

## **Act 381 Brownfield Plan**

Traverse City – Central Park Apartments  
2633 North Three Mile Road  
East Bay Township/Traverse City, Michigan

Grand Traverse County Brownfield  
Redevelopment Authority

Project No. 2500564  
June 24, 2025

## **Act 381 Brownfield Plan**

**Traverse City – Central Park Apartments  
2633 North Three Mile Road  
East Bay Township/Traverse City, Michigan**

**Prepared For:  
Grand Traverse County Brownfield Redevelopment Authority  
Traverse City, Michigan**

**June 24, 2025  
Project No. 2500564**

**Recommended for Approval by Brownfield Redevelopment Authority on: \_\_\_\_\_**

**Supported by Local Unit of Government on: \_\_\_\_\_**

**Adopted by County Government on: \_\_\_\_\_**

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### List of Abbreviations/Acronyms

Act 381	Brownfield Redevelopment Financing Act, 1996 PA 381, as amended
AMI	Area Median Income
Developer	Traverse City-Central Park LLC
EGLE	Michigan Department of Environment, Great Lakes, and Energy
ESA	Environmental Site Assessment
GTCBRA	Grand Traverse County Brownfield Redevelopment Authority
LBRF	Local Brownfield Revolving Fund
MSHDA	Michigan State Housing Development Authority
PA	Public Act
PRL	Potential Rent Loss
REC	Recognized Environmental Condition
TIF	tax increment financing
Township	East Bay Township



## PROJECT FAST FACTS

### Traverse City-Central Park LLC

<b>Property Information</b>	2633 N Three Mile Road, East Bay Township, MI Parcel No.: 28-03-219-000-26, totaling approximately 19.99 acres.
<b>Summary of Development</b>	240 apartments: <ul style="list-style-type: none"> <li>• 120 one-bedroom/one-bath units</li> <li>• 90 two-bedroom/two-bath units</li> <li>• 30 three-bedroom/two-bath units</li> </ul> <p>The objective is that 79% of units are for residents earning up to 100% of the Area Median Income (AMI) for Grand Traverse County.</p> <p>A subset of 60 one-bedroom units and 10 two-bedroom units will be income-qualified, consistent with the Housing TIF Financing Gap Calculation for households at or below 65-83% AMI.</p>
<b>Anticipated Rent, Including Utilities</b>	\$1,285–\$1,635 for one-bedroom units (~65-82% AMI) \$1,879–\$2,279 for two-bedroom units (~79–87% AMI, 20 are Market Rate at ~95% of AMI) \$2,433–\$2,473 for three-bedroom units (Market Rate, at ~88-90% of AMI)
<b>Taxable Value</b>	Current: \$60,770 Anticipated (first full year after development): \$16,998,671
<b>Anticipated Development Cost</b>	\$48,938,764
<b>Anticipated Eligible Activities</b>	Phase I and Phase II Environmental Site Assessments (ESAs), infrastructure and safety improvements, site preparation, and housing development costs including the development of housing financing gap.
<b>TIF requested/Total Project Need</b>	Developer: \$18,098,454 GTCBRA: \$811,134 Township: \$295,240 LBRF: \$1,680,065 Total: \$20,884,893
<b>Duration of Residential Housing Tax Abatement</b>	12 years
<b>Duration of Brownfield Plan</b>	30 years
<b>TIF Reimbursement by Source</b>	Grand Traverse County/Local Taxes: 36.2% State of Michigan/State Taxes: 63.8% Non-capturable debt and special assessments total \$4,294,628 over the life of the plan.

## 1.0 Introduction

### 1.1 Proposed Redevelopment and Future Use for Each Eligible Property

Traverse City-Central Park LLC, managed by Krimson (the Developer), proposes to build a 240-unit multifamily housing development on an approximately 19.99-acre, vacant parcel along Three Mile Road north of Meadowlands Industrial Park / Vanderlip Road and southwest of the Grand Traverse Regional Land Conservancy headquarters in East Bay Township (the Township). Ten three-story buildings will be constructed, each with twenty-four apartments ranging from one bedroom (605-633 square feet) to three bedrooms (1,307 square feet).

The project aligns with the Township's Master Plan and its goals, which support workforce housing. Proposed amenities include a clubhouse, carports, a dog park, a fitness center, a business center, a playground, bus stops for school and BATA buses, and greenspace with walking paths and picnic areas connected to a new TART trail along Three Mile Road. The project received planning approval from the East Bay Township Planning Commission in March 2025. Pursuant to Township planning requirements, the project includes bicycle parking and laying conduits for future installation of electric vehicle charging stations. Landscaping consists entirely of species native to the region. Outdoor lighting is compliant with dark sky requirements.

Appropriate environmental due diligence was conducted by the Developer before the acquisition. The property was historically used for agricultural purposes. A Phase I ESA reported the potential presence of residual agricultural chemicals as a Recognized Environmental Condition (REC). A Phase II ESA was completed to evaluate the REC, including twenty-two soil borings, twenty-six discrete soil samples, and five composite soil samples. The testing determined that none of the samples contained any constituents at concentrations in excess of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) generic residential cleanup criteria, and that the property does not meet the definition of a "Facility" as defined by Part 201 of PA 451 of 1994, as amended. No further action was determined necessary.

Of the two hundred and forty total units, one hundred and ninety apartments in the complex will be priced for renters earning 65%–87% of Grand Traverse County's Area Median Income (AMI). The Potential Rent Loss (PRL) calculation is based on seventy units that will be income and rent limited for renters earning between 65% and 83% of Grand Traverse County's AMI for the duration of the Brownfield Plan. The remaining fifty units will be priced at market rate. The developer proposes to be reimbursed from brownfield tax increment financing (TIF) for the costs of Phase I and Phase II ESAs, infrastructure and safety improvements, site preparation, and housing development costs including the development of housing financing gap. Eligible activities have been prorated to the percentage of units (79%) that will be income and rent limited to residents earning up to 100% AMI.

### 1.2 Eligible Property Information

Parcel IDs: 28-03-219-000-26

Address: 2633 N Three Mile Road, East Bay Township, Michigan

Size: Approximately 19.99 acres

The property is not a qualified agricultural property exempt under section 7ee of the General Property Tax Act, 1893 Public Act (PA) 206, MCL 211.7ee.

Maps depicting the location and layout of the property are attached as Figures 1 and 2.

**Basis of Eligibility**

The property qualifies as “eligible property” under the Brownfield Redevelopment Financing Act, 1996 PA 381, as amended (“Act 381”) because it meets the definition of a “Housing Property” in Section 2(p)(ii). Act 381 defines Housing Property, in part, as property on which one or more units of residential housing are proposed to be constructed. The project will have a total of two hundred and forty residential units, with one hundred and ninety at rents affordable for residents earning up to 100% of Grand Traverse County’s AMI. Sixty of the 1-bedroom units and ten two-bedroom units, the number on which the project’s PRL is based, will be income/rent verified. All unit rents are expected to be priced below 120% AMI for the determined duration of the Residential Housing Facilities Act Tax Abatement, anticipated to be 12 years.

According to Section 2(o)(ii), the Housing Property must be “located in a community that has identified a specific housing need and has absorption data or job growth data included in the brownfield plan.”

**Specific Housing Need:**

Housing North estimates that the rental vacancy rate in Grand Traverse County is less than 1%. Housing North estimates that three thousand five hundred and sixty-nine long-term rental units are needed in Grand Traverse County. The cost and supply of rental housing are Grand Traverse County’s primary housing issues.

**Rental Housing Units Needed by Area Median Household Income Level**  
(Housing North Housing Needs Assessment, 2023)

50% AMI or below	51–80% AMI	81–120% AMI	121% or more AMI	Total number of units needed
2,358	733	288	190	3,569

MSHDA’s Northwest Housing Partnership D includes Grand Traverse County. While the document does not address East Bay Township’s housing needs specifically, East Bay Township is typical of the second market group, the areas surrounding Traverse City. MSHDA states that in Housing Partnership D, “market vacancies declined sharply over the last five years, and rents have shot up as a result.” The Partnership D Data Document indicates a 0% vacancy rate for renters in its region. MSHDA’s gap numbers slightly differ from Housing North’s. Housing North’s 2023 data has been used in the table above. Both Housing North and MSHDA data are attached.

Rent, including utilities, for the one hundred and ninety income-qualified units is expected to range from \$1,285 for a one-bedroom apartment and utilities to \$2,079 for a two-bedroom apartment and utilities. Sixty of the one-bedroom units and ten two-bedroom units will be income/rent verified. The PRL calculation is based on seventy of the two hundred and forty total units, which will be income and rent limited for renters earning between 65% and 83% of Grand Traverse County’s AMI for the duration of the Brownfield Plan. See Table 4 for further information.

**Job Growth Data:**

According to Housing North and the Bureau of Labor Statistics, jobs in Grand Traverse County have increased to new levels, surpassing pre-COVID levels. Growth over ten years (2013–2019) was about 10.2%, comparable to the overall state increase in job growth during that time, 10.4%. In 2020, which was impacted by the economic effects related to COVID-19, total employment decreased in Grand Traverse County by 6.5%, which was a smaller decline compared to the state (8.3%). In 2021, total employment for the county increased by 1.6%, followed by an additional increase of 4.0% in 2022.

**Total Employment Grand Traverse County 2018–2023**  
(Bureau of Labor Statistics, annual reports)

Year	Total Employment
2023	50,927
2022	47,541
2021	45,701
2020	44,967
2019	48,118
2018	47,441

## 2.0 Information Required by Section 13(2) of the Statute

### 2.1 Description of Costs to be Paid for with Tax Increment Revenues

This plan has been developed to reimburse eligible brownfield costs incurred by the Developer to support the development of vacant land for new affordable housing that meets community needs. New local and state tax increment revenues will be captured for reimbursement of eligible expenses, following approval of this Brownfield Plan and MSHDA Act 381 Work Plan. Baseline local and state taxes associated with the property will continue to be levied and distributed to local and state taxing jurisdictions. No local debt or special assessment taxes will be captured to reimburse eligible activity costs. Eligible activities must benefit “income qualified households,” defined in Act 381 Section 2(z) as “a person, family, or unrelated persons living together, whose annual housing income is not more than 120% of the area median income,” which is further defined by the Grand Traverse County Brownfield Redevelopment Authority (GTCBRA) to “a person, family, or unrelated persons living together, whose annual housing income is not more than 100% of the area median income.”

The Developers’ MSHDA eligible activities, including infrastructure and safety improvements necessary to support housing, site preparation to support housing, and housing development activities (not including the financing gap associated with the development of housing) have been prorated to 79%, the proportion of units that will be committed to income-qualified renters up to 100% AMI. The total cost of eligible activities, including contingencies, is anticipated to be \$19,204,828, of which, \$18,098,454 is anticipated to be incurred by the Developer, \$295,240 is anticipated to be incurred by the Township, and \$811,134 is anticipated to be incurred by the GTCBRA. The total cost of eligible activities is further described below in Section 2.1.1 and the attached Table 1. The capture of tax increment revenue for the Local Brownfield Revolving Fund (LBRF) is estimated to be \$1,680,065.

#### 2.1.1 ***EGLE Eligible Activities***

##### 2.1.1.1 **Phase I and Phase II Environmental Site Assessment Activities**

EGLE Eligible Activities included in this plan include Phase I and Phase II ESA activities, which have already been conducted. The total cost of these activities is anticipated to be \$7,943.

#### 2.1.2 ***MSHDA Eligible Activities***

##### 2.1.2.1 **Infrastructure and Safety Improvements Necessary to Support Housing**

Infrastructure improvements necessary to support income-qualified housing, directly benefiting the eligible property, include streets and roads, sidewalks, lighting, sanitary sewer mains and connections, water mains and connections, curb and gutter, landscaping, and stormwater management systems. Safety improvements include school and BATA bus stops off the busy road outside the development site. The TART trail will be extended across the property in the Three Mile Road right-of-way and will provide a safe route for bicyclists and pedestrians. The

total cost of these activities has been prorated by 79% (with the exception of the TART trail, a public infrastructure cost that will be incurred by East Bay Township) and is anticipated to be \$4,030,771.

#### **2.1.2.2 Site Preparation to Support Housing**

Site preparation activities anticipated to support income-qualified housing including cut and fill, grading, land balancing, staking, temporary construction access/roads, temporary erosion control, temporary site control, and temporary traffic control. The total cost of these activities has been prorated by 79% and is anticipated to be \$420,773.

#### **2.1.2.3 Housing Development Activities**

Housing development activities include traffic, soil, marketing, and survey studies and soft costs (engineering, design, survey, legal, and other professional). The total cost of these activities has been prorated by 79% and is anticipated to be \$370,739.

#### **2.1.2.4 Development of Housing Financing Gap**

The PRL calculation is based on 70 of the 240 total units, which will be income and rent limited for renters earning between 65% and 83% of Grand Traverse County's AMI for the duration of the Brownfield Plan. See Table 4 for further information. The total cost of these activities is anticipated to be \$12,714,000.

#### **2.1.2.5 Public Infrastructure Improvements**

The Township anticipates a trail extension and crossing to connect to the new Three Mile trailhead at the Grand Traverse Regional Land Conservatory (GTRLC) headquarters. The Trail and Crossing Extension activities include the addition of an asphalt trail (\$135,000), culvert (\$35,000), pedestrian crosswalk (\$50,000), and soft costs (engineering, design, survey, legal, and other professional) (\$48,400), totaling \$268,400.

#### **2.1.2.6 Contingency**

A 10% contingency on infrastructure and safety improvements necessary to support housing, site preparation, housing development soft costs, and public infrastructure improvements is included to cover unexpected cost overruns encountered during construction. There is no contingency on the EGLE eligible activities, the financing gap associated with the development of housing, or Brownfield Plan/Work Plan preparation and implementation costs. The total contingency cost is anticipated to be \$509,068.

#### **2.1.2.7 Brownfield Plan/Work Plan Preparation**

The cost for preparation of the Brownfield Plan and Work Plan is anticipated to total \$22,000.

#### **2.1.2.8 Brownfield Plan/Work Plan Implementation**

The cost for implementation of the Brownfield Plan and Work Plan is anticipated to total \$50,000 and will be incurred by the Developer.

#### **2.1.2.9 BRA Administration**

Administration of the Brownfield Plan by the GTCBRA is calculated at 10% of local tax increment revenues and is anticipated to be \$811,134.

## **2.2 Summary of Eligible Activities**

### **EGLE Eligible Activities**

Pre-approved EGLE eligible activities, including Phase I and Phase II ESAs, are anticipated to be reimbursed through a Brownfield Plan using both state and local tax increment revenues.

### **Housing Development Activities**

Housing development activities consist of infrastructure improvements, site preparation, engineering and design, a financing gap incurred to support the development of income-qualified housing, and preparation and implementation of the Brownfield Plan and Work Plan. A MSHDA Act 381 Work Plan will be pursued, and, upon approval, these costs will be reimbursed with both state and local tax increment revenues.

### **Public Infrastructure Improvements**

A trail extension and road crossing will be constructed by East Bay Township on the west side of Three Mile Road, north from the Property across Three Mile Road to the GTRLC and ending at an existing trailhead. A MSHDA Act 381 Work Plan will be pursued, and, upon approval, these costs will be reimbursed with both state and local tax increment revenues. The trail cost has not been prorated.

### **Contingencies**

A 10% contingency on infrastructure and safety improvements necessary to support housing, site preparation, housing development soft costs, and public infrastructure improvements is included to cover unexpected cost overruns. There is no contingency on the EGLE eligible activities, the financing gap associated with the development of housing, or Brownfield Plan/Work Plan preparation and implementation costs.

### **BRA Administration**

Administration of the Brownfield Plan by the GTCBRA is calculated at 10% of local-only tax increment revenues.

## **2.3 Estimate of Captured Taxable Value and Tax Increment Revenues**

The initial taxable value will be the 2025 taxable value of \$60,770. An estimate of the captured taxable value for this redevelopment by year is depicted in Table 2. This plan captures real property tax increment revenues and assumes a 2% annual increase in the taxable value of the eligible property. A Residential Housing Facilities Act, PA 237 of 2022, abatement is being pursued for up to 12 years, subject to receipt of a Residential Housing Exemption Certificate.

Project activities will commence in 2025. Completion of construction is expected in 2027. Tax increment revenue collection will start within five years of the adoption of this plan and is anticipated to begin in 2028.

After completion of the project, the projected taxable value is estimated at \$16,998,671. Reimbursements will be made based on actual tax increment revenues. The estimated captured taxable value for this redevelopment by year and in aggregate for each taxing jurisdiction is depicted in tabular form (Table 2). Once eligible expenses are reimbursed, the GTCBRA may capture up to five years of the tax increment and deposit the revenues into an LBRF provided the amount does not exceed the total cost of eligible activities. A summary of the estimated reimbursement schedule and the amount of capture into the LBRF by year and in aggregate is presented in Table 3.

## **2.4 Method of Financing and Description of Advances Made by the Municipality**

The eligible activities contemplated under this plan will be financed by the Developer, GTCBRA, and the Township as outlined in this plan and the accompanying development and reimbursement agreement (Appendix 2). TIF utilizing new local and state tax increment revenue from the project will be the source of the reimbursement, as outlined in this plan. No interest expenses will be reimbursed.

## **2.5 Maximum Amount of Note or Bonded Indebtedness**

At this time, there are no plans by the GTCBRA to incur indebtedness to support the development of this site, but such plans could be made in the future to assist in the development if the GTCBRA so chooses.

## 2.6 Duration of Brownfield Plan

The GTCBRA intends to begin the capture of tax increment in 2028. This plan will then remain in place for thirty years, or until the eligible activities have been fully reimbursed and up to five full years of capture into the LBRF (not to exceed the cost of eligible activities), whichever occurs sooner. An analysis showing the reimbursement schedule is attached in Table 3.

## 2.7 Estimated Impact of Tax Increment Financing on Revenues of Taxing Jurisdictions

An estimate of the impact of tax increment financing on the revenues of all taxing jurisdictions is illustrated in detail in Table 2.

## 2.8 Legal Description, Property Map, Statement of Qualifying Characteristics, and Personal Property

The property is located at 2633 N Three Mile Road in East Bay Township, Grand Traverse County, Michigan, and consists of one parcel totaling approximately 19.99 acres. A Site Map is attached as Figure 2.

The legal description for the parcel is as follows:

2633 N Three Mile Road, Parcel ID No.: 28-03-219-000-26

A PARCEL OF LAND IN THE NORTHEAST 1/4 OF SECTION 19, TOWN 27 NORTH, RANGE 10 WEST, EAST BAY TOWNSHIP, GRAND TRAVERSE COUNTY, MICHIGAN DESCRIBED AS: COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION, THENCE ALONG THE EAST LINE OF SECTION 19, SOUTH 02°15'14" WEST, 1752.52 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING ALONG SAID LINE SOUTH 02°15'14" WEST, 380.70 FEET; THENCE SOUTH 89°09'25" WEST, 248.56 FEET; THENCE SOUTH 88°33'32" WEST, 186.89 FEET; THENCE SOUTH 02°15'14" WEST, 502.55 FEET TO THE EAST-WEST 1/4 LINE AS MONUMENTED; THENCE ALONG SAID LINE SOUTH 88°33'32" WEST, 789.91 FEET TO A TRAVERSE LINE ALONG THE EAST SIDE OF A CREEK; THENCE ALONG SAID TRAVERSE LINE THE FOLLOWING FOUR COURSES, NORTH 30°05'21" WEST, 168.54 FEET; THENCE NORTH 01°22'16" EAST, 446.88 FEET; THENCE NORTH 29°03'35" EAST, 86.94 FEET; THENCE NORTH 02°13'03" EAST, 40.02 FEET; THENCE NORTH 88°26'57" EAST, 39.87 FEET; THENCE NORTH 55°16'03" EAST, 209.08 FEET; THENCE NORTH 88°33'32" EAST, 884.97 FEET; THENCE NORTH 42°47'57" EAST, 76.59 FEET; THENCE NORTH 88°33'15" EAST, 141.43 FEET TO THE POINT OF BEGINNING. INCLUDING ALL LANDS BETWEEN THE TRAVERSE LINE AND THE CENTER OF THE CREEK. CONTAINING 19.99 ACRES MORE OR LESS.

SUBJECT TO AND TOGETHER WITH AN EASEMENT 66 FEET IN WIDTH FOR INGRESS, EGRESS, ROAD INSTALLATION/ CONSTRUCTION/MAINTENANCE AND THE INSTALLATION AND MAINTENANCE OF PUBLIC AND PRIVATE UTILITIES THE CENTERLINE OF WHICH IS DESCRIBED AS: COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION, THENCE ALONG THE EAST LINE OF SECTION 19, SOUTH 02°15'14" WEST, 1752.52 FEET; THENCE SOUTH 88°33'15" WEST, 141.43 FEET; THENCE SOUTH 42°47'57" WEST, 76.59 FEET; THENCE SOUTH 88°33'32" WEST, 884.97 FEET TO THE POINT OF BEGINNING OF SAID 66 FOOT WIDE EASEMENT CENTERLINE; THENCE ALONG SAID CENTERLINE THE FOLLOWING TWO COURSES, THENCE SOUTH 55°16'03" WEST, 209.08 FEET; THENCE SOUTH 88°26'57" WEST, 126.22 FEET TO THE POINT OF ENDING.

SUBJECT TO AND TOGETHER WITH A SEWER EASEMENT AS RECORDED IN LIBER 838 PAGE 126; LIBER 838 PAGE 127; LIBER 862 PAGE 929; AND LIBER 879, PAGE 90.



SUBJECT TO AND TOGETHER WITH A WATER EASEMENT AS RECORDED IN LIBER 1125, PAGE 418.  
SUBJECT TO A CONSERVATION EASEMENT AS RECORDED IN DOCUMENT 2006R-09469.

SUBJECT TO AN EASEMENT TO CHERRYLAND ELECTRIC AS RECORDED IN LIBER 431, PAGE 355, AND LIBER 431, PAGE 360. SUBJECT TO THE RIGHT OF WAY OF THREE MILE ROAD. SUBJECT TO AND TOGETHER WITH ALL OTHER COVENANTS, SERVITUDES, AND EASEMENTS OF RECORD IF ANY.

The property is qualified as a “Housing Property.” A map showing eligible property dimensions is attached as Figure 2.

## **2.9 Estimates of Residents and Displacement of Individuals/Families**

There are no residents or families residing at this property, and thus no residents, families, or individuals will be displaced by the project.

## **2.10 Plan for Relocation of Displaced Persons**

No persons reside on the eligible property. Therefore, this section is not applicable.

## **2.11 Provisions for Relocation Costs**

No persons reside on the eligible property. Therefore, this section is not applicable.

## **2.12 Strategy for Compliance with Michigan’s Relocation Assistance Law**

No persons reside on the eligible property. Therefore, this section is not applicable.

