National Park Service
U.S. Department of the Interior

Keweenaw National Historical Park
25970 Red Jacket Road
Calumet, Michigan 49913

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Cultural Landscape Report /Environmental Assessment

Calumet Unit Historic Landscape

National Park Service
U.S. Department of the Interior

Keweenaw National Historical Park

CALUMET UNIT HISTORIC LANDSCAPE

Cultural Landscape Report and Environmental Assessment



FINAL 2013

Cover Illustration: Birds Eye View of Calumet, Hecla and Red Jacket, facing northwest, 1881 (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #015).

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Calumet Unit Historic Landscape

Keweenaw National Historical Park

CULTURAL LANDSCAPE REPORT/

ENVIRONMENTAL ASSESSMENT

PREPARED FOR:
NATIONAL PARK SERVICE
KEWEENAW NATIONAL HISTORICAL PARK
AND
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Final
2013

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2013

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ACKNOWLEDGEMENTS

Many individuals and groups contributed to the preparation of this report and the planning process upon which it is based. These contributions added substantial value to the process and final document. Throughout the project, the staff at Keweenaw National Historical Park provided information, assistance, criticism, and guidance reflecting their outstanding knowledge of, and dedication to, the resources and the regional community. Steven K. DeLong served as NPS project manager for the effort. His commitment to the project began well before the initial project meeting and is sure to continue for many more years in the future. His diligent reviews and guidance have contributed greatly to the high quality of the project. The sections of the Landscape History chapter entitled "Early History: The Arrival of the Ojibwe," "The Fur Trade," and "Treaties and American Mining" were prepared by Steven K. DeLong and Jo Urion for the *Quincy Mine Historic Landscape Cultural Landscape Report and Environmental Assessment*, from which they were extracted. Mr. DeLong, Ms. Urion, and Jeremiah Mason worked tirelessly with the project team in reviewing the report, particularly the Landscape History and Existing Conditions sections. Their assistance in locating appropriate historic documents related to specific topics, and providing local knowledge regarding research questions, was priceless. Other staff members have participated in planning meetings and patiently answered questions throughout the project. Superintendent Mike Pflaum provided support and guidance.

Numerous individuals and groups attended meetings, gave feedback, and openly discussed issues with the project team, greatly adding to the value and validity of the recommendations developed. These included members of the Keweenaw National Historical Park Advisory Commission, the Village of Calumet, Calumet Township, Main Street Calumet, Calumet Downtown Development Authority, C-L-K Schools, Houghton County Road Commission, Western Upper Peninsula Planning and Development Region, the Calumet Housing Commission, and representatives of numerous private and public properties within the project area.

Enough cannot be said for the long-term commitment of the Calumet community to the preservation of their cultural heritage. Keweenaw National Historical Park was established in 1992 as a result of over twenty years of efforts by the local community. Many of the same individuals who dedicated untold hours to the establishment of the park have continued in their dedication to labor to conserve the resources and stories of their community. Without their efforts, the National Park would not have been established, nor would the unique partnership park approach applied be as successful as it is.

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Finding of No Significant Impact: Calumet Historic Landscape Cultural Landscape Report / Environmental Assessment Keweenaw National Historical Park, Michigan

In compliance with the National Environmental Policy Act (NEPA), the National Park Service (NPS) has prepared a Cultural Landscape Report with Environmental Assessment to examine alternatives and potential environmental impacts associated with rehabilitation of the historic landscapes associated with the Calumet Unit of Keweenaw National Historical Park.

Keweenaw National Historical Park was established by Public Law 102-543 in October 1992. The park commemorates the rich and complex story of copper mining on the Keweenaw Peninsula. The General Management Plan for Keweenaw National Historical Park defines the purpose of the park. The purpose is to:

- *Tell the story of the role of copper in the development of an American industrial society and the effects on the Keweenaw Peninsula of providing that copper.*
- *Identify, study, and preserve the nationally significant historical and cultural sites, structures, districts, landscapes, and other resources of the Keweenaw Peninsula for the education, benefit, and inspiration of present and future generations.*
- *Interpret the historic synergism among the geological, aboriginal, sociological, cultural, technological, economic, and corporate influences that relate the stories of copper on the Keweenaw Peninsula.*
- *Develop and sustain into the 21st century the park and the community through a blend of private, local, state, and federal management, investment, and ownership.*

The site of the proposed action is the Calumet Unit of Keweenaw National Historical Park, encompassing approximately 750 acres of land owned by private landowners, non-profit organizations, and the National Park Service. The Calumet Unit includes extensive historic resources related to copper mining activities in the form of neighborhoods, towns, and industrial sites. Included are large scale industrial buildings, schools, a theater, a railroad depot, fire station, churches, commercial buildings, and a wide range of housing types from mansions to company housing.

The purpose of the CLR/EA is to document and record the historical and current conditions of the landscape and buildings at the Calumet Unit of Keweenaw National Historical Park (KNHP) and provide guidance for its future treatment and use. The documentation of historic significance and evaluation of integrity of the buildings and historic landscapes provides a framework for the development of treatment recommendations. Another purpose of the CLR/EA is to inform the National Park Service and the Keweenaw Heritage Site (KHS) partners (as well as any potential partners), local government and private landowners on preservation of significant cultural and natural resources while providing for visitor education and use.

The CLR/EA is needed to guide treatment and use of the aboveground resources associated with the significant historic landscapes within the Calumet Unit. The park's General Management

Plan indicates the need for a CLR, in part because the NPS owns only a small portion of the land within the Calumet Unit. Private landowners, non-profit and institutional organizations, own the majority of the land within the Calumet Unit. The CLR/EA included extensive consultation with land owners and local organizations to develop a comprehensive understanding of the physical evolution of the historic buildings and landscapes and guidance for their future management.

Selection of the Preferred Alternative

The CLR/EA includes general management recommendations for the overall Calumet Unit, Osceola No.13, Railroad/Recreational Corridor, South Mine Street Corridor, Village of Calumet and Downtown, Italian Hall, and Housing Locations. At a more detailed scale, four landscape treatment alternatives are provided for the Red Jacket Road Corridor and Agassiz Park. The treatment alternative descriptions include the current management (Treatment Alternative A, No Action Alternative) and three "action" alternatives providing proposals for changes to the management of the landscapes. The Current Management Alternative (Treatment Alternative A, No-Action Alternative) provides the basis for evaluating changes and impacts associated with the three action alternatives. The action alternatives are titled Treatment Alternative B, Treatment Alternative C, and Treatment Alternative D. The NPS has identified Alternative C as its Preferred Alternative for the Red Jacket Road and Agassiz Park areas. The preferred alternative was selected because it best meets the purpose and goals of the project and will best fit with the resources in the Park. The Selected Alternative is both the preferred alternative and the environmentally preferable alternative (described in the section titled "Environmentally Preferable Alternative").

Actions common to all action alternatives include treatment guidelines for the overall Calumet Unit that address preservation of historic resources, preservation and enhancement of significant views, preservation of contributing vegetation and removal of vegetation that impacts historic or natural resources, interpretation of significant landscapes, and preparation of an Archeological Inventory for Keweenaw National Historical Park. In addition, treatment guidelines (common to all action alternatives) address improvements to the Village of Calumet and the Calumet Civic and Commercial Historic District. Recommendations for Osceola No. 13 include the addition of parking, establishment of a pedestrian path, preservation of industrial equipment and rock piles, and vegetation management to preserve historic and natural resources. Recommendations for the South Mine Street Corridor include preserving historic resources, establishing a pedestrian and bicycle route along the corridor, removal of vegetation that impacts historic resources and retention of vegetation that helps to screen undesirable views, assessment of buildings and structures, and interpretation of resources within this landscape character area. Recommendations for the Railroad/Recreational Corridor include establishment of a pedestrian / bike route loop in Calumet, reduction of conflicts from ATV/snowmobile trails, elimination of selected impacting features, vegetation treatment to enhance desirable views and reduce undesirable views, preservation and interpretation of the railroad overpass and other industrial remnants within the corridor. Recommendations addressing the Historic Housing Locations stress the preservation and interpretation of these resources through the development of partnerships, education programs, scholarly research, and assistance and guidance for homeowners and local governments to encourage compatible development.

In addition to the actions common to all action alternatives described in the above paragraph, the Selected Alternative (Treatment Alternative C) for the Red Jacket Road corridor includes rehabilitation of the landscape with interpretation of the entire corridor focused on the period beginning in 1890 and ending in 1915. The corridor is developed as the primary entrance to the Calumet Unit and as a core interpretive area related to the industrial landscape of the C&H Mining Company. An emphasis is placed on improving the ability of the landscape to convey and represent its significant historic conditions, revealing the extant historic landscape features, improving the historic character through strong landscape connections, and providing expanded visitor opportunities. The Selected Alternative (Treatment Alternative C) for Agassiz Park provides for the improvement of the historic integrity of the landscape related to Warren Manning's design for the park, preservation of historic landscape features, restoration of the statue of Alexander Agassiz to its original location, improvement of pedestrian and visual connections between Agassiz Park and downtown Calumet as well as the school grounds and industrial core, and providing expanded opportunities for use of Agassiz Park by visitors and the community.

Mitigation Measures

The following mitigation measures were developed to minimize the degree and/or severity of adverse effects and would be implemented during design and implementation of the Selected Alternative, as needed:

Cultural Resources

- Conduct archaeological inventories of proposed construction sites if archaeological resources are determined to be eligible for listing on the National Register of Historic Places.
- Contractors utilized for construction projects would be instructed on procedures to follow in case previously unknown archaeological resources are uncovered during construction. If previously unknown archaeological resources are unearthed during construction, work would be stopped in the area of discovery and the NPS would consult with the Michigan SHPO, and as appropriate, the Advisory Council on Historic Preservation. If impacts to significant resources could not be avoided, mitigation measures would be developed in consultation with the SHPO to ensure that the informational significance of the sites would be preserved. If appropriate, provisions of the Native American Graves Protection and Repatriation Act of 1990 would be implemented.
- The NPS would ensure that any contractors utilized for construction are informed of the penalties for illegally collecting artifacts or intentionally damaging archaeological sites or historic properties.
- To minimize the amount of ground disturbance, staging and stockpiling areas will be located in previously disturbed sites, away from visitor use areas to the extent possible. All staging and stockpiling areas will be returned to pre-construction conditions following construction.

