | \$        | 1,200         |
| UST/Oil Water Separator/Dry Well Removal                 | \$        | 15,000        |
| Transportation/Disposal-Contaminated Soil & Dewatering   | \$        | 10,000        |
| Storm water Management and Engineering Specs/Plans       | \$        | 2,000         |
| Building Above Contaminated Material (Mitigation System) | \$        | 5,000         |
| Rule 299.51013(6) Notifications (3rd Parties)            | \$        | 800           |
| Rule 299.51017(1) Notification (Offsite)                 | \$        | 800           |
| Section 20107a Compliance Analysis                       | \$        | 10,000        |
| Meetings, Work Plans and Reports                         | \$        | 2,500         |
| <b>Due Care Obligation Compliance Subtotal</b>           | <b>\$</b> | <b>70,100</b> |

#### c. Additional Response Activities

This land's development is currently impeded by the presence of groundwater contamination. The dry cleaning solvent plume is present under this area of the site as shown by Figure 3A, Figure 3B and Figure 3C. This affects the ability to manage storm water runoff and to develop the existing storm water detention basin property. The redevelopment plan considered elimination of the existing detention basin, its backfilling and construction above it. Future storm water management will include subsurface infiltrator systems, rain gardens and reuse of storm water for landscape irrigation purposes. Before such improvements can commence, a 5-year process to remediate the dry cleaning solvent plume must be undertaken.

Additional response activities to remediate the groundwater plume and to address soil contamination which sources the plume are proposed. Soil remediation will be accomplished through the application of soil vapor extraction (SVE) techniques. Extracted vapor will be treated and emissions from treatment equipment will be discharged to atmosphere.

Groundwater remediation will be accomplished through the application of air sparging (AS) techniques. AS is an aquifer remediation technology that applies in-situ treatment of the affected groundwater. Vapor controls will be incorporated into the AS remediation plan to mitigate the potential for human exposure to hazardous vapors which arise from the exsolution of hazardous substances or petroleum from the affected groundwater. As with the vapor recovered from the SVE operation, vapors from the AS operations will be handled in accordance with State and Federal air quality regulations.

Schematic plans for the AS/SVE system are included in Attachment C. Also included in Attachment C are engineering cost estimates for AS/SVE system; installation, operations, monitoring, reporting, post-remediation monitoring and AS/SVE system demolition costs. While these cost estimates are based upon market rates and experience with similar projects, this Additional Response Activity work plan includes public solicitation of bids for installation and operation of the AS/SVE system upon completion of final engineering design and permitting.

Initial design estimates consider that active operation of the AS/SVE system will be 3-year duration. Following active operation, post treatment groundwater monitoring will be undertaken to assess the reliability of the remediation effort and to substantiate the clean-up goal has been met using a statistically significant body of performance monitoring data. Similarly, soil and soil gas samples will be utilized to assess the completion of soil clean-up efforts. Upon demonstration of adequate performance, a "No Further Action" report will be prepared and submitted to MDEQ. Upon attainment of the No further Action status, the treatment system will be dismantled, air injection and withdrawal wells plugged and abandoned, and monitoring wells properly plugged and removed.

The work plan costs for these additional response activities are summarized below.

**Additional Response Activities - Solvent Plume Clean-up**

|                                                      |                  |
|------------------------------------------------------|------------------|
| Solvent Plume Clean-up System Install                | \$ 200,000       |
| Plume Clean-up System O&M and Performance Monitoring | \$ 180,000       |
| Solvent Plume Clean-up NFA Petition                  | \$ 30,000        |
| Solvent Plume Clean-up System Demobilization         | \$ <u>50,000</u> |
| Additional Response Activities Subtotal              | \$ 460,000       |

**d. Develop/Prepare Brownfield Plan and Work Plan**

The reasonable cost of developing this work plan for a multi-year, phased redevelopment of these eligible properties is included within this work plan. Also included are the costs anticipated for work plan review and supplementing information.

### **3.2 MEGA Eligible Activities**

#### **a. Infrastructure Improvements**

Infrastructure improvements necessary for redevelopment include:

- Water Main Extension-Looping
- Sanitary sewer improvements within City right of way (ROW)
- Utility (Power) Pole Relocation and Improvements
- Curbing, storm sewer and approaches within MDOT and City ROWs
- Connectivity improvements (streetscapes, paved walks and paths)
- Engineering plans & specs and construction oversight for all the above

These improvements (save power infrastructure) are shown schematically on Figures 5A and 5B. Current water pressure is inadequate within this area of the City water system. Extension and looping (to mitigate stagnant dead ends) is required prior to allowing new connections at the Plaza. Similarly, the age of the sanitary wastewater works in this area of the City suggest some improvements will be expected within the City ROW when extending and connecting new user services within the Plaza.

Connectivity improvements for motor vehicle traffic include the east-west drive connecting Airport Access to Avenue B to enhance vehicle and pedestrian safety during ingress and egress from the Plaza. Existing approaches into the Plaza often require motor vehicles to avoid merging directly onto Munson (US-31) for traffic safety reasons as there are no signalized ingress/egress points for this Commerce Center. To avoid accidents and traffic, users often exit on Avenue B and drive south through residential neighborhoods to circle around north to enable entry onto Munson at the Airport Access road signal. This increases traffic in residential neighborhoods and adds a quarter-mile of transit, increasing greenhouse gas emissions. The connections of the east-west drive through the Plaza will require curbing and storm water improvements within the City ROW on Airport Access and Avenue B.

Other connectivity improvements include sidewalks and streetscapes all within the City and MDOT ROWs. Additional ROW or easement may be required for the walkway proposed to connect Eighth Street to the Airport Access signalized crossing located on the north side of Munson (Figure 5B). All infrastructure improvements are proposed to be located on public properties, save the water main extension that will lie below the east-west drive through the Plaza. The Plaza owner(s) will convey a perpetual easement to the City for maintenance of public infrastructure located on the eligible property, consistent with Act 381. The east-west drive will be designed and dedicated for use by the public and continuously open to public access, consistent with Act 381. For all other infrastructure improvements that are not located on eligible property, the infrastructure improvement will directly benefit the eligible property included in the Brownfield Plan (BP).

#### **b. Demolition that is not a response activity**

Demolition activities in this work plan which are not response activities include Site Demolition and Building Demolition. The following buildings are considered to be demolished in execution of the BP:

JoAnn Fabric  
Schelde's Restaurant  
Travel Lodge Motel  
Marathon Convenience Store & Gas Station  
Funeral Home (former restaurant)

Engineering/Professional Services in support of building demolition are eligible activities included in this work plan.

Site demolition includes:

- demolition of pavement and curbing required during realignment of the Plaza,
- demolition of existing storm water conveyances,
- abandonment / demolition of aged sanitary sewer gravity leads or force mains,
- removal of unstable soil or soils unsuitable to support improvements,
- Engineering/Professional Services in support of demolition

#### **c. Lead and Asbestos Abatement**

Due to the age of construction for all buildings described above, lead and asbestos must be presumed to be present. Pre-demolition assessment activities will identify building materials that requires special handling or abatement during or prior to demolition. Based upon prior experience, lead and asbestos abatement activities will be required for each building demolished.

#### **d. Site Preparation that is not a response activity**

Site preparation activities that are not Part 201 response activities are essential to each redevelopment pod's improvements. These activities include mobilization of equipment and construction materials, land balancing and re-grading associated with revised storm water management and realignment of buildings within the Plaza.

