City of Frankfort Beach Infrastructure Plan

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Michigan State University Practicum

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Partners

• The City of Frankfort
• City Superintendent Josh Mills
• Dr. Rex LaMore
• Dr. Zenia Kotval
• Michigan State Housing and Development Authority
Project Goals

• Create elements of a Beach Master Plan for the Lake Michigan Beach in Frankfort, including improvements to Cannon Park.

• Addressing parking, pedestrian flow, signage, structural improvements, restroom facility location, sand control, and aesthetic.
City of Frankfort

Location Description

- Located on the shores of Lake Michigan in Benzie County
- 40 miles southwest of Traverse City
- Situated on the north side of Betsie Bay
Area History

• The City of Frankfort became an incorporated village in 1885

• Lumbering was Frankfort’s first industry and helped the town flourish in the late 1800’s

• In 1889 the Ann Arbor Railroad extended services to Frankfort
  • Economic growth
  • First tourists to Frankfort
  • Civil War cannon

Photo Contributed by Paul Petosky
Area History

• The depletion of lumber brought an industry shift to Frankfort
  • Rise of commercial fishing
    • Decline after WWII
    • Replaced by charter fishing

• Agriculture
  • Cherries
  • Peaches
  • Apples
  • Strawberries
  • Raspberries

Photo Contributed by Marc Vander Meulen Collection
Site Analysis

• The Beach Infrastructure Plan focuses on two historically, culturally, and economically relevant properties in Frankfort:

  The Lake Michigan Beach Park

  Father Charlevoix “Cannon” Park.
Father Charlevoix “Cannon” Park

• A gateway from downtown Frankfort to Lake Michigan Beach.

• Just under 40,000 square feet.

• Named for the Civil War cannon that is placed on the west end of the park.
Lake Michigan Beach Park

• The City of Frankfort provides a 200,000 square foot beach.

• Beautiful towering sand dunes to the north.

• Swimming, fishing, kite sailing, wind surfing, and the great view it provides.

Source: erikalinsgreatloopadventure.blogspot.com
Socioeconomic Profile

Age, Population, Employment, Businesses, and Tourism
Age Trends - City of Frankfort (2000-2010)

- Age Trends for the City of Frankfort 2000 Percent of Population
- Age Trends for the City of Frankfort 2010 Percent of Population

Source: U.S. Census Bureau

- Age Trends for the State of Michigan 2000 Percent of Population
- Age Trends for the State of Michigan 2010 Percent of Population

Age Trends - Benzie County (2000-2010)

- Age Trends for Benzie County 2000 Percent of Population
- Age Trends for Benzie County 2010 Percent of Population

Source: U.S. Census Bureau
Population

City of Frankfort Population 1990-2010

- 1,546 in 1990
- 1,513 in 2000
- 1,286 in 2010

Benzie County Population 1990-2010

- 12,000 in 1990
- 15,998 in 2000
- 17,525 in 2010

Source: U.S. Census Bureau
Business and Employment

Frankfort Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percent 2010</th>
<th>Percent 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts, entertainment, and recreation, and...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational services, and health care and social...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance and insurance, and real estate and rental and...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public administration</td>
<td></td>
<td></td>
</tr>
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</table>

Source - U.S Census Bureau
## Tourism

<table>
<thead>
<tr>
<th>Distance Traveled (one way)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 100 miles</td>
<td>31</td>
</tr>
<tr>
<td>101 – 200 miles</td>
<td>17</td>
</tr>
<tr>
<td>201 – 300 miles</td>
<td>34</td>
</tr>
<tr>
<td>301 – 500 miles</td>
<td>7</td>
</tr>
<tr>
<td>&gt; 501 miles</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State of Origin to Travel to NW Michigan</th>
<th>Percentage of Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michigan</td>
<td>61.1</td>
</tr>
<tr>
<td>Illinois</td>
<td>6</td>
</tr>
<tr>
<td>Ohio</td>
<td>5.2</td>
</tr>
<tr>
<td>Indiana</td>
<td>4</td>
</tr>
<tr>
<td>Florida</td>
<td>3</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>1.8</td>
</tr>
<tr>
<td>Georgia</td>
<td>1.6</td>
</tr>
<tr>
<td>Tennessee</td>
<td>1.5</td>
</tr>
<tr>
<td>California</td>
<td>1.4</td>
</tr>
<tr>
<td>New York</td>
<td>1.2</td>
</tr>
</tbody>
</table>
Tourism Estimations

- An estimated 210,000 visitors to Frankfort in 2011
- 48% of visitors during peak summer months
- 1,939 visitors per day (during peak season)
- Average of 3 people per car
- 646 cars per day

Photo contributed by Twenty Two North Gallery
Land Use

• Approximately 49% of land uses within the City of Frankfort are residential.