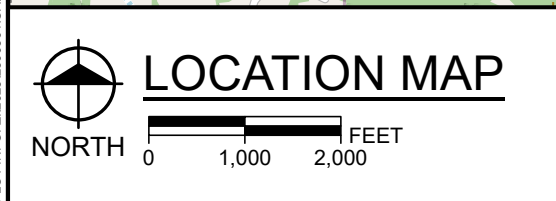
## **2.13 Other Material that the Authority or Governing Body Considers Pertinent**

This plan helps to offset the cost of eligible activities associated with the redevelopment of the property. Of the two hundred and forty total units, one hundred and ninety apartments in the complex will be priced for renters earning 65%–87% of Grand Traverse County’s Area Median Income (AMI). The Potential Rent Loss (PRL) calculation is based on seventy units that will be income and rent limited for renters earning between 65% and 83% of Grand Traverse County’s AMI for the duration of the Brownfield Plan. The remaining fifty units will be rented at market rates, providing a range of options for East Bay Township residents, and a community of homes for people of many income levels.

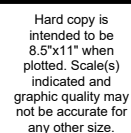
The project includes amenities usually found at higher-priced developments such as a clubhouse, a dog park, bike racks, landscaping with native plants, trail access, and dark sky-compliant lighting. The resulting project will increase high-quality affordable housing opportunities consistent with the East Bay Township Master Plan and increase the tax base of the Township.



# Figures



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**Traverse City-Central Park LLC**  
2633 N Three Mile Rd, East Bay Township, Traverse City, Michigan

1



## LEGEND

 Approximate Property Boundary

Hard copy is intended to be 8.5"x11" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

**Traverse City-Central Park LLC**  
2633 N Three Mile Rd, East Bay Township, Traverse City, Michigan

**Brownfield Plan**

PROJECT NO.  
2500564

FIGURE NO.

2

TRAVERSE CITY –  
CENTRAL PARK  
APARTMENTS



NORTH

A number line is shown with tick marks at 0, 150, and 300. The word "FEET" is written at the end of the line. The segment from 0 to 150 is labeled "150 FEET" and the segment from 150 to 300 is labeled "150 FEET".

DATA SOURCES: ESRI HYBRID REFERENCE LAYER & NEARMAP IMAGERY.







# Tables

**Table 1 – Summary of Eligible Costs**  
 Act 381 Brownfield Plan  
 Traverse City – Central Park Apartments  
 2633 N Three Mile Road, Traverse City, Michigan

**EGLE Eligible Activities Costs and Schedule**

EGLE Eligible Activities	Cost	Total	Completion Season/Year
<b>Phase I Environmental Site Assessment (Developer)</b>	<b>\$ 2,100</b>	<b>\$ 2,100</b>	<b>2024</b>
<i>Phase I Environmental Site Assessment</i>	\$ 2,100		
<b>Phase II Environmental Site Assessment (Developer)</b>	<b>\$ 5,843</b>	<b>\$ 5,843</b>	<b>2024</b>
<i>Phase II Environmental Site Assessment</i>	\$ 5,843		
<b>EGLE Eligible Activities Subtotal</b>	<b>\$ 7,943</b>	<b>\$ 7,943</b>	
<b>Contingency (0%)</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>EGLE Eligible Activities Total Costs</b>	<b>\$ 7,943</b>	<b>\$ 7,943</b>	

**Table 1 – Summary of Eligible Costs**  
Act 381 Brownfield Plan  
Traverse City – Central Park Apartments  
2633 N Three Mile Road, Traverse City, Michigan

**MSHDA Eligible Activities Costs and Schedule**

MSHDA Eligible Activities	Cost	Proration (79%)	Completion Season/Year
<b>Infrastructure Improvements (Developer)</b>	<b>\$ 5,102,242</b>	<b>\$ 4,030,771</b>	<b>2025-2026</b>
<i>Streets, Roads</i>	\$ 1,024,500		
<i>Sidewalks</i>	\$ 483,523		
<i>Lighting</i>	\$ 175,000		
<i>Sanitary Sewer Mains and Connections</i>	\$ 1,578,994		
<i>Water Mains and Connections</i>	\$ 1,068,000		
<i>Curb and Gutter</i>	\$ 129,190		
<i>Landscaping</i>	\$ 292,500		
<i>Stormwater Management Systems</i>	\$ 350,535		
<b>Site Preparation (Developer)</b>	<b>\$ 532,625</b>	<b>\$ 420,773</b>	<b>2025-2026</b>
<i>Cut and Fill</i>	\$ 253,500		
<i>Grading</i>	\$ 36,500		
<i>Land Balancing</i>	\$ 60,625		
<i>Staking</i>	\$ 65,000		
<i>Temporary Construction Access / Roads</i>	\$ 32,000		
<i>Temporary Erosion Control</i>	\$ 27,000		
<i>Temporary Site Control</i>	\$ 40,000		
<i>Temporary Traffic Control</i>	\$ 18,000		
<b>Housing Development Costs (Developer)</b>	<b>\$ 469,290</b>	<b>\$ 370,739</b>	<b>2025-2056</b>
<i>Studies (Traffic, Soil, Marketing)</i>	\$ 44,650		
<i>Soft Costs (Engineering, Design, Survey, Legal, other Professional)</i>	\$ 424,640		
<b>Development of Housing Financing Gap</b>	<b>\$ 12,714,000</b>	<b>\$ 12,714,000</b>	<b>2025-2056</b>
<i>Housing Financing Gap</i>	\$ 12,714,000		
<b>Public Infrastructure Improvements (Township)</b>	<b>\$ 268,400</b>	<b>\$ 268,400</b>	
<i>Trail Crossing: Asphalt</i>	\$ 135,000		
<i>Culvert</i>	\$ 35,000		
<i>Pedestrian Crosswalk</i>	\$ 50,000		
<i>Soft Costs (Engineering, Design, Survey, Legal, other Professional)</i>	\$ 48,400		
<b>MSHDA Eligible Activities Subtotal</b>	<b>\$ 19,086,557</b>	<b>\$ 17,804,683</b>	
<b>Contingency (10%)*</b>	<b>\$ 637,255</b>	<b>\$ 509,068</b>	
<b>Brownfield Plan/Work Plan Preparation (Developer)</b>	<b>\$ 22,000</b>	<b>\$ 22,000</b>	
<b>Brownfield Plan/Work Plan Implementation (Developer)</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	
<b>MSHDA Eligible Activities Total Costs</b>	<b>\$ 19,795,812</b>	<b>\$ 18,385,751</b>	

\*Not calculated on the housing financing gap.

**Table 1 – Summary of Eligible Costs**  
Act 381 Brownfield Plan  
Traverse City – Central Park Apartments  
2633 N Three Mile Road, Traverse City, Michigan

**Local Only Eligible Activities Costs and Schedule**

Local Only Eligible Activities	Cost	Total	Completion Season/Year
<b>GTCBRA Administration (10%)</b>	<b>\$ 811,134</b>	<b>\$ 811,134</b>	<b>2027-2056</b>
GTCBRA Administration Fee (10%)	\$ 811,134		
<b>Local Only Eligible Activities Subtotal</b>	<b>\$ 811,134</b>	<b>\$ 811,134</b>	
<b>Contingency (0%)</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Local Only Eligible Activities Total Costs</b>	<b>\$ 811,134</b>	<b>\$ 811,134</b>	

**Total Eligible Activities: \$ 19,204,828**

EGLE (Developer)	\$ 7,943
MSHDA (Developer)	\$ 18,090,511
MSHDA (Township)	\$ 295,240
GTCBRA Admin and Implementation	\$ 811,134
GTCBRA Local Brownfield Revolving Fund (LBRF)	\$ 1,680,065
<b>TOTAL</b>	<b>\$ 20,884,893</b>



Table 2 – Total Captured Incremental Taxes Schedule

Building Value

Act 381 Brownfield Plan

Traverse City – Central Park Apartments

2633 N Three Mile Road, Traverse City, Michigan

Estimated Taxable Value (TV) Increase Rate: 2% increase per year																																																							
	Plan Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Totals																							
	Calendar Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057																								
	*Base Taxable Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -																								
	Future Taxable Value	\$ 15,558,671	\$ 15,869,844	\$ 16,187,241	\$ 16,510,986	\$ 16,841,206	\$ 17,178,030	\$ 17,521,591	\$ 17,872,022	\$ 18,229,463	\$ 18,594,052	\$ 18,965,933	\$ 19,345,252	\$ 19,732,157	\$ 20,126,800	\$ 20,529,336	\$ 20,939,923	\$ 21,358,721	\$ 21,785,896	\$ 22,221,613	\$ 22,666,046	\$ 23,119,367	\$ 23,581,754	\$ 23,817,572	\$ 24,055,747	\$ 24,296,305	\$ 24,539,268	\$ 24,784,660	\$ 25,032,507	\$ 25,282,832	\$ 25,535,660																								
	Incremental Difference (New TV - Base TV)	\$ 15,558,671	\$ 15,869,844	\$ 16,187,241	\$ 16,510,986	\$ 16,841,206	\$ 17,178,030	\$ 17,521,591	\$ 17,872,022	\$ 18,229,463	\$ 18,594,052	\$ 18,965,933	\$ 19,345,252	\$ 19,732,157	\$ 20,126,800	\$ 20,529,336	\$ 20,939,923	\$ 21,358,721	\$ 21,785,896	\$ 22,221,613	\$ 22,666,046	\$ 23,119,367	\$ 23,581,754	\$ 23,817,572	\$ 24,055,747	\$ 24,296,305	\$ 24,539,268	\$ 24,784,660	\$ 25,032,507	\$ 25,282,832	\$ 25,535,660	-																							
School Capture	Millage Rate	PA 237 Millage Rates																																																					
State Education Tax (DET)	6.0000	\$ 56,246	\$ 57,371	\$ 58,518	\$ 59,688	\$ 60,882	\$ 62,100	\$ 63,342	\$ 64,609	\$ 65,901	\$ 67,219	\$ 68,563	\$ 69,935	\$ 71,339	\$ 72,765	\$ 74,214	\$ 75,688	\$ 77,196	\$ 78,736	\$ 80,311	\$ 81,922	\$ 83,569	\$ 85,253	\$ 86,975	\$ 88,736	\$ 90,535	\$ 92,372	\$ 94,247	\$ 96,161	\$ 98,114	\$ 1,001,000																								
School Operating Tax	18.0000	\$ 168,737	\$ 172,112	\$ 175,554	\$ 179,065	\$ 182,647	\$ 186,300	\$ 190,026	\$ 193,826	\$ 197,703	\$ 201,657	\$ 205,690	\$ 209,804	\$ 355,179	\$ 362,382	\$ 369,528	\$ 376,919	\$ 384,457	\$ 392,146	\$ 399,989	\$ 407,989	\$ 416,149	\$ 424,472	\$ 432,967	\$ 441,707	\$ 450,785	\$ 455,091	\$ 459,642	\$ 464,434	\$ 469,477	\$ 474,771	\$ 480,316																							
School Total	24.0000	\$ 224,983	\$ 229,483	\$ 234,072	\$ 238,754	\$ 243,529	\$ 248,400	\$ 253,368	\$ 258,435	\$ 263,604	\$ 268,876	\$ 274,253	\$ 279,738	\$ 473,572	\$ 489,043	\$ 492,704	\$ 502,558	\$ 512,609	\$ 522,861	\$ 533,319	\$ 543,985	\$ 554,865	\$ 565,962	\$ 577,626	\$ 589,333	\$ 601,200	\$ 613,257	\$ 625,509	\$ 637,956	\$ 650,603	\$ 663,456	\$ 676,515																							
Local Capture	Millage Rate	PA 237 Millage Rates																																																					
COA	0.4683	\$ 4,390	\$ 4,478	\$ 4,567	\$ 4,659	\$ 4,752	\$ 4,847	\$ 4,944	\$ 5,043	\$ 5,144	\$ 5,246	\$ 5,351	\$ 5,458	\$ 5,566	\$ 5,675	\$ 5,786	\$ 5,898	\$ 6,012	\$ 6,128	\$ 6,246	\$ 6,365	\$ 6,486	\$ 6,608	\$ 6,732	\$ 6,857	\$ 6,983	\$ 7,111	\$ 7,240	\$ 7,370	\$ 7,501	\$ 7,634																								
COA - Senior Center	0.0933	\$ 875	\$ 892	\$ 910	\$ 928	\$ 947	\$ 966	\$ 985	\$ 1,005	\$ 1,025	\$ 1,045	\$ 1,066	\$ 1,087	\$ 1,108	\$ 1,129	\$ 1,151	\$ 1,174	\$ 1,196	\$ 1,219	\$ 1,242	\$ 1,265	\$ 1,288	\$ 1,311	\$ 1,334	\$ 1,357	\$ 1,380	\$ 1,403	\$ 1,426	\$ 1,449	\$ 1,472	\$ 1,495																								
Conservation	0.0946	\$ 887	\$ 905	\$ 923	\$ 941	\$ 960	\$ 979	\$ 999	\$ 1,019	\$ 1,039	\$ 1,060	\$ 1,081	\$ 1,103	\$ 1,125	\$ 1,147	\$ 1,169	\$ 1,191	\$ 1,213	\$ 1,235	\$ 1,257	\$ 1,279	\$ 1,301	\$ 1,323	\$ 1,345	\$ 1,367	\$ 1,389	\$ 1,411	\$ 1,433	\$ 1,455	\$ 1,477	\$ 1,500																								
Road Com	1.0000	\$ 9,374	\$ 9,562	\$ 9,753	\$ 9,948	\$ 10,147	\$ 10,350	\$ 10,557	\$ 10,768	\$ 10,983	\$ 11,203	\$ 11,427	\$ 11,656	\$ 11,890	\$ 12,128	\$ 12,371	\$ 12,619	\$ 12,871	\$ 13,127	\$ 13,387	\$ 13,650	\$ 13,916	\$ 14,185	\$ 14,457	\$ 14,732	\$ 15,009	\$ 15,289	\$ 15,571	\$ 15,855	\$ 16,141	\$ 16,429	\$ 16,719																							
Veterans	0.1121	\$ 1,051	\$ 1,072	\$ 1,093	\$ 1,115	\$ 1,137	\$ 1,160	\$ 1,183	\$ 1,207	\$ 1,231	\$ 1,256	\$ 1,281	\$ 1,307	\$ 1,332	\$ 1,358	\$ 1,384	\$ 1,410	\$ 1,436	\$ 1,462	\$ 1,488	\$ 1,514	\$ 1,540	\$ 1,566	\$ 1,592	\$ 1,618	\$ 1,644	\$ 1,670	\$ 1,696	\$ 1,722	\$ 1,748	\$ 1,774																								
Animal Control	0.0220	\$ 342	\$ 349	\$ 356	\$ 363	\$ 370	\$ 378	\$ 385	\$ 393	\$ 401	\$ 409	\$ 417	\$ 425	\$ 433	\$ 441	\$ 449	\$ 457	\$ 465	\$ 473	\$ 481	\$ 489	\$ 497	\$ 505	\$ 513	\$ 521	\$ 529	\$ 537	\$ 545	\$ 553	\$ 561	\$ 569	\$ 577																							
NMC-Operating	1.0166	\$ 9,530	\$ 9,721	\$ 9,915	\$ 10,113	\$ 10,315	\$ 10,522	\$ 10,732	\$ 10,947	\$ 11,166	\$ 11,389	\$ 11,617	\$ 11,849	\$ 12,085	\$ 12,324	\$ 12,566	\$ 12,812	\$ 13,061	\$ 13,313	\$ 13,568	\$ 13,826	\$ 14,087	\$ 14,350	\$ 14,615	\$ 14,882	\$ 15,151	\$ 15,421	\$ 15,692	\$ 15,964	\$ 16,237	\$ 16,511	\$ 16,786																							
Library-Operating	1.0000	\$ 10,312	\$ 10,518	\$ 10,728	\$ 10,943	\$ 11,162	\$ 11,385	\$ 11,613	\$ 11,845	\$ 12,082	\$ 12,323	\$ 12,570	\$ 12,821	\$ 13,074	\$ 13,330	\$ 13,588	\$ 13,848	\$ 14,110	\$ 14,374	\$ 14,640	\$ 14,908	\$ 15,178	\$ 15,450	\$ 15,723	\$ 16,000	\$ 16,279	\$ 16,559	\$ 16,840	\$ 17,123	\$ 17,408	\$ 17,694	\$ 17,981																							
East Bay-Operating	0.6778	\$ 6,354	\$ 6,481	\$ 6,611	\$ 6,743	\$ 6,878	\$ 7,015	\$ 7,156	\$ 7,299	\$ 7,445	\$ 7,593	\$ 7,743	\$ 7,895	\$ 8,049	\$ 8,205	\$ 8,362	\$ 8,520	\$ 8,679	\$ 8,839	\$ 8,999	\$ 9,160	\$ 9,322	\$ 9,484	\$ 9,647	\$ 9,811	\$ 9,975	\$ 10,140	\$ 10,306	\$ 10,473	\$ 10,640	\$ 10,808	\$ 10,976																							
County	2.8143	\$ 43,787	\$ 44,663	\$ 45,556	\$ 46,467	\$ 47,397	\$ 48,345	\$ 49,312	\$ 50,298	\$ 51,304	\$ 52,330	\$ 53,377	\$ 54,444	\$ 55,531	\$ 56,638	\$ 57,766	\$ 58,914	\$ 60,083	\$ 61,273	\$ 62,484	\$ 63,716	\$ 64,969	\$ 66,243	\$ 67,537	\$ 68,852	\$ 70,187	\$ 71,542	\$ 72,917	\$ 74,312	\$ 75,727	\$ 77,162	\$ 78,617																							
NMC-Operating	1.0165	\$ 9,529	\$ 9,720	\$ 9,914	\$ 10,112	\$ 10,314	\$ 10,521	\$ 10,731	\$ 10,946	\$ 11,165	\$ 11,388	\$ 11,616	\$ 11,848	\$ 12,085	\$ 12,324	\$ 12,566	\$ 12,812	\$ 13,061	\$ 13,313	\$ 13,568	\$ 13,826	\$ 14,087	\$ 14,350	\$ 14,615	\$ 14,882	\$ 15,151	\$ 15,421	\$ 15,692	\$ 15,964	\$ 16,237	\$ 16,511	\$ 16,786																							
North Ed	2.8758	\$ 26,959	\$ 27,498	\$ 28,048	\$ 28,609	\$ 29,181	\$ 29,764	\$ 30,360	\$ 30,967	\$ 31,586	\$ 32,218	\$ 32,862	\$ 33,520	\$ 34,191	\$ 34,876	\$ 35,575	\$ 36,286	\$ 37,009	\$ 37,744	\$ 38,491	\$ 39,250	\$ 40,021	\$ 40,804	\$ 41,600	\$ 42,408	\$ 43,228	\$ 44,060	\$ 44,904	\$ 45,760	\$ 46,628	\$ 47,508	\$ 48,400																							
BATA	0.4726	\$ 4,430	\$ 4,519	\$ 4,609	\$ 4,701	\$ 4,795	\$ 4,891	\$ 4,989	\$ 5,089	\$ 5,191	\$ 5,295	\$ 5,401	\$ 5,509	\$ 5,619	\$ 5,731	\$ 5,845	\$ 5,960	\$ 6,076	\$ 6,194	\$ 6,313	\$ 6,433	\$ 6,554	\$ 6,676	\$ 6,799	\$ 6,923	\$ 7,048	\$ 7,174	\$ 7,301	\$ 7,429	\$ 7,558	\$ 7,688	\$ 7,819																							
Local Total	13.6351	\$ 127,820	\$ 130,376	\$ 132,983	\$ 135,643	\$ 138,356	\$ 141,123	\$ 143,946	\$ 146,824	\$ 149,761	\$ 152,756	\$ 155,811	\$ 158,927	\$ 269,050	\$ 274,431	\$ 279,920	\$ 285,518	\$ 291,228	\$ 297,053	\$ 302,994	\$ 309,054	\$ 315,235	\$ 321,540	\$ 324,755	\$ 328,000	\$ 331,283	\$ 334,595	\$ 337,941	\$ 341,321	\$ 344,734	\$ 348,181	\$ 351,665																							
Non-Capturable Millages	Millage Rate	PA 237 Millage Rates																																																					
TCAPS-Debt	3.1000	\$ 29,060	\$ 29,642	\$ 30,234	\$ 30,839	\$ 31,456	\$ 32,085	\$ 32,727	\$ 33,381	\$ 34,049	\$ 34,730	\$ 35,424	\$ 36,133	\$ 36,850	\$ 37,575	\$ 38,317	\$ 39,074	\$ 39,846	\$ 40,624	\$ 41,417	\$ 42,225	\$ 43,048	\$ 43,886	\$ 44,739	\$ 45,607	\$ 46,490	\$ 47,388	\$ 48,301	\$ 49,229	\$ 50,172	\$ 51,131																								
East Bay-EMR SRV	4.2100	\$ 39,466	\$ 40,235	\$ 41,060	\$ 41,881	\$ 42,719	\$ 43,573	\$ 44,445	\$ 45,334	\$ 46,240	\$ 47,165	\$ 48,109	\$ 49,071	\$ 49,952	\$ 50,852	\$ 51,771	\$ 52,700	\$ 53,648	\$ 54,616	\$ 55,604	\$ 56,612	\$ 57,640	\$ 58,688	\$ 59,756	\$ 60,844	\$ 61,952	\$ 63,080	\$ 64,228	\$ 65,406	\$ 66,604	\$ 67,832	\$ 69,090																							
Non-Capturable Total	7.3100	\$ 68,526	\$ 69,897	\$ 71,295	\$ 72,720	\$ 74,175	\$ 75,658	\$ 77,172	\$ 78,715	\$ 80,289	\$ 81,895	\$ 83,533	\$ 85,204	\$ 86,944	\$ 88,726	\$ 90,548	\$ 92,400	\$ 94,282	\$ 96,196	\$ 98,142	\$ 100,120	\$ 102,132	\$ 104,178	\$ 106,258	\$ 108,372	\$ 110,520	\$ 112,692	\$ 114,898	\$ 117,138	\$ 119,412	\$ 121,721	\$ 124,065																							
	44.9451	27.0800																																																					
Total Tax Increment Revenue (TIR) Available for Capture	\$	352,803	\$ 359,859	\$ 367,056	\$ 374,397	\$ 381,885	\$ 389,523	\$ 397,313	\$ 405,259	\$ 413,365	\$ 421,632	\$ 430,065	\$ 438,666	\$ 447,434	\$ 456,370	\$ 465,475	\$ 474,771	\$ 484,260	\$ 493,953	\$ 503,851	\$ 513,964	\$ 524,292	\$ 534,836	\$ 545,597	\$ 556,575	\$ 567,770	\$ 579,193	\$ 590,845	\$ 602,727	\$ 614,840	\$ 627,185	\$ 639,772																							
Tax Bill W/O Abatement	\$	699,286	\$ 713,272	\$ 727,537	\$ 742,088	\$ 756,930	\$ 772,068	\$ 787,510	\$ 803,260	\$ 819,325	\$ 835,712	\$ 852,426	\$ 869,474	\$ 886,867	\$ 904,607	\$ 922,703	\$ 941,149	\$ 960,056	\$ 979,424	\$ 999,263	\$ 1,019,584	\$ 1,040,397	\$ 1,061,712	\$ 1,083,529	\$ 1,105,850	\$ 1,128,675	\$ 1,152,004	\$ 1,175,838	\$ 1,199,178	\$ 1,223,025	\$ 1,247,379	\$ 1,272,240																							
Base Taxes	\$	277,957	\$ 283,516	\$ 289,187	\$ 294,970	\$ 300,870	\$ 306,887	\$ 313,025	\$ 319,285	\$ 325,671	\$ 332,185	\$ 338,828	\$ 345,605	\$ 352,518	\$ 359,568	\$ 366,765	\$ 374,119	\$ 381,730	\$ 389,598	\$ 397,734	\$ 406,148	\$ 414,851	\$ 423,853	\$ 433,164	\$ 442,784	\$ 452,714	\$ 462,954	\$ 473,504	\$ 484,364	\$ 495,534	\$ 507,014	\$ 518,804	\$ 530,914																						
Abatement Savings	\$	277,957	\$ 283,516	\$ 289,187	\$ 294,970	\$ 300,870	\$ 306,887	\$ 313,025	\$ 319,285	\$ 325,671	\$ 332,185	\$ 338,828	\$ 345,605	\$ 352,518	\$ 359,568	\$ 366,765	\$ 374,119	\$ 381,730	\$ 389,598	\$ 397,734	\$ 406,148	\$ 414,851	\$ 423,853	\$ 433,164	\$ 442,784	\$ 452,714	\$ 462,954	\$ 473,504	\$ 484,364	\$ 495,534	\$ 507,014	\$ 518,804	\$ 530,914																						

NOTES:

State Average Mills	27.08
Abatement Eligible Mills	44.9451
Proportionality %	60.3%
Estimated actual taxes paid (first year):	\$ 699,286
*Base value is 50 because there is currently no building on the site. Land is taxed separately for the PA 237 abatement.	