Due to the nature of some eligible properties, special site preparation is anticipated. Clearing and grubbing of the motel property will be required, as will the backfilling of the existing swimming pool. Similarly, backfilling and compaction of the existing storm water detention basin is required to prepare this property for development.

Finally, the property at 748 Munson which was once a service station and which revealed geophysical anomalies during US EPA's assessment is expected to require test pits, removal of unsuitable soils/debris and backfilling. It is possible that the geophysical anomalies detected by US EPA are not related to relic hoists, tanks or other structures, but rather may just be related to debris disposal from the

previous building demolition and therefore would not be a response activity to address the extraordinary site preparation.

In addition to these site preparatory activities, a development-wide geotechnical investigation is included as a site preparation eligible activity in this work plan. This will serve to identify soil conditions and groundwater control issues that can affect site redevelopment. Also included in this work plan are Engineering and Professional service costs associated with site preparation. Dewatering is also anticipated for the installation of infiltration systems and sanitary sewer gravity leads. Dewatering which is not a response activity is expected to be required for underground storage tank removal and backfilling/re-compaction when the existing gas station is decommissioned.

**e. Assistance to a land bank fast track authority**

Assistance to a land bank is not proposed within this work plan

**f. Relocation of Public Buildings or Operations**

There is not relocation of public buildings/operation included within the BP, therefore no such activities are included within this work plan.

**g. Develop/Prepare Brownfield Plan and Work Plan**

The reasonable cost of developing this work plan for a multi-year, phased redevelopment of these eligible properties is included within this work plan. Also included are the costs anticipated for work plan review and supplementing information.

## **4.0 SCHEDULE AND COSTS**

### **4.1 Schedule of Activities**

Redevelopment is planned to commence immediately following review and approval of this work plan by MDEQ and the Michigan Economic Growth Authority (MEGA). Development pod 1 (Figure 6C) including the color-coded infrastructure improvements is anticipated to be under construction in 2011 if redevelopment incentives can be secured along with conventional project financing. The investment schedule considered by the feasibility analyses of the BP identifies that pod 2 redevelopment will occur between 2012 and 2014, with the remainder of investments and improvements occurring between 2016 and 2023.

As identified throughout this work plan, the redevelopment is planned sequentially with various activities or conditions being required as prerequisites to future sequences of development. Generally, the sequence of key environmental and non-environmental activities through each pod redevelopment (Phase) is summarized below.

## Phase I

### Environmental

Install Clean-up for PCE plume  
Subsurface issues 1940s gas station  
Sample Motel for lead and asbestos

### Development

Build Restaurant Pod 1  
Install Water & Sewer  
Minor streetscapes

## Phase II

### Environmental

Operate PCE clean-up  
Due Care Plans-detention basin filling  
Monitor State clean-up Marathon site  
Asbestos/Lead Abatement for Motel  
Sample Lead/Asbestos Jo Ann

### Development

Build Storm water Infiltration System  
Demo Motel (partial)  
Site Prep Motel  
Build new funeral home (Pod 2a)  
Build Corner Retail (2b)  
Fill Storm water Basin

## Phase III

### Environmental

Verify clean-up of PCE is complete  
Asbestos/Lead Abatement Jo Ann  
Sample Lead/Asbestos Motel

### Development

Build Super Jo Ann  
Demo Jo Ann  
Finish water & sewer build-out  
Install additional Infiltrators  
Finish Plaza through road  
Build trail and connect to 8TH Street

## Phase IV

### Environmental

Demolition of PCE Clean-up system  
Groundwater monitoring  
Sample Lead/Asbestos Schelde's

### Development

Build Infiltrators & Re-grade site  
Streetscapes & "Place" Development  
Build Public Transportation Stop  
Build small commercial building

## Phase V

### Environmental

Asbestos/Lead Abatement for Schelde

### Development

Demolish Scheldes  
Build Restaurant / Retail Pod 5  
Build Workforce Housing

## 4.2 Estimated Costs

Costs associated with this work plan are provided in detail for both Part 201 and non-environmental (MEGA) eligible activities on Table 1. Additional information may be provided upon request.