Park Operations

- Best Management Practices (BMPs) will be used to mitigate short term and long term impacts to resources.
- Fugitive dust generated by construction will be controlled by spraying water on the construction site, as needed. Water needed for dust control shall come from park-approved sources.
- To reduce noise and emissions, construction equipment will not be permitted to idle for long periods of time.
- To minimize potential petrochemical leaks from construction equipment, equipment will be regularly monitored to identify and/or repair any leaks.

Visitor Experience

- To minimize the potential impact to park visitors, variation on construction timing may be considered, such as conducting a majority of the work in shoulder seasons.
- Construction zones will be identified and fenced with construction tape, snow fencing, or some other material prior to any construction activity. All protection measures would be clearly stated in the construction specifications and workers shall be instructed to avoid conducting activities beyond the construction zone.

Alternatives Considered

Treatment Alternative A: Current Use (the No-Action Alternative)

Continuation of current management actions within the Calumet Unit could result in additional incompatible development and loss of historic resources. Although the Village and Township would continue to work to preserve the historic resources, they lack the funding to accomplish major efforts. Many properties within the Calumet Unit are privately owned and decisions regarding change are at the discretion of property owners. Under the no-action alternative, the historic landscapes at the Red Jacket Road Corridor and Agassiz Park would continue to be managed as they are currently and no new policies would be implemented. Currently, the Red Jacket Road Corridor includes several significant historic buildings, but the landscapes associated with these structures are largely non-historic. The historic relationships between the extant buildings are no longer clear. The missing small scale features and present non-contributing features present a landscape that has a low level of historical integrity.

Treatment Alternative B:

Treatment guidelines common to all action alternatives would result in a greater ability to manage the cultural landscape within the Calumet Unit, Red Jacket Road Corridor and Agassiz Park than the no action alternative. There is a greater emphasis on restoration of cultural landscape features and rehabilitation of historic landscape elements. With a greater emphasis placed on restoration, rehabilitation and stabilization of structures and other landscape features, the cultural resources in the Calumet Unit would ultimately be better protected. Alternative B proposes to restore the Alexander Agassiz Statue to its historic location in Agassiz Park, improve circulation between downtown Calumet, Agassiz Park, and the Red Jacket Road Corridor, and

add small scale features and interpretive landscape elements. This alternative meets the project objectives better than the no-action alternative, but does not meet them as well as Treatment Alternatives C and D. Treatment Alternative B would result in fewer improvements to landscape conditions and visitor experience than Alternatives C and D. Alternative B would be the least expensive of the alternatives to implement and maintain.

Treatment Alternative D:

Treatment guidelines common to all action alternatives would result in a greater ability to manage the cultural landscape within the Calumet Unit, Red Jacket Road Corridor and Agassiz Park than the no action alternative. There is a greater emphasis on restoration of cultural landscape features and rehabilitation of historic landscape elements. With a greater emphasis placed on restoration, rehabilitation and stabilization of structures and other landscape features, the cultural resources in the Calumet Unit would ultimately be better protected. Alternative D proposes to restore the majority of Agassiz Park to reflect the intent of designer Warren Manning, improve circulation between downtown Calumet, Agassiz Park and the Red Jacket Road Corridor, remove several non-contributing impacting elements, and add small scale features and interpretive landscape elements. This alternative meets the project objectives better than the no-action alternative and Treatment Alternative B. Alternative D meets the project goals as well as Alternative C (Selected Alternative) with the exception of efficiency and budget considerations. The added interventions associated with Alternative D result in higher short and long term costs for implementation and management of the landscape.

Environmentally Preferable Alternative

As stated in Section 2.7.D of Director's Order #12 and Handbook, the environmentally preferable alternative is the alternative that will promote the national environmental policy expressed in the National Environmental Policy Act (NEPA) (Sec. 101 (b)). The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA Sec. 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative that best protects, preserves, and enhances historic, cultural and natural resources (Council on Environmental Quality, 1981).

The environmentally preferable alternative is a combination of the treatments common to all action alternatives and Alternative C for the Red Jacket Road Corridor and Alternative C for Agassiz Park. This alternative is environmentally preferable because it improves collection and distribution of storm water run-off (including significant seasonal snow-melt) and channels it to a broader system that allows for improved percolation. Also, the replacement of a considerable quantity of non-permeable pavement and buildings in the eastern portion of Agassiz Park with permeable open space would further improve percolation and recharging of ground water within the urban environment.

The Selected Alternative and Significance Criteria

As defined in 40 CFR 1508.27, significance is determined by examining the following criteria:

1. Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial:

   No long-term major adverse or beneficial impacts were identified that would have significant effects on the project area.

2. The degree to which the proposed action affects public health or safety:

   Recommendations for added sidewalks, curbs, and crosswalks in key locations would improve public health and safety.

3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas:

   The entire Calumet Unit of Keweenaw National Historical Park is a National Historic Landmark (NHL) for its association with copper mining and the national affects of the C&H Mining Company on the industrialization of the United States. There are no ecologically critical areas within the project area. Implementation of the Selected Alternative would not have any significant negative effects on the NHL district. It is expected that there would be positive effects related to the NHL district including improved preservation and rehabilitation of historic resources.

4. The degree to which the effects on the quality of the human environment is likely to be highly controversial:

   There were no potential effects on the quality of the human environment likely to be highly controversial identified during either the preparation of the environmental assessment or during the public review period.

5. Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks:

   There were no highly uncertain, unique or unknown risks identified either during the preparation of the environmental assessment or during the public review period.

6. Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:

   The Selected Alternative neither established a National Park Service precedent for future actions with significant effects nor represents a decision in principle about a future consideration.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:

   Implementation of the treatment recommendations in the Selected Alternative, including the Treatment Guidelines Common to all Action Alternatives would reduce the effects of cumulative actions within the Calumet Unit. This alternative addresses cumulative impacts by removing selected impacts and restoring a portion of Agassiz Park while also adding interpretive landscape features within the Red Jacket Road Corridor. These changes reduce the negative effects of previous actions. The large amount of privately owned land in the Calumet Unit makes it very difficult to eliminate the potential for adverse impacts in the future. Through adherence to Federal and NPS laws, regulations and guidance, on-going or future actions by the NPS or partners on NPS and partner-owned properties within the Calumet Unit should not contribute to adverse effects to cultural resources.

8. Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources:

   The CLR/EA recommendations are designed to preserve and rehabilitate historic resources within the project area. No loss or destruction of significant scientific, cultural or historical resources would be associated with the Selected Alternative.

9. Degree to which the action may adversely affect an endangered or threatened species or its critical habitat:

   The project area is urban and no critical habitat for endangered or threatened species is present. The Calumet Unit of Keweenaw National Historical Park is a combination of urban development and heavily disturbed landscape from decades of urban growth associated with mining activities. Although landscape modifications are likely to be proposed, any landscape modifications will be in the already urbanized area of the Village of Calumet and Calumet Township and will not adversely affect special status species or critical habitat.

10. Whether the action threatens a violation of Federal, State, or local environmental protection law:

    The Selected Alternative will not violate any Federal, State, or local environmental protection laws.

Public Involvement

During the preparation of the CLR/EA, formal and informal efforts were made by the NPS to involve the public; and federal, state, and local agencies in the planning process. The park staff publicized meetings through direct letters, press releases to all local media outlets, and flyers at local businesses. External public scoping was conducted to inform stakeholders and the public about the proposal to establish treatments for historic landscapes at the Calumet Unit of Keweenaw National Historical Park and to generate input on the preparation of this *CLR / EA.* On 15 June 2011 a public meeting was held at the park headquarters in Calumet, Michigan. Eighteen individuals attended the meeting in addition to the project consultant team. During the June 2011 public meeting, additional interaction and dialogue with stakeholders was requested. To address stakeholder concerns and coordinate landscape treatment alternatives with park stakeholders the project scope was modified to provide additional efforts dedicated to synthesizing the NPS treatment alternatives with park stakeholders. This was considered to be essential, as the majority of the property within the project area is not owned by the federal government and input from local representatives was necessary to develop valid recommendations. These efforts included consultation with numerous stakeholders culminating in a series of stakeholder meetings held in Calumet in December 2011. Stakeholder focused meetings were held with the following groups: Calumet Township (9 attendees), Keweenaw National Historical Park Advisory Commission (8 attendees), C-L-K Schools (2 attendees), Village of Calumet (14 attendees), Houghton County Road Commission (1 attendee), Main Street Calumet and local business owners (6 attendees), Western Upper Peninsula Planning and Development Region (1 attendee), and the Calumet Housing Commission (4 attendees). A memorandum summarizing information discussed at all of the meetings held during the first week of December 2011 is provided as Figures C-8 through C-24.

In addition, meetings were held focused on two specific landscapes, the Red Jacket Road corridor (11 attendees) and Agassiz Park (7 attendees). Finally, a public open house and presentation (11 attendees signed in additional attendees were present) were conducted on 8 December 2011. During the public open house, materials related to the treatment alternatives were displayed and members of the project team were available to discuss issues with the attendees. In addition, a handout with questions related to the treatment alternatives was given to each attendee and they were asked to provide written responses. A copy of the hand out including responses provided is included as Figures C-26 through C-33. The CLR/EA was distributed for public review from 17 December 2012 through 31 January 2013. Copies of the CLR/EA were provided to interested individuals upon request. Copies of the document were available for review at the C-L-K Public Library in Calumet, Michigan Technological University Van Pelt Library and Portage Lake District Library in Houghton, and the Hancock School Public Library in Hancock, Michigan. Other copies were available at the Village of Calumet, Calumet Township, and the Keweenaw National Historical Park Visitor Center in Calumet. In addition, a digital version of the report was available on-line at the NPS Planning, Environment and Public Comment (PEPC) website. Comments received are documented in Figures C-37 through C-45. Following the close of the comment period, the public comments were reviewed and revisions were made as necessary prior to the release of the final decision document. A description of revisions made is included in the Errata Sheet.