• 26% percent are non-residential
  • Commercial
  • Industrial
  • Civil/Institutional
  • Parks and Recreation
  • Health Facilities
  • Mixed Use

• 25% are vacant/undeveloped
Strengths, Weaknesses, Opportunities, and Threats

- The SWOT analysis was conducted by the MSU Practicum team at a meeting with 23 members of the community in Frankfort.
Strengths

• Both Father Charlevoix “Cannon” Park and Lake Michigan Beach are within close and walkable proximity to the downtown and Main Street.

• The region has strong natural beauty

Weaknesses

• There are not enough flushing toilets within close proximity to either Father Charlevoix “Cannon” Park of Lake Michigan Beach

• The flow of vehicles and pedestrians is often congested and unsafe

Opportunities

• New location and accessibility for restroom facilities

• The placement of a new trailhead pavilion including restrooms and concessions

Threats

• Complacency or inaction causing a halt in forward progress for the two parks

• Other communities having a competitive advantage
Recommendations

Beach Study, Parking, Restroom Facilities, Signage, Sand Control, and Revenue
Beach Study

- Economic Analysis
- Visitor Profile
- Time Spent at Beach
- Traffic Impact

Photo contributed by Nina Kokotas Hahn
Sand Control

Recommendation

- Plant Native Vegetation along the beach perimeter
Parking

Recommendation

- Traffic Study
- Utilize Frankfort high school for additional parking
- Trolley System

Recommendation

- Limit Kiosk parking time in the Lake Michigan Beach parking lot to 3 hours during weekend and peak hours to facilitate parking turnover
Signage

• The implementation of simplified and consistent wayfinding and informative signage throughout Father Charlevoix “Cannon” Park and Lake Michigan Beach Park will play a key role in enhancing the Frankfort experience for both visitors and residents.
Consistent Way-finding and Informative Signage

- Grove Street
- Grove St Garage
- Parking Rates: $0.65 / half hour
  $15 / day max
- Information Map
Signage

Recommendation

- Work in conjunction with the Friends of the Betsie Valley Trail System organization to implement proper trailhead signage at the Father Charlevoix “Cannon” Park trailhead.
Restrooms

- Option 1- Cannon Park
- Option 2- Sac St
- Option 3- Constructed into sand dune
- Option 4- Current location
## Criteria for Restroom Location

<table>
<thead>
<tr>
<th>Option</th>
<th>Location</th>
<th>Proximity to Beach (&lt;5000 m)</th>
<th>Sewer</th>
<th>Does not Block of View of the Beach</th>
<th>Space Availability</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Father Charlevoix “Cannon” Park</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Sac Street Entrance</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>In the side of the dune</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Stay the Same</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>
Restrooms

Recommendation

- Construction of a new bathroom facility in Father Charlevoix “Cannon” Park

Recommendation

- Modify the bathroom design proposal for Father Charlevoix “Cannon” Park to include the following:
  - 6-7 toilets for women
  - 4 toilets and 3 urinals for men
Revenue

Recommendation

- Capitalize on revenue potential by installing parking kiosks in the designated beach parking lot and within ¼ mile of Lake Michigan Beach on Main St.
- This revenue would contribute towards the implementation of the parking trolley between the Frankfort High School and Lake Michigan Beach park.
Revenue - Concessions

Recommendation

- A cost-benefit analysis should be conducted, and visitor demand evaluated to gain a better understanding of possible benefits and drawbacks to operating beach concessions.

Photo contributed by Observer Newspapers
Thank You!

To view our full report visit:
http://ced.msu.edu/publications/reports/planning