# FIGURES

# Figure 1

## Scaled Property Location Map

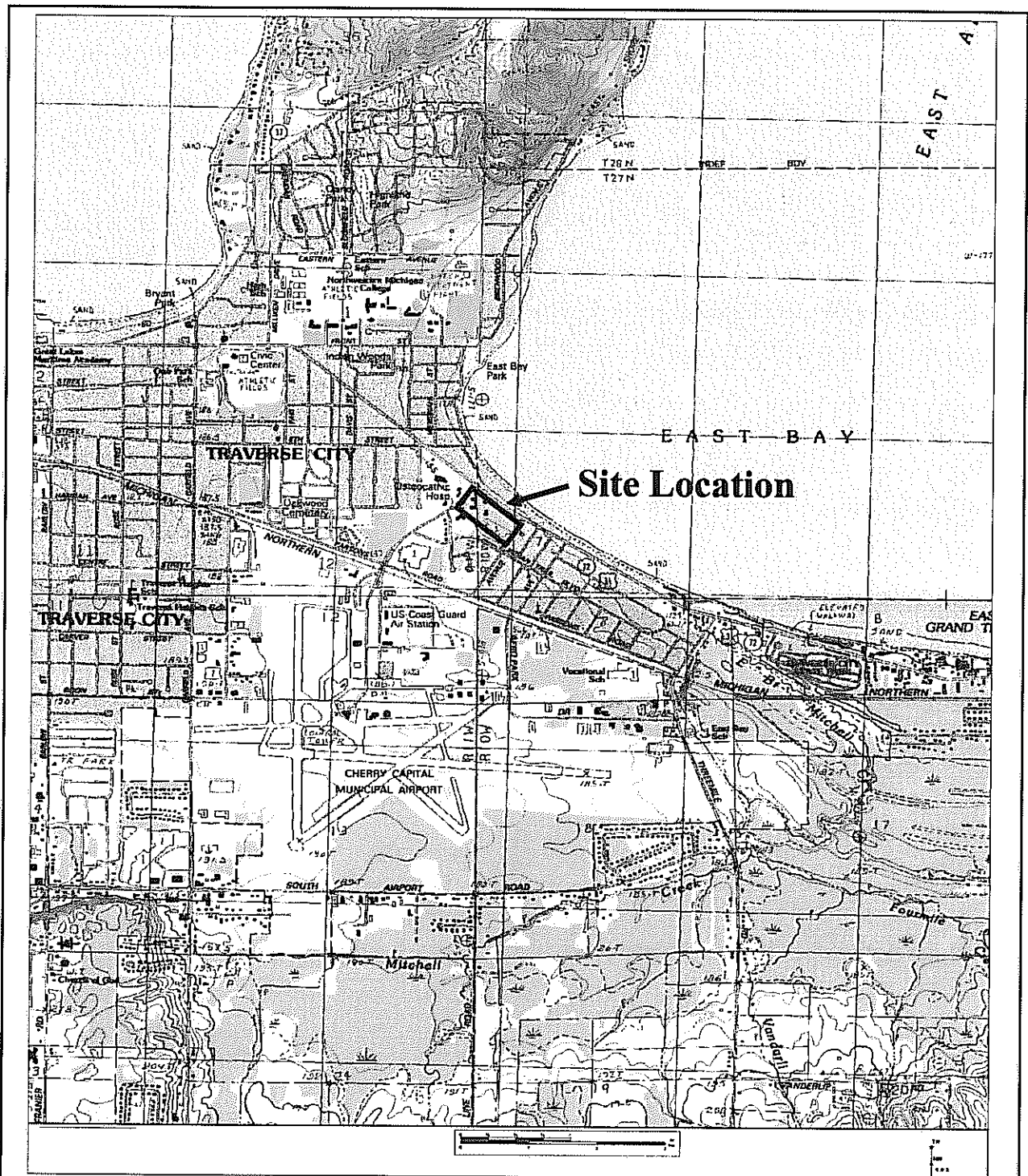


**FIGURE 1**  
**SITE LOCATION MAP**  
 East Bay Plaza  
 Traverse City, Michigan

**INLAND SEAS ENGINEERING, INC.**

## **Figure 2**

### **Eligible Property Map**

# LEGEND

F = PART 201 FACILITY  
AC = ADJACENT CONTIGUOUS

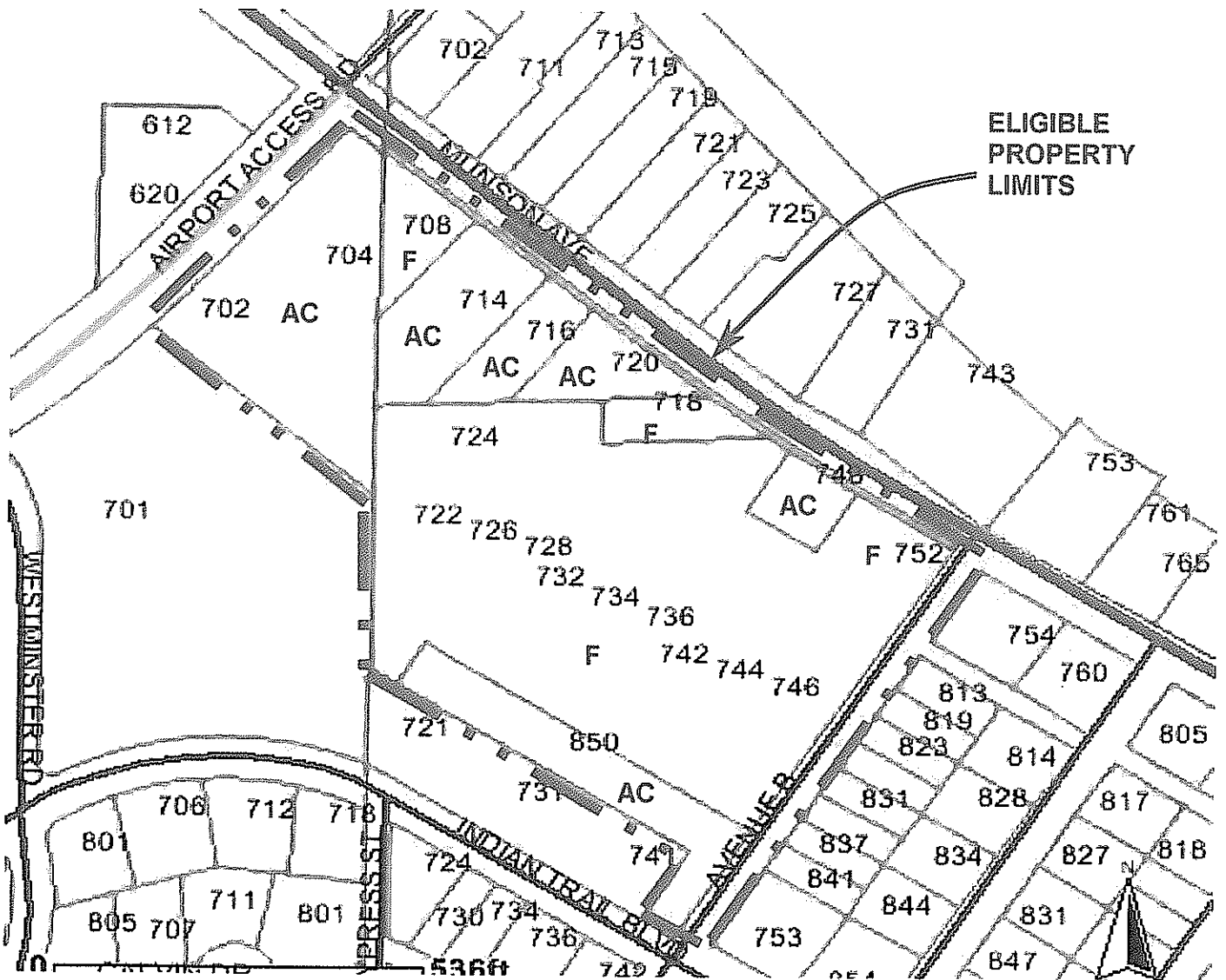