Conclusion

Based on a review of the facts and analysis contained in this Environmental Assessment, which is incorporated herein, the Selected Alternative for the CLR/EA for the Calumet Unit at Keweenaw National Historical Park will not have a significant impact either by itself or in consideration of cumulative impacts. Accordingly, the requirements of the National Environmental Policy Act, regulations promulgated by the President's Council on Environmental Quality, and provisions of National Park Service Director's Order-12 and Handbook (Conservation Planning and Environmental Impact Analysis and Decision-Making) have been fulfilled. Furthermore, the Selected Alternative would not impair park resources or values and would not violate the NPS Organic Act. The Selected Alternative supports the enabling legislation establishing Keweenaw National Historical Park under the Antiquities Act of 1906 with the intended purpose of preserving the scientific and public interests for future generations. An Environmental Impact Statement is not required and will not be prepared for implementation of the Selected Alternative.

Recommended:

Michael D. Pflaum 6/3/2013

Superintendent, Keweenaw National Historical Park Date

Approved:

Patricia S. Trap 6.24.13

Acting Director, Midwest Regional Office, National Park Service Date

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Calumet Unit Historic Landscape

Keweenaw National Historical Park

CULTURAL LANDSCAPE REPORT/ ENVIRONMENTAL ASSESSMENT

Approved: _____ *Date:* 6/13/2013
Superintendent,
Keweenaw National Historical Park

Concurred: _____ *Date:* 6/18/13
Advisory Commission
Keweenaw National Historical Park

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FONSI APPENDIX: Determination of Impairment

The *National Park Service's Management Policies, 2006* requires analysis of potential effects to determine whether or not actions would impair park resources. The fundamental purpose of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. National Park Service managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting park resources and values.

However, the laws do give the National Park Service the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the National Park Service the management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the National Park Service much leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible National Park Service manager, would harm the integrity of the park resources or values. An impact to any park resource or value may, but does not necessarily, constitute an impairment, but an impact would be more likely to constitute an impairment when there is a major or severe adverse effect upon a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- identified as a goal in the park's General Management Plan or other relevant NPS planning documents.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to pursue or restore the integrity of park resources or values and it cannot be further mitigated.

Impairment may result from National Park Service activities in managing the park, visitor activities, or activities undertaken by concessioners, contractors, and other operating in the park. The NPS's threshold for considering whether there could be an impairment is based on whether an action would have major (or significant) effects. In addition, mitigation measures would further lessen the degree of impact to help promote the protection of these resources and values.

Based on these guidelines and basis for determining impairment of park resources and values, a determination of impairment is made for each of the resource impact topics carried forward and analyzed in the environmental assessment for the Selected Alternative. The only resource topic carried forward and analyzed that meets the definition of a park resource or value is cultural resources, which includes the cultural landscape and archeological resources for Keweenaw National Historical Park.

Cultural Landscape

The Calumet unit contains extensive cultural landscape resources significant for their association with copper mining and associated activities during the copper mining era from ca. 1840s through the 1930s. Due to the large size of the project area, and the complexity of the historic landscape resources, information regarding the Calumet cultural landscapes has been organized into landscape character areas. Landscape character areas are places containing similar physical characteristics, qualities, attributes and associated cultural landscape resources. The landscape character areas that make up the Calumet unit include:

- Red Jacket Road Corridor
- South Mine Street Industrial Corridor
- Agassiz Park
- Osceola Location No.13
- Calumet Commercial District
- Historic Railroad Corridor & North Mine Street
- Village of Calumet
- Yellow Jacket Housing Location
- Blue Jacket Housing Location
- New Town Housing Location
- Hecla Housing Location
- Calumet Housing Location
- Tamarack Housing Location
- Swedetown Housing Location
- Raymbaultown Housing Location
- Village of Laurium
- Calumet-Laurium-Keweenaw (CLK) School Area

The features within each of the character areas that make up the cultural landscape of the Calumet Unit of Keweenaw National Historical Park are necessary to fulfill the purposes for which the park was established and are key to the cultural integrity of the park. The actions in the environmentally preferable alternative would have beneficial effects (no adverse effect) because additional guidance to NPS management decisions and private landowners would result in protection of NPS owned resources and improved public awareness and stewardship. Because there would be no adverse effect, the environmentally preferable alternative would not result in impairment.

Archeological Resources

Since the recommendations in the environmentally preferable treatment alternative could possibly affect archeological resources, it is necessary to take into account any known and potential archeological resources. Data regarding the extent of archeological resources in the park is incomplete, but there is high potential for both prehistoric and historic archeological resources within the Calumet Unit. It is likely that extensive archeological resources related to historic copper mining may be present.

In addition, it is possible that prehistoric resources may be present. The Keweenaw Peninsula hosts one of the oldest known copper working sites in North America, dating to the early Holocene. Although historic activity has resulted in extensive ground disturbance at Keweenaw National Historical Park, the prehistoric record has yet to be systematically investigated, and could offer additional information about early activity in the Upper Great Lakes.

Under the environmentally preferable alternative, archeological resources would be inventoried and evaluated in accordance with all applicable laws, regulations and National Park Service guidelines and policies. Plans are underway for the preparation of an Archeological Inventory and Evaluation for the two units of Keweenaw National Historical Park. Implementation of the archeological inventory and evaluation, as well as ground disturbing activities associated with actions for the cultural landscape will adhere to Section 106 coordination and consultation and would not result in impairment.

Conclusion

In conclusion, as guided by this analysis, good science and scholarship, advice from subject matter experts and others who have relevant knowledge and experience, and the results of public involvement activities, it is the Superintendent's professional judgment that there would be no impairment of park resources and values from implementation of the Selected Alternative.

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Keweenaw National Historical Park
Calumet Unit Cultural Landscape Report
Environmental Assessment

Errata Sheet

The Public Review Draft of the Calumet Unit Cultural Landscape Report and Environmental Assessment was available for review for 45 days, beginning 17 December 2012 and ending 31 January 2013. During that time period, 48 comments were received, none of which were classified as substantive in nature. All of the comments are included in Appendix C: Consultation and Coordination. Most were editorial and changes were made in the report to respond to those comments. Other revisions made to the report in response to remarks are described here.

Public Review Revisions Summary:

Concern ID: 42415 and 42416
Response: Removed this sentence on pages V-8 and A-6: "The current five year plan indicates that the Archeological inventory is scheduled for 2013-2014."

Concern ID: 42621 and 42622
Response: Added statement to pages V-38 and A-26: The C&H Russell snowplow is located between C&H Warehouse No. 1 and the Coppertown Museum (C&H Pattern Shop). At this site, historic railroad tracks are restored as shown on the site plan (see Figure V-11). Indications of the extension of these tracks to the north, across Red Jacket Road, are provided with contrasting paving patterns in locations indicated on the drawing (see Figure V-11). Other improvements at this location include providing two barrier free parking spaces, a barrier free approach walk, ramp, and viewing platform at the snowplow, lighting, and interpretive waysides.

Concern ID: 42618 and 42619
Response: V-11 and A-8, #6 changed to: Identify the location and extent of code violations and dispense citations to property owners to encourage proper maintenance. Enforce the Demolition by Neglect provision of the Historic District Ordinance, as determined by the Threatened Buildings Workshop held in Calumet in August 2012 and approved by the Michigan SHPO.

Michigan Historic Preservation Officer Revisions Summary:

The Michigan State Historic Preservation Officer (SHPO) review included two comments that required changes to the report.

The SHPO indicated that the statue of Alexander Agassiz is a contributing feature despite the fact that it has been moved from its original location in Agassiz Park. The following revision was made to Chapter III: Existing Conditions and Landscape Analysis, to address this concern. Table III-6 was revised so that the section addressing the statue of Alexander Agassiz indicates the following: "The statue of Alexander Agassiz does not contribute to the Red Jacket Road Corridor, but does contribute to the NHL district. The statue has been moved from its original location and is no longer associated with Agassiz Park. The statue was not historically associated with the Red Jacket Road Corridor. However, the statue dates to the period of significance and has a strong association with the historical significance of the Calumet Unit."

Changes were not made to the treatment alternatives or the recommended treatment, as it is still desirable to return the statue to its original location.

In response to a request by the Michigan SHPO, item #4 under the Calumet Unit Overall Treatment Guideline on page V-2 was revised to the following:

Evaluate the historic resources present in Swedetown, Tamarack, Red Jacket Shaft, Centennial, the Yellow Jacket, Calumet, Hecla, and Raymbaultown locations, the Village of Laurium, Florida, the Hecla Cemetery, and the remaining portion of Calumet that is not currently included to determine if they contribute to the C&H Mining Company National Historic Landmark district. If so, amend the National Historic Landmark district nomination to expand the boundary.

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CHAPTER I:
INTRODUCTION

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Chapter I: Introduction

Scope of the Report

This combined *Cultural Landscape Report and Environmental Assessment* (CLR/EA) for the Calumet Unit of Keweenaw National Historical Park provides guidance for treatment and use of the above-ground resources associated with the significant historic landscapes in the project area. Cultural landscape reports (CLR) serve as the primary guides to treatment and use of cultural landscapes within the National Park Service. They prescribe treatment and management approaches for the physical attributes, biotic systems, and human use of the resources.[1] An environmental assessment (EA) provides an analysis of the possible impacts—positive or negative—that a proposed project may have on the environment, including collectively the natural, social and economic aspects. By combining the CLR and the EA in one report, the potential impacts of the treatment alternatives can be considered in the process. This approach streamlines the project process and integrates the environmental information into the development of the treatment alternatives.