### Land Value

## Traverse City – Central Park Apartments

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NOTES:	
Estimated actual taxes paid (first year):	\$ 64,721
Base value is the 2025 TV	

Table 2 – Total Captured Incremental Taxes Schedule

Summary  
Act 381 Brownfield Plan  
Traverse City – Central Park Apartments  
2633 N Three Mile Road, Traverse City, Michigan

Estimated Taxable Value (TV) Increase Rate: 2% increase per year																																				
	Plan Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Totals				
	Calendar Year	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057					
	* Base Taxable Value	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770	\$ 60,770					
	Future Taxable Value	\$ 16,998,671	\$ 17,338,644	\$ 17,685,417	\$ 18,039,126	\$ 18,399,908	\$ 18,767,906	\$ 19,143,264	\$ 19,526,130	\$ 19,916,652	\$ 20,314,985	\$ 20,721,285	\$ 21,135,711	\$ 21,558,425	\$ 21,989,594	\$ 22,429,385	\$ 22,877,973	\$ 23,335,533	\$ 23,802,243	\$ 24,278,288	\$ 24,763,854	\$ 25,259,131	\$ 25,764,314	\$ 26,281,957	\$ 26,812,176	\$ 26,544,998	\$ 26,810,448	\$ 27,078,552	\$ 27,349,338	\$ 27,622,831	\$ 27,899,060	\$ -				
	Incremental Difference (New TV - Base TV)	\$ 16,937,901	\$ 17,277,874	\$ 17,624,647	\$ 17,978,356	\$ 18,339,138	\$ 18,707,136	\$ 19,082,494	\$ 19,465,360	\$ 19,855,882	\$ 20,254,215	\$ 20,660,515	\$ 21,074,941	\$ 21,497,655	\$ 21,928,824	\$ 22,368,615	\$ 22,817,203	\$ 23,274,763	\$ 23,741,473	\$ 24,217,518	\$ 24,703,084	\$ 25,198,361	\$ 25,703,544	\$ 25,961,187	\$ 26,221,406	\$ 26,484,228	\$ 26,749,678	\$ 27,017,782	\$ 27,288,568	\$ 27,562,061	\$ 27,838,290	\$ -				
School Capture		PA 237 Millage Rates																																		
State Education Tax (SET)		6.0000	6.0000	\$ 64,521	\$ 65,819	\$ 67,143	\$ 68,493	\$ 69,870	\$ 71,275	\$ 72,707	\$ 74,169	\$ 75,659	\$ 77,180	\$ 78,731	\$ 80,313	\$ 128,986	\$ 131,573	\$ 134,212	\$ 136,903	\$ 139,649	\$ 142,449	\$ 145,305	\$ 148,219	\$ 151,190	\$ 154,221	\$ 155,767	\$ 157,328	\$ 158,905	\$ 160,498	\$ 162,107	\$ 163,731	\$ 165,372	\$ 167,030	\$ 3,569,324		
School Operating Tax		18.0000	18.0000	\$ 193,564	\$ 197,457	\$ 201,428	\$ 205,478	\$ 209,610	\$ 213,824	\$ 218,122	\$ 222,506	\$ 226,978	\$ 231,540	\$ 236,192	\$ 240,938	\$ 245,785	\$ 249,824	\$ 254,065	\$ 258,405	\$ 262,845	\$ 267,384	\$ 271,922	\$ 276,560	\$ 281,297	\$ 286,034	\$ 290,871	\$ 295,708	\$ 300,545	\$ 305,382	\$ 310,219	\$ 315,056	\$ 319,893	\$ 324,730	\$ 329,567	\$ 10,707,872	
School Total		24.0000	24.0000	\$ 258,085	\$ 263,276	\$ 268,570	\$ 273,971	\$ 279,479	\$ 285,098	\$ 290,829	\$ 296,675	\$ 302,638	\$ 308,720	\$ 314,923	\$ 321,251	\$ 315,944	\$ 326,292	\$ 336,847	\$ 347,613	\$ 358,594	\$ 369,795	\$ 381,220	\$ 392,874	\$ 404,761	\$ 416,885	\$ 429,008	\$ 439,314	\$ 450,821	\$ 462,528	\$ 474,435	\$ 486,542	\$ 498,859	\$ 511,387	\$ 14,277,256		
Local Capture		PA 237 Millage Rates																																		
COA		0.4683	0.4683	\$ 5,036	\$ 5,137	\$ 5,240	\$ 5,346	\$ 5,453	\$ 5,563	\$ 5,675	\$ 5,789	\$ 5,905	\$ 6,024	\$ 6,145	\$ 6,268	\$ 10,067	\$ 10,269	\$ 10,475	\$ 10,685	\$ 10,900	\$ 11,118	\$ 11,341	\$ 11,568	\$ 11,800	\$ 12,037	\$ 12,158	\$ 12,279	\$ 12,403	\$ 12,527	\$ 12,652	\$ 12,779	\$ 12,907	\$ 13,037	\$ 278,586		
COA - Senior Center		0.0933	0.0933	\$ 1,003	\$ 1,023	\$ 1,044	\$ 1,065	\$ 1,086	\$ 1,108	\$ 1,131	\$ 1,153	\$ 1,177	\$ 1,200	\$ 1,224	\$ 1,249	\$ 2,006	\$ 2,046	\$ 2,087	\$ 2,129	\$ 2,172	\$ 2,215	\$ 2,259	\$ 2,305	\$ 2,351	\$ 2,398	\$ 2,422	\$ 2,446	\$ 2,471	\$ 2,496	\$ 2,521	\$ 2,546	\$ 2,572	\$ 2,597	\$ 55,503		
Conservation		0.0946	0.0946	\$ 1,017	\$ 1,038	\$ 1,059	\$ 1,080	\$ 1,102	\$ 1,124	\$ 1,146	\$ 1,169	\$ 1,193	\$ 1,217	\$ 1,241	\$ 1,266	\$ 2,034	\$ 2,074	\$ 2,116	\$ 2,159	\$ 2,202	\$ 2,246	\$ 2,291	\$ 2,337	\$ 2,384	\$ 2,432	\$ 2,456	\$ 2,481	\$ 2,505	\$ 2,531	\$ 2,556	\$ 2,581	\$ 2,607	\$ 2,634	\$ 56,276		
Road Com		1.0000	1.0000	\$ 10,754	\$ 10,970	\$ 11,190	\$ 11,415	\$ 11,645	\$ 11,879	\$ 12,118	\$ 12,361	\$ 12,610	\$ 12,863	\$ 13,122	\$ 13,385	\$ 21,498	\$ 21,929	\$ 22,369	\$ 22,817	\$ 23,275	\$ 23,741	\$ 24,218	\$ 24,703	\$ 25,198	\$ 25,704	\$ 25,961	\$ 26,221	\$ 26,484	\$ 26,750	\$ 27,018	\$ 27,289	\$ 27,562	\$ 27,838	\$ 594,887		
Veterans		0.1121	0.1121	\$ 1,205	\$ 1,230	\$ 1,254	\$ 1,280	\$ 1,305	\$ 1,332	\$ 1,358	\$ 1,386	\$ 1,414	\$ 1,442	\$ 1,471	\$ 1,501	\$ 2,410	\$ 2,458	\$ 2,508	\$ 2,558	\$ 2,609	\$ 2,661	\$ 2,715	\$ 2,769	\$ 2,825	\$ 2,881	\$ 2,910	\$ 2,939	\$ 2,969	\$ 2,999	\$ 3,029	\$ 3,059	\$ 3,090	\$ 3,121	\$ 66,687		
Animal Control		0.0365	0.0365	\$ 393	\$ 400	\$ 408	\$ 417	\$ 425	\$ 434	\$ 442	\$ 451	\$ 460	\$ 470	\$ 479	\$ 489	\$ 785	\$ 800	\$ 816	\$ 833	\$ 850	\$ 867	\$ 884	\$ 902	\$ 918	\$ 938	\$ 948	\$ 957	\$ 967	\$ 976	\$ 986	\$ 996	\$ 1,006	\$ 1,016	\$ 21,713		
NMC-Operating		1.0166	1.0166	\$ 10,932	\$ 11,152	\$ 11,376	\$ 11,605	\$ 11,838	\$ 12,076	\$ 12,319	\$ 12,567	\$ 12,819	\$ 13,077	\$ 13,340	\$ 13,608	\$ 21,855	\$ 22,293	\$ 22,740	\$ 23,196	\$ 23,661	\$ 24,136	\$ 24,620	\$ 25,113	\$ 25,617	\$ 26,130	\$ 26,392	\$ 26,657	\$ 26,924	\$ 27,194	\$ 27,466	\$ 27,742	\$ 28,020	\$ 28,300	\$ 604,762		
Library-Operating		1.1000	1.1000	\$ 11,829	\$ 12,067	\$ 12,309	\$ 12,557	\$ 12,809	\$ 13,067	\$ 13,330	\$ 13,598	\$ 13,871	\$ 14,150	\$ 14,434	\$ 14,724	\$ 23,947	\$ 24,122	\$ 24,305	\$ 25,099	\$ 25,602	\$ 26,116	\$ 26,639	\$ 27,173	\$ 27,718	\$ 28,274	\$ 28,557	\$ 28,844	\$ 29,133	\$ 29,425	\$ 29,720	\$ 30,017	\$ 30,318	\$ 30,622	\$ 654,376		
East Bay-Operating		0.6778	0.6778	\$ 7,289	\$ 7,435	\$ 7,585	\$ 7,737	\$ 7,891	\$ 8,052	\$ 8,214	\$ 8,379	\$ 8,547	\$ 8,719	\$ 8,894	\$ 9,073	\$ 14,971	\$ 15,161	\$ 15,356	\$ 15,556	\$ 15,776	\$ 16,002	\$ 16,415	\$ 16,744	\$ 17,079	\$ 17,422	\$ 17,776	\$ 18,131	\$ 18,496	\$ 18,862	\$ 19,231	\$ 19,607	\$ 20,000	\$ 403,215			
County		4.6710	4.6710	\$ 50,230	\$ 51,240	\$ 52,270	\$ 53,322	\$ 54,394	\$ 55,487	\$ 56,603	\$ 57,740	\$ 58,901	\$ 60,085	\$ 61,292	\$ 62,523	\$ 100,416	\$ 100,885	\$ 101,359	\$ 101,836	\$ 102,316	\$ 102,796	\$ 103,276	\$ 103,756	\$ 104,236	\$ 104,716	\$ 105,196	\$ 105,676	\$ 106,156	\$ 106,636	\$ 107,116	\$ 107,596	\$ 108,076	\$ 108,556	\$ 2,778,219		
NMC-Operating		1.0165	1.0165	\$ 10,931	\$ 11,151	\$ 11,375	\$ 11,604	\$ 11,837	\$ 12,075	\$ 12,318	\$ 12,565	\$ 12,818	\$ 13,076	\$ 13,338	\$ 13,606	\$ 21,852	\$ 22,291	\$ 22,738	\$ 23,194	\$ 23,659	\$ 24,133	\$ 24,617	\$ 25,111	\$ 25,614	\$ 26,128	\$ 26,390	\$ 26,654	\$ 26,921	\$ 27,191	\$ 27,464	\$ 27,739	\$ 28,017	\$ 28,298	\$ 604,703		
North Ed		2.8758	2.8758	\$ 30,925	\$ 31,547	\$ 32,181	\$ 32,829	\$ 33,489	\$ 34,162	\$ 34,849	\$ 35,540	\$ 36,264	\$ 36,992	\$ 37,736	\$ 38,494	\$ 63,823	\$ 63,063	\$ 64,328	\$ 65,618	\$ 66,934	\$ 68,276	\$ 69,645	\$ 71,041	\$ 72,465	\$ 73,918	\$ 74,659	\$ 75,408	\$ 76,163	\$ 76,927	\$ 77,698	\$ 78,476	\$ 79,263	\$ 80,057	\$ 1,710,777		
BATA		0.4726	0.4726	\$ 5,082	\$ 5,184	\$ 5,289	\$ 5,395	\$ 5,503	\$ 5,614	\$ 5,727	\$ 5,842	\$ 5,959	\$ 6,079	\$ 6,201	\$ 6,326	\$ 10,364	\$ 10,571	\$ 10,783	\$ 11,000	\$ 11,220	\$ 11,445	\$ 11,675	\$ 11,909	\$ 12,147	\$ 12,269	\$ 12,392	\$ 12,516	\$ 12,642	\$ 12,769	\$ 12,897	\$ 13,026	\$ 13,156	\$ 281,144			
Local Total		13.6351	13.6351	\$ 146,625	\$ 149,575	\$ 152,583	\$ 155,651	\$ 158,780	\$ 161,973	\$ 165,229	\$ 168,550	\$ 171,937	\$ 175,393	\$ 178,917	\$ 182,512	\$ 293,123	\$ 299,002	\$ 304,998	\$ 311,115	\$ 317,354	\$ 323,717	\$ 330,208	\$ 336,829	\$ 343,582	\$ 350,470	\$ 353,983	\$ 357,531	\$ 361,115	\$ 364,735	\$ 368,390	\$ 372,082	\$ 375,811	\$ 379,578	\$ 8,111,348		
Non-Capturable Millages		PA 237 Millage Rates																																		
TCAPS-Debt		3.1000	3.1000	\$ 33,336	\$ 34,006	\$ 34,690	\$ 35,388	\$ 36,099	\$ 36,825	\$ 37,565	\$ 38,321	\$ 39,091	\$ 39,876	\$ 40,678	\$ 41,495	\$ 66,643	\$ 67,979	\$ 69,343	\$ 70,733	\$ 72,152	\$ 73,599	\$ 75,074	\$ 76,580	\$ 78,115	\$ 79,681	\$ 80,480	\$ 81,286	\$ 82,101	\$ 82,924	\$ 83,755	\$ 84,595	\$ 85,442	\$ 86,299	\$ 1,844,151		
East Bay-EMR SRV		4.2100	4.2100	\$ 45,272	\$ 46,183	\$ 47,112	\$ 48,059	\$ 49,025	\$ 50,011	\$ 51,016	\$ 52,042	\$ 53,088	\$ 54,155	\$ 55,243	\$ 56,353	\$ 90,505	\$ 92,320	\$ 94,172	\$ 96,060	\$ 97,987	\$ 99,952	\$ 101,956	\$ 104,000	\$ 106,085	\$ 108,212	\$ 109,297	\$ 110,392	\$ 111,499	\$ 112,616	\$ 113,745	\$ 114,885	\$ 116,036	\$ 117,199	\$ 2,504,476		
Non-Capturable Total		7.3100	7.3100	\$ 78,608	\$ 80,189	\$ 81,802	\$ 83,447	\$ 85,125	\$ 86,836	\$ 88,582	\$ 90,362	\$ 92,178	\$ 94,031	\$ 95,920	\$ 97,848	\$ 157,148	\$ 160,300	\$ 163,515	\$ 166,794	\$ 170,139	\$ 173,550	\$ 177,030	\$ 180,580	\$ 184,200	\$ 187,893	\$ 189,776	\$ 191,678	\$ 193,600	\$ 195,540	\$ 197,500	\$ 199,479	\$ 201,479	\$ 203,498	\$ 4,348,627		
44.9451		44.9451																																		
Total Tax Increment Revenue (TIR) Available for Capture		\$ 404,710	\$ 412,850	\$ 421,153	\$ 429,622	\$ 438,260	\$ 447,071	\$ 456,058	\$ 465,225	\$ 474,575	\$ 484,112	\$ 493,840	\$ 503,763	\$ 509,066	\$ 525,293	\$ 841,845	\$ 858,728	\$ 875,948	\$ 893,513	\$ 911,429	\$ 929,703	\$ 948,343	\$ 967,355	\$ 977,052	\$ 986,845	\$ 996,737	\$ 1,006,727	\$ 1,016,817	\$ 1,027,008	\$ 1,037,301	\$ 1,047,697	\$ 22,388,645				
Tax on TV Abatement		\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 10,246,000			
Taxes on Base Value		\$ 2,731	\$ 2,731	\$ 2,731	\$ 2,731	\$ 2,731	\$ 2,731	\$ 2,731	\$ 2,731	\$ 2,731	\$ 2,731	\$ 2,731	\$ 2,731	\$ 2,731	\$ 2,731	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 32,776			
Abatement Savings		\$ 277,957	\$ 283,516	\$ 289,187	\$ 294,970	\$ 300,870	\$ 306,887	\$ 313,025	\$ 319,285	\$ 325,671	\$ 332,185	\$ 338,828	\$ 345,605	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 3,727,887			

2633 N Three Mile Road, Traverse City, Michigan

Estimated Capture		
Administrative Fees	\$	811,134
State Brownfield Redevelopment Fund	\$	1,375,293
Local Brownfield Revolving Fund	\$	1,680,065

\* Up to five years of capture for LBRF Deposits after eligible activities are reimbursed. May be taken from state and local TIR.

**Housing TIF Financing Gap Calculation - Multifamily Rental**  
Krimson - East Bay Township, Grand Traverse County

Type	Project Rent AMI*	Income Limits - Based on HH Size	(Control Rent** + MSHDA Utility Allowance)	(AMI Limited Rents + MSHDA Utility Allowance)	=	PRL	x	No. of Units	x	No. of Months	x	No. of Years	=	PRL GAP CAP	Per Unit	Rent plus utilities (Monthly)	Rent plus utilities (Annual)
Std 1BR first floor	65%	\$ 47,978	\$2,007 + \$135	\$1,150 + \$135	=	\$857	x	20	x	12	x	25	=	\$ 5,142,000	\$ 257,100	\$ 1,285	\$ 15,420
Std 1BR second floor	72%	\$ 53,578	\$2,007 + \$135	\$1,300 + \$135	=	\$707	x	20	x	12	x	25	=	\$ -	\$ -	\$ 1,435	\$ 17,220
Lg 1BR first and third floors	75%	\$ 55,445	\$2,007 + \$135	\$1,350 + \$135	=	\$657	x	20	x	12	x	25	=	\$ -	\$ -	\$ 1,485	\$ 17,820
Lg 1BR first floor	77%	\$ 57,312	\$2,007 + \$135	\$1,400 + \$135	=	\$607	x	20	x	12	x	25	=	\$ -	\$ -	\$ 1,535	\$ 18,420
Lg 1BR second floor	80%	\$ 59,179	\$2,007 + \$135	\$1,450 + \$135	=	\$557	x	20	x	12	x	25	=	\$ 3,342,000	\$ 167,100	\$ 1,585	\$ 19,020
Lg 1BR third floor	82%	\$ 61,045	\$2,007 + \$135	\$1,500 + \$135	=	\$507	x	20	x	12	x	25	=	\$ 3,042,000	\$ 152,100	\$ 1,635	\$ 19,620
Std 2BR first floor	79%	\$ 66,832	\$2,196 + \$179	\$1,700 + \$179	=	\$496	x	20	x	12	x	25	=	\$ -	\$ -	\$ 1,879	\$ 22,548
Std 2BR second floor	81%	\$ 68,610	\$2,196 + \$179	\$1,750 + \$179	=	\$446	x	20	x	12	x	25	=	\$ -	\$ -	\$ 1,929	\$ 23,148
Lg 2BR first floor	83%	\$ 70,388	\$2,196 + \$179	\$1,800 + \$179	=	\$396	x	10	x	12	x	25	=	\$ 1,188,000	\$ 118,800	\$ 1,979	\$ 23,748
Lg 2BR second floor	85%	\$ 72,167	\$2,196 + \$179	\$1,850 + \$179	=	\$346	x	10	x	12	x	25	=	\$ -	\$ -	\$ 2,029	\$ 24,348
Lg 2BR third floor	87%	\$ 73,945	\$2,196 + \$179	\$1,900 + \$179	=	\$296	x	10	x	12	x	25	=	\$ -	\$ -	\$ 2,079	\$ 24,948
Std 2BR third floor w/ Loft	95%	MR	\$2,196 + \$0	\$2,100 + \$179	=	\$0	x	20	x	12	x	25	=	\$ -	\$ -	\$ 2,279	\$ 27,348
3 BR first floor	88%	MR	\$3,500 + \$0	\$2,200 + \$233	=	\$0	x	10	x	12	x	25	=	\$ -	\$ -	\$ 2,433	\$ 29,196
3BR second floor	89%	MR	\$3,500 + \$0	\$2,220 + \$233	=	\$0	x	10	x	12	x	25	=	\$ -	\$ -	\$ 2,453	\$ 29,436
3 BR third floor	90%	MR	\$3,500 + \$0	\$2,240 + \$233	=	\$0	x	10	x	12	x	25	=	\$ -	\$ -	\$ 2,473	\$ 29,676

100 Units targeted for 65% - 80% AMI

TOTAL Housing Subsidy

70

\$ 12,714,000

\$ 106,400

90 Units targeted for 60% - 100% AMI

Percent of Units Rented at or Below 100% of County AMI

79%

50 units at Market Rate (MR)

\* Project rent AMI based on MSHDA rent allowance for 100% AMI rents in GT County

\*\* Control rent based on mean rent (lowest plus highest divided by 2) in developer's Bowen market analysis:

Unit Size	Control Rent	Calculation
1 Bed	\$ 2,007.50	(1411+2604)/2
2 Bed	\$ 2,196.00	(1642+2750)/2
3 Bed	\$ 3,500.50	(2126+4875)/2

100% of AMI is	1 Person	2 Person	3 Person
	\$ 74,300.00	\$ 84,900.00	\$ 95,500.00