**FIGURE 2**

## ELIGIBLE PROPERTIES LOCATION MAP

East Bay Plaza Brownfield Redevelopment Plan  
Traverse City, Michigan

**INLAND SEAS ENGINEERING, INC.**

### Figure 3A

## Solvent Plume Location Map

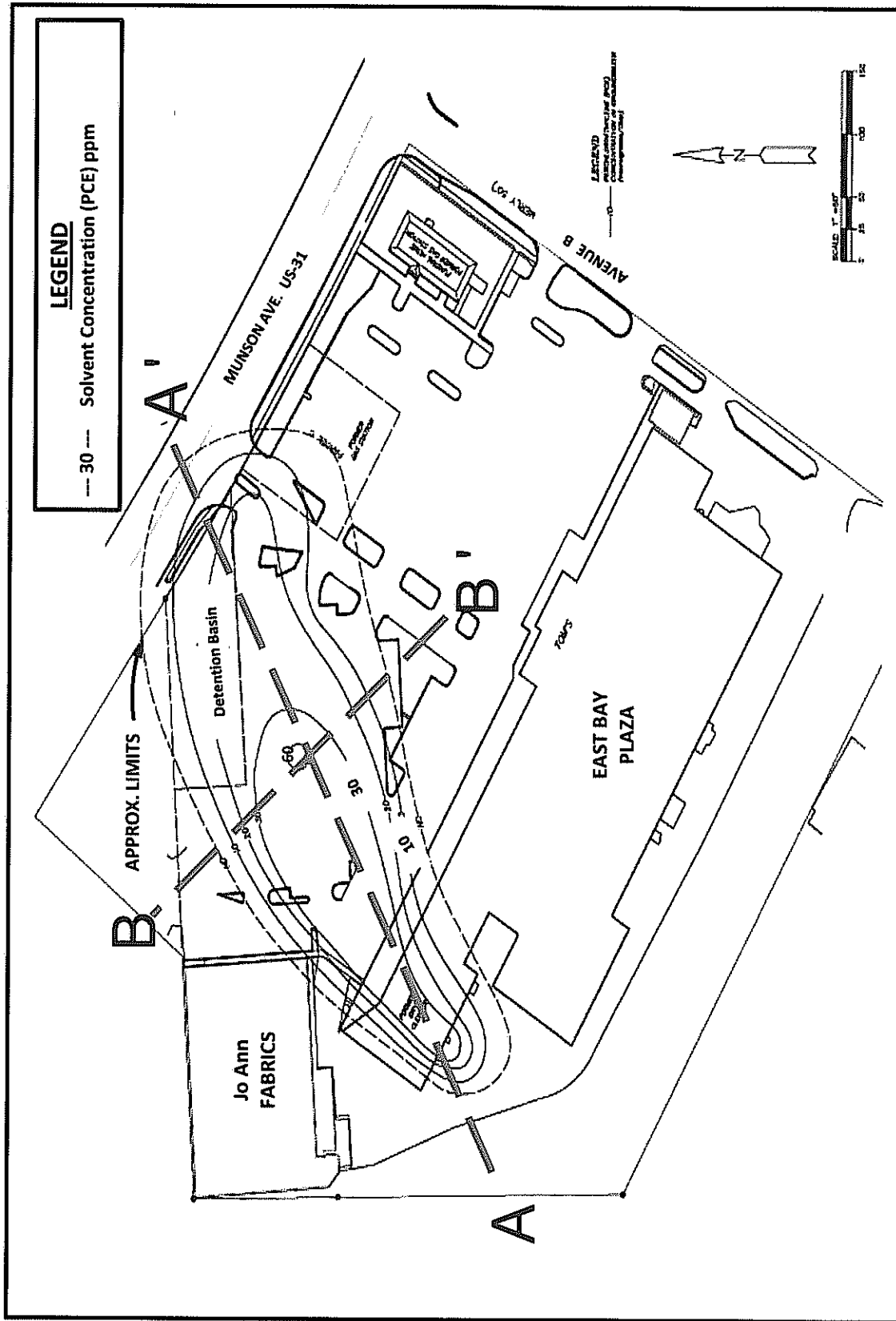


**FIGURE 3A**  
**DRY CLEANING SOLVENT PLUME LOCATION MAP**  
**EAST BAY PLAZA**  
**TRAVERSE CITY, MICHIGAN**  
 ACT 381 WORK PLAN  
 PART 201 AND NON-ENVIRONMENTAL ELIGIBLE ACTIVITIES