A thorough investigation and evaluation of the historic landscapes was conducted in September and October 2010 using National Park Service (NPS) and the United States Secretary of the Interior's guidelines. The documentation of historic significance and evaluation of integrity of the historic landscapes serves as a framework upon which treatment recommendations are developed. This report provides park managers with a comprehensive understanding of the physical evolution of the historic landscape and guidance for future landscape management. The report has been prepared by a project team composed of staff members from Quinn Evans Architects (QEA), Woolpert, Inc., and Keweenaw National Historical Park to fulfill a contract with the Midwest Regional Office of the National Park Service.

Purpose and Need for the Project

Purpose

The purpose of the combined CLR/EA is to document and record the history and current conditions of the historic landscapes within the Calumet Unit of Keweenaw National Historical Park and to provide guidance for the future treatment and use of these landscapes. The document informs preservation of significant cultural and natural resources while providing guidance for developing opportunities and facilities for visitor education and use. Keweenaw National Historical Park is a partnership park, with the majority of the land and resources within the Calumet Unit owned by entities other than the federal government. This document is meant to help inform the National Park Service, the Keweenaw Heritage Site (KHS) partners in the Calumet Unit, and other individuals and organizations that own or manage properties within the Calumet Unit regarding the historical development of the physical landscape and its significance. It also provides guidance for future treatment of the landscape.

[1] Robert R. Page, Cathy A. Gilbert, and Susan A. Dolan. *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques* (Washington, D.C., U.S. Department of the Interior, 1998), 129.

Need

The combined CLR / EA is needed to guide treatment and use of the above-ground resources associated with the significant historic landscapes within the Calumet Unit of Keweenaw National Historical Park. The park's General Management Plan indicates the need for a Cultural Landscape Report for the Calumet Unit. It is needed to provide a comprehensive understanding of the historic development of these landscapes and to evaluate their significance and provide treatment recommendations that respond appropriately to their historic characteristics while accommodating current and future needs. This is particularly necessary due to the makeup of land ownership/management within this partnership park. The National Park Service owns only a small percentage of properties within the park boundary. In contrast to the traditional national parks, within partnership parks like Keweenaw National Historical Park the majority of the land within the boundary is owned and managed by private owners, public entities, non-profit and institutional organizations.

Project Objectives

The objectives for the report include:

- Document the development of the historic landscapes within the Calumet Unit of Keweenaw National Historical Park.
- Document the existing conditions of the historic landscapes within the Calumet Unit of Keweenaw National Historical Park.
- Evaluate the significance and integrity of the historic landscapes within the Calumet Unit of Keweenaw National Historical Park.
- Provide treatment recommendations for managing the historic landscape resources within the Calumet Unit of the park.
- Recommend landscape treatments to address management needs identified by the NPS and park partners in the Calumet Unit.
- Provide management recommendations and schematic designs for specific historic landscapes within the park that accommodate current and future needs while preserving the historic character and significant features present.
- Streamline planning and compliance processes for the historic landscapes within the Calumet Unit of Keweenaw National Historical Park.
- Enhance visitor experience by providing information about the history of the development of the park to interpreters and site managers.
- Provide recommendations for efficiently managing the historic landscapes within the Calumet Unit of the park while taking into consideration budget constraints.

Report Methodology

The report was prepared according to federal standards guiding cultural landscape projects and environmental assessments including *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques, The Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes,* federal regulations (40 CFR 1500-1508) implementing the *National Environmental Policy Act of 1969* (NEPA), regulations of the *Council on Environmental Quality* (40 CFR 1508.9), *NPS Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-Making,* and the *National Historic Preservation Act of 1966* (as amended). Other applicable regulatory requirements include: the *National Park Service Organic Act,* the *American Indian Religious Freedom Act,* the *Act for the Preservation of American Antiquities of 1906,* the *Historic Sites Act of 1935,* the *National Park Service Director's Order #28, Cultural Resource Management,* and the *Archaeological Resources Protection Act.*

Archival research and preparation of the landscape history chapter was conducted by Quinn Evans Architects. The majority of the research was conducted at the park library and archives and at the archives of Michigan Technological University. Field inventories of existing conditions and landscape features were conducted by Quinn Evans Architects in fall 2010.

Project initiation meetings were held at Keweenaw National Historical Park headquarters in Calumet, Michigan in September 2010. Field investigations were conducted in September and November 2010 and June 2011. Internal and external scoping was conducted during June and December 2011. The project originally included one public meeting, which was held in June 2011. Input from the community indicated the need for additional coordination with the public and the project contract was modified to add meetings with stakeholders and the general public. These meetings took place during December 2011. Meeting attendees and summaries are listed in Appendix C: Consultation and Coordination.

The *Environmental Assessment (*EA) analyzes the impacts of each of the treatment alternatives on natural and cultural resources. The EA portion of the project was coordinated by Woolpert, Inc., a consulting firm that specializes in environmental planning. Quinn Evans Architects assisted in the preparation of this portion of the report.

Although the federal government has standard guidelines for the preparation of CLRs and EAs, there are no guidelines for preparing a combined report. The Midwest Regional Office of the National Park Service has recognized that combining the two documents increases the efficiency of the process by integrating the information generated through the CLR with the in-depth evaluation process inherent to the *Environmental Assessment*. Merging the documents can improve and validate the recommended treatment while reducing the costs associated with the preparation and printing.

Relation to Other Planning Projects

Several previous planning projects undertaken for the National Park Service provided background and management information for this CLR/EA including: the *Final General Management Plan and Environmental Impact Statement* (1998), *Keweenaw National Historical Park Visitor Study* (2004), the *Fire Management Plan* (2005), the *Environmental Assessment and Finding of No Significant Impact for the Fire Management Plan* (2005), the *Strategic Plan for Keweenaw National Historical Park, Fiscal Years 2005-2008, Collection Management Plan* (draft), *a Front-end Planning Report for Italian Hall Memorial Park* (2011), and the *Keweenaw National Historical Park Alternative Transportation Study* (2005).[2] *Historic Structure Reports* have been prepared for the park headquarters building, Keweenaw History Center (draft 2008), Union Building, the Russell Snow Plow, and C&H Warehouse Number 1.

The local community has undertaken planning projects that address resources within the Calumet Unit. These planning efforts reflect goals deemed important by the local community and were carefully reviewed and discussed to guide the development of landscape treatment alternatives that are compatible with local needs. Reports reviewed for this purpose include: *Village of Calumet Civic and Commercial Historic District Design Guidelines* (2006, Village of Calumet Historic District Commission and Keweenaw National Historical Park), *Village of Calumet Downtown Development Plan* (no date, UP Engineers & Architects, Inc.), *Village of Calumet Recreation Plan* (1998 and 1992), *Agassiz Park Master Plan* (1995, UP Engineers & Architects, Inc.), *Calumet Downtown Historic District Plan* (1981 version prepared by John Roger Johansen Architect, and 1979 version prepared by Preservation Urban Design).

A *Long Range Interpretive Plan* (LRIP) is being developed for the park to provide an overall direction for interpretation of the resources. Kathleen Harter, Chief of Interpretation and Education, has been included in development of the CLR treatment alternatives and selection of a preferable alternative for the CLR/EA to ensure that the CLR/EA and LRIP processes are integrated.

The park *Resource Stewardship Strategy* is in draft form. It has been utilized to inform the development of treatment alternatives. The park recently installed wayfinding signs to the Keweenaw Heritage Sites and NPS owned facilities. This sign program will help inform treatment alternatives.

A combined *Cultural Landscape Report (CLR) and Environmental Assessment* was completed for the Quincy Unit in 2010. The plans for the Quincy Unit included in the CLR have informed the development of landscape treatment alternatives and the consideration of visitor experiences for the Calumet Unit.

These documents, along with research conducted as part of this CLR/EA, inform the development of treatment alternatives and analysis of potential impacts to park resources.

[2] The reports listed were prepared by the National Park Service, with the following exceptions: *Front-end Planning Report for Italian Hall Memorial Park, Calumet, Michigan* (Fort Collins, CO: Wells Resources, Inc., 2011); *Keweenaw National Historical Park Alternative Transportation Study* (Shrewsbury, MA: Jonathan Church, 2005).

Park Purpose/Significance

Keweenaw National Historical Park was established by Public Law 102-543 in October 1992 to commemorate the copper mining history of the Keweenaw Peninsula. The purpose of the park is defined by the *General Management Plan:*

- Tell the story of the role of copper in the development of an American industrial society and the effects on the Keweenaw Peninsula of providing that copper.
- Identify, study, and preserve the nationally significant historical and cultural sites, structures, districts, landscapes, and other resources of the Keweenaw Peninsula for the education, benefit, and inspiration of present and future generations.
- Interpret the historic synergism among the geological, aboriginal, sociological, cultural, technological, economic, and corporate influences that relate the stories of copper on the Keweenaw Peninsula.
- Develop and sustain into the 21st century the park and the community through a blend of private, local, state, and federal management, investment, and ownership.[3]

The park has been described as, "both a physical place and a concept that challenges our traditional notions of national parks." Only 30 years after the end of copper mining in the region, this park was established to preserve and interpret the "memories of the working days on the Keweenaw Peninsula."[4]

[3] United States Department of the Interior, National Park Service, *Final General Management Plan and Environmental Impact Statement, Keweenaw National Historical Park* (1998)13-14.
[4] Ibid., iii.