Approved Eligible Activities	Prorated (Y/N)
EGLE Department Specific Activities	\$ 7,943 N
Infrastructure Improvements	\$ 4,030,771 Y
Site Preparation	\$ 420,773 Y
Housing Development Activities	\$ 370,739 Y
Public Infrastructure - Township	\$ 295,240 N
Contingency	\$ 482,228 N
Brownfield Plan/Work Plan - Developer	\$ 72,000 N
LBRF - County BRA	\$ 1,680,065 N
BRA Administrative Fee (10% of Local Taxes)	\$ 811,134 N

Total BRA TIF Request

\$ 20,884,893

Michigan State Housing Development Authority

Utility Schedule - Region B

Effective: December 2, 2024

Counties in Region B:

Alcona, Alpena, Antrim, Arenac, Benzie, Charlevoix, Cheboygan, Clare, Crawford, Emmet, Gladwin, Grand Traverse, Iosco, Kalkaska, Lake, Leelanau, Manistee, Mason, Missaukee, Montmorency, Ogemaw, Osceola, Oscoda, Otsego, Presque Isle, Roscommon, Wexford

		Standard Utility Allowance																		Calculation	
Structure Type		Apartment						Attached						Detached						Fill in the appropriate amount on the chart for each utility/appliance that you are responsible to pay. Add the total from each category for your total utility allowance.	
includes:		High-rise, Low-rise						Townhouse, Duplex, Triplex, Fourplex						Single Family Detached, Manufactured Home							
Utility		0 BR	1 BR	2 BR	3 BR	4 BR	5 BR	0 BR	1 BR	2 BR	3 BR	4 BR	5 BR	0 BR	1 BR	2 BR	3 BR	4 BR	5 BR		
Heating	Natural Gas	\$25	\$30	\$35	\$40	\$45	\$50	\$45	\$53	\$57	\$62	\$66	\$70	\$36	\$42	\$50	\$57	\$65	\$72	Heating	\$
	Bottle Gas	\$75	\$88	\$103	\$119	\$135	\$150	\$135	\$158	\$171	\$183	\$195	\$208	\$107	\$126	\$148	\$170	\$192	\$214		
	Electric Resistance	\$40	\$47	\$65	\$83	\$100	\$118	\$58	\$68	\$90	\$112	\$133	\$155	\$97	\$114	\$134	\$154	\$173	\$193		
	Electric Heat Pump	\$36	\$42	\$50	\$56	\$62	\$68	\$46	\$54	\$64	\$72	\$80	\$88	\$51	\$60	\$71	\$80	\$89	\$98		
	Fuel Oil	\$94	\$111	\$130	\$150	\$169	\$189	\$170	\$199	\$215	\$231	\$246	\$262	\$134	\$158	\$186	\$214	\$242	\$270		
Cooking	Natural Gas	\$2	\$3	\$4	\$5	\$6	\$8	\$2	\$3	\$4	\$5	\$6	\$8	\$2	\$3	\$4	\$5	\$6	\$8	Cooking	\$
	Bottle Gas	\$7	\$8	\$12	\$15	\$19	\$23	\$7	\$8	\$12	\$15	\$19	\$23	\$7	\$8	\$12	\$15	\$19	\$23		
	Electric	\$8	\$9	\$13	\$17	\$21	\$26	\$8	\$9	\$13	\$17	\$21	\$26	\$8	\$9	\$13	\$17	\$21	\$26		
Hot Water	Natural Gas	\$6	\$7	\$10	\$13	\$17	\$20	\$8	\$9	\$13	\$17	\$21	\$25	\$8	\$9	\$13	\$17	\$21	\$25	Hot Water	\$
	Bottle Gas	\$18	\$21	\$30	\$40	\$49	\$58	\$22	\$26	\$38	\$50	\$61	\$73	\$22	\$26	\$38	\$50	\$61	\$73		
	Electric	\$21	\$25	\$32	\$39	\$46	\$53	\$27	\$31	\$40	\$49	\$58	\$66	\$27	\$31	\$40	\$49	\$58	\$66		
	Fuel Oil	\$23	\$26	\$38	\$50	\$62	\$74	\$28	\$33	\$48	\$63	\$77	\$92	\$28	\$33	\$48	\$63	\$77	\$92		
Other Electric		\$29	\$35	\$48	\$62	\$75	\$89	\$36	\$42	\$59	\$75	\$92	\$108	\$43	\$51	\$71	\$91	\$111	\$130	Electric	\$
Water		\$25	\$28	\$47	\$75	\$104	\$132	\$25	\$28	\$47	\$75	\$104	\$132	\$25	\$28	\$47	\$75	\$104	\$132	Water	\$
Sewer		Included in Rent																			
Trash																					
Natural Gas Service Charge*		\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	Nat.Gas SC*	\$
Electric Service Charge		\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	Elec. SC	\$
Range**		\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	Range**	\$
Refrigerator**		\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	Refrigerator**	\$
Air Conditioning***		\$3	\$3	\$5	\$6	\$8	\$9	\$3	\$4	\$5	\$7	\$8	\$10	\$2	\$3	\$6	\$9	\$13	\$16	A/C***	\$
* Natural Gas Service Charge: Natural Gas service charge only allowed for Natural Gas utilities.																				Total	\$
** Tenant Furnished Appliance Allowance: Only allowed if the tenant is responsible for supplying the range and/or refrigerator.																					
*** Air Conditioning Allowance: Only allowed if windows are not operable.																					

\* Natural Gas Service Charge: Natural Gas service charge only allowed for Natural Gas utilities.

\*\* Tenant Furnished Appliance Allowance: Only allowed if the tenant is responsible for supplying the range and/or refrigerator.

\*\*\* Air Conditioning Allowance: Only allowed if windows are not operable.

# Appendix

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Resolutions Pending



# Appendix

# 2

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Development and Reimbursement Agreement Pending

# Appendix

3

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Notices Pending

# Appendix

# 4

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Notices Pending

# Appendix

# 5

## Housing Gap Estimates

Five-year housing gap estimates were determined for both rental and for-sale housing within each of the 10 counties of the study region using a variety of demand factors. We evaluated the market's ability to support rental and for-sale housing based on four levels of income/affordability. These include households earning up to 50% of Area Median Income (AMHI), between 51% and 80% of AMHI, between 81% and 120% of AMHI, and 121% of AMHI and higher. While there may be an overlap among these levels due to program targeting and rent/price levels charged, we have established specific income stratifications that are exclusive of each other in order to eliminate double counting demand. We used HUD's 2023 published income limits for each county.

The following table summarizes the Northern Michigan Region's **rental housing gap estimates (number of units needed)** by the various income segments. The largest overall housing gaps are shown in **red**. It should be noted that details on the calculations and specific rent and income levels for each affordability level are provided in the individual county chapters that are included as addendums to this report.

Northern Michigan Region						
Rental Housing Gap Estimates (2022-2027)						
Number of Units Needed by AMHI Level						
County		≤ 50% AMHI	51%-80% AMHI	81%-120% AMHI	121%+ AMHI	Total
						Number Of Units      Region's Share
Antrim		114	114	66	27	321      3.6%
Benzie		129	50	26	9	214      2.4%
Charlevoix		334	215	120	61	730      8.3%
Emmet		380	226	115	144	865      9.8%
Grand Traverse		2,358	733	288	190	3,569      40.5%
Kalkaska		284	149	62	16	511      5.8%
Leelanau		212	90	61	19	382      4.3%
Manistee		262	142	87	34	525      6.0%
Missaukee		179	99	45	13	336      3.8%
Wexford		762	370	172	56	1,360      15.4%
Region Total	Units	5,014	2,188	1,042	569	8,813
	Share	56.9%	24.8%	11.8%	6.5%	100.0%

Source: Bowen National Research  
AMHI – Area Median Household Income

Based on the preceding demand estimates, it is clear that there is some level of rental housing demand among all household income levels within the Northern Michigan Region. **Overall, there is a housing gap of 8,813 rental units in the region over the five-year projection period.** The region's largest rental gap by affordability level is for product affordable to households earning up to 50% of Area Median Household Income (AMHI), with an overall gap of 5,014 units representing well over half of the region's overall rental housing gap. There is a notable overall rental housing gap of 2,188 units affordable at 51% to 80% of AMHI, representing nearly one-quarter of the region's overall rental housing gap. Despite the large need for more affordable rentals, the entire region has noteworthy gaps for moderate and higher-end rentals, particularly within Emmet, Grand Traverse and Wexford counties.



Grand Traverse County has an overall rental housing gap of 3,569 units, representing 40.5% of the region's overall rental housing gap. Notable rental housing gaps also exist in the counties of Wexford (1,360 units, 15.4% of region's total), Emmet (865 units, 9.8% of region's total), Charlevoix (730 units, 8.3% of region's total), Manistee (525 units, 6.0% of region's total), and Kalkaska (511 units, 5.8% of region's total). Without a notable addition of new rental product, the area will not meet the housing needs of its current residents or the growing and changing housing needs of the market.

The following table summarizes the Northern Michigan Region's **for-sale housing gap estimates (number of units needed or could be supported)** by the various income segments following HUD guidelines. The largest overall housing gaps are shown in **red**. It should be noted that details on the calculations and specific price points and income levels for each affordability level are provided in the individual county chapters that are included as addendums to this report.

Northern Michigan Region						
For-Sale Housing Gap Estimates (2022-2027)						
Number of Units Needed by AMHI Level						
County		≤ 50% AMHI	51%-80% AMHI	81%-120% AMHI	121%+ AMHI	Total
						Number Of Units      Region's Share
Antrim		265	239	504	442	1,450      6.5%
Benzie		349	251	378	316	1,294      5.8%
Charlevoix		173	282	648	525	1,628      7.3%
Emmet		552	462	856	635	2,505      11.2%
Grand Traverse		1,798	1,384	2,569	2,041	7,792      34.7%
Kalkaska		353	220	313	271	1,157      5.2%
Leelanau		498	383	581	491	1,953      8.7%
Manistee		158	247	525	447	1,377      6.1%
Missaukee		279	167	246	211	903      4.0%
Wexford		639	454	705	598	2,396      10.7%
Region Totals	Units	5,064	4,089	7,325	5,977	22,455      100.0%
	Share	22.6%	18.2%	32.6%	26.6%	100.0%

Source: Bowen National Research  
AMHI – Area Median Household Income

As illustrated in the preceding table, there is an overall regional for-sale housing gap of approximately 22,455 units over the five-year projection period. The largest for-sale housing gap by affordability level is for product affordable to households earning between 81% and 120% of Area Median Household Income (AMHI). This particular affordability level has a for-sale housing gap of 7,325 units, which represents nearly one-third (32.6%) of the overall region's for-sale housing gap. The remaining affordability gaps also have relatively large levels of need, with housing gaps ranging from 4,089 units affordable at 51% to 80% of AMHI to 5,977 units affordable at 121% or more of AMHI. Grand Traverse County has an overall for-sale housing gap of 7,792 units, representing over one-third (34.7%) of the region's overall for-sale housing gap. The counties of Emmet, Leelanau, and Wexford also have for-sale housing gaps over 1,900, each representing close to 10% of the overall region's for-sale housing gap. The limited inventory of for-sale product limits opportunities for renters seeking to enter the homebuyer market, homebuyers coming from

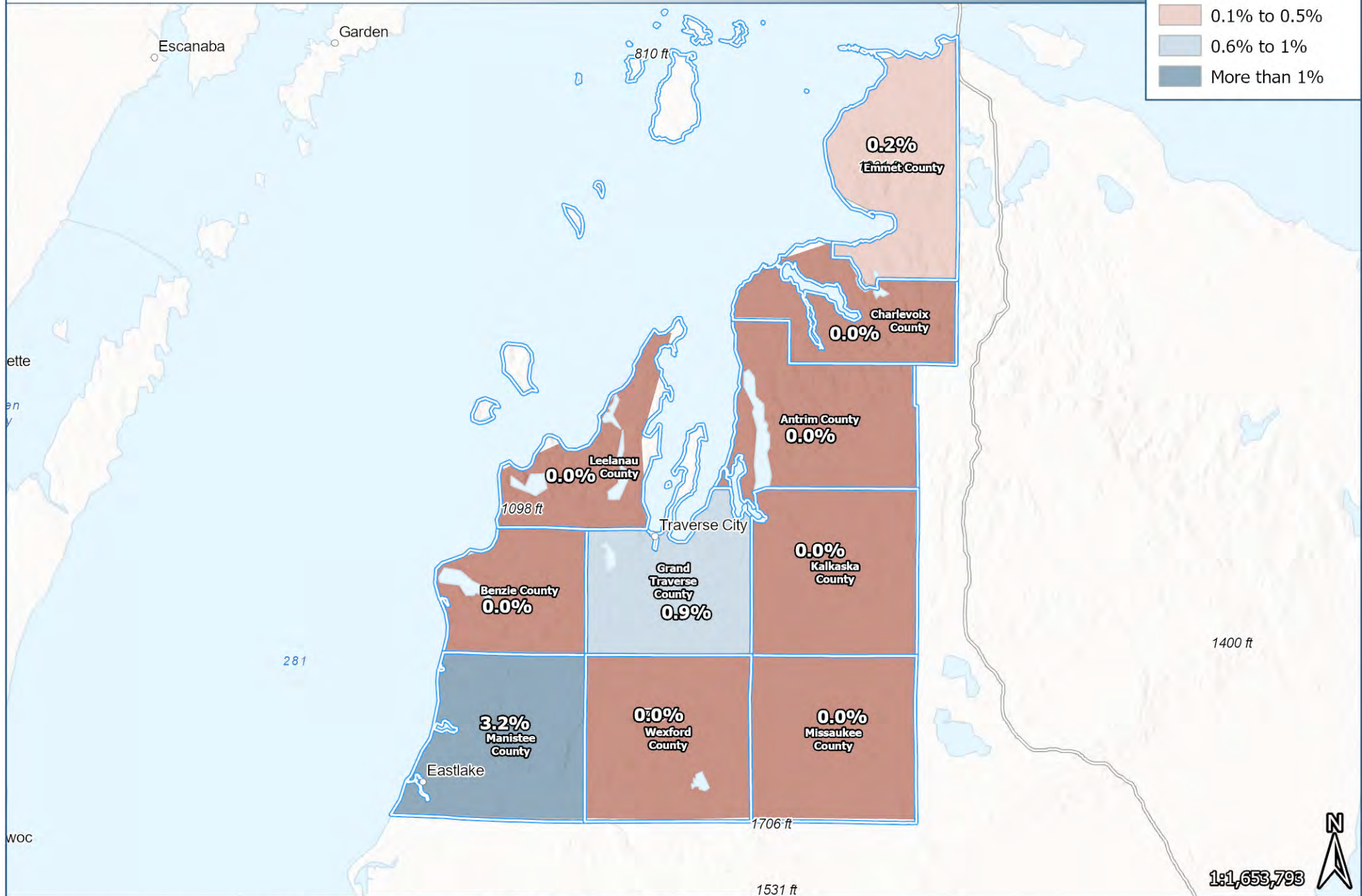
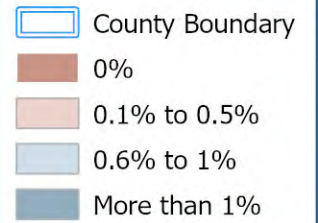
The following table summarizes the distribution of surveyed rental housing by county and region. It should be noted that the wait list information includes the number of households on a property's wait list and does not include additional households on wait lists that are reported as a point in time (e.g., 12-month wait list). As such, the *number* of households on the wait lists likely underrepresents the actual level of pent-up demand for multifamily rental housing. The **red** shading indicates areas with the lowest vacancy rates.

Surveyed Multifamily Rental Housing Supply by Area Northern Michigan Region										
	Projects Surveyed	Total Units	Vacant Units	Overall Vacancy Rate	Vacancy Rate by Type			Wait Lists by Type (Households)		
					Market- rate	Tax Credit	Government Subsidy	Market- rate	Tax Credit	Government Subsidy
<b>Antrim</b>	5	149	0	0.0%	0.0%	-	0.0%	10 HH	-	11-14 HH 24 Mo.
<b>Benzie</b>	2	92	0	0.0%	-	0.0%	0.0%	-	-	12 Mo.
<b>Charlevoix</b>	13	338	0	0.0%	0.0%	0.0%	0.0%	-	33 HH	4-37 HH 6-108 Mo.
<b>Emmet</b>	24	1,216	3	0.2%	0.6%	0.0%	0.0%	12-100 HH 6-12 Mo.	4-10 HH 6-12 Mo.	2-100 HH
<b>Grand Traverse</b>	42	3,700	33	0.9%	1.2%	0.0%	0.4%	3-65 HH 12 Mo.	2-100 HH	16-400 HH 12-66 Mo.
<b>Kalkaska</b>	4	176	0	0.0%	-	0.0%	0.0%	-	5 HH	9-76 HH
<b>Leelanau</b>	1	18	0	0.0%	-	-	0.0%	-	-	8 HH
<b>Manistee</b>	22	473	15	3.2%	1.2%	0.0%	5.4%	4-14 HH	65-107 HH	8-80 HH
<b>Missaukee</b>	3	72	0	0.0%	0.0%	-	0.0%	-	-	9-56 HH
<b>Wexford</b>	14	797	0	0.0%	0.0%	0.0%	0.0%	2-12 Mo.	80 HH 6-18 Mo.	45-65 HH 2-24 Mo.
<b>Region</b>	<b>130</b>	<b>7,031</b>	<b>51</b>	<b>0.7%</b>	<b>1.0%</b>	<b>0.0%</b>	<b>0.6%</b>	<b>3-100 HH 2-14 Mo.</b>	<b>4-107 HH 6-18 Mo.</b>	<b>2-400 HH 2-108 Mo.</b>

Source: Bowen National Research  
HH – Households; Mo. – Months

Seven of the 10 counties in the Northern Michigan Region have no vacant units at any of the surveyed rental properties. The overall vacancy rates within the three remaining counties that have available units (Emmet, Grand Traverse, and Manistee) range from 0.2% to 3.2%. The market-rate housing product in the region has a vacancy rate of 1.0%, while the government-subsidized housing product has a vacancy rate of 0.6%. It should be noted that there were no vacancies at Tax Credit projects surveyed throughout the 10-county region. The low vacancy rates among the surveyed supply in each of these counties illustrate that the multifamily rental supply is operating with limited availability across the entire region. Waiting lists at conventional apartment properties in the Northern Michigan Region range from two to 400 households with a wait time ranging from two months to nine years depending on unit type. Market-rate properties have the shortest wait times in the region, while subsidized properties have the longest wait times for the next available units.

The following maps illustrate the vacancy rates by housing type.



## Labor Force

The following table illustrates the employment base by industry for Grand Traverse County, the PSA (Northern Michigan Region), and the state of Michigan.

NAICS Group	Employment by Industry					
	Grand Traverse County		Region		Michigan	
	Employees	Percent	Employees	Percent	Employees	Percent
Agriculture, Forestry, Fishing & Hunting	191	0.3%	1,037	0.6%	18,094	0.4%
Mining	122	0.2%	416	0.2%	6,059	0.1%
Utilities	141	0.2%	566	0.3%	14,450	0.3%
Construction	3,294	4.3%	8,709	4.9%	163,027	3.6%
Manufacturing	<b>5,229</b>	<b>6.9%</b>	<b>16,371</b>	<b>9.1%</b>	<b>513,197</b>	<b>11.2%</b>
Wholesale Trade	2,563	3.4%	4,703	2.6%	193,695	4.2%
Retail Trade	<b>11,293</b>	<b>14.8%</b>	<b>25,115</b>	<b>14.0%</b>	<b>576,665</b>	<b>12.6%</b>
Transportation & Warehousing	1,298	1.7%	2,863	1.6%	95,658	2.1%
Information	1,372	1.8%	2,773	1.5%	91,050	2.0%
Finance & Insurance	2,098	2.7%	4,834	2.7%	168,540	3.7%
Real Estate & Rental & Leasing	1,297	1.7%	3,412	1.9%	95,407	2.1%
Professional, Scientific & Technical Services	3,991	5.2%	7,617	4.3%	295,491	6.5%
Management of Companies & Enterprises	76	0.1%	227	0.1%	8,827	0.2%
Administrative, Support, Waste Management & Remediation Services	1,331	1.7%	4,042	2.3%	111,717	2.4%
Educational Services	3,016	4.0%	9,834	5.5%	378,891	8.3%
Health Care & Social Assistance	<b>22,664</b>	<b>29.7%</b>	<b>38,645</b>	<b>21.6%</b>	<b>765,165</b>	<b>16.7%</b>
Arts, Entertainment & Recreation	2,244	2.9%	7,845	4.4%	139,513	3.1%
Accommodation & Food Services	<b>7,970</b>	<b>10.4%</b>	<b>20,986</b>	<b>11.7%</b>	<b>398,782</b>	<b>8.7%</b>
Other Services (Except Public Administration)	3,223	4.2%	8,794	4.9%	270,042	5.9%
Public Administration	2,316	3.0%	9,313	5.2%	238,652	5.2%
Non-classifiable	585	0.8%	914	0.5%	30,131	0.7%
Total	76,314	100.0%	179,016	100.0%	4,573,053	100.0%

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

Note: Since this survey is conducted of establishments and not of residents, some employees may not live within each market. These employees, however, are included in our labor force calculations because their places of employment are located within each market.

Grand Traverse County has an employment base of approximately 76,314 individuals within a broad range of employment sectors. The labor force within the county is based primarily in four sectors: Health Care and Social Assistance (29.7%), Retail Trade (14.8%), Accommodation & Food Services (10.4%), and Manufacturing (6.9%). It is interesting to note that these sectors also comprise the four largest sectors of employment within the PSA (Northern Michigan Region) and the state of Michigan. Combined, these four job sectors represent over three-fifths (61.8%) of the county employment base. This represents a much greater concentration of employment within the top four sectors compared to the top four sectors in the PSA (56.4%) and state (49.2%). Areas with a heavy concentration of employment within a limited number of industries can be more vulnerable to economic downturns with greater fluctuations in unemployment rates and total employment. With a notably more concentrated overall distribution of employment, the economy within Grand Traverse County may be slightly more vulnerable to economic downturns compared to the PSA and state overall. It should be noted that Health Care & Social Assistance is typically less



vulnerable to economic downturns, and as the largest sector of employment in the county, this likely helps to insulate the county from economic decline. Although many occupations within the healthcare sector offer competitive wages, it is important to understand that a significant number of the support occupations in this industry, as well as within the retail trade and accommodation and food services sectors, typically have lower average wages which can contribute to demand for affordable housing options.

Data of overall total employment and unemployment rates of the county and the overall state since 2013 are compared in the following tables.