## **Figure 3B**

### **Solvent Plume Profile A-A'**

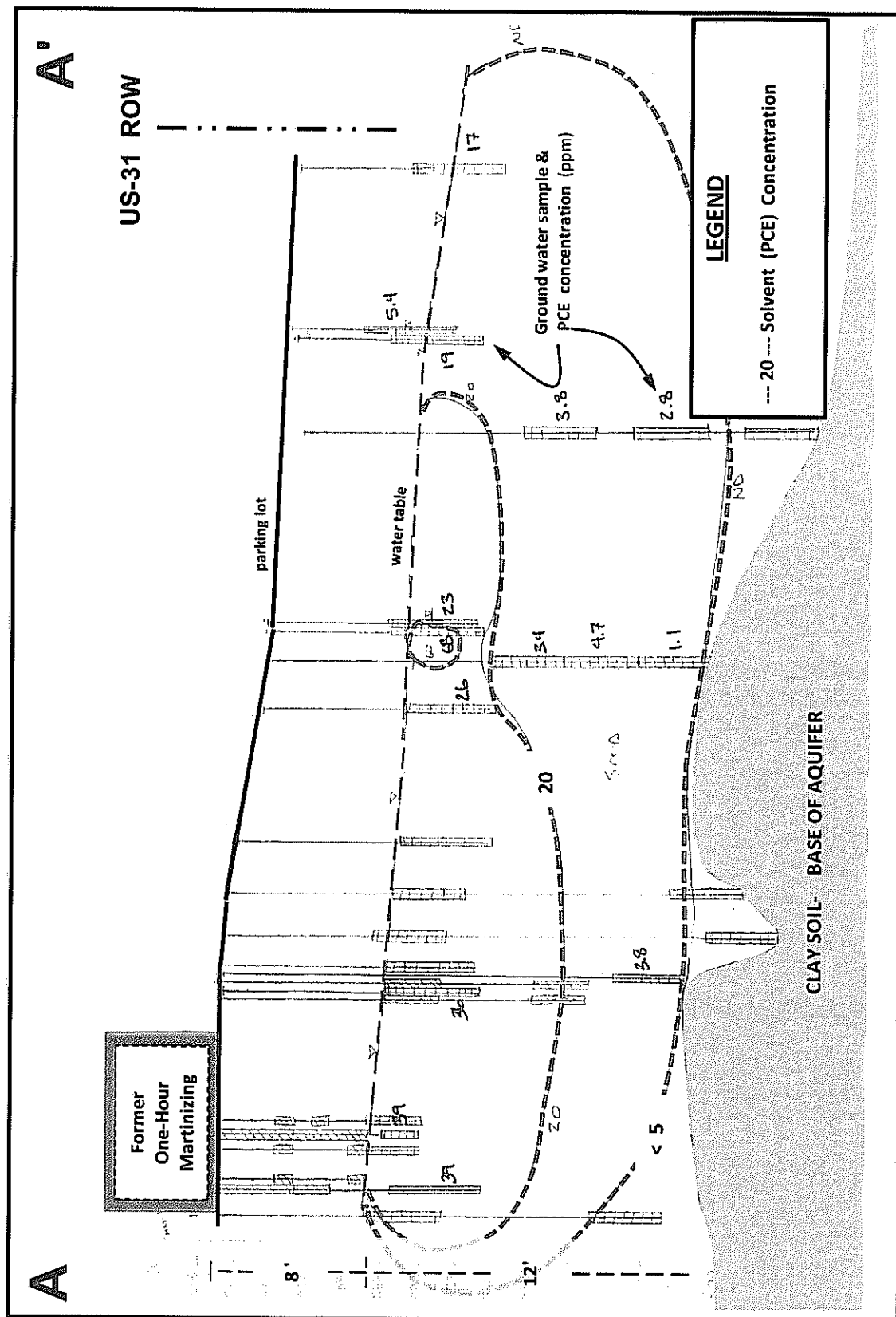


**FIGURE 3B**

**DRY CLEANING SOLVENT PLUME PROFILE A -- A'**

**EAST BAY PLAZA**

**TRAVERSE CITY, MICHIGAN**

**ACT 381 WORK PLAN**

**PART 201 AND NON-ENVIRONMENTAL ELIGIBLE ACTIVITIES**

# Figure 3C

## Solvent Plume Profile B-B'

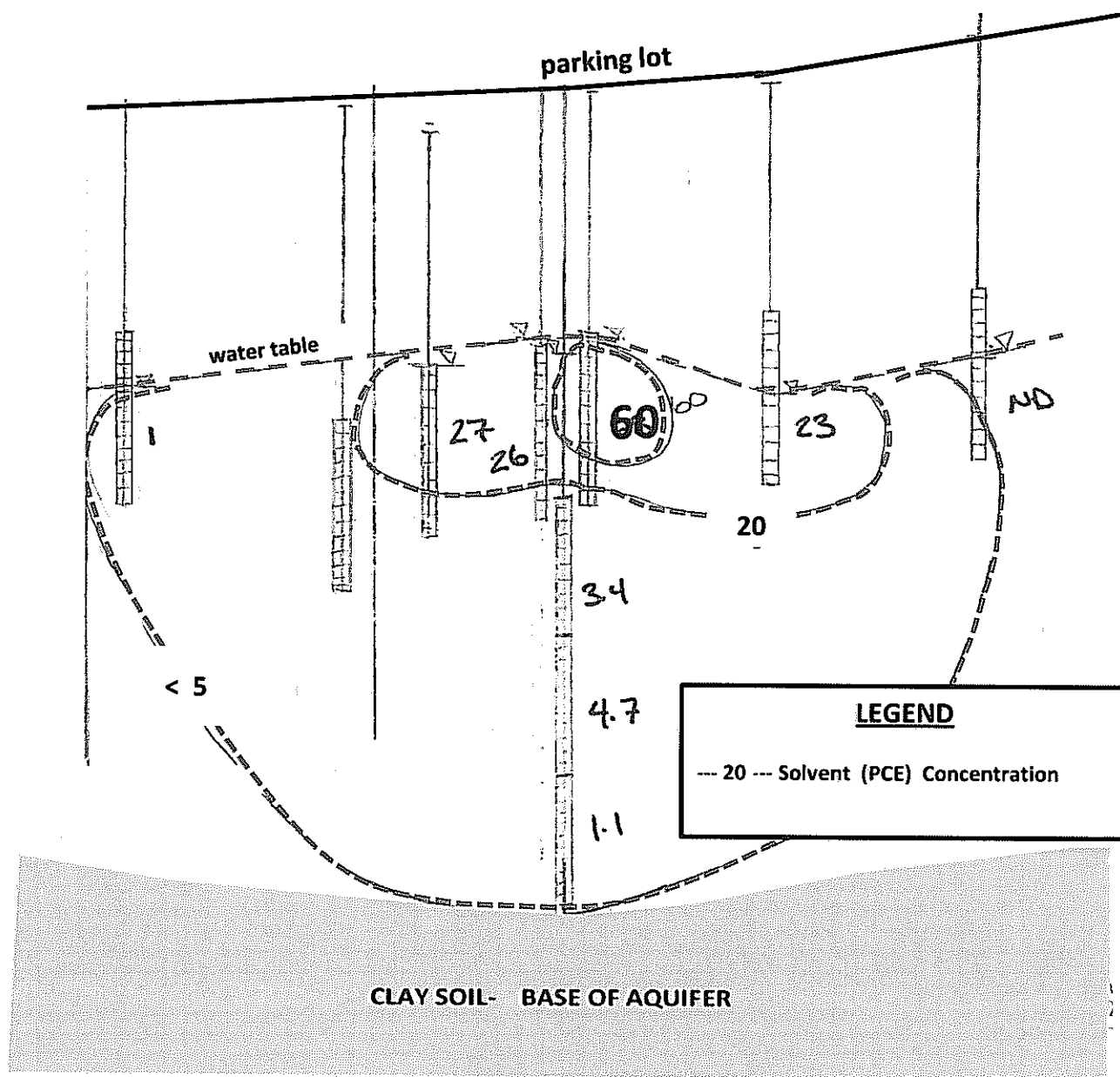
**B****B'**

**FIGURE 3C**  
**DRY CLEANING SOLVENT PLUME PROFILE B -- B'**  
**EAST BAY PLAZA**  
**TRAVERSE CITY, MICHIGAN**  
**ACT 381 WORK PLAN**  
**PART 201 AND NON-ENVIRONMENTAL ELIGIBLE ACTIVITIES**