Location and Description of the Project Area

Keweenaw National Historical Park is located in the western portion of Michigan's Upper Peninsula (see Figure I-1). The Keweenaw Peninsula extends approximately 100 miles north into Lake Superior and includes the Lake Superior Copper Range, a "highland that forms a spine along the length of the peninsula and beyond."[5] The Copper Range held vast deposits of copper, attracting mining companies and workers who came to extract the copper. Keweenaw National Historical Park is located along the Copper Range spine, near the center of the peninsula. The park is made up of Keweenaw Heritage Sites partners and two units (Quincy and Calumet) that include extensive heritage resources associated with the copper mining industry (see Figure I-2).[6] The current project is focused on the Calumet Unit of the park. The Calumet Unit is located near the center of the Keweenaw Peninsula and includes approximately 750 acres of land.

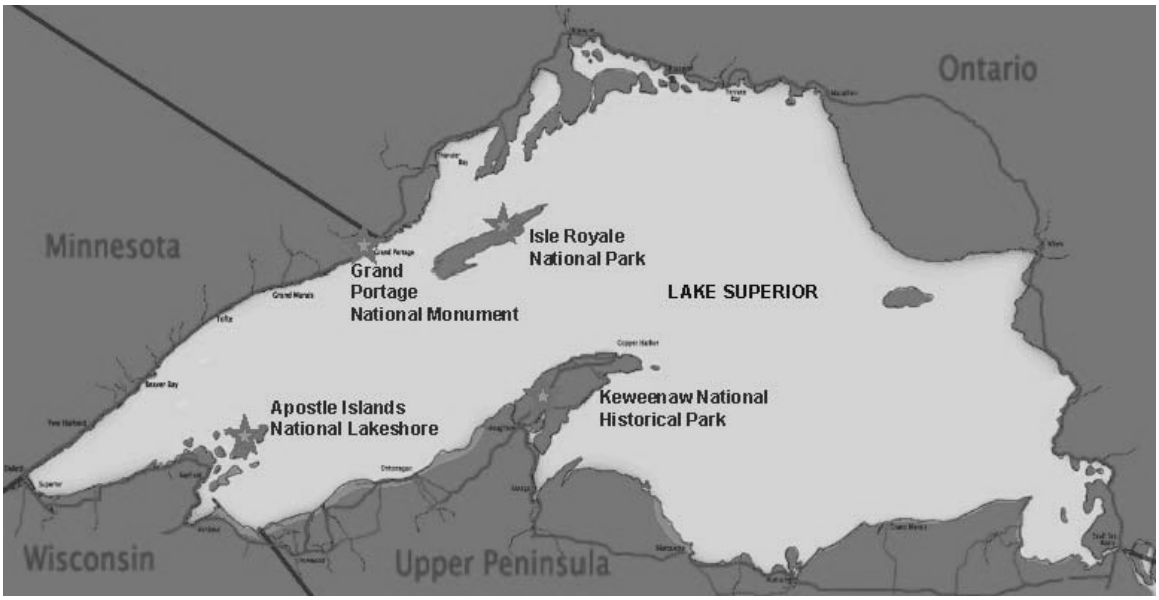


Figure I- 1: Regional Location of Keweenaw National Historical Park
(Source: Quinn Evans Architects)

The Calumet Unit includes extensive historic resources related to copper mining activities in the form of neighborhoods, towns, and industrial sites. Included are mine shafts and large scale industrial structures, schools, a theater, a railroad depot, fire station, churches, commercial buildings, and a wide range of housing types.[7]

The boundary of the Calumet Unit includes the entire Calumet National Historic Landmark District, the Calumet Civic and Commercial Historic District, the entire Village of Calumet, and portions of Calumet Township, including several significant housing locations (see Figures I-3 through I-6). The landscape character areas illustrated in Figure I-4 are explained in the next section.

[5] United States Department of the Interior, National Park Service, *Final General Management Plan and Environmental Impact Statement, Keweenaw National Historical Park* (1998) 5.
[6] Ibid., 5.
[7] Ibid., iii.



Figure I- 2: Keweenaw Heritage Sites, 2008 (source: **http://www.nps.gov/kewe/planyourvisit/upload/Keweenaw-Heritage-Sites_2008_web.pdf**, accessed 25 March 2011)

National Register Status

The Calumet Civic and Commercial Historic District and Calumet Industrial District were listed on the National Register of Historic Places in 1974. In 1987 a report prepared by Kathleen Lidfors indicated that the Keweenaw Peninsula contained historic copper mining sites that were potentially eligible as a National Historic Landmark (NHL).[8] In 1989, the Calumet Historic District was listed as a NHL for its national significance related to mining, mining technology, immigration and ethnic settlement, paternalism and company towns, and labor organization from 1864 through 1930.[9] The boundary of the NHL is illustrated in Figure I-3. It includes the headquarters, industrial, and administrative buildings built by the Calumet and Hecla Mining Company, and

> …sites of shafts sunk by the company in areas where no intrusive buildings have been constructed. The boundary also includes the key streets of the downtown commercial district of Calumet, formerly Red Jacket. The downtown blocks within the boundary reflect the close connection between the mines (and those who worked for the company) and the support services of Red Jacket. The boundary also includes a representative sampling of housing that served company employees. This sampling includes the neighborhoods and streetscapes that appear to possess the highest degree of integrity for the period that ended in 1930. The sample was designed to represent the various types of housing used by miners and other company employees. Thus, the resources within the boundary reflect not only the technological aspects of Calumet's history, but also the social history of the Calumet community.[10]

When the park was established, the U.S. Congress stipulated that the National Park Service and the park's advisory commission would partner with sites owned and operated by state and local governments, private businesses and nonprofit organizations. The Keweenaw Heritage Sites program, administered by the Keweenaw National Historical Park Advisory Commission, is one aspect of the partnership. Keweenaw Heritage Sites contain significant cultural and/or natural resources and make a unique contribution to the copper mining story. Embodying stories of hardship, ingenuity, struggle and success, the sites provide access to resources related to the story of the role mining played in people's lives. Keweenaw Heritage Sites are illustrated in Figure I-4. Heritage sites operate independently of the National Park Service. Designated Keweenaw Heritage Sites within the Calumet Unit include: Calumet Theatre, Coppertown Mining Museum, Keweenaw Heritage Center at St. Anne's, and the Upper Peninsula Firefighters Memorial Museum. The Laurium Manor Mansion Tours heritage site is located in the Village of Laurium, which is adjacent to the Calumet Unit. Numerous individuals and organizations own property within the Calumet Unit. Several residential neighborhoods are present, as well as commercial districts. Stakeholders include Keweenaw Heritage Sites, local governments, individual property owners, and others listed in Appendix C: Consultation and Coordination.

[8] Lildfors, *Potential National Historic Landmark Eligibility of Historic Copper Mining Sites on the Keweenaw Peninsula, Michigan,* 1987.
[9] Lidfors, Hrenchr and Feller, *Calumet Historic District, National Register Nomination,* 1988.
[10] Ibid.

Next pages:
Figure I- 3: Calumet Unit Boundary and National Historic Landmark Boundary (source: QEA)

Figure I- 4: Calumet Unit Landscape Character Areas (source: QEA)

Figure I- 5: Boundaries of Village of Calumet and Calumet Civic and Commercial Historic District (source: QEA)

Figure I- 6: Calumet Unit Housing Locations (source: QEA)

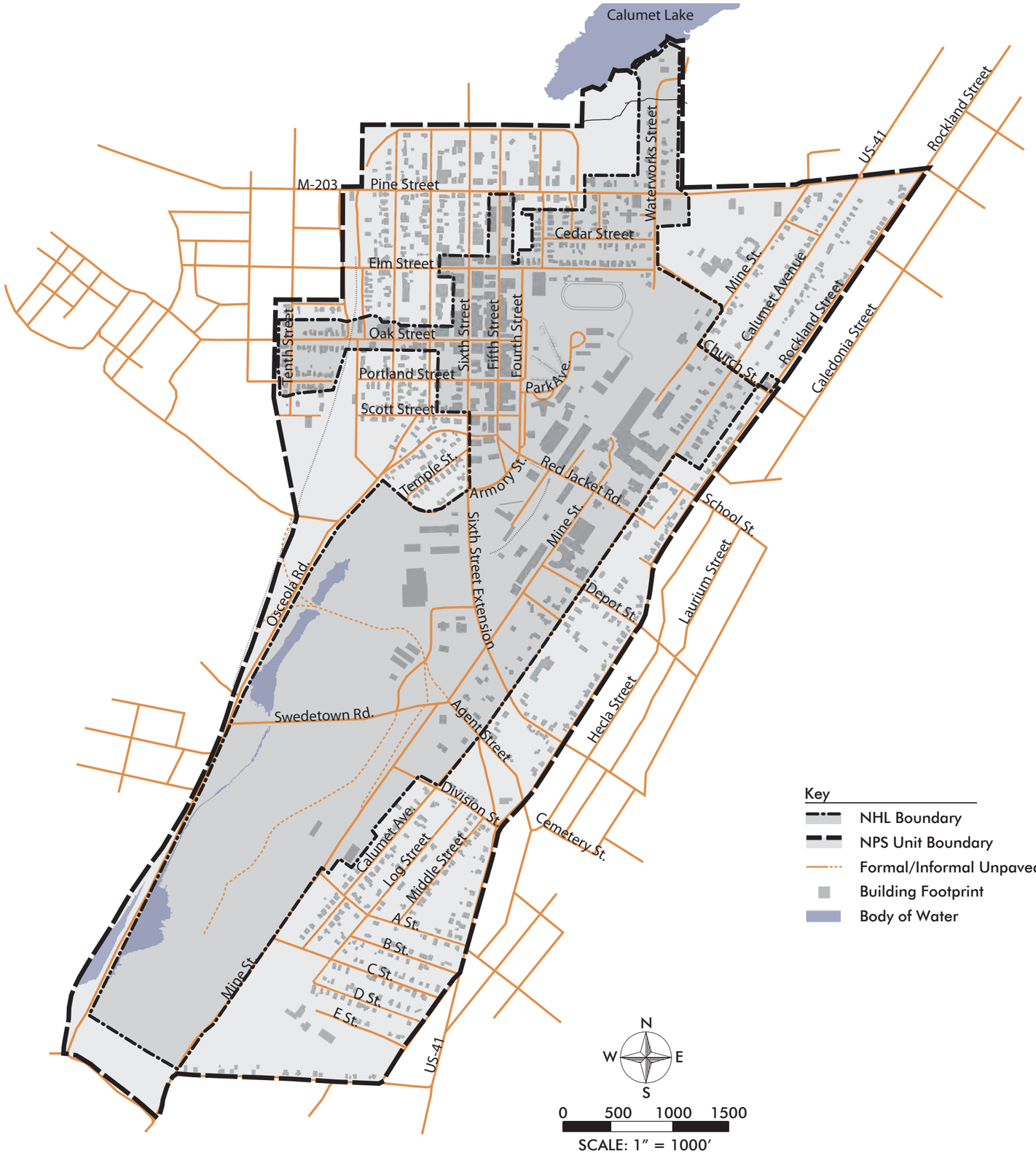
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Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Calumet Unit Boundary and National Historic Landmark Boundary