Year	Total Employment					
	Grand Traverse County		Michigan		United States	
	Total Number	Percent Change	Total Number	Percent Change	Total Number	Percent Change
2013	43,658	-	4,323,410	-	143,929,000	-
2014	45,141	3.4%	4,416,017	2.1%	146,305,000	1.7%
2015	46,381	2.7%	4,501,816	1.9%	148,833,000	1.7%
2016	47,371	2.1%	4,606,948	2.3%	151,436,000	1.7%
2017	47,294	-0.2%	4,685,853	1.7%	153,337,000	1.3%
2018	47,441	0.3%	4,739,081	1.1%	155,761,000	1.6%
2019	48,118	1.4%	4,773,453	0.7%	157,538,000	1.1%
2020	44,967	-6.5%	4,379,122	-8.3%	147,795,000	-6.2%
2021	45,701	1.6%	4,501,562	2.8%	152,581,000	3.2%
2022	47,541	4.0%	4,632,539	2.9%	158,291,000	3.7%
2023*	46,040	-3.2%	4,624,229	-0.2%	159,715,000	0.9%

Source: Department of Labor, Bureau of Labor Statistics

\*Through March

Year	Unemployment Rate		
	Grand Traverse County	Michigan	United States
2013	7.6%	8.7%	7.4%
2014	6.1%	7.2%	6.2%
2015	4.7%	5.4%	5.3%
2016	4.4%	5.0%	4.9%
2017	4.1%	4.6%	4.4%
2018	3.7%	4.2%	3.9%
2019	3.5%	4.1%	3.7%
2020	8.7%	10.0%	8.1%
2021	5.0%	5.8%	5.4%
2022	3.8%	4.2%	3.7%
2023*	4.5%	4.5%	3.8%

Source: Department of Labor, Bureau of Labor Statistics

\*Through March

From 2013 to 2019, the employment base in Grand Traverse County increased by 4,460 employees, or 10.2%, which was comparable to the state increase of 10.4% during that time. In 2020, which was largely impacted by the economic effects related to COVID-19, total employment decreased in Grand Traverse County by 6.5%, which was a smaller decline compared to the state (8.3%). In 2021, total employment for the county increased by 1.6%, followed by an additional increase of 4.0% in 2022.

Although total employment in Grand Traverse County has declined 3.2% through March 2023, which may be due, in part, to seasonality, the significant increases in total employment over the last two full years are a positive sign that the local economy is recovering from the effects of the COVID-19 pandemic. While total employment still remains below the 2019 level, Grand Traverse County has recovered to within 98.8% (2022 full year) of the total employment in 2019, which represents a recovery rate above that for the state of Michigan (97.0%).

The unemployment rate within Grand Traverse County steadily declined from 2013 (7.6%) to 2019 (3.5%). It is also noteworthy that the unemployment rate within the county has been typically lower than the rate within the state since 2013. In 2020, the unemployment rate increased sharply to 8.7%, which represents an unemployment rate below that of the state (10.0%) during this time. In 2021, the unemployment rate within the county decreased to 5.0%. As of 2022, the unemployment rate within the county decreased to 3.8%. This represents an unemployment rate that is lower than the state (4.2%) and only slightly higher than the nation (3.7%). Additionally, the 3.8% unemployment rate within the county is much more comparable to the rate in 2019 (3.5%) and is a positive sign of recovery in the local economy.

#### Commuting Data

According to the 2016-2020 American Community Survey (ACS), 86.9% of Grand Traverse County commuters either drive alone or carpool to work, 2.0% walk to work and 8.0% work from home. ACS also indicates that 72.8% of Grand Traverse County workers have commute times of less than 30 minutes, while 3.1% have commutes of 60 minutes or more. This represents shorter commute times compared to the state, where 62.6% of workers have commute times of less than 30 minutes and 6.0% have commutes of at least 60 minutes. Tables illustrating detailed commuter data are provided on pages V-18 and V-19 in Section V: Economic Analysis.

According to 2020 U.S. Census Longitudinal Origin-Destination Employment Statistics (LODES), of the 38,195 employed residents of Grand Traverse County, 12,676 (33.2%) are employed outside the county, while the remaining 25,519 (66.8%) are employed within Grand Traverse County. In addition, 19,329 people commute into Grand Traverse County from surrounding areas for employment. These 19,329 non-residents account for over two-fifths (43.1%) of the people employed in the county and represent a notable base of potential support for future residential development.

The following illustrates the number of jobs filled by in-commuters and residents, as well as the number of resident out-commuters. The distribution of age and earnings for each commuter cohort is also provided.

Of the county's 19,329 in-commuters, over one-half (51.2%) are between the ages of 30 and 54, 25.8% are age 55 or older and 23.0% are under the age of 30. This is a similar distribution of workers by age compared to the resident outflow workers. Over two-fifths (40.6%) of inflow workers earn more than \$3,333 per month (\$40,000 or more annually), approximately one-third (33.3%) earn between \$1,251 and \$3,333 per month (approximately \$15,000 to \$40,000 annually), and the remaining 26.1% earn \$1,250 or less per month. These distributions of inflow workers by earnings are generally similar to those of outflow workers. Based on the preceding data, people that commute *into* Grand Traverse County for employment are typically similar in age and more likely to earn *slightly higher* wages when compared to residents commuting out of the county for work. Regardless, given the diversity of incomes and ages of the nearly 19,330 people commuting into the area for work each day, a variety of housing product types could be developed to potentially attract these commuters to live in Grand Traverse County.

### C. HOUSING METRICS

The estimated distribution of the area housing stock by tenure for Grand Traverse County for 2022 is summarized in the following table:

		Occupied and Vacant Housing Units by Tenure 2022 Estimates				
		Total Occupied	Owner Occupied	Renter Occupied	Vacant	Total
Grand Traverse County	Number	40,604	30,425	10,179	6,168	46,772
	Percent	86.8%	74.9%	25.1%	13.2%	100.0%
Region	Number	131,968	105,039	26,929	52,017	183,985
	Percent	71.7%	79.6%	20.4%	28.3%	100.0%
Michigan	Number	4,055,460	2,895,751	1,159,709	533,313	4,588,773
	Percent	88.4%	71.4%	28.6%	11.6%	100.0%

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

In total, there are an estimated 46,772 housing units within Grand Traverse County in 2022. Based on ESRI estimates and 2020 Census data, of the 40,604 total *occupied* housing units in the county, 74.9% are owner occupied, while the remaining 25.1% are renter occupied. As such, Grand Traverse County has a higher share of owner-occupied housing units when compared to the and state (71.4%), but lower than the region (79.6%). Approximately 13.2% of the housing units within Grand Traverse County are classified as vacant, which represents a much lower share than that of the region (28.3%), and slightly higher than the state (11.6%). Vacant units are comprised of a variety of units including abandoned properties, unoccupied rentals, for-sale homes, and seasonal housing units. Based on American Community Survey data, 66.7% of vacant housing units in Grand Traverse County and 82.6% of vacant units in the region are seasonal/recreational units, which is a much higher share of such units compared to the state (45.7%).

The following table compares key housing age and conditions based on 2016-2020 American Community Survey data. Housing units built over 50 years ago (pre-1970), overcrowded housing (1.01+ persons per room), or housing that lacks complete indoor kitchens or bathroom plumbing are illustrated by tenure. It is important to note that some occupied housing units may have more than one housing issue.

	Housing Age and Conditions											
	Pre-1970 Product				Overcrowded				Incomplete Plumbing or Kitchen			
	Renter		Owner		Renter		Owner		Renter		Owner	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Grand Traverse</b>	2,370	26.6%	7,058	24.3%	277	3.1%	290	1.0%	169	1.9%	81	0.8%
<b>Region</b>	7,662	31.6%	30,923	30.2%	781	3.2%	1,204	1.2%	619	2.5%	605	0.6%
<b>Michigan</b>	526,133	46.8%	1,373,485	48.1%	32,741	2.9%	31,181	1.1%	24,376	2.2%	16,771	0.6%

Source: American Community Survey (2016-2020); ESRI; Urban Decision Group; Bowen National Research

In Grand Traverse County, over one-fourth (26.6%) of the renter-occupied units and 24.3% of the owner-occupied housing units were built prior to 1970. As such the housing stock in Grand Traverse County appears to be generally newer than housing within the region and state. The shares of renter households (3.1%) and owner households (1.0%) in Grand Traverse County that experience overcrowding are comparable to the shares within the region and state. The share of renter households in Grand Traverse County with incomplete plumbing or kitchens (1.9%) is lower than those within the region (2.5%) and state (2.2%), while the share of owner households with incomplete plumbing or kitchens (0.8%) is slightly higher than those in the region (0.6%) and state (0.6%).

The following table compares key household income, housing cost, and housing affordability metrics. It should be noted that cost burdened households pay over 30% of income toward housing costs, while severe cost burdened households pay over 50% of income toward housing.

	Household Income, Housing Costs and Affordability						
	Median Household Income	Estimated Median Home Value	Average Gross Rent	Share of Cost Burdened Households*		Share of Severe Cost Burdened Households**	
				Renter	Owner	Renter	Owner
<b>Grand Traverse County</b>	\$69,310	\$263,652	\$1,011	48.7%	20.3%	24.5%	7.0%
<b>Region</b>	\$63,085	\$209,788	\$888	43.3%	20.4%	20.0%	7.7%
<b>Michigan</b>	\$65,507	\$204,371	\$968	44.9%	18.8%	23.1%	7.4%

Source: American Community Survey (2016-2020); ESRI; Urban Decision Group; Bowen National Research

\*Paying more than 30% of income toward housing costs

\*\*Paying more than 50% of income toward housing costs



The estimated median home value in Grand Traverse County of \$263,652 is 25.7% higher than the median home value for the region (\$209,788) and 29.0% higher than that reported for the state (\$204,371). Similarly, the average gross rent in Grand Traverse County (\$1,011) is 13.9% higher than the regional average gross rent (\$888), and 4.4% higher than the statewide average (\$968). Although the county has a higher median household income level (\$69,310), the higher average gross rent likely contributes to a higher share (48.7%) of cost burdened renter households compared to the region (43.3%) and state (44.9%). The share of cost burdened owners (20.3%) in the county is slightly lower than the share for the region (20.4%), but higher than the state (18.8%). Overall, nearly half (48.7%) of renter households in Grand Traverse County are cost burdened, while nearly one-fourth (24.5%) are severe cost burdened. As such, affordable housing alternatives, particularly rental housing, should be part of future housing solutions.

Based on the 2016-2020 American Community Survey (ACS) data, the following is a distribution of all occupied housing by units in structure by tenure (renter or owner) for the county, the region, and the state.

		Renter-Occupied Housing by Units in Structure				Owner-Occupied Housing by Units in Structure			
		4 Units or Less	5 Units or More	Mobile Home/ Other	Total	4 Units or Less	5 Units or More	Mobile Home/ Other	Total
Grand Traverse County	Number	4,196	3,971	752	8,919	26,491	453	2,076	29,020
	Percent	47.0%	44.5%	8.4%	100.0%	91.3%	1.6%	7.2%	100.0%
Region	Number	13,338	8,236	2,710	24,284	93,237	969	7,958	102,164
	Percent	54.9%	33.8%	11.1%	100.0%	91.3%	1.0%	7.8%	100.0%
Michigan	Number	588,520	488,828	47,520	1,124,868	2,669,942	35,543	149,878	2,855,363
	Percent	52.3%	43.5%	4.2%	100.0%	93.5%	1.2%	5.2%	100.0%

Source: American Community Survey (2016-2020); ESRI; Urban Decision Group; Bowen National Research

Approximately 47.0% of the *rental* units in Grand Traverse County are within structures of four units or less, with mobile homes comprising an additional 8.4% of the county rental units. The combined share of these two types of structures (55.4%) is less than that of the region (66.1%) and state (56.5%). Overall, the county has a larger share (44.5%) of multifamily rental housing (five or more units within a structure) when compared to the region (33.8%) and state (43.5%). Over 90.0% of *owner*-occupied units in the county are within structures of four units or less while 7.2% are mobile homes. As such, there is a slightly smaller share of mobile homes in the county compared to the region (7.8%). While the shares of owner-occupied housing units within structures containing four or less units within the county and region are lower than the statewide share of 93.5%, the county and region both report slightly higher shares of mobile homes (7.2% and 7.8%, respectively) as compared to the state (5.2%). There is a minimal share (1.6% or less) of owner-occupied housing within structures of five or more units within each of the geographies evaluated within this analysis.

The following table summarizes monthly gross rents (per unit) for area rental alternatives within the county, region, and the state of Michigan. While this data encompasses all rental units, which includes multifamily apartments, a majority (55.4%) of the county's rental supply consists of non-conventional rentals. Therefore, it is reasonable to conclude that the following provides insight into the overall distribution of rents among the non-conventional rental housing units. It should be noted, gross rents include tenant-paid rents and tenant-paid utilities.

		Estimated Monthly Gross Rents by Market								
		<\$300	\$300 - \$500	\$500 - \$750	\$750 - \$1,000	\$1,000 - \$1,500	\$1,500 - \$2,000	\$2,000+	No Cash Rent	Total
Grand Traverse County	Number	223	710	1,167	2,535	3,173	560	166	385	8,919
	Percent	2.5%	8.0%	13.1%	28.4%	35.6%	6.3%	1.9%	4.3%	100.0%
Region	Number	1,235	2,176	5,475	6,155	6,264	794	375	1,810	24,284
	Percent	5.1%	9.0%	22.5%	25.3%	25.8%	3.3%	1.5%	7.5%	100.0%
Michigan	Number	51,846	69,698	227,872	314,293	299,877	70,403	33,633	57,245	1,124,867
	Percent	4.6%	6.2%	20.3%	27.9%	26.7%	6.3%	3.0%	5.1%	100.0%

Source: American Community Survey (2016-2020); ESRI; Urban Decision Group; Bowen National Research

As the preceding table illustrates, the largest share (35.6%) of Grand Traverse County rental units has rents between \$1,000 and \$1,500, followed by units with rents between \$750 and \$1,000 (28.4%). Collectively, units with gross rents between \$500 and \$1,000 account for 41.5% of all Grand Traverse County rentals. In comparison, rental units priced between \$500 and \$1,000 represent 47.8% of all rentals in the region, and 48.2% of all rentals in the state. It is estimated that 43.8% of Grand Traverse County rentals are priced at \$1,000 or more, as compared to shares of 30.6% and 35.9% for the region and state, respectively. The preceding indicates that rental product within Grand Traverse County is typically less affordable than rental product throughout the region and state of Michigan.

#### Bowen National Research's Survey of Housing Supply

##### *Multifamily Rental Housing*

A field survey of conventional apartment properties was conducted as part of this Housing Needs Assessment. The following table summarizes the county's surveyed multifamily rental supply.

Multifamily Supply by Product Type – Grand Traverse County				
Project Type	Projects Surveyed	Total Units	Vacant Units	Occupancy Rate
Market-rate	19	2,395	30	98.7%
Market-rate/Tax Credit	2	222	0	100.0%
Market-rate/Government-Subsidized	1	122	0	100.0%
Tax Credit	5	212	0	100.0%
Tax Credit/Government-Subsidized	12	607	3	99.5%
Government-Subsidized	3	142	0	100.0%
Total	42	3,700	33	99.1%

In Grand Traverse County, a total of 42 apartment properties were surveyed, which comprised a total of 3,700 units. An additional 308 units were under construction at the time of this survey. The largest share (64.7%) of units surveyed in the county were at market-rate properties. Market-rate units also represent 30 of the 33 vacant units among surveyed properties in the county. Rents at market-rate properties range from \$1,135 for a one-bedroom unit to \$3,000 for a three-bedroom unit. Rents at non-subsidized Tax Credit properties, consisting of 212 units at five properties, range from \$697 for a studio unit to \$1,329 for a three-bedroom unit.

Three of the 42 properties exclusively consist of government-subsidized units, while 13 additional properties consist of a mix of government-subsidized units, subsidized Tax Credit units and/or market-rate units. Overall, 871 of the 3,700 rental units surveyed in the county are at subsidized properties, representing 23.5% of all units surveyed. The 42 surveyed properties have quality ratings ranging from “A” to “C+,” which reflects a wide range of overall quality in the market. However, project quality within the marketplace does not appear to have a negative effect on occupancy, as 35 of the 42 projects surveyed in the county are 100% occupied. The seven properties that have vacant units have quality ratings between “A” and “B-.” The overall occupancy rate of 99.1% for multifamily rental product is very high and indicative of a strong market for apartments. Note that 29 of the 42 properties surveyed in Grand Traverse County have wait lists, reflective of pent-up demand for apartment units.

#### *Non-Conventional Rental Housing*

Non-conventional rentals are considered rental units typically consisting of single-family homes, duplexes, units over store fronts, mobile homes, etc. and account for 55.4% of the total rental units in Grand Traverse County. The following table illustrates the distribution of renter-occupied housing by the number of units in a structure for Grand Traverse County, Northern Michigan Region, and the state of Michigan.

		Renter-Occupied Housing by Units in Structure			
		1 to 4 Units	5 or More Units	Mobile Homes/Boats/RVs	Total Units
<b>Grand Traverse County</b>	Number	4,196	3,971	752	8,919
	Percent	47.0%	44.5%	8.4%	100.0%
<b>Region</b>	Number	13,338	8,236	2,710	24,284
	Percent	54.9%	33.9%	11.2%	100.0%
<b>Michigan</b>	Number	588,520	488,828	47,520	1,124,868
	Percent	52.3%	43.5%	4.2%	100.0%

Source: American Community Survey (2016-2020); ESRI; Urban Decision Group; Bowen National Research

Nearly half (47.0%) non-conventional rental units in the county are within structures containing one to four units, while a significant share (44.5%) of rental units are in conventional properties containing five or more units. The overall share of 47.0% is a lower rate of rental units within one- to four-unit structures compared to the Northern Michigan Region (54.9%) and the state of Michigan (52.3%). As a significant share of the rental housing stock in Grand Traverse County is comprised of non-conventional rentals, it is clear that this housing segment warrants additional analysis.

Bowen National Research conducted an online survey between March and May 2023 and identified 44 non-conventional rentals that were listed as *available* for rent in Grand Traverse County. While these rentals do not represent all non-conventional rentals, they are representative of common characteristics of the various non-conventional rental alternatives available in the market. As a result, these rentals provide a good baseline to compare the rental rates, number of bedrooms, number of bathrooms, and other characteristics of non-conventional rentals.

The following table summarizes the sample survey of *available* non-conventional rentals identified in Grand Traverse County.

Surveyed Non-Conventional Rental Supply – Grand Traverse County				
Bedroom	Vacant Units	Rent Range	Median Rent	Median Rent Per Square Foot
Studio	0	-	-	-
One-Bedroom	4	\$1,199 - \$1,625	\$1,375	\$1.49
Two-Bedroom	18	\$1,100 - \$2,600	\$1,685	\$1.76
Three-Bedroom	12	\$1,599 - \$2,550	\$1,825	\$1.54
Four-Bedroom+	10	\$1,750 - \$3,900	\$2,425	\$1.40
Total	44			

Source: Zillow; Apt.com; Trulia; Realtor.com; Facebook

Grand Traverse County has a notable supply of non-conventional rentals available to rent compared to other counties in the region. When compared with all non-conventional rentals in the county, the 44 available rentals represent an occupancy rate of 99.1%. This is an extremely high occupancy rate for rental housing that is consistent with the overall occupancy rate (99.1%) for conventional rental housing in the county. The identified non-conventional rentals in Grand Traverse County consist of one-bedroom, two-bedroom, three-bedroom and four-bedroom (or larger) units. Rents for the 44 identified non-conventional units range from \$1,100 to \$3,900. As such, it is unlikely that most county households would be able to reasonably afford a non-conventional rental in the market.

### *For-Sale Housing*

The following table summarizes the available (as of February 2023) and recently sold (between September 2022 and March 2023) housing stock for Grand Traverse County.

Grand Traverse County - Owner For-Sale/Sold Housing Supply		
Type	Homes	Median Price
Available*	132	\$465,450
Sold**	591	\$350,000

Source: Realtor.com and Bowen National Research

\*As of Feb. 28, 2023

\*\*Sales from Sept. 12, 2022 to Mar. 15, 2023

The available for-sale housing stock in Grand Traverse County as of February 2023 consists of 132 total units with a median list price of \$465,450. The 132 available units represent 24.0% of the 551 available units within the Northern Michigan Region. Recent historical sales from September 2022 to March 2023 consisted of 591 homes sold with a median sale price of \$350,000. The 132 available homes represent only 0.4% of the estimated 30,425 owner-occupied units in Grand Traverse County. Typically, in healthy, well-balanced markets, approximately 2% to 3% of the for-sale housing stock should be available for purchase to allow for inner-market mobility and to enable the market to attract households. Based on this low share of homes available for sale, Grand Traverse County appears to have a disproportionately low number of housing units available for purchase.

The following table illustrates sales activity from September 2022 to March 2023 for Grand Traverse County.

Grand Traverse County Sales History by Price (Sept. 12, 2022 to Mar. 15, 2023)		
Sale Price	Number Available	Percent of Supply
Up to \$99,999	22	3.7%
\$100,000 to \$199,999	40	6.8%
\$200,000 to \$299,999	158	26.7%
\$300,000 to \$399,999	136	23.0%
\$400,000+	235	39.8%
Total	591	100.0%

Source: Realtor.com and Bowen National Research

Recent sales activity in Grand Traverse County reflects a significant share (62.8%) of housing priced above \$300,000. Note that only 10.5% of recent sales were for units priced under \$200,000, a price point generally targeted by first-time homebuyers. A notable share (26.7%) of homes sold for between \$200,000 and \$300,000, a price point generally sought after by middle-class households.

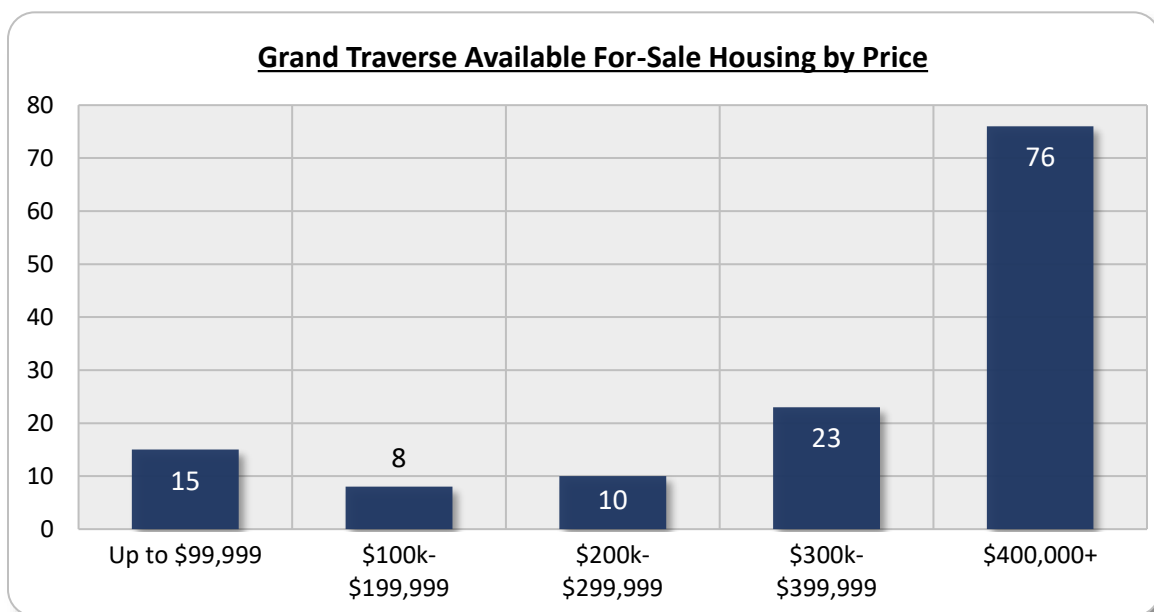
The following table summarizes the distribution of available for-sale residential units by *price point* for Grand Traverse County:

Grand Traverse County Available For-Sale Housing by Price (As of Feb. 28, 2023)		
List Price	Number Available	Percent of Supply
Up to \$99,999	15	11.4%
\$100,000 to \$199,999	8	6.1%
\$200,000 to \$299,999	10	7.6%
\$300,000 to \$399,999	23	17.4%
\$400,000+	76	57.6%
Total	132	100.0%

Source: Realtor.com and Bowen National Research

The current housing market in Grand Traverse County is geared toward higher-priced listings, as 75.0% of available housing units in Grand Traverse County are priced at \$300,000 or above. This figure includes 28 listings that are priced at \$1,000,000 or more. Note that the share (17.5%) of homes priced below \$200,000 is above the 10.5% share of these homes reflected by recent sales activity in the county. The increasing share of both lower-priced (below \$200,000) and higher-priced (\$300,000 and above) listings in the market leaves a very small share (7.6%) of homes priced between \$200,000 and \$300,000, a price point typically sought after by middle-class households.