## Figure 4

## Color Site Photographs

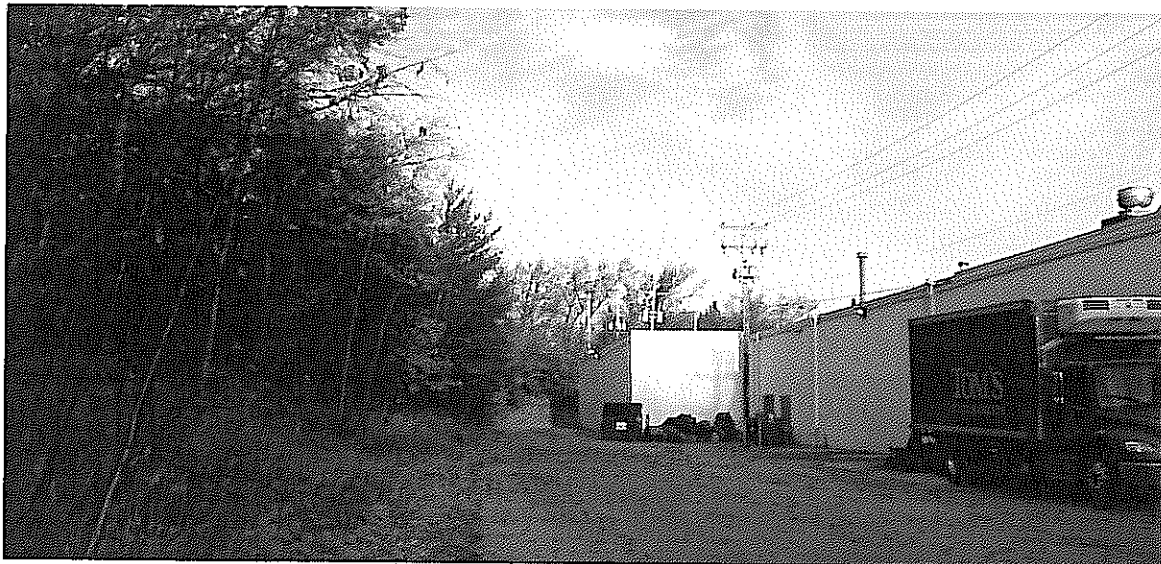


**FIGURE 4A**  
**COLOR SITE PHOTOGRAPHS**  
**EAST BAY PLAZA**  
**TRAVERSE CITY, MICHIGAN**  
**ACT 381 WORK PLAN**

**PART 201 AND NON-ENVIRONMENTAL ELIGIBLE ACTIVITIES**



**Northeast Corner of Plaza Building - Vacant Bank Space**



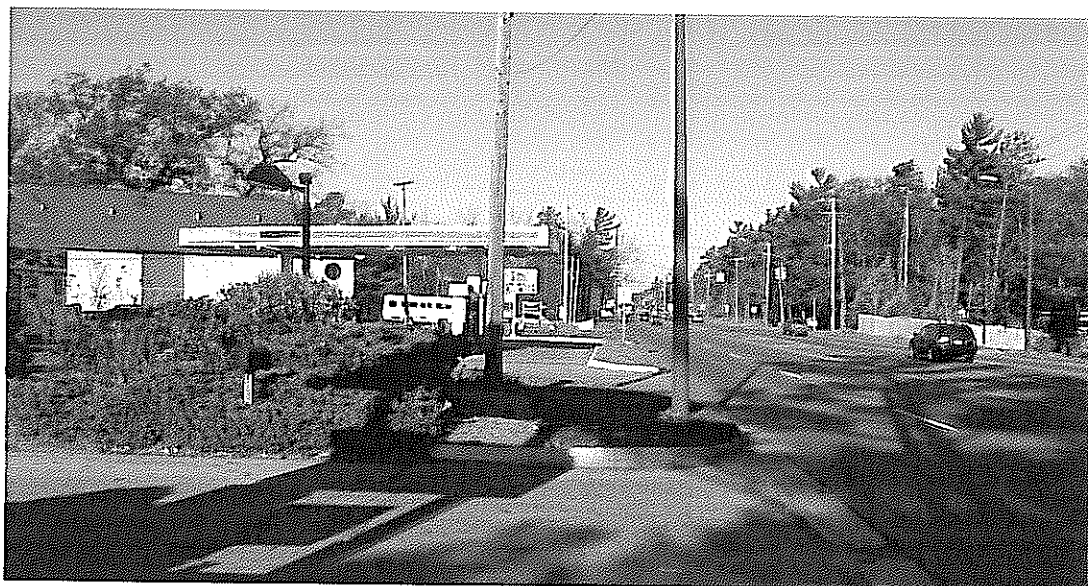
**Undeveloped Lot @ 820 Avenue B**

**FIGURE 4B**  
**COLOR SITE PHOTOGRAPHS**  
**EAST BAY PLAZA**  
**TRAVERSE CITY, MICHIGAN**  
**ACT 381 WORK PLAN**

**PART 201 AND NON-ENVIRONMENTAL ELIGIBLE ACTIVITIES**



**East View along Munson (US-31) at Shelde's Approach**



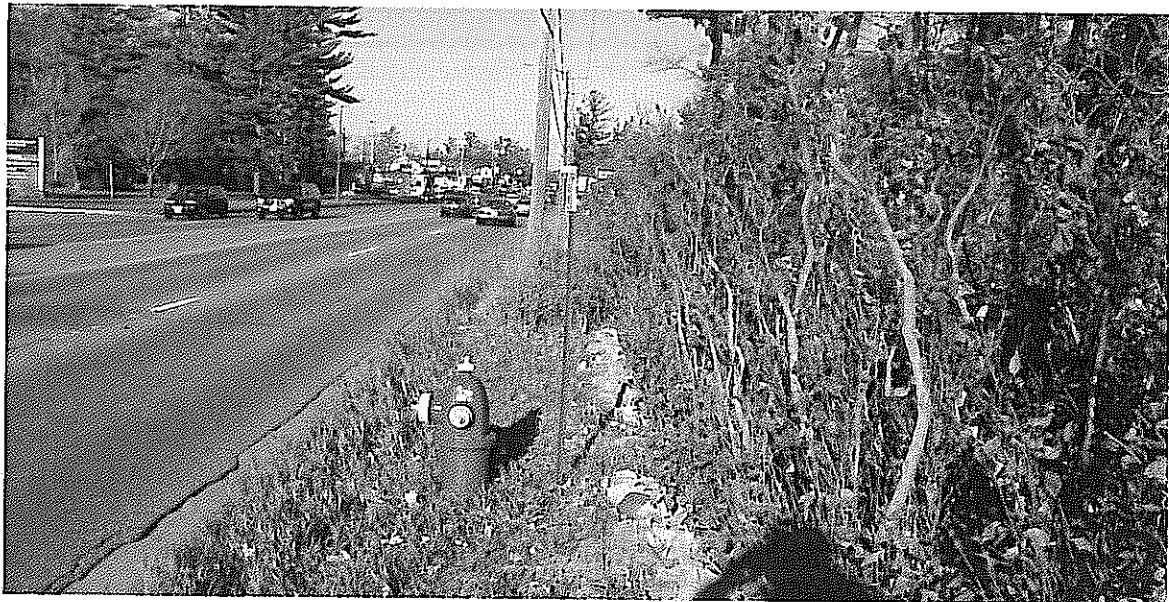
**West View at Shelde's Approach- Marathon & Motel**

**FIGURE 4C**  
**COLOR SITE PHOTOGRAPHS**  
**EAST BAY PLAZA**  
**TRAVERSE CITY, MICHIGAN**

**ACT 381 WORK PLAN**  
**PART 201 AND NON-ENVIRONMENTAL ELIGIBLE ACTIVITIES**



**Northview across US-31 at Airport Access Rd. signal crossing**



**West View at north crossing future walk to 8TH Street**

**FIGURE 4D  
COLOR SITE PHOTOGRAPHS  
EAST BAY PLAZA  
TRAVERSE CITY, MICHIGAN  
ACT 381 WORK PLAN**

**PART 201 AND NON-ENVIRONMENTAL ELIGIBLE ACTIVITIES**

## **Figure 5A**

### **Public Infrastructure Improvements Map**



**FIGURE 5A**  
**PUBLIC INFRASTRUCTURE IMPROVEMENT MAP**  
**EAST BAY PLAZA**  
**TRAVERSE CITY, MICHIGAN**  
**ACT 381 WORK PLAN**  
**PART 201 AND NON-ENVIRONMENTAL ELIGIBLE ACTIVITIES**

## Figure 5B

### Public Infrastructure Connectivity Improvements Map



**FIGURE 5B**  
**PUBLIC INFRASTRUCTURE CONNECTIVITY IMPROVEMENTS MAP**  
**EAST BAY PLAZA**  
**TRAVERSE CITY, MICHIGAN**  
**ACT 381 WORK PLAN**  
**PART 201 AND NON-ENVIRONMENTAL ELIGIBLE ACTIVITIES**

## **Figure 6A**

**Redevelopment Project Rendering  
Existing Site Development & Area Land Use**



**FIGURE 6A**  
**EXISTING SITE DEVELOPMENT and AREA LAND USES**  
**EAST BAY PLAZA**  
**TRAVERSE CITY, MICHIGAN**  
**ACT 381 WORK PLAN**  
**PART 201 AND NON-ENVIRONMENTAL ELIGIBLE ACTIVITIES**