Key

- NHL Boundary
- NPS Unit Boundary
- Formal/Informal Unpaved Roads
- Building Footprint
- Body of Water

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

February, 2012

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Figure I-3

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Landscape Character Areas



Legend

- (A) Calumet Civic & Commercial Historic District
- (B) Agassiz Park
- (C) North Mine Street Industrial Corridor
- (D) Red Jacket Road Corridor
- (E) South Mine Street Industrial Corridor
- (F) Railroad / Recreational Corridor
- (G) Sixth Street Extension & Mine Street Station
- (H) Osceola No. 13
- (I) Temple Square
- (J) Housing Location/Residential Neighborhood

Key

- NPS Unit Boundary
- Formal/Informal Unpaved Roads
- Building Footprint
- Underground Mine/Buildings Removed

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.

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April 2013

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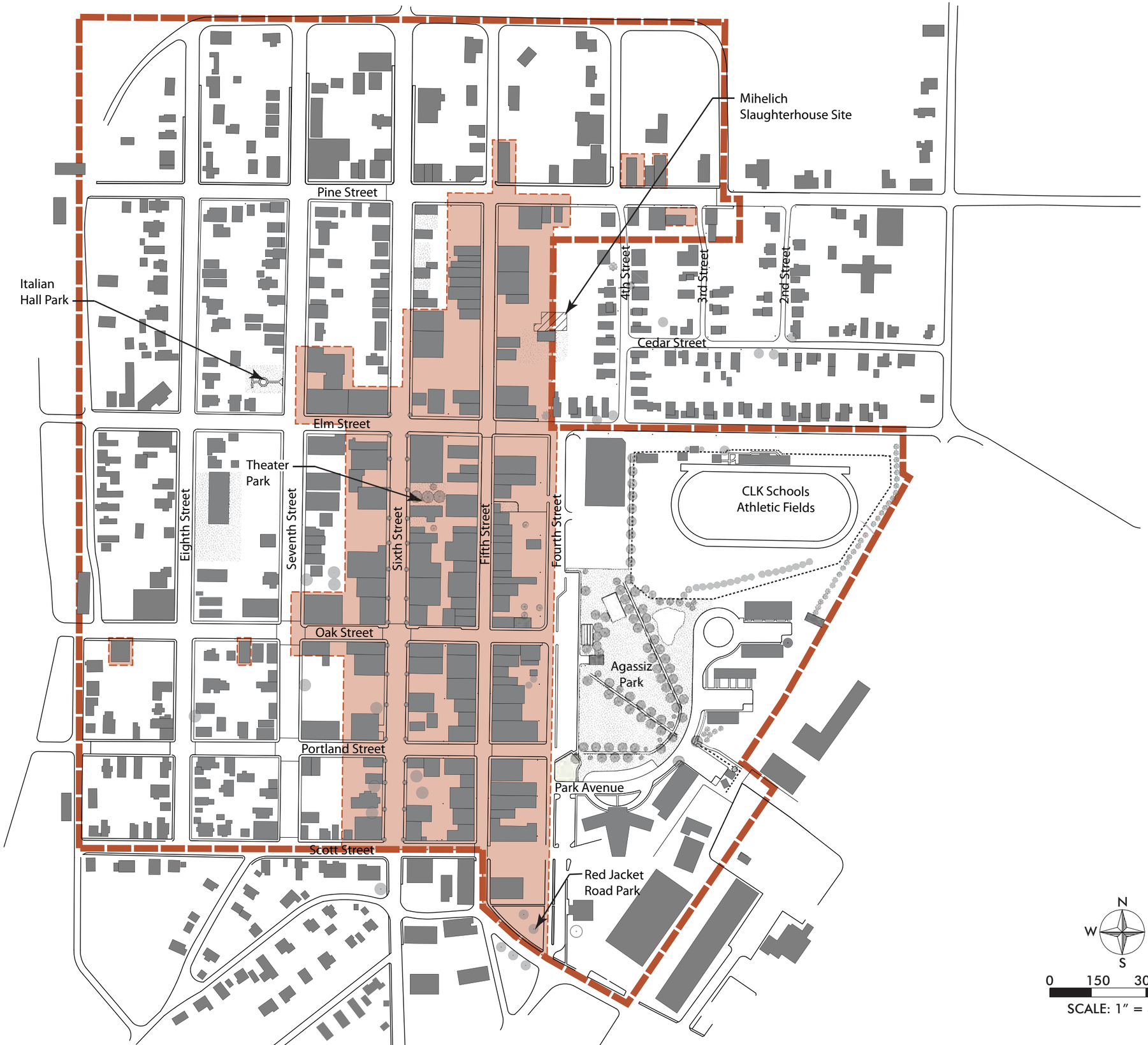
Figure I-4

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Calumet Village and Downtown



Key

- Calumet Civic & Commercial Historic District
- Calumet Village Limits
- Buildings
- Ruin

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.

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November 2012

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SCALE: 1" = 300'

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ARCHITECTS

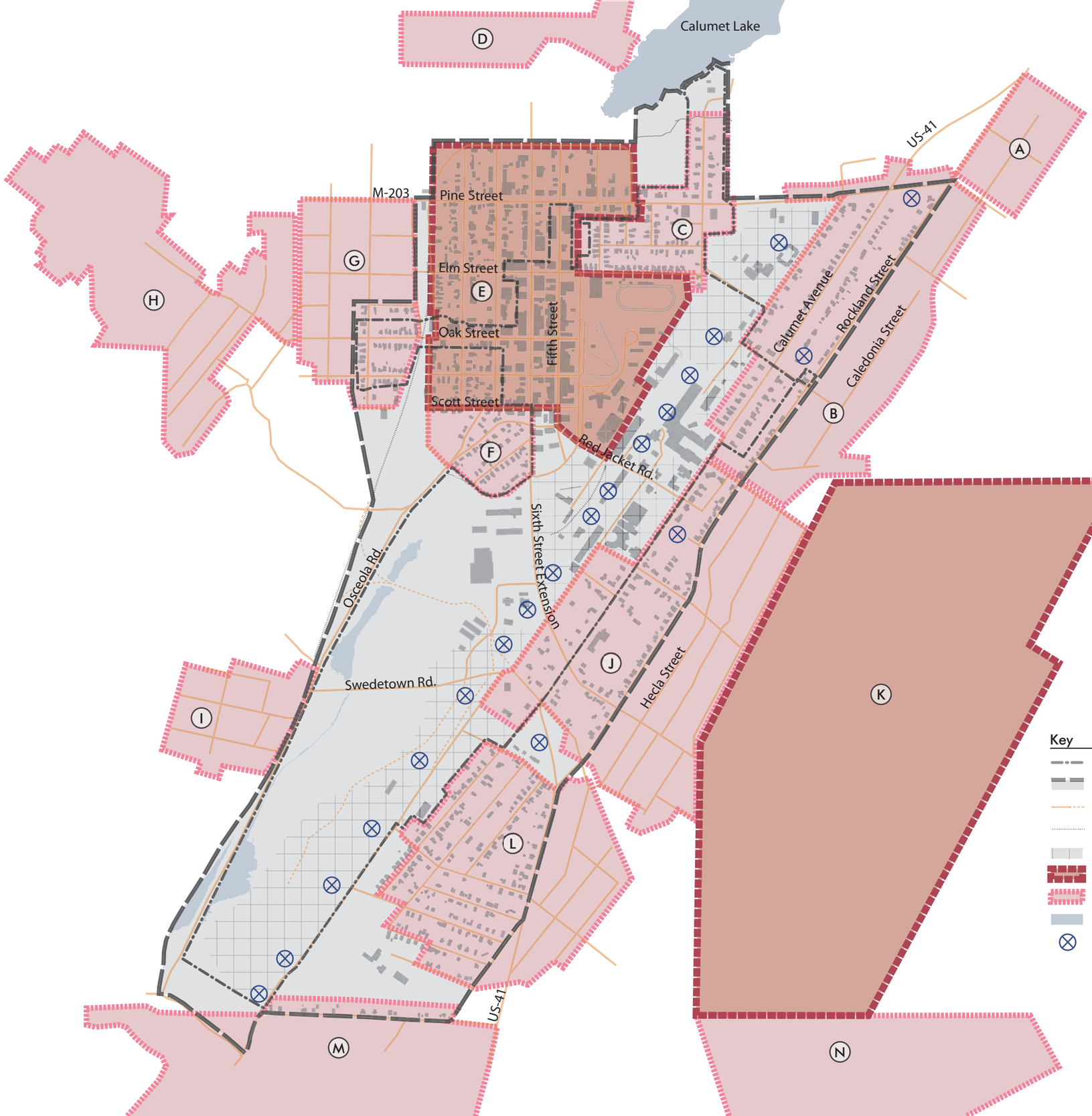
Figure I-5

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Housing Locations



Legend

- (A) Albion Housing Location
- (B) Calumet Housing Location
- (C) Blue Jacket Housing Location
- (D) Red Jacket Housing Location
- (E) Village of Calumet (formerly Red Jacket)
- (F) Newtown Housing Location
- (G) Yellow Jacket Housing Location
- (H) Tamarack Housing Location
- (I) Swedetown Housing Location
- (J) Hecla Housing Location
- (K) Village of Laurium (formerly Calumet)
- (L) Raymbaultown Housing Location
- (M) Osceola Housing Location (formerly Opechee)
- (N) Florida Housing Location

Key

- NHL Boundary
- NPS Unit Boundary
- Formal/Informal Unpaved Roads
- Railroad Line
- Inactive Mine Area/Industrial Landscape
- Village of Calumet
- Housing Location
- Body of Water
- Underground Mine/Buildings Removed

N W E S

0 500 1000 1500

SCALE: 1" = 1000'

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

September 2012

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Figure I-6

Calumet Unit Landscape Character Areas

Landscape character areas are places containing similar physical characteristics, qualities, attributes and associated cultural landscape resources. Historic resources included in the Calumet Unit are extensive and have been addressed throughout this report as they relate to landscape character areas. The landscape character areas are enumerated below and illustrated in Figures I-4 and I-6. They are described in Chapter III: Existing Conditions and Landscape Analysis.