The distribution of available homes in Grand Traverse County by *price point* is illustrated in the following graph:



The distribution of available homes by *bedroom type* for Grand Traverse County is summarized in the following table.

Grand Traverse County Available For-Sale Housing by Bedrooms (As of Feb. 28, 2023)					
Bedrooms	Number Available	Average Square Feet	Price Range	Median List Price	Median Price per Sq. Ft.
One-Br.	13	770	\$60,000 - \$642,000	\$265,000	\$410.22
Two-Br.	29	1,125	\$10,000 - \$1,250,000	\$339,900	\$269.65
Three-Br.	43	1,776	\$56,000 - \$9,500,000	\$439,900	\$241.58
Four-Br.+	47	3,070	\$119,995 - \$3,995,000	\$925,000	\$287.04
Total	132	1,995	\$10,000 - \$9,500,000	\$465,450	\$275.86

Source: Realtor.com and Bowen National Research

As shown in the preceding table, available homes offered for sale in the county largely represent three-bedroom homes (32.6%) and four-bedroom (or larger) homes (35.6%). Combined, these larger homes represent over two-thirds of listings in Grand Traverse County. One-bedroom units, which typically represent condominium units, only account for 13 of the 123 units offered for sale in the county. Note that units that contain four or more bedrooms have a median list price (\$925,000) that is significantly higher than the median list price for the county (\$465,450). These larger homes are typically waterfront homes that are highly sought after in the marketplace.

#### **D. HOUSING GAP**

Based on the demographic data for both 2022 and 2027 and taking into consideration the housing data from our field survey of area housing alternatives, we are able to project the potential number of new housing units Grand Traverse County can support. The following summarizes the metrics used in our demand estimates.

- Rental Housing – We included renter household growth, the number of units required for a balanced market, the need for replacement housing, commuter/external market support, severe cost-burdened households, and step-down support as the demand components in our estimates for new rental housing units. As part of this analysis, we accounted for vacancies reported among all rental alternatives. We concluded this analysis by providing the number of units that the market can support by different income segments and rent levels.
- For-Sale Housing – We considered potential demand from owner household growth, the number of units required for a balanced market, the need for replacement housing, commuter/external market support, severe cost-burdened households, and step-down support in our estimates for new for-sale housing. As part of this analysis, we accounted for vacancies reported among all surveyed for-sale alternatives. We concluded this analysis by providing the number of units that the market can support by different income segments and price points.

The county has an overall housing gap of 11,361 units, with a gap of 3,569 rental units and a gap of 7,792 for-sale units. The following tables summarize the rental and for-sale housing gaps by income and affordability levels for Grand Traverse County. Details of the methodology used in this analysis are provided in Section VII of this report.



Grand Traverse County, Michigan				
Rental Housing Gap Estimates (2022-2027)				
Percent of Median Income	≤ 50%	51%-80%	81%-120%	121%+
Household Income Range	≤\$44,950	\$44,951-\$71,920	\$71,921-\$107,880	\$107,881+
Monthly Rent Range	≤\$1,123	\$1,124-\$1,797	\$1,798-\$2,697	\$2,698+
Household Growth	-361	-79	130	167
Balanced Market*	273	106	17	0
Replacement Housing**	360	70	21	5
External Market Support^	692	270	317	186
Severe Cost Burdened^^	1,496	748	250	0
Step-Down Support	112	35	-4	-143
Less Pipeline Units	214	417	443	25
<b>Overall Units Needed</b>	<b>2,358</b>	<b>733</b>	<b>288</b>	<b>190</b>

\*Based on Bowen National Research's survey of area rentals

\*\*Based on ESRI/ACS estimates of units lacking complete indoor plumbing or are overcrowded

^Based on Bowen National Research proprietary research and ACS migration patterns for the county

^^Based on ACS estimates of households paying in excess of 50% of income toward housing costs

Grand Traverse County, Michigan				
For-Sale Housing Gap Estimates (2022-2027)				
Percent of Median Income	≤ 50%	51%-80%	81%-120%	121%+
Household Income Range	≤\$44,950	\$44,951-\$71,920	\$71,921-\$107,880	\$107,881+
Price Point	≤\$149,833	\$149,834-\$239,733	\$239,734-\$359,600	\$359,601+
Household Growth	-1,125	-377	383	2,210
Balanced Market*	183	183	215	200
Replacement Housing**	557	255	160	98
External Market Support^	646	593	744	913
Severe Cost Burdened^^	1,278	639	213	0
Step-Down Support	259	256	854	-1,368
Less Pipeline Units	0	165	0	12
<b>Overall Units Needed</b>	<b>1,798</b>	<b>1,384</b>	<b>2,569</b>	<b>2,041</b>

\*Based on Bowen National Research's analysis of for-sale product within county

\*\*Based on ESRI/ACS estimates of units lacking complete indoor plumbing or are overcrowded

^Based on Bowen National Research proprietary research and ACS migration patterns for the county

^^Based on ACS estimates of households paying in excess of 50% of income toward housing costs

As the preceding tables illustrate, the projected housing gaps over the next five years encompass a variety of affordability levels for both rental and for-sale housing product. It appears the greatest *rental* housing gap in the county is for the lowest housing affordability segment (rents below \$1,123 that are affordable to households earning up to 50% of AMHI), though a notable gap also exists for rental product with rents of up to \$1,797 that are affordable to households earning between 51% and 80% of AMHI. While there is a significant gap for numerous for-sale housing price segments, the largest gap in the county is for product priced between \$239,734 and \$359,600, which is affordable to households earning between \$71,921 and \$107,880. Although development within Grand Traverse County should be prioritized to the housing product showing the greatest gaps, it appears efforts to address housing should consider most rents and price points across the housing spectrum. The addition of a variety of housing product types and affordability levels would enhance the subject county's ability to attract potential workers and help meet the changing and growing housing needs of the local market.



# Appendix



# 6

## Traverse City-Outter

### Population

40,824

### Households

17,040

### Median HH Income

\$78,085

### Owner HH Income

\$88,670

### Renter HH Income

\$39,359

## Housing Costs

### Owner Units

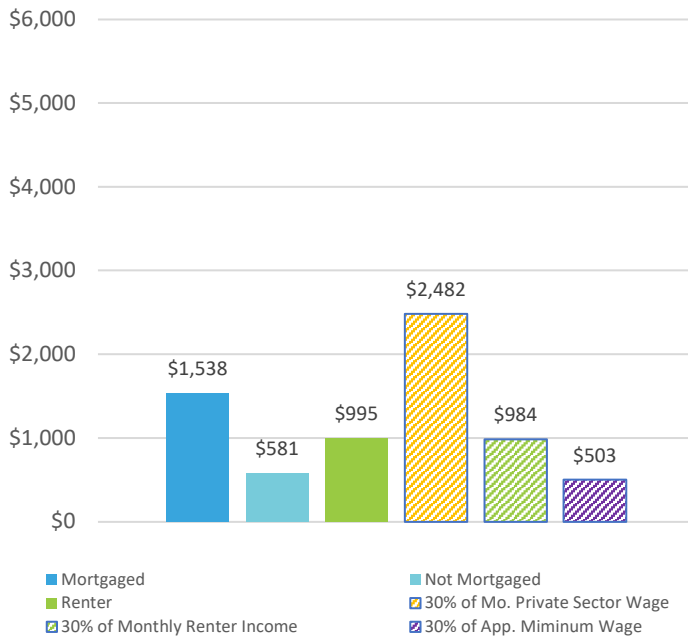
Home Value	\$303,944	2016 Value	\$258,450
Cost M/NM	\$1538/\$581	Value ▲	17.6%
\$101,315 To afford median home			

### Renter Units

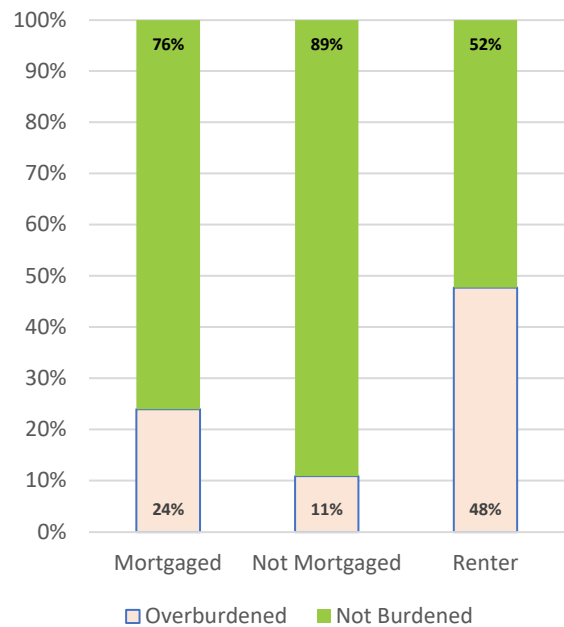
Gross Rent	\$995	2016 Rent	\$1,011
		Rent ▲	-1.6%
\$39,800 To afford median gross rent			

## Affordability Gap

### Monthly Costs: Owners and Renters



### Cost-Burdened Households



## Housing and Development Conditions

### Housing Stock

Units	21,413	Owner HH	83%	Renter HH	17%
Median Year Built	1980	% Built Pre-1970			29%
Median Move Year	2008	% Built After 2010			6.3%
Median Rooms	6.2	SF%	81.3%	MM%	12.9%
				MF%	4.1%

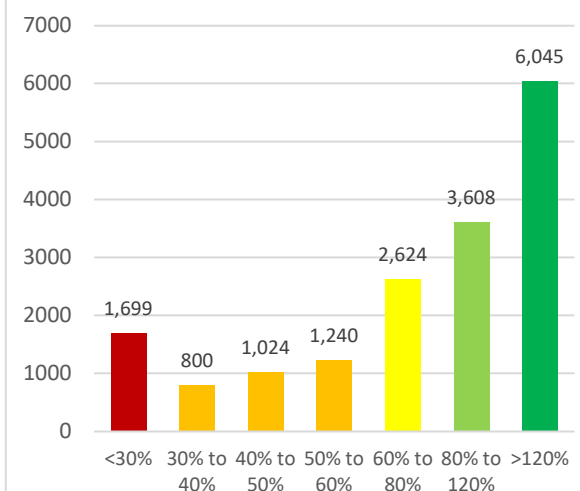
### Vacancy Rates

Total	20.4%	Owner	0%	Renter	0.1%
Seasonal	14.3%	Other	3.5%	# V Rent	340
				#V Owner	85

### Homeownership Rate by Race/Ethnicity

Black	37.1%	White	83.9%
Asian	60.2%	Other or Multiracial	80.7%
Am. Indian	59.0%	Hispanic	67.6%
Pacific Islnd	41.4%		

### Number of Households by AMI Group



## Traverse City-Outter

### Housing Policy Indicators

#### Household Count and Growth

Household Change, 2016 to 2021  
Household Count, 2021

#### Market

3.2%  
17,040

#### Partnership

2.8%  
126,122

#### Housing Affordability

Home value / partnership income  
Median Income, 2021  
Median owner income, 2021  
Median renter income, 2021  
Median home value  
Median gross rent  
Income needed for median rent  
Income needed for median value  
Overburdened households

#### Market

Number	%	% Change
4.82	--	--
\$78,085	--	7.6%
\$88,670	--	12.9%
\$39,359	--	-24.0%
\$303,944	--	17.6%
\$995	--	-1.6%
\$39,800	--	--
\$101,315	--	--
4,024	24%	-8.9%

#### Partnership

Number	%	% Change
--	--	--
\$63,018	--	14.8%
\$71,028	--	14.1%
\$35,263	--	3.8%
\$198,217	--	18.1%
\$914	--	7.4%
\$36,573	--	--
\$66,072	--	--
30,706	24.3%	-11.8%

#### Housing Quality and Vacancy

"Other" vacancy  
Seasonal vacancy  
For-Sale vacancy  
For-Rent vacancy  
Homes built pre-1940  
Homes built post-1990

#### Market

Number	%	% Change
743	3.5%	31.5%
3,072	14.3%	3.4%
85	0.4%	-52.5%
340	1.6%	-25.3%
2,186	10.2%	--
8,286	38.7%	--

#### Partnership

Number	%	% Change
5,150	2.9%	1.0%
46,265	25.7%	0.7%
1,430	0.8%	-45.2%
2,181	1.2%	-2.9%
22,755	12.6%	--
67,039	37.2%	--

#### Other Market Indicators

Housing Policy Matchmaker Type\*  
Strength and Need Type\*\*

#### High Cost and Growing

#### Low Strength and High Need (Type II)

### Gap Analysis 2021

	Owner Units	Renter Units	Total Units
Market demand (estimated annual moves)	330	171	502
Market supply (vacant on market, adjusted for age)	26	113	139
5 year Market production goals (based on 75K units)	293	57	350
1 year Market production goals (based on 15K units)	59	11	70
5 year Partnership goals (based on 75K units)	1,363	605	1,968
1 year Partnership goals (based on 15K units)	273	121	394

## Traverse City-Outter

### Home Mortgage Disclosure Act Patterns, 2021

Total Apps	568	Total Amt/App	\$385,458	% Approved	80.3%
Total Conventional Apps	514	Conventional Amt/App	\$394,747	% Conv Apprvd	81.1%
Total Assisted Apps	54	Assisted Amt/App	\$297,037	% Asst Apprvd	72.2%
<b>Applications by Race: White</b>					
Total Apps	478	Total Amt/App	\$374,121	% Positive	80.5%
Total Conventional Apps	434	Conventional Amt/App	\$382,765	% Conv Positive	81.8%
Total Assisted Apps	44	Assisted Amt/App	\$288,864	% Asst Positive	68.2%
<b>Applications by Race: Black</b>					
Total Apps	0	Total Amt/App	\$0	% Positive	NA
Total Conventional Apps	0	Conventional Amt/App	\$0	% Conv Positive	NA
Total Assisted Apps	0	Assisted Amt/App	\$0	% Asst Positive	NA
<b>Applications by Race: Asian</b>					
Total Apps	8	Total Amt/App	\$286,250	% Positive	75.0%
Total Conventional Apps	7	Conventional Amt/App	\$257,857	% Conv Positive	71.4%
Total Assisted Apps	1	Assisted Amt/App	\$485,000	% Asst Positive	100.0%
<b>Applications by Race: Native American</b>					
Total Apps	6	Total Amt/App	\$231,667	% Positive	83.3%
Total Conventional Apps	2	Conventional Amt/App	\$310,000	% Conv Positive	100.0%
Total Assisted Apps	4	Assisted Amt/App	\$192,500	% Asst Positive	75.0%
<b>Applications by Race: Hawaiian or Pacific Islander</b>					
Total Apps	0	Total Amt/App	\$0	% Positive	NA
Total Conventional Apps	0	Conventional Amt/App	\$0	% Conv Positive	NA
Total Assisted Apps	0	Assisted Amt/App	\$0	% Asst Positive	NA
<b>Applications by Race: Race Not Available</b>					
Total Apps	64	Total Amt/App	\$480,938	% Positive	76.6%
Total Conventional Apps	57	Conventional Amt/App	\$500,263	% Conv Positive	75.4%
Total Assisted Apps	7	Assisted Amt/App	\$323,571	% Asst Positive	85.7%
<b>Applications by Ethnicity: Hispanic</b>					
Total Apps	8	Total Amt/App	\$305,000	% Positive	37.5%
Total Conventional Apps	7	Conventional Amt/App	\$322,143	% Conv Positive	28.6%
Total Assisted Apps	1	Assisted Amt/App	\$185,000	% Asst Positive	100.0%

# Appendix

**7**



**BOWEN  
NATIONAL  
RESEARCH**

# **Market Feasibility Analysis**

Traverse City – Central Park  
North Three Mile Road & Vanderlip Road  
Traverse City, Grand Traverse County, Michigan 49686

*Prepared For*

Mr. Steven Calverley  
KRIMSON (fka Maplegrove)  
1575 Watertower Place  
East Lansing, Michigan 48823

*Effective Date*

April 25, 2025

*Job Reference Number*

25-214 CR

## Market Study Certification

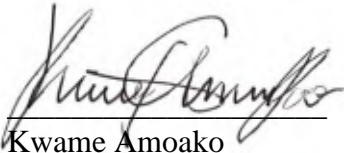
This certifies that Kwame Amoako, an employee of Bowen National Research, personally made an inspection of the area including competing properties and the proposed site in Traverse City, Michigan. Further, the information contained in this report is true and accurate as of April 25, 2025.

Bowen National Research is a disinterested third party without any current or future financial interest in the project under consideration. We have received a fee for the preparation of the market study. However, no contingency fees exist between our firm and the client.


Certified:



Craig Rupert (Primary Contact)  
Market Analyst  
[craigr@bowennational.com](mailto:craigr@bowennational.com)  
Date: April 25, 2025



Kwame Amoako  
Market Analyst  
[kwamea@bowennational.com](mailto:kwamea@bowennational.com)  
Date: April 25, 2025



Patrick M. Bowen  
President/Market Analyst  
Bowen National Research  
155 E. Columbus St., Suite 220  
Pickerington, OH 43147  
(614) 833-9300  
[patrickb@bowennational.com](mailto:patrickb@bowennational.com)  
Date: April 25, 2025

The adjusted rents for the comparable projects and the proposed rents for the subject site, as well as their rent per square foot, unit mixes and vacancies by bedroom are listed in the following table. *Note that adjusted rents have been evaluated to reflect the proposed utility structure (trash collection included in rent) for the subject project. Thus, the rents at comparable properties have been adjusted to reflect this utility structure at each property.*

Map I.D.	Project Name	Adjusted Rent/Per Sq. Ft. (Number of Units/Vacancies)			
		Studio	One-Br.	Two-Br.	Three-Br.
<b>Site</b>	<b>Traverse City – Central Park</b>	-	<b>\$1,120/\$1.85 (60)</b> <b>\$1,240/\$1.87 (60)</b>	<b>\$1,417/\$1.57 (60)</b> <b>\$1,530/\$1.46 (30)</b>	<b>\$1,850/\$1.42 (30)</b>
4	Bayview Apts.	-	\$1,552/\$2.27 (54/1)	\$1,920-\$2,578/\$1.28-\$1.86 (108/3)	\$2,950-\$2,960/\$1.23-\$1.46 (54/0)
6	Breakwater Apts.	\$1,425/\$3.17 (1/0)	\$1,725/\$2.57 (3/0)	\$2,565-\$2,750/\$2.48-\$2.66 (3/1)	\$3,875-\$4,875/\$2.11-\$2.12 (10/0)
8	Chelsea Park West Apts.	-	\$1,504-\$1,655/\$2.02-\$2.22 (120/4)	\$2,105-\$2,260/\$2.03-\$2.06 (120/2)	-
10	Legends Morgan Farms	-	\$1,777-\$2,604/\$2.31-\$2.70 (126/0)	\$2,034-\$2,565/\$1.82-\$2.18 (140/0)	-
12	Oak Shore Commons	-	\$1,534/\$2.31 (9/0)	\$1,586-\$1,686/\$1.77-\$1.80 (42/0)	\$2,126/\$1.57 (9/0)
14	Ridge45 Apts.	\$1,297/\$2.29 (60/1)	\$1,411-\$1,596/\$1.81-\$2.20 (130/14)	\$1,642-\$1,842/\$1.65-\$1.67 (241/11)	\$2,133-\$2,148/\$1.38-\$1.41 (53/4)
<b>Adjusted Rent/Per Sq. Ft. Range</b>		<b>\$1,297-\$1,425/\$2.29-\$3.17</b>	<b>\$1,411-\$2,604/\$1.81-\$2.70</b>	<b>\$1,586-\$2,750/\$1.28-\$2.66</b>	<b>\$2,126-\$4,875/\$1.23-\$2.12</b>
<b>Weighted Average Adjusted Rent/Per Sq. Ft.</b>		<b>\$1,229/\$2.30</b>	<b>\$1,728/\$2.22</b>	<b>\$2,023/\$1.80</b>	<b>\$2,666/\$1.16</b>

As the preceding illustrates, the subject's proposed monthly rents will be the lowest in the market, relative to those reported for similar unit types offered among the comparable market-rate projects surveyed. Additionally, the subject's price per-square-foot levels are competitive with those reported among the comparable properties and lower than the weighted average price per-square-foot reported for the comparable unit types in the preceding table. The lower proposed rents for the subject project are expected to create a competitive advantage for the property, particularly when considering the newness and anticipated quality of the subject property and the limited availability among existing comparable market-rate properties in the area.



# Appendix



# 8

**Clous Property  
2633 North Three Mile Road  
Parcel Identification Number: 28-03-219-000-25  
East Bay Township, Grand Traverse County, Michigan**

**PHASE I  
ENVIRONMENTAL SITE ASSESSMENT**

**April 2025**

Prepared For:

**Krimson Exploratory Fund, LLC**  
C/o: Mr. Steven Calverley, Manager  
1575 Watertower Place  
East Lansing, MI 48823

Prepared By:

**Otwell Mawby, P.C.**  
**Consulting Engineers**  
309 East Front Street  
Traverse City, MI 49684

Otwell Mawby Project No.: 25-051

*Environmental ▪ Brownfield ▪ Asbestos*

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**Clous Property  
2633 North Three Mile Road  
Parcel Identification Number: 28-03-219-000-25  
East Bay Township, Grand Traverse County, Michigan**

**PHASE I ENVIRONMENTAL SITE ASSESSMENT**

**April 2025**

**1.0 EXECUTIVE SUMMARY**

At the request of Mr. Steven Calverley and on behalf of Krimson Exploratory Fund, LLC, Otwell Mawby, P.C. (Otwell Mawby) has conducted a Phase I Environmental Site Assessment (Phase I ESA) of a property comprised of one parcel located at 2633 North Three Mile Road in East Bay Township, Grand Traverse County, Michigan (hereafter referenced as the subject property). The subject property encompasses 15.12-acres of agricultural land. Tax assessment records (Appendix A) for the subject property were obtained from the Grand Traverse County Equalization Department and the East Bay Township Assessors Office and are summarized in the following table:

Parcel Identification Number	Parcel Address	Parcel Size (Acres)	Parcel Owner	Current Development
28-03-219-000-25	2633 North Three Mile Road	15.12	William and Toni Clous	Vacant Agricultural Land
<u>Parcel Legal Description:</u> S 1/2 OF SE 1/4 OF NE 1/4 EXC COMM SE COR TH N 500' TH W 435.6' TH S 500' TO 1/4 LN TH E 435.6' TO POB SEC 19 T27N R10W				

The general location of the subject property is shown on the attached Figure 1, Site Location Map. The attached Figure 2, Parcel Boundary Map, depicts the approximate boundary of the subject property. The site features of the subject property and adjoining parcels are depicted on the attached Figure 3, Site Plan.