## **Figure 6B**

### **Redevelopment Project Concept Rendering**

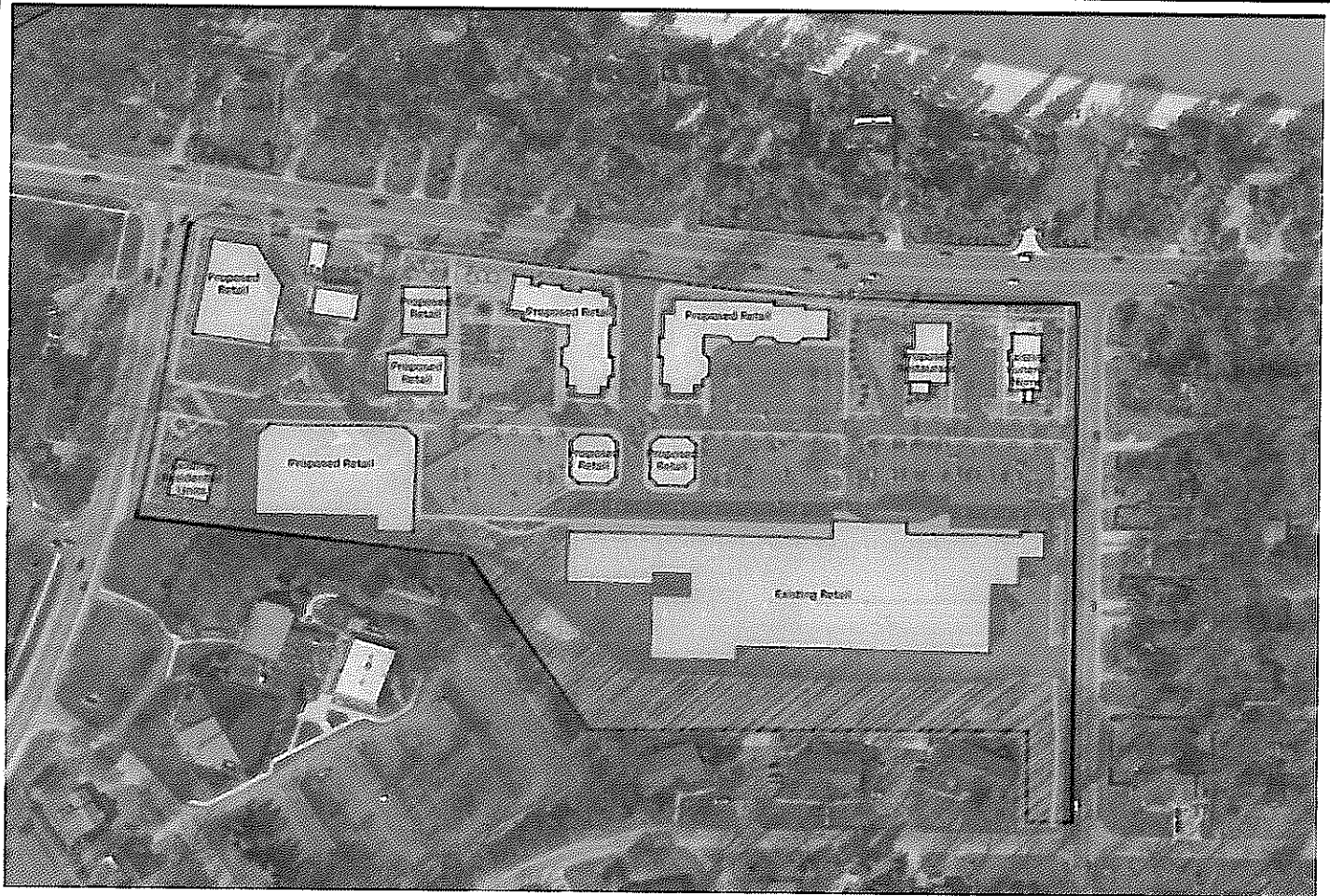


**FIGURE 6B**  
**REDEVELOPMENT PLAN CONCEPT**  
**EAST BAY PLAZA**  
**TRAVERSE CITY, MICHIGAN**  
**ACT 381 WORK PLAN**  
**PART 201 AND NON-ENVIRONMENTAL ELIGIBLE ACTIVITIES**

## **Figure 6C**

### **Progressive Redevelopment Phasing Plan**

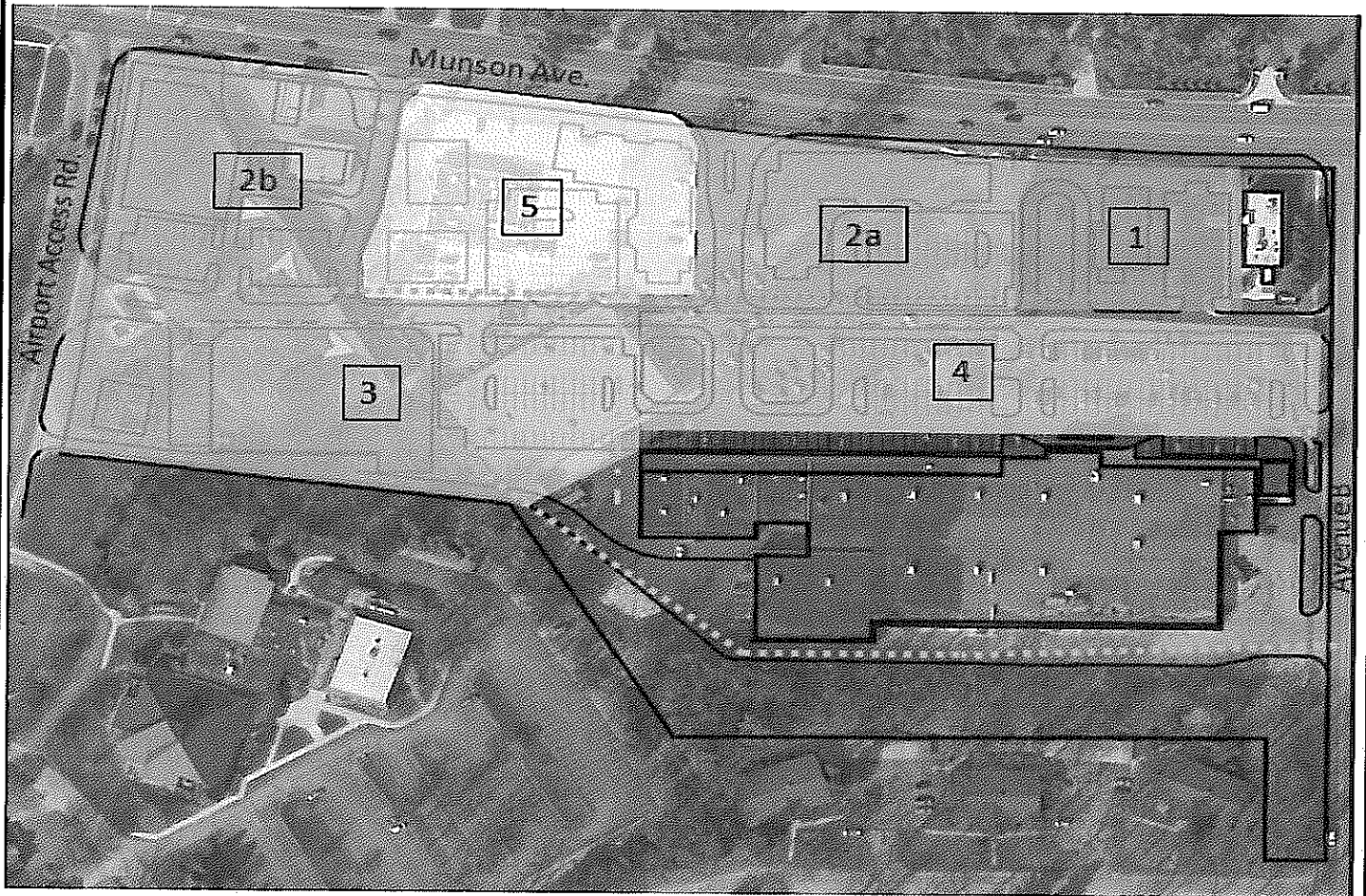


**FIGURE 6C**  
**PROGRESSIVE REDEVELOPMENT PHASING PLAN**  
**EAST BAY PLAZA**  
**TRAVERSE CITY, MICHIGAN**  
**ACT 381 WORK PLAN**  
**PART 201 AND NON-ENVIRONMENTAL ELIGIBLE ACTIVITIES**