Calumet Landscape Character Areas (see Figure I-4)

A. Village of Calumet and Civic & Commercial Historic District
B. Agassiz Park
C. North Mine Street Industrial Corridor
D. Red Jacket Road Corridor
E. South Mine Street Industrial Corridor
F. Railroad / Recreational Corridor
G. Sixth Street Extension & Mine Street Station
H. Osceola Number 13
I. Temple Square

Calumet Unit Housing Locations (see Figure I-6)

A. Albion Housing Location
B. Calumet Housing Location
C. Blue Jacket Housing Location
D. Red Jacket Housing Location
E. Village of Calumet (formerly Red Jacket)
F. Newtown Housing Location
G. Yellow Jacket Housing Location
H. Tamarack Housing Location
I. Swedetown Housing Location
J. Hecla Housing Location
K. Village of Laurium (formerly Calumet)
L. Raymbaultown Housing Location
M. Osceola Housing Location (formerly Opechee)
N. Florida Housing Location

Environmental Assessment Impact Topics

Determining Impact Topics for Analysis

Specific impact topics are identified for analysis and to allow comparison of the environmental consequences of each treatment alternative. Impact topics that are analyzed for this project are: cultural resources including all elements of the cultural landscape as well as archeological resources, socioeconomics, environmental justice, visitor experience, and park operations.

Impact topics that were dismissed from further analysis in this document are: geology, soils, prime and unique farmlands, wildlife, special status species, wetlands, floodplains, water quality, air quality, hazardous materials, Indian trust resources, ethnographic resources, museum collections, soundscape management, and lightscape management.

These impact topics were identified based on federal laws, regulations, and Executive Orders and NPS *Management Policies 2006*. A brief rationale for the selection of each impact topic is given below, as well as the rationale for dismissing specific topics from further consideration.

Impact Topics Selected for Analysis

Cultural Resources

The environmental analysis will include all landscape characteristics (natural systems and features, vegetation, topography, spatial organization, land use, circulation and viewsheds). Cultural resources at the park also include the exterior of historic structures and how they interact with surrounding landscape. Most of the land within the Calumet Unit boundary is a National Historic Landmark (NHL) District, which was established in 1989. The NHL includes remnant buildings, structures, ruins and landscapes associated with the operation of the Calumet and Hecla Mining Company (C&H), the Village of Calumet commercial district, and various mine company housing locations, which are now privately owned homes.

In addition to the above-ground cultural resources, there is potential for both prehistoric and historic archeological resources at this unit. Implementation of a treatment alternative could affect cultural resources at Keweenaw NHP; therefore cultural resources will require further analysis in this document.

Socioeconomics and Environmental Justice

The local economy of Houghton County is based on higher education, healthcare and professional services, light industry, tourism/outdoor recreation, and agricultural services. Keweenaw National Historical Park and its partner organizations are an important part of the region's tourism and outdoor recreation economy. Potential treatments to the cultural landscape of Keweenaw National Historical Park —when evaluated within the greater context of the region and socioeconomic synergies with Keweenaw Heritage Sites partners—could have effects on the regional economy.

Under a policy established by the Secretary of the Interior, to comply with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations,* departmental agencies should identify and evaluate, during the scoping and/or

planning processes, any anticipated effects, direct or indirect, from the proposed project or action on minority and low-income populations and communities, including the equity of the distribution of the benefits and risks. Although data from the U.S. Census Bureau reveals that very few persons in the project area are minority, a relatively high percentage of the individuals and families in the village live below the poverty level. It is unlikely that the proposed project would disproportionately affect minority residents or low income families or individuals; however, with a population of low income families and individuals within the project area, affects to Environmental Justice (low income) communities will also be addressed in this document. Environmental Justice associated with disproportionate effects to minority populations, will not be addressed. Therefore, the discussion of socioeconomics and environmental justice (low income community) will be integrated and further analyzed in this document.

Visitor Experience

Keweenaw National Historic Park staff does provide some guided tours; however, many of the visitor contacts and services for Keweenaw National Historic Park are provided through the Keweenaw Heritage Sites, the park's partners. Keweenaw National Historical Park has established a comprehensive interpretive / education program for the park. Because implementation of any treatment alternatives could affect the visitor experience at the Calumet Unit, as well as the rest of Keweenaw National Historical Park and Keweenaw Heritage Sites, this topic will require further analysis in this document.

Park Operations

Keweenaw National Historical Park is open year-round, although many of the Keweenaw Heritage Sites are closed during the winter. Keweenaw National Historical Park staff is primarily based in park headquarters in Calumet, Michigan. Interpretation of the Calumet Unit is a partnership with Keweenaw Heritage Sites. Implementation of potential alternatives may affect staffing levels, logistics and costs for maintenance and interpretation at Keweenaw National Historical Park; therefore, this topic will require further analysis in this document.

Impact Topics Considered But Eliminated from Further Analysis

Geology

Surficial geology in the region underlying the Calumet area of Keweenaw National Historical Park consists of the Portage Lake lava series, Nonesuch shale, Copper Harbor conglomerate, and Freda sandstone.[11] These Portage Lake volcanics are composed of pre-Cambrian andesites and felsites, as well as basalts.[12] Copper filled the cavities and pore spaces of the geologic features forming the largest deposit of copper in the world. The proposed action would not disturb the geologic resources of the area; therefore, further analysis of geology is not required in this document.

Soils

According to the United States Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS), there are nine soil types representing six soil series within the Calumet

[11] NPS, *Final General Management Plan and Environmental Impact Statement, Keweenaw National Historical Park.*

[12] Michigan Technological University website http://www.geo.mtu.edu/ .

Unit.[13] The most dominant soils include Udipsamments and Udorthents, nearly level and Urban land Udorthents-Udipsamments complex gently sloping. These soils account for 85 percent of the Calumet Unit soils, and are well drained to excessively well drained sandy soils. Other soils in the Calumet Unit include Lupton and Cathro mucks, Histosols and Aquents, Trimountain soils; and Kalkaska-Waiska sands.

Because proposed cultural landscape treatment alternatives would result only in short-term, direct negligible impacts, further analysis of soils is not required in this document. Nevertheless, all soil disturbing activities are subject to applicable regulations, including the National Pollutant Discharge Elimination System (NPDES) and Stormwater Pollution Prevention Plan (SWPPP) requirements, such as implementation of NPS Best Management Practices (BMPs).

Prime and Unique Farmlands

In August 1980, the Council on Environmental Quality (CEQ) directed that Federal agencies assess the effects of their actions on farmland soils classified by the USDA NRCS as prime or unique. Prime or unique farmland is defined as soil that particularly produces general crops including common foods, forage, fiber, and oil seed; unique farmland produces specialty crops such as fruits, vegetables, and nuts. According to USDA data, there are no prime or unique farmland soils within the Calumet Unit.[14]

Active farmland does not currently occur within the Calumet Unit or near the area of potential impacts by the proposed cultural landscape alternatives. The proposed cultural landscape alternatives are exempt from the requirements of the Farmland Protection Policy Act because there is no prime farmland associated with the cultural landscape project area, and there are no potential impacts that would directly affect wetland areas associated with agriculture. Consequently, this topic will not be analyzed further in this document.

Wildlife

NEPA requires federal agencies to use all practicable means to restore and enhance the quality of the human environment and to avoid or minimize all possible adverse effects of their actions upon the environment. NPS policy is to protect the components and processes of naturally occurring biotic communities, including the natural abundance, diversity, and ecological integrity of plants and animals.[15]

Treatment actions are expected to result in loss of wildlife in an amount proportional to the amount of habitat lost, which would be minimal. The project area has been previously affected through years of disturbance, primarily in the form of land development for the Village of Calumet and Calumet Township. Wildlife adapted to disturbed and partially disturbed habitats that are likely to occur in the Calumet Unit include several mammals, least chipmunk, house mouse, red squirrel, raccoon, coyote, and white-tailed deer, and birds including mourning dove,

[13] United States Department of Agriculture website, http://websoilsurvey.nrcs.usda.gov/app/.
[14] Ibid.
[15] U.S. Department of the Interior, National Park Service, *Management Policies* (Washington, DC,2006).

northern flicker, American crow, black-capped chickadee, American robin, European starling, chipping sparrow, song sparrow, and house sparrow.[16]

Wildlife in the area is habituated to human activity and noise, or has departed the area entirely. Larger wildlife are likely to avoid a project area to a certain extent during construction activities. During construction, some small animals, like rodents, may be killed or forced to relocate to areas outside a project area. Overall, populations of affected species might be slightly and temporarily lowered during construction, but no permanent negative effects to wildlife are anticipated. Any treatment alternative may have short-term, negligible, localized, adverse impacts on wildlife therefore; this topic is not addressed further in this document.