**1.1 Historical Use Summary of the Subject Property**

The earliest readily available document reviewed as part of this assessment was a 1938 aerial photograph, which depicts the subject property as being developed with a rural residence that was comprised of three structures. Overtime the structures were removed from the subject property with the last demolished in 1999 by the current owner. During this time the subject property was utilized as pastureland and/ or hayfield. Historical wetlands were drained from the subject property following purchase of the property in 1999. Since 1999, the subject

property has been utilized for agriculture and recreational hunting by the current owner. No other uses of the subject property were reported or determined to have occurred.

## **1.2 Summary of Findings**

Refer to Section 8.0 of this report, which identifies our findings in association with the subject property and Section 9.0 provides conclusions in regard to the Recognized Environmental Conditions (RECs). Based on information obtained from available sources, this Phase I ESA identified one REC associated with the subject property.

1. The potential for residual agrochemicals from agricultural use.

Otwell Mawby's assessment of potential environmental risk associated with the subject property and adjoining properties, as well as the other issues identified at the subject property, are discussed in the following sections.

## **2.0 INTRODUCTION**

The following sections provide an introduction to the Phase I ESA process and purpose of the investigation.

### **2.1 Purpose**

The Phase I ESA of the subject property was conducted in general conformance with methods outlined by the American Society for Testing and Materials (ASTM) Standard E 1527-21, Standard for Environmental Site Assessment. A Phase I ESA is a means to determine whether information exists to effectively evaluate a property's environmental status. After collecting pertinent information, a determination is made as to the present condition of the subject property and the potential for environmental liabilities associated with its past and/or present use. The results of a Phase I ESA do not necessarily guarantee a zero level of environmental liability. The Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with the subject property.

The term REC, means the presence or likely presence of hazardous substances or petroleum products in, on, or at the subject: (1) due to a release to the environment (such as a previously identified release that has not yet been addressed, or a visible spill of petroleum products or hazardous materials observed during the ESA site reconnaissance); (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.

A Controlled Recognized Environmental Condition (CREC) is a REC affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in places subject to implementation of required controls.

A REC can also be categorized as a HREC, which is a past release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls.

## **2.2 Scope of Services**

The scope of work included performance of the following items as they relate to possible adverse environmental impacts on the property.

**Records Review:** Identify and review reasonably ascertainable, standard sources that would help to identify RECs in connection with the property and provide current and historical use information pertaining to the property and surrounding properties. As defined in the ASTM Standard for Phase I ESAs, the prospective property user should conduct a title search of Federal, Tribal, and State recorded land title records to identify environmental liens or activity and use limitations associated with the property. A title search is not included in the scope of this Phase I ESA, but should be conducted by the user. Any identified environmental liens or activity and use limitations identified in the title search should be conveyed to Otwell Mawby for inclusion in this Phase I ESA.

**Site Reconnaissance:** Conduct an inspection of the property and observation of surrounding properties to identify any observable environmental conditions that have the potential to adversely impact the subject property. Appendix B contains the ASTM Property Transaction Screening Questionnaire completed by Otwell Mawby during the site reconnaissance. Site photographs depicting the condition of the subject property at the time of the site inspection are included in Appendix C.

**Interviews with Past and Present Owners of the Subject Property:** Conduct interviews to determine current and historical uses of the property, as well as practices such as waste disposal and storage of any chemical and/or fuel products. Tax assessment records (Appendix A) indicate the subject property is comprised of 15.12-acres of agricultural land that is located in East Bay Township, Grand Traverse County, Michigan.

Otwell Mawby provided ASTM Property Transaction Screening Questionnaires to be completed for the Phase I ESA to Mr. Bill (William) Clous, a representative of the current owners of the subject property (William and Toni Clous); and to Mr. Steven Calverley, a representative of the user (Krimson Exploratory Fund, LLC) of this Phase I ESA. The completed questionnaires are provided in Appendix B.

**Report Preparation:** Prepare a report summarizing the findings of the Phase I ESA.



### **2.3 Significant Assumptions**

No significant assumptions were made by Otwell Mawby during the completion of this Phase I ESA.

### **2.4 Limitations and Exceptions**

The observations and discussions provided in this report are intended to assist in making a reasonable assessment of risk with respect to potential environmental impact at this site. The information provided in this report is based upon a review of documents and information available concerning the subject property as presented. Portions of this ESA are based upon information that has been verbally reported by persons claiming to have knowledge of the property. No warranty is made as to the reliability or accuracy of this history, but upon request, this history will be supplemented by investigating beyond the sources identified. If the reader is aware of any actual or alleged inaccuracies or omissions in this report, please advise Otwell Mawby immediately. This information is provided in response to a limited scope of investigation and should be used in light of the limited effort expended.

There were no limitations identified during the completion of this Phase I ESA.

The opinions of environmental risk should not be construed as legal advice or financial recommendations. It cannot be stated unequivocally this Phase I ESA is sufficient to meet the appropriate inquiry standard of law, although the opinions and recommendations of Otwell Mawby are the product of a professional evaluation of the property, consistent with existing industry practice in this area. Otwell Mawby certifies an experienced Environmental Professional completed this Phase I ESA for the use by Krimson Exploratory Fund, LLC. Section 14.0 contains the professional qualifications of Otwell Mawby personnel who conducted this Phase I ESA.

We declare to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

#### 2.4.1 Data Gaps or Data Failures

A data gap is defined as a lack or inability to obtain information required by the ASTM Standard (E 1527-21) despite good faith efforts by the Environmental Professional to gather such information. A determination must also be made if based on the lack of information or professional experience effect the rendered opinion to whether the data gap is indicative of a REC. A type of a data gap is also known as a data failure. This is defined as a failure to achieve the historical research objective even after reviewing historical resources that are reasonably ascertainable and likely to be useful. Reasonable time and cost mean information will be provided by the source within 20 calendar days of receiving a request at no more than a nominal cost.

One data gap was identified for the subject property during the completion of this Phase I ESA. The data gap concerns the potential historical heating and fuel source(s) for the historical structures that were denoted in the 1938 through 1999 aerial photographs on the subject property. Reportedly, natural gas was not available in the area of the subject property until the 1970s. Therefore, it is likely that fuel oil, coal, or wood was utilized to heat the buildings, if it was heated, prior to the availability of the natural gas service line.

While this data gap has been identified, Otwell Mawby does not believe it is significant enough to change our report findings as no evidence of a historical heating source(s) such as coal use/ storage or tanks was identified through completed interviews, review of the property records, and visual observations during the site reconnaissance. There were no data failures identified during the completion of this report. Historical information on the subject property prior to 1938, if any exist, were not reasonably ascertainable or reviewed as part of this ESA.

## **2.5 Special Terms and Conditions**

There are no special terms or conditions associated with this Phase I ESA.

## **2.6 User Reliance**

Otwell Mawby certifies an experienced Environmental Professional completed this assessment for the use of Krimson Exploratory Fund, LLC.

### **3.0 USER PROVIDED INFORMATION**

Mr. Steven Calverley, a representative of the user (Krimson Exploratory Fund, LLC) of this Phase I ESA, completed a questionnaire provided by Otwell Mawby containing information pursuant to the user's responsibilities described in Section 6.0 of ASTM E 1527-21, Standard for Environmental Site Assessment. Review of the questionnaire indicated Mr. Calverley was not aware of any potential environmental conditions that would affect the subject property. The completed questionnaire can be found in Appendix B of this report.

### **4.0 SITE DESCRIPTION**

The following sections summarize details of the subject property and adjoining properties.

#### **4.1 Location and Legal Description**

The subject property is comprised of 15.12-acres of land situated in Section 19, Township 27 North (T27N), Range 10 West (R10W), in East Bay Township, Grand Traverse County, Michigan. The GPS coordinates for the approximate center of the subject property are 44.724180 latitude and -85.559391 longitude. The property legal description and equalization information provided by the East Bay Township Assessors Office and the Grand Traverse County Equalization Department are attached as Appendix A. Refer to the attached Figure 2, for a map that depicts the approximate boundary of the subject property.

#### **4.2 Site and Vicinity General Characteristics**

The attached Figures 1 and 2, show the location of the subject property and the surrounding properties. The subject property is located in a mixed-use area including commercial, agricultural, and rural residences in East Bay Township, Grand Traverse County, Michigan. Use of adjoining properties is discussed further in Section 4.5.

The subject property is located on the west side of Three Mile Road, northeast of its intersection with Vanderlip Road. The subject property consists of a 15.12-acres that has been assigned Parcel Identification Number: 28-03-219-000-25. The subject property can be access via an earthen driveway that extends onsite from Three Mile Road to the east. The subject property is utilized for agricultural purposes including the farming of corn and beans.

The nearest surface water is to the west and east of the subject property where creeks are present that flow in a generally northerly direction towards East Grand Traverse Bay. Based on a review of the Mayfield, 7.5-minute United States Geological Survey (USGS) topographic quadrangle map for the vicinity of the subject property, and information reviewed for properties in the area, the groundwater flow direction in the general area of the subject property is assumed to the north. However, local geology could impact the direction of groundwater flow in the vicinity of the subject property.

According to the US Department of Agriculture's (USDA) Soil Survey for Grand Traverse County, the surface soils of the subject property are classified as summarized in the following table.

Soil Map Unit Symbol	Soil Map Unit Name
CnB	Coventry-Newago loams, 2 to 6% slopes
IsA	Iosco-Ogemaw loamy sands, 0 to 2% slopes
RrA	Ritchter, Tonkey, and Pinconning loams, 0 to 2% slopes
Ru	Roscommon mucky loamy sand

Review of the EGLE Wetlands Map Viewer, indicates there are onsite areas of wetland soils, as identified on the National Wetlands Inventory and the MIRIS Land Cover Maps.

#### **4.3 Current Use of Subject Property**

At the time of the site reconnaissance activities on April 17, 2025, the subject property was comprised of a vacant parcel which encompasses approximately 15.12-acres of land, as shown on the attached Figures 2 and 3.

#### **4.4 Description of Infrastructure**

The subject property is not currently developed with any structures and is not serviced by any utilities. Electricity, municipal water and sewer, and natural gas are available in the area of the subject property.

#### **4.5 Current Use of Adjoining Properties**

The attached Figures 1 and 2, show the location of the subject property and the surrounding properties. The general use of the surrounding properties is for mixed use, including commercial, residential, and agricultural purposes. The subject property is surrounded by the following properties:

- North – Vacant agricultural land;
- East – Three Mile Road followed by a rural residential development and commercial office developments;
- South – A commercial business subdivision; and
- West – Vacant agricultural land.

### **5.0 SITE RECONNAISSANCE**

The following sections summarize the details of our site reconnaissance and include a summary of the general subject property setting, uses and conditions of the subject property and adjoining properties and interior and exterior observations.

#### **5.1 Methodology and Limiting Conditions**

An Otwell Mawby Environmental Professional conducted the site reconnaissance on April 17, 2025. The site reconnaissance consisted of visual observations of the subject property and surrounding properties. Appendix B contains the ASTM-1528-21 Property Transaction Screening Questionnaire completed by Otwell Mawby as part of this ESA; Appendix C contains photographs taken during the site reconnaissance to document the current condition of the subject property and site features. To the best of Otwell Mawby's knowledge, all areas of the site were accessed and visually inspected.

#### **5.2 General Site Setting**

The subject property is comprised of one parcel that encompass 15.12-acres of agricultural land. The subject property is located to the west of Three Mile Road, north of the intersection with Vanderlip Road. The subject property is located in a mixed commercial, rural residential, and agricultural area of East Bay Township, Grand Traverse County, Michigan.

### **5.3 Exterior Observations**

At the time of the site reconnaissance on April 17, 2025, the property was comprised of a vacant field encompassing approximately 15.12-acres. The property fronted Three Mile Road to the east, and overhead utility lines ran along the northern portion of the east property boundary. The southwestern portion of the subject property contained shallow standing water. No other items of note or unusual conditions were noted on the exterior of the subject property during the completion of the site reconnaissance.

### **5.4 Interior Observations**

At the time the site reconnaissance activities were completed on April 17, 2025, there were no buildings or structures located on the subject property.

## **6.0 RECORDS REVIEW**

The following sections document the review of available records. The purpose of the records review is to obtain and review records that will help identify RECs in connection with the subject property.

### **6.1 Standard Environmental Record Sources Findings**

A regulatory records review was conducted to evaluate the subject property and surrounding properties for potential environmental conditions that could adversely affect the subject property. Otwell Mawby contracted the services of Environmental Data Resources, Inc (EDR) to research Federal and State environmental databases for information relative to the subject and surrounding properties. The information provided in the EDR Report (Appendix D) was then evaluated specific to the subject property. Otwell Mawby researched regulatory compliance history, neighborhood complaints, reported spills and leaks, and waste disposal practices by conferring with local officials, interviewing State and County employees, and reviewing available regulatory data for the subject property and nearby facilities, as deemed appropriate based on the EDR findings.

EDR's research was completed within specified search distances in accordance with ASTM guidelines and is summarized below.

**Subject Property:** The subject property was not identified on any of the searched databases.

**Surrounding Properties:** Eight sites were identified on the search distances in accordance with ASTM guidelines, four of which are located in areas that are located down or side gradient in terms of the likely northerly groundwater flow direction, as a result they have been eliminated from further consideration and have been determined to have a low potential to impact the subject property, as a result, a REC has not been associated with the sites. The remaining site are discussed in the following paragraphs.

The Cruinn Machining Technology (1) site is located to the south of the subject property. The site is listed as a RCRA NonGen/ NLR, which is the United States Environmental Protection Agency's (EPA's) comprehensive information system that provides access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste. The site is no listed as not having any violations associated with their waste operations and is not listed as having any associated releases, as a result, Otwell Mawby assesses the potential for operations at this site to have impacted the subject property to be low and a REC has not been identified.

There are three listings for the property located at 963 Hammond Road, which is located to the south of the subject property at the northwest intersection of Hammon and Three Mile Roads. Details of the listings are summarized in the following table.

EDR Map Identification	Site Name	Database Acronyms
A4	Hentchel Inc.	LUST, UST, inventory, Financial Assurance
A5	Hentchel Hardware	AUL
A6	Hentchell's, Inc.	UST FINDER RELEASE

Each of the databases the sites are listed on are related to its operation as a gas station and the presence of underground storage tanks (USTs) and the leaking underground storage tank (LUST) status of the site. While the site remains in operation as a gas station, its LUST status is "closed" the release has been addressed/ remediated to the satisfaction of EGLE. Additionally, the site is "closed" with a land use restriction that limits the environmentally impacted area to the site. As no impacts are known to be migrating offsite and the site is "closed" Otwell Mawby assesses the potential for impact associated with this site to have extended onsite to the subject property be low and a REC has not been identified.

## **6.2 Vapor Encroachment Screening**

The goal of vapor encroachment screening is to identify a potential vapor encroachment condition (VEC), which is the presence or likely presence of contaminants of concern (COC) vapors in the vadose zone from contaminated soil/ groundwater either on or near the subject property, as identified by Tier 1 or 2 procedures. A search for VECs is to include COCs (typically volatile organic compounds (VOCs)) within one-third of a mile and petroleum hydrocarbon COCs within one-tenth of a mile. A Tier 1 evaluation utilizes information obtained through research conducted as part of the specified search distances in accordance with ASTM guidelines, as discussed in Section 6.1 of the ASTM E2600-22, Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, which is used in conjunction with ASTM E 1527-21. The objective of a Tier 2 evaluation is to utilize existing or collected data to provide a greater certainty to whether or not a VEC exists.

No sites were identified within the EDR Radius Map with GeoCheck Report within one-third of a mile of the subject property that could be related to releases of COCs, or petroleum hydrocarbon COCs within one-tenth of a mile, as a result, no further evaluation was warranted.

An additional search was performed utilizing the Michigan Department of Environmental, Great Lakes and Energy (EGLE) the Remediation Information Data Exchange (RIDE) Mapper website. The EGLE RIDE Mapper also did not identify any sites that were not included within the EDR Radius Map with GeoCheck Report.

## **6.3 Additional Environmental Record Sources**

The following sections summarize the findings of research completed related to additional potential sources of environmental reports related to the subject property.

### **6.3.1 Previous Environmental Reports**

According to the representative of the owner of the subject property, Mr. Bill Clous, no prior environmental investigations have been completed onsite.

### **6.3.2 Health Department**

The Grand Traverse County Environmental Health Department Public Information Portal was utilized to search for documentation related to the subject property on April 10, 2025. The address for the subject property was not listed in the Portal, indicating no records were available for the subject property. The Department was also



contacted regarding information concerning the subject property such as well logs, septic tank permits, or other environmental issues onsite or in the area. The Health Department responded stating they do not have any records for the subject property.

### 6.3.3 Fire Department

Otwell Mawby contacted the Grand Traverse Metro Fire Department regarding fire and spill responses to the subject property. Ms. Jennifer Grochowalski, Admin Assistant for the Department, stated the subject property previously was developed with a residence which was burned down for firefighting practice. She stated the department does not have any other records regarding the subject property.

### 6.3.4 PFAS Databases

According to the ASTM Standard (E 1527-21), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) does not include Per and Polyfluoroalkyl Substances (PFAS) constituents as hazardous substances, they are classified as “emerging contaminants” and are not included in the Standard. However, on April 19, 2024, the United States Environmental Protection Agency announced that it was designating two types of PFAS (PFOA and PFOS), as CERCLA hazardous substances. In order to determine if the subject property may be affected by PFAS constituents, information was researched from the Michigan PFAS Action Response Team (MPART) and related to EGLE permitted biosolid land application sites.

MPART is a multi-discipline agency with the goal of identifying sources of PFAS, addressing PFAS contamination at the sources, and working with local health departments to protect people in areas where groundwater is impacted by PFAS. The MPART PFAS Geographic Information System was searched on April 10, 2025 to determine if the subject property may be affected by PFAS based on sampling completed in the vicinity of the site (Areas of Interest” (AOI)). According to the System, one PFAS site, identified as Cherry Capitol Airport, is located within one mile of the subject property. This site is located at a distance of nearly one mile to the north/ northeast of the subject property. Based on the location of this site in relationship to the subject property it is down gradient in terms of groundwater flow direction, as a result, Otwell Mawby assesses the potential for this site to have impacted the subject property to be low and a REC has not been identified.

In addition to PFAS consistent being identified in groundwater through water well sampling or other environmental investigations, historically, biosolid type fertilizer has been applied to select agricultural fields and is a known source of PFAS. Biosolids are solid organic matter recovered from a wastewater sewage treatment process and used as fertilizer. This material has been documented to potentially contain PFAS in higher rates

than animal manure, or synthetic fertilizers. Utilizing the EGLE MiEnviro database, Otwell Mawby on April 10, 2025, searched for potential biosolid application sites within a one-mile radius of the subject property. Review of the database indicated that no potential biosolid application sites were identified within a one-mile radius of the subject property.

#### 6.3.4 Tribal Lands / Environmental Database Review

Review of the EDR Radius Map with GeoCheck Report (Appendix D), which included database searches within specified search distances in accordance with ASTM guidelines, indicates no sites were identified on tribal databases within the specified search distances.

### **6.4 Historical Use Information on the Subject Property**

The following section summarizes historical information was reviewed for the subject property.

#### 6.4.1 Aerial Photographs

Otwell Mawby reviewed historical aerial photographs for the location of the subject property for the years 1938, 1954, 1964, 1977, 1981, 1986, 1994, 1999, 2005, 2006, 2009, 2010, 2012, 2016, and 2020. Aerial photographs for years prior to 1938, if any, were not readily available for review and inclusion in this report. The photographs were obtained through EDR and copies of the aerial photographs are provided in Appendix E. There were no unusual items or conditions noted for the subject property based on our review of these historical site photographs, as summarized in the following table.

<b>Date</b>	<b>Aerial Photograph Review</b>
1938 and 1954	Two or three buildings appears to be present in the northeastern corner of the subject property, adjacent to Three Mile Road. The subject property appears to consist primarily of hayfield, pastureland, and/ or fallow field, as no row crops or orchard appear onsite. It appears the subject property could have areas of wetlands.
1964	The westernmost structure appears to have been demolished. There does not appear to be any other significant changes to the subject property between the dates of the 1954 and 1964 aerial photographs.
1977, 1986, 1994, and 1999	The northernmost structure appears to have been demolished. There does not appear to be any other significant changes to the subject property between the dates of the 1956 aerial and the dates of these photographs.
2005, 2006, 2009, 2010, 2012, 2016, and 2020	The onsite development appears to have been removed and earthwork appears to have been completed in the central portions of the subject property. Agricultural activities appear to have initiated on the subject property. There does not appear to be any other significant changes to the subject property between the dates of the 1999 and 2005 aerial photographs.

*The presence of agricultural activities denoted in the 2005 through 2016 aerial photographs has been identified as a REC for the subject property based upon review of the EDR Aerial Photograph Collection.*

#### 6.4.2 Fire Insurance Maps

EDR provided a Certified Sanborn Map Report (Appendix F) indicating the subject property is located within an unmapped area, which means Sanborn Fire Insurance Map coverage is not available.

#### 6.4.3 Historical Topographic Maps

Historical topographic maps for the years 1956, 1983, 2014, 2016, 2017, and 2019 were obtained through EDR (Appendix G). Our review of the maps for the subject property is summarized in the following table.

Date	Topographic Map Review
1956	No structures are depicted on the subject property. A creek is depicted extending through the western portion of the subject property.
1983, 2014, 2016, 2017, and 2019	No development or the creek are depicted onsite. Although, a wetland area may encroach in the southwestern portion of the subject property.

No RECs were identified for the subject property based on our review of the topographic maps.

#### 6.4.4 Property Tax Files

The property tax assessment files for the parent parcel of the subject property were reviewed from the East Bay Township Assessors Office and the Grand Traverse County Equalization Department. Copies of the tax assessment documentation is contained within Appendix A. The documents are summarized in the table on the following page.