# TABLES

# Table 1

## Summary of Costs for Eligible Activities

**TABLE 1**  
**ELIGIBLE ACTIVITY SUMMARY**  
**EAST BAY PLAZA BROWNFIELD PLAN**  
**TRAVERSE CITY, GRAND TRAVERSE COUNTY, MICHIGAN**

| Eligible Activity Description                                            | BUDGET             |
|--------------------------------------------------------------------------|--------------------|
| <b>MEGA Eligible Activities</b>                                          |                    |
| <b>I.A. Building Demolition</b>                                          |                    |
| JoAnne                                                                   | \$75,000           |
| Sheldes                                                                  | \$35,000           |
| Funeral Home                                                             | \$25,000           |
| Marathon Station                                                         | \$40,000           |
| Hotel Buildings                                                          | \$80,000           |
| <b>I.B. Site Demolition</b>                                              |                    |
| Storm Sewer- Plaza                                                       | \$6,500            |
| Storm Sewers- Other                                                      | \$5,500            |
| Water and Sanitary- Other                                                | \$15,000           |
| Pavement Curbs & Gutters- Plaza                                          | \$35,550           |
| Pavement Curbs & Gutters- Other                                          | \$32,500           |
| Unstable Fill Removal                                                    | \$11,000           |
| Pre-Demolition ALTA Land Survey                                          | \$8,000            |
| Pre-Demolition Building Materials Assessments                            | \$11,500           |
| Engineering Specs/Plans/Oversight (7.0% Activity Costs)                  | \$18,000           |
| <i>Demolition Subtotal</i>                                               | <b>\$398,550</b>   |
| <b>II. Lead and Asbestos Removal</b>                                     |                    |
| JoAnne                                                                   | \$15,000           |
| Sheldes                                                                  | \$10,000           |
| Funeral Home                                                             | \$1,000            |
| Marathon Station                                                         | \$5,000            |
| Hotel Buildings                                                          | \$20,000           |
| <i>Lead and Asbestos Subtotal</i>                                        | <b>\$51,000</b>    |
| <b>II. Site Preparation</b>                                              |                    |
| Geotechnical Investigation                                               | \$6,800            |
| Clearing & Grubbing                                                      | \$850              |
| Temporary Facilities                                                     | \$28,050           |
| Land Balancing Plaza                                                     | \$48,171           |
| Land Balancing Stormwater Basin                                          | \$8,500            |
| Land Balancing Hotel                                                     | \$3,400            |
| Land Balancing Marathon Station                                          | \$1,700            |
| Soil Compaction & Sub-base Preparation                                   | \$17,850           |
| Mobilization                                                             | \$25,500           |
| Dewatering- Stormwater Infiltration System                               | \$12,750           |
| Dewatering- UST Removals                                                 | \$12,750           |
| Transaction Costs/ Fees (RCs, Easements, Stormwater Systems, Lease Mods) | \$8,500            |
| Engineering Specs/Plans/Oversight (7.0% Activity Costs)                  | \$34,000           |
| <i>Site Preparation Subtotal</i>                                         | <b>\$208,821</b>   |
| <b>III. Infrastructure Activities</b>                                    |                    |
| MDOT ROW Curbs and Approaches                                            | \$161,033          |
| Public Sidewalks Streetscapes                                            | \$292,400          |
| Water Main Extension / Loop                                              | \$281,053          |
| Sanitary Sewer Lead (ROW)                                                | \$13,260           |
| Utility Pole Relocation / Undergrounding                                 | \$85,000           |
| Engineering Specs/Plans/Oversight                                        | \$62,050           |
| <i>Infrastructure Activities Subtotal</i>                                | <b>\$894,795</b>   |
| <b>IV. Agency Work Plan/Administrative Costs</b>                         |                    |
| BRA Work Plan and Approval by the GTCBRA Construction Manager            | \$6,000            |
| BRA Administrative and Operating Costs                                   | \$8,000            |
| <i>Agency Work Plan/Administrative Costs Subtotal</i>                    | <b>\$14,000</b>    |
| <b>MEGA Eligible Activities Subtotal</b>                                 | <b>\$1,567,166</b> |
| Anticipated State Review Cost (2.5% of State Total)                      | \$39,179           |
| <i>Contingencies (10% of MEGA Subtotal)</i>                              | <b>\$156,717</b>   |
| <b>MEGA EA TOTAL</b>                                                     | <b>\$1,763,061</b> |

**TABLE 1**  
**ELIGIBLE ACTIVITY SUMMARY**  
**EAST BAY PLAZA BROWNFIELD PLAN**  
**TRAVERSE CITY, GRAND TRAVERSE COUNTY, MICHIGAN**

|                                                                                    |                    |
|------------------------------------------------------------------------------------|--------------------|
| <b>PART 201 Eligible Activities</b>                                                |                    |
| <b>II. Due Care (Section 20107a) Compliance Activities</b>                         |                    |
| Quantification of Hazardous Substance Activities                                   |                    |
| Phase II Environmental Site Assessment Activities                                  | \$18,000           |
| Rule 299.51005(c) Building Mail & Universal Waste Assessment                       | \$4,800            |
| Site-Specific Evaluations                                                          |                    |
| Fate/Transport Assessment                                                          | \$1,200            |
| Exposure Mitigation Response Activities                                            |                    |
| Rule 299.51013 UST/Oil Water Separator Removal                                     | \$15,000           |
| Rule 299.51013 Transportation/Disposal of Excess Contaminated Soil & Dewatering    | \$10,000           |
| Exacerbation Prevention Activities                                                 |                    |
| Stormwater Management and Engineering Specs/Plans                                  | \$2,000            |
| Rule 299.51013 Building Foundation Above Contaminated Material (Mitigation System) | \$5,000            |
| Notifications                                                                      |                    |
| Rule 299.51013(6) Notifications (3rd Parties)                                      | \$800              |
| Rule 299.51017(1) Notification (Offsite)                                           | \$800              |
| Due Care Documentation                                                             |                    |
| Section 20107a Compliance Analysis                                                 | \$10,000           |
| Meetings, Work Plans and Reports                                                   | \$2,500            |
| <i>Due Care Obligation Compliance Subtotal</i>                                     | <b>\$70,100</b>    |
| <b>III. Additional Response Activities</b>                                         |                    |
| PCE Plume Clean-up System Install                                                  | \$200,000          |
| PCE Plume Clean-up System Operate & Maintenance & Monitoring                       | \$180,000          |
| PCE Plume Clean-up NFA Petition                                                    | \$30,000           |
| PCE Plume Clean-up System Demobilization                                           | \$50,000           |
| <b>Additional Response Activities Subtotal</b>                                     | <b>\$460,000</b>   |
| <b>IV. Agency Work Plan/Administrative Costs</b>                                   |                    |
| BRA Work Plan and Approval by the GTCBRA Construction Manager                      | \$7,500            |
| BRA Administrative and Operating Costs                                             | \$5,000            |
| <i>Agency Work Plan/Administrative Costs Subtotal</i>                              | <b>\$12,500</b>    |
| <b>Part 201 Eligible Activities Subtotal</b>                                       | <b>\$542,600</b>   |
| Anticipated State Review Cost (2.5% of State Total)                                | \$13,565           |
| <i>Contingencies ( 10% of Part 201 Subtotal )</i>                                  | <b>\$54,260</b>    |
| Brownfield Plan Preparation                                                        | \$5,000            |
| ACT 381 Work Plan Preparation                                                      | \$10,000           |
| <b>PART 201 EA TOTAL</b>                                                           | <b>\$610,425</b>   |
| <b>MEGA EA TOTAL</b>                                                               | <b>\$1,763,061</b> |
| <b>ESTIMATED TOTAL COST</b>                                                        | <b>\$2,388,486</b> |

## ~~Table 2~~

### ~~DNRE Tax Capture/ Reimbursement Schedule~~

## ~~Table 3~~

### ~~MEGA Tax Capture/ Reimbursement Schedule~~

# ATTACHMENTS

# **Attachment A**

## **Approved Brownfield Plan and Resolution(s) Approving**

# **Attachment B**

## **Development Reimbursement Agreement**

# **Attachment C**

## **Soil Vapor Extraction & Air Sparging System Conceptual Design**