Parcel Identification Number	Parcel Address	Parcel Size (Acres)	Parcel Owner	Current Development
28-03-219-000-25	2633 North Three Mile Road	15.12	William and Toni Clous	Vacant Agricultural Land
Parcel Legal Description: S 1/2 OF SE 1/4 OF NE 1/4 EXC COMM SE COR TH N 500' TH W 435.6' TH S 500' TO 1/4 LN TH E 435.6' TO POB SEC 19 T27N R10W				

Limited sale date information for the subject property was listed on the tax assessment documents, which is summarized in the following table.

Grantor	Grantee	Sale Date	Instrument Type
Rochard E & Bonny J Jakee	William F & Toni L Clous	September 10, 1999	Warranty Deed
Rochard E & Bonny J Jakee	William F & Toni L Clous	August 15, 1996	Land Contract

The records indicate the subject property was previously developed with a building, details of which are summarized in the following table.

Building	Building Size	Construction Date	Notes
Single Family Residence	1804-ft <sup>2</sup>	1900	Crawlspace

The records indicated the historical residence was serviced by an onsite well and septic system. The records also indicate the building was destroyed by fire in 1989, and the remains were removed in 1995.

No other details concerning current/ historical buildings (former) being present on the parcel were contained within the records.

#### 6.4.5 Recorded Land Title Records

The user did not provide Otwell Mawby with any title documents to review as part of the Phase I ESA.

#### 6.4.6 Local Street Directories

The subject property is located in a rural, vacant, and undeveloped agricultural property with no current structures. A previous residential structure was located in the northeastern portion of the subject property and comprised of three buildings. The buildings were all demolished between the dates of 1964 and 1999.

#### 6.4.7 Summary of Site History

The earliest readily available document reviewed as part of this assessment was a 1938 aerial photograph, which depicts the subject property as developed with a rural residence comprised of two or three buildings located in the northeastern corner of the subject property. The subject property is otherwise utilized for hayfield/pasture/ and or fallow fields. Between 1964 and 1999 the remaining structures located on the subject property were demolished. In the 2005 aerial photograph, it was evident that earthwork had been conducted in the central portions of the subject property. Anecdotal information provided by the owner, Mr. Clous, indicates around this time he was trenching to drain a wetland area on the property into ponds to the north off of the subject property. From 1999 into present day the subject property has been utilized for agricultural purposes including the farming of corn and beans. The current owner, Mr. Clous, indicated that he had previously utilized pesticides during the farming of corn and beans. Mr. Clous also reportedly utilized the subject property for recreational hunting purposes. No other uses of the subject property were reported or are known to have occurred.

### **6.5 Historical Use Information on the Adjoining Properties**

The following section summarizes historical information was reviewed for the parcels that adjoin the subject property.

#### 6.5.1 Aerial Photographs

Otwell Mawby reviewed historic aerial photographs of the properties that adjoin the subject property for the years 1938, 1954, 1964, 1977, 1981, 1986, 1994, 1999, 2005, 2006, 2009, 2010, 2012, 2016, and 2020. Copies of the aerial photographs are provided in Appendix E and were obtained through EDR. There were no unusual items or conditions noted for the properties that are adjacent to the subject property based on review of these historical site photographs. Our review of the aerial photographs for the adjoining parcels are summarized in the following table.

Date	Aerial Photograph Review of Adjoining Properties
1938	Three Mile Road is present to the immediate east followed by a rural residence and pastureland and/ or hayfield. Additional pastureland, hayfield and/ or fallow field is present to the north, south, and west.
1954, 1964, 1977, 1981, 1986, 1994, and 1999	A few rural residences have been developed along Three Mile Road to the north and south of the subject property. There does not appear to be any other significant changes to the adjoining properties between the dates of the 1938 aerial and the dates of these photographs.
2005 and 2006	To the south of the subject property a commercial business subdivision has been developed. Overtime, several developments within the subdivision have been constructed. Ponds have also been developed to the north and northwest of the subject property. Some earthwork has also been completed to the north and west of the subject property, which appears to be related to draining wetlands which discharge to the ponds. On the east side of Three Mile Road a commercial office building has been constructed. There does not appear to be any other significant changes to the adjoining properties between the dates of the 1999 aerial and the dates of these photographs.
2009, 2010, 2012, 2016, and 2020	An access road has been constructed that extends through the property to the north and west. There does not appear to be any other significant changes to the adjoining properties between the dates of the 2006 aerial and the dates of these photographs.

No RECs were identified for the subject property based on our review of the aerial photographs for the adjoining parcels.

#### 6.5.2 Fire Insurance Maps

As stated in Section 6.4.2, Sanborn Fire Insurance Map coverage was not available for the location of the parcels that adjoin subject property. Refer to Appendix F for a copy of the EDR Report that indicates map coverage is not available.

#### 6.5.3 Local Street Directories

As stated in Section 6.4.6, the subject property and adjoining properties are located in a rural agricultural and commercial area. To the east of the subject property are several developed residential parcels beyond which is Three Mile Road and several commercial businesses. To the south are several commercial properties. No RECs were identified for the subject property based upon the identified occupants of the adjoining properties.

### **6.6 Non-Scope Services**

There was no non-scope services included within this Phase I ESA, as they were not requested by the user. Additionally, evaluation of non-scope items is not required nor are relevant for compliance with the AAI Rule or Practice E1527. Typical non-scope items per the ASTM E1527 include asbestos containing building materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, endangered species, mold,

substances not defined as hazardous substances, and petroleum products and crude oil (products normally added during the refining process).

Additionally, the user did not request an evaluation of business environmental risk (BER) and such is not required as part of Practice E1527. A BER is a risk which can have a material environmental or environmentally driven impact on a business associated with the current or planned use of commercial real estate, not necessarily related to those substances or petroleum products allowed to remain in place subject to implementation of required controls.

## 7.0 INTERVIEWS

Otwell Mawby conducted interviews of several parties in order to obtain further information indicating RECs in connection with the subject property. Section 12.0 lists the individuals who were interviewed during the completion of this report. The discussion below details the interviews conducted with key individuals, such as the primary owner/operator of the subject property.

### **Mr. Bill Clous, Owner of the Subject Property**

Mr. Bill Clous, the owner of the subject property, was contacted by an Otwell Mawby representative regarding the current and historical use of the subject property. Mr. Clous stated the subject property has been vacant and undeveloped since his acquisition. He had purchased the property from a family member. The property previously had an old farm house however he does not recall if it was demolished or if it burnt down. Mr. Clous built ponds on the adjoining property to the north which may have involved some trenching and digging. The subject property was utilized for agricultural purposes where Mr. Clous farmed corn and beans since he had purchased the property. He had not used pesticides for approximately the last eight years. He previously used pesticides to control weeds in the fields, and Mr. Clous stated all pesticide applications were done to manufacturer specifications. Mr. Clous is unaware of any other previous uses for the subject property. No RECs were identified based upon the interview with Mr. Clous. Mr. Clous provided responses for an Otwell Mawby representative to complete the Owner ASTM Property Transaction Screening Questionnaire which is attached in Appendix B of this report.



## 8.0 FINDINGS AND OPINIONS

Otwell Mawby has performed a Phase I ESA of the subject property comprised of one parcel located at 2633 North Three Mile Road in East Bay Township, Grand Traverse County, Michigan. Additional details of the parcel that comprises the subject property are summarized in section 6.4.4.

**Based on the results of our research, review of available documentation, and conducted interviews, this Phase I ESA identified one REC associated with the subject property, which is discussed below.**

### 8.1 Potential for Residual Agrochemicals

The known use of agrochemicals in conjunction with agricultural activities conducted on the subject property has been identified as a REC. The subject property has been utilized for agricultural purposes since approximately 1999. Onsite farming reportedly consisted of the cultivation of corn and beans, and it was reported by the current property owner that pesticides were utilized onsite for weed control.

The potential presence of residual agricultural chemicals including pesticides/ herbicides has been identified as a REC during the completion of this Phase I ESA.

The State of Michigan provides an exclusion in the environmental regulations for residual agrochemicals. This exclusion may be applicable for the agricultural use of the subject property. Part 201 of Act 451 of 1994, as amended, defines a release, which excludes pesticide application if applied according to the label directions and according to generally accepted agricultural and management practices at the time of the application. Refer to Section 324.20101 (pp (iv)) of Part 201 of P.A. Act 451 of 1994, as amended, which defines a release.

We are not aware of a federal exemption for residual agrochemicals (pesticides), with the exception of fertilizers. Evaluation of potential environmental liability due to residual agrochemicals should be considered in light of the applicability of the State's regulatory exclusion and the definition of a release under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

The acceptance of the agrochemical exclusion for Part 201, or the choice to prepare a Baseline Environmental Assessment (BEA) if the property has been identified to be a "Facility", to provide exemption from liability for any potentially identified residual agrochemical contamination, is the decision of the purchaser and lender, in

consultation with an environmental attorney. While there is an exemption, the State of Michigan does enforce “due care” obligations as it relates to agrochemical application, if the subject property is identified to be a “Facility”. Additionally, different funding sources such as use of Brownfield Incentives or Michigan State Housing Development Authority (MSHDA) funding may require completion of a Phase II investigation as it relates to the use of agrochemical application, despite the exemption. Additionally, to determine if impacts are present onsite, its potential “Facility” status, and evaluate potential exposure scenarios, completion of a Phase II ESA would be warranted.

No significant data gaps were identified in association with the subject property.

## **9.0 CONCLUSIONS**

Otwell Mawby has performed a Phase I ESA in conformance with the scope and limitations of ASTM Standard E 1527-21. Any exceptions to or deviations from this practice are described in Section 10.0 of this report.

Based on the findings in Section 8.0 of this Phase I ESA, one REC was identified in association with the subject property, as indicated below.

1. The potential for residual agrochemicals from agricultural use.

Completion of a Phase II ESA would be required to determine if the REC resulted in environmental impact to the subject property. Refer to Section 8.0 for further discussion related to assessment of this REC.

## **10.0 DEVIATIONS**

No deviations were made from the ASTM Standard E 1527-21, Standard for Environmental Site Assessment during the completion of this Phase I ESA.

## **11.0 ADDITIONAL SERVICES**

No additional services outside of the scope and limitations of ASTM Standard E 1527-21 were performed as part of this Phase I ESA.

## **12.0 REFERENCES**

The following sections summarizes the individuals interviewed and materials reviewed.

### **12.1 Interview Contacts**

1. Mr. Bill (William) Clous, a Representative of the Owners of the Subject Property (William and Toni Clous)
2. Mr. Steven Calverley, a Representative of the User of this Phase I ESA (Krimson Exploratory Fund, LLC)
3. Ms. Jennifer Grochowalski, Administrative Assistant, Grand Traverse Metro Fire Department
4. Mr. Ryan Porte, Director of Assessing, East Bay Township, Grand Traverse County, Michigan

### **12.2 Materials Reviewed**

1. The EDR Aerial Photo Decade Package - Environmental Data Resources, Inc., April 10, 2025
2. The EDR Radius Map Report with GeoCheck, Environmental Data Resources, Inc., April 10, 2025
3. EDR Historical Topo Map Report, Environmental Data Resources, Inc., April 10, 2025
4. Certified Sanborn Map Report, Environmental Data Resources, Inc., April 10, 2025
5. East Bay Township Tax Assessment Records
6. Grand Traverse County Tax Assessment Records
7. Grand Traverse County Well and Septic Records Database
8. Natural Resource Conservation Service, Web Soil Survey, Grand Traverse County, Michigan
9. EGLE Water Well Viewer Interactive Map Tool Website
10. EGLE RIDE Mapper Interactive Map Tool Website
11. EGLE MiEnviro Portal
12. MPART PFAS geographic Information System Interactive Map

### 13.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

We declare to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all-appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. This report was completed and reviewed by the following Environmental Professionals. Qualifications of the professionals are contained within Section 14.0.



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Jonathan Y. Pines  
Environmental Professional



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Daniel B. Barton, P.E.  
Project Engineer

Otwell Mawby Project No.: 25-051

*Environmental ▪ Brownfield ▪ Asbestos*

**Clous Property  
2633 and 2719 North Three Mile Road  
20 Acre Portion of Parcel Identification Numbers: 28-03-219-000-25 & 28-03-219-002-00  
East Bay Township, Grand Traverse County, Michigan**

**PHASE II  
ENVIRONMENTAL SITE ASSESSMENT**

**May 2025**

*Prepared For:*

**Maplegrove Investment II, LLC and;  
Traverse City – Central Park, LLC**  
C/o: Mr. Steven Calverley, Manager  
1575 Watertower Place  
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*Prepared By:*

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Otwell Mawby Project No.: 25-051-1

*Environmental ▪ Brownfield ▪ Asbestos*

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## FIGURES

Figure 1 – Site Location Map

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## TABLE

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## APPENDICES

Appendix A – Analytical Laboratory Report

**Clous Property**  
**2633 and 2719 North Three Mile Road**  
**20 Acre Portion of Parcel Identification Numbers: 28-03-219-000-25 & 28-03-219-002-00**  
**East Bay Township, Grand Traverse County, Michigan**

**PHASE II ENVIRONMENTAL SITE ASSESSMENT**

**1.0 INTRODUCTION**

At the request Mr. Steven Calverley and on behalf of Maplegrove Investment II, LLC and Traverse City – Central Park, LLC, Otwell Mawby, P.C. (Otwell Mawby) conducted a Phase II Environmental Site Assessment (ESA) of a property comprised of a 20-acre portion of two parent parcels located at 2633 and 2719 North Three Mile Road in East Bay Township, Grand Traverse County, Michigan (hereafter referenced as the subject property). Tax assessment records (Appendix A) for the parent parcels of the subject property were obtained from the Grand Traverse County Equalization Department and the East Bay Township Assessors Office and are summarized in the following table:

<b>Parcel Identification Number</b>	<b>Parcel Address</b>	<b>Parcel Size (Acres)</b>	<b>Parcel Owner</b>	<b>Current Development</b>
28-03-219-000-25	2633 North Three Mile Road	15.12	William and Toni Clous	Vacant Agricultural Land
28-03-219-002-00	2719 N Three Mile Road	109.53	William and Toni Clous	Vacant Agricultural Land
<u>Parcel Legal Description (Parcel ID No. 28-03-219-000-25):</u> S 1/2 OF SE 1/4 OF NE 1/4 EXC COMM SE COR TH N 500' TH W 435.6' TH S 500' TO 1/4 LN TH E 435.6' TO POB SEC 19 T27N R10W				
<u>Parcel Legal Description (Parcel ID No. 28-03-219-002-0):</u> S 1/2 OF SW 1/4 OF NE 1/4 ALSO THE S 1/2 OF NE 1/4 OF NE 1/4 & N 1/2 OF S 1/2 OF NE 1/4 EXC 200' X 200' IN NE COR OF N 1/2 OF S 1/2 OF NE 1/4 ALSO E 30 ACRES OF NW 1/4 OF NE 1/4 SEC 19 T27N R10W				

This Phase II ESA was based upon recommendations made in our April 2025 Phase I ESA that was completed for the subject property. The Phase I ESA should be reviewed in its entirety for information regarding the assessment of the recognized environmental condition (REC) identified for the subject property. The location of the subject property is shown on the attached Figure 1. The attached Figure 2, shows the area of the parcels that comprise the subject property. The attached Figure 3, shows the locations of the soil borings advanced during the Phase II ESA investigation.



## **1.1 Recognized Environmental Conditions (RECs)**

The April 2025 Phase I ESA identified one REC, as detailed in the following section.

### ***1.1.1 Potential for Residual Agrochemicals***

The known use of agrochemicals in conjunction with agricultural activities conducted on the subject property was identified as a REC in the Phase I ESA. The subject property was identified to be utilized for agricultural purposes since approximately 1999. Onsite farming reportedly consisted of the cultivation of corn and beans, and it was reported by the current property owner that pesticides were utilized onsite for weed control.

The potential presence of residual agricultural chemicals including pesticides/ herbicides was identified as a REC during the completion of the Phase I ESA.

## **2.0 PHASE II ESA FIELD ACTIVITIES**

On May 6, 2025, Otwell Mawby personnel mobilized to the subject property to conduct Phase II ESA activities to evaluate the REC identified for the subject property. Specifically, sampling and analysis was conducted to evaluate the potential for environmental impacts to the subject property from the REC and for comparison to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Generic Cleanup Criteria (GCC).

For an initial comparison, the results of the Phase II ESA are compared to GCC for residential uses, which is the most restrictive criteria. This initial comparison is completed to determine if the property meets the definition of a “Facility” as defined by Part 201 of MI P.A. 451 of 1994, as amended. The Phase II ESA included the collection of soil samples to evaluate the identified REC. Groundwater was not encountered or sampled during the Phase II investigation.

### **2.1 Phase II ESA Investigation Activities**

During the investigation, 26 discrete soil samples were collected from areas indicated to have the greatest likelihood of environmental impact based on the investigated REC. Soil borings, identified as HA-1 through HA-22, were advanced using a stainless-steel hand auger and/or stainless steel shovel. At each location, a soil sample was obtained at a depth generally between 0.5’ to 1.0’ below ground level (bgl), which was the depth of the encountered root zone where agrochemicals would be likely to bioaccumulate.

An additional surficial soil sample was also collected at the HA-19 through HA-22 locations, where a soil stockpile was formerly located. The soil stockpile that was partially located on the subject property was identified in the April 2025 Phase I ESA, however, at the time of the Phase II ESA activities, the soil pile had been removed from the subject property. Each of the samples were submitted for laboratory analysis of arsenic and lead under chain-of-custody to ALS Environmental (ALS) of Traverse City and Holland, Michigan. Upon completion of sampling activities, all of the boreholes were backfilled with soil cuttings.

From the 26 soil borings/ samples submitted for arsenic and lead analysis, discussed above, five composite soil samples, identified as Comp-1 through Comp-5, were generated and submitted for laboratory analysis of organo-chlorine pesticides, organo-phosphorus pesticides, and herbicides. Each of the composite soil samples were obtained by compositing approximately equal volumes of soils from three locations into one of the composite samples, as summarized in the following table.

Composite Sample Identification	Composited Samples
Comp-1	HA-1 through HA-3
Comp-2	HA-6 through HA-8
Comp-3	HA-9, HA-11, and HA-13
Comp-4	HA-15, HA-17, and HA-18
Comp-5	HA-19 (surface), HA-20 (surface), and HA-22 (1.0')

Laboratory analytical results for the soil samples are discussed in Section 3.0 of this report.

### 3.0 FINDINGS AND ANALYTICAL RESULTS

The findings of the Phase II ESA investigation completed for the subject property are presented below. The attached Figure 3 depicts the soil boring/ sampling locations. The analytical laboratory report for the analyzed soil samples is attached as Appendix A. The laboratory analytical results are also summarized on the attached Table 1.

### **3.1 Investigation Findings**

The following sections summarize the findings of the Phase II ESA investigation.

#### 3.1.1 Site Geology

The exploration of site geology was limited to a depth of approximately a half foot (0.5') to one foot (1.0') bgl, where the vegetative root zone was encountered, which is the likely bioaccumulation depth for residual agrochemicals. Deeper soils were not evaluated. The soils encountered during the Phase II ESA investigation were comprised of a brown to dark brown sandy topsoil.

#### 3.1.2 Analytical Results

The Michigan Department of EGLE has developed GCC from various potential exposure scenarios. The results of the Phase II ESA assessment were compared to the GCC as an initial evaluation of the data. The generic criteria are developed utilizing conservative exposure assumptions and if an initial comparison of the data to the generic criteria does not result in any exceedances of the criteria, it can be concluded that there is not an exposure concern for these constituents. For data that does exceed the GCC, if any, additional analysis or evaluation of the data is typically warranted. Laboratory analytical results for the collected soil samples are discussed in the following section.

#### 3.1.3 Soil Analytical Results

In six of the soil samples, arsenic was identified at concentrations in excess of its laboratory Method Detection Limit (MDL), however, none of the concentrations exceeded the Statewide Default Background Level or GCC. Lead was also identified in three of the samples in excess of laboratory MDLs, and in one sample (HA-9 @ 0.5') in excess of the Statewide Default Background Level, however, none of the concentrations exceeded EGLE GCC. None of the soil samples contained any other constituents at concentrations in excess of the MDLs other than those mentioned above, indicating each were also below the Statewide Default Background Level and/ or GCC. Refer to the attached Table 1, which provides a complete summary of the laboratory analytical results. The laboratory analytical report is contained in Appendix A. The soil boring/ sampling locations are depicted on the attached Figure 3.

Based on the laboratory analytical results, the subject property does not meet the definition of a "Facility" as defined by Part 201 of Act 451 of 1994, as amended.

## **4.0 CONCLUSIONS AND RECOMMENDATIONS**

The Phase II ESA was conducted to evaluate the REC identified by Otwell Mawby's April 2025 Phase I ESA for the subject property. In light of the findings presented in Section 3.0 of this report, the following conclusions and recommendations are presented.

### **4.1 Summary of the Findings**

A summary of the findings of the field investigation activities and laboratory analyses completed as part of the Phase II ESA activities are as follows:

- To evaluate the potential for onsite environmental impact at the location of the REC, 22 soil borings were advanced and 26 discrete soil samples were collected, four of which were surficial soil samples. As part of the investigation, five composite soil samples were also obtained. Soil samples collected during the investigation were submitted for laboratory analysis of various chemical constituents associated with the REC.
- From the analyzed soil samples, none of the samples contained any constituents at concentrations in excess of GCC, as a result, the subject property does not meet the definition of a "Facility", as defined by Part 201 of Michigan Act 451 of 1994, as amended.

### **4.2 Recommendations**

As a result of the findings of the Phase II ESA, Otwell Mawby makes the following recommendations:

- No further assessment of the REC identified within Otwell Mawby's April 2025 Phase I ESA is warranted for due diligence purposes. Based on the results of the investigation environmental due diligence as it relates to the REC is complete.

## 5.0 LIMITATIONS & SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

The observations and discussions provided in this report are intended to assist in making a reasonable assessment of risk with respect to potential environmental contamination at the subject property. The information provided in this report is based upon a review of documents and information available concerning the subject property, as presented. Portions of this Phase II ESA are based upon information anecdotal information reported by persons claiming to have knowledge of the property. No warranty is made as to the reliability or accuracy of this history, but upon request, this history will be supplemented by investigating beyond the sources identified. If the reader is aware of any actual or alleged inaccuracies or omissions in this report, please advise Otwell Mawby immediately.

This information is provided in response to a limited scope of investigation and should be used in light of the limited effort expended. The information contained in this report is valid as of the date of this report.

The opinions of environmental risk should not be construed as legal advice or financial recommendations. It cannot be stated unequivocally that this Phase II ESA is sufficient to meet the appropriate inquiry standard of law, although the opinions and recommendations of Otwell Mawby are the product of a professional evaluation of the property, consistent with existing industry practice in this area.

This report was completed and reviewed by the following professionals. Please contact the undersigned with any questions or comments. We thank you for the opportunity to provide you with our services.

Sincerely,  
**Otwell Mawby, P.C.**



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Andrew Puffpaff  
Environmental Professional/Technician



---

Daniel B. Barton, P.E.  
Project Engineer

Otwell Mawby Project No.: 25-051-1  
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