Special Status Species

The Endangered Species Act (ESA) of 1973 (16 USC 1531 et seq.) requires examination of impacts on all federally-listed threatened, endangered, and candidate species. Section 7 of the ESA requires all federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of listed species or critical habitats. In addition, the NPS *Management Policies 2006* and Director's Order 77 *Natural Resources Management Guidelines* require the NPS to examine the impacts on federally-listed, endangered and candidate species, as well as state-listed threatened, endangered, candidate, rare, declining and sensitive species.

Special status species and their habitats were evaluated based on species presence and the potential effects of actions related to treatments to the cultural landscape at the Calumet Unit. For this analysis, the USFWS and the Michigan Department of Natural Resources and Environment (MDNRE) were contacted. Table 1-1 lists species that are known within Houghton County, MI.

[16] United States Department of the Interior, National Park Service, *Fire Management Plan for Keweenaw National Historic Park* (February 3, 2005); Allen Kurta, *Mammals of the Great Lakes Region* (Ann Arbor, MI: University of Michigan Press,1995); and United States Geological Survey website, http://www.mbr-pwrc.usgs.gov/bbs/.

Table 1-1
Federal and State Listed Species Known in Houghton County, Michigan

Common Name	Scientific Name	Federal Status / State Status[1]
Plants		
Climbing Fumitory	*Adlumia fungosa*	— / SC
Wild Chives	*Allium schoenoprasum*	— / T
Walking fern	*Asplenium rhizophyllum*	— / T
Northern Reedgrass	*Calamagrostis lacustris*	— / T
Purple Clematis	*Clematis occidentalis*	— / SC
Douglas's Hawthorn	*Crataegus douglasii*	— / SC
Laurentian Fragile Fern	*Cystopteris laurentiana*	— / SC
Fragrant Cliff Woodfern	*Dryopteris fragrans*	— / SC
Blue Wild-rye	*Elymus glaucus*	— / SC
Farwell's Water-milfoil	*Myriophyllum farwellii*	— / T
Butterwort	*Pinguicula vulgaris*	— / SC
Satiny Willow	*Salix pellita*	— / SC
Torrey's Bulrush	*Scirpus torreyi*	— / SC
Northern Ragwort	*Senecio indecorus*	— / T
New England Violet	*Viola novae-angliae*	— / T
Animals		
Lake Sturgeon	*Acipenser fulvescens*	— / T
American Bittern	*Botaurus lentiginosus*	— / SC
Gray Wolf	*Canis lupus*	E / —
Cisco or Lake Herring	*Coregonus artedi*	— / T
Kiyi	*Coregonus kiyi*	— / SC
Peregrine Falcon	*Falco peregrinus*	— / E
Common Loon	*Gavia immer*	— / T
Wood Turtle	*Glyptemys insculpta*	— / SC
Bald Eagle	*Haliaeetus leucocephalus*	— / SC
Canada Lynx	*Lynx canadensis*	T / —
Bigmouth Shiner	*Notropis dorsalis*	— / SC
Osprey	*Pandion haliaetus*	— / SC
Sauger	*Sander canadensis*	— / T
Eastern Box Turtle	*Terrapene carolina carolina*	— / SC

[1] E= Endangered; T= Threatened; SC= Species of Special Concern
Source: Michigan Natural Features Inventory, December 10, 2010 and USFWS, January 26, 2011.

For Federally-listed species, the USFWS Region 3 Section 7 Consultation website was reviewed on January 25, 2011 to determine the presence of federally-listed species in Houghton County, Michigan. According to the list, species and critical habitat may be present in the county for Canada lynx (*Lynx canadensis*), gray wolf (*Canis lupis*), pitcher's thistle (*Cirsium pitcherii*), and Eastern prairie fringed orchid (*Plantathera leucophaea*). Because the project area is urban and habitat for the listed species is not present, the project would have no effect on the Canada lynx, pitcher's thistle, or Eastern prairie fringed orchid.

For the gray wolf, the project is not likely to adversely affect this species. Wolves may be disturbed from noise during the project implementation, but the disturbances will be temporary and wolves will likely avoid the area during the project implementation activities. Only a small area of land—which is an urban area—would be impacted when compared with the total area available for wolf foraging and breeding activities in the Upper Peninsula of Michigan. Further, wolf prey availability and populations are unlikely to be affected by the project.

The Michigan Natural Features Inventory has indicated that there are occurrences of a state-listed species of concern (Douglas' hawthorn-*Crataegus douglasii*) within Houghton County and possibly within Keweenaw National Historical Park. There is no known record of this species within the Calumet Unit. In addition, there are no known records of any other state-listed species (Table 1-1) in the Calumet Unit.

The topic of special status species is dismissed from further analysis in this document. Section 7 consultation includes USFWS review of the draft report.

The Calumet Unit of Keweenaw National Historical Park is a combination of urban development and heavily disturbed landscape from decades of urban growth associated with mining activities. Although landscape modifications are likely to be proposed, any landscape modifications will be in the already urbanized area of the Village of Calumet and Calumet Township.

Water Resources

Wetlands

Section 404 of the Clean Water Act (CWA) and Executive Order 11990 requires federal agencies to avoid impacts to wetlands whenever possible. Further, the NPS Management Policies 2006, section 4.6.5, Wetlands and DO-77-1 (Wetland Protection) provide guidelines for development proposed in wetlands, which includes a sequenced approach. Based on the policy, the NPS employs a sequence of:

a) Avoiding adverse wetland impacts to the extent practicable,
b) minimizing impacts that could not be avoided, and
c) compensating for remaining unavoidable adverse wetland impacts via restoration of degraded wetlands.

Furthermore, the state of Michigan Department of Environmental Quality (DEQ) under the authority of the Wetland Protection Act, Part 303 of the Natural Resources and Environmental Protection Act, MCL 324.30301 et seq., also regulates impacts to wetlands within the state.

Calumet was developed on a high point with topography sloping away in all directions from the town center. However, according to the USFWS National Wetlands Inventory mapping for the area, wetlands are present in the southwest portion of the study area bounded on the west by Osceola Road and a railroad and traversed by Swedetown Road.[17] These wetlands are impoundments with their flow to the west possibly hindered by the north-south oriented Osceola Road and railroad. The wetlands are open water ponds and other wetlands vegetated by an assemblage of emergent, scrub-shrub, and forested vegetation.

Impacts to wetlands can include losses of functions and values, diversion of contributing water sources, vegetation removal, dredging, filling, and conversion to non-natural land cover. The proposed action does not involve wetland impacts as described above, and federal or state wetland permits are not foreseen to be needed. Therefore, wetlands are not addressed further in this document.

Floodplains

Executive Order 11988 (Floodplain Management) directs Federal agencies and their actions to avoid, to the extent possible, the long-term and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. Although low-lying portions of the study area abut Calumet Lake, the Federal Emergency Management Agency (FEMA) has not mapped 100-year floodplains in the vicinity of the Calumet Unit.[18] Also, the proposed action does not entail filling or excavating of lowlands that could be potential floodplains as defined by Executive Order 11988. Therefore, floodplains are dismissed from further analysis in this document.

Water Quality

Section 404 of the Clean Water Act also requires federal agencies' actions to avoid impacts to other waters of the United States, which includes lakes, ponds, streams, and rivers. According to the United States Geological Survey (USGS) topographic quadrangle for Ahmeek and Laurium, Michigan and the National Wetlands Inventory mapping by the USFWS, two ponds are depicted within the Calumet Unit at the northeast corner of the intersection of Osceola Road and Swedetown Road. There are no mapped streams or rivers within the Calumet Unit.[19]

Michigan DEQ under the authority of the Shorelands Protection and Management Act, Part 323 of the Natural Resources and Environmental Protection Act, MCL 324.30301 et seq., regulates impacts to coastal areas within the state. Coastal areas are defined as occurring within 1,000 feet landward from the ordinary high water mark of a Great Lake or a connecting waterway. Within this zone, the Act places emphasis on areas at high risk for erosion and flooding. Although ponded areas are mapped within the project area, any proposed treatment alternative would have negligible adverse impacts ponds, lakes, streams, or rivers and consequently water quality is dismissed from further analysis in this document.

[17] http://www.fws.gov/wetlands/Data/Mapper.html

[18] http://gis1.msc.fema.gov/Website/newstore/viewer.htm.

[19] USGS Topographic Quadrangle maps for Ahmeek and Laurium quadrangles and http://www.fws.gov/wetlands/Data/Mapper.html

Air Quality

The 1970 Clean Air Act, as amended in 1990 (42 U.S.C. 7401 et seq.), requires federal land managers to protect park air quality, while the 2006 NPS *Management Policies* address the need to analyze air quality during park planning. The 1970 Clean Air Act provides that the federal land manager (the Assistant Secretary for Fish and Wildlife and Parks and the Park Superintendent) has an affirmative responsibility to protect the park's air quality related values (including visibility, plants, animals, soils, water quality, cultural and historic resources and objects, and visitor health) from adverse air pollution impacts. Section 118 of the 1970 Clean Air Act requires the park to meet all federal, state, and local air pollution standards. Section 176(c) of the 1970 Clean Air Act requires all federal activities and projects to conform to state air quality implementation plans to attain and maintain national ambient air quality standards.

Keweenaw National Historical Park does not conduct air quality monitoring. The effects of air pollution on the park's natural resources and historic structures are unknown. A Fire Management Plan addresses air quality and various means to mitigate smoke impacts from prescribed fires.[20] If fires are prescribed as part of any treatment alternatives, the prescribed burns will be conducted within the guidelines of the Fire Management Plan.

According to the US Environmental Protection Agency (EPA), Michigan has no non-attainment areas for carbon monoxide, nitrogen dioxide, one-hour ozone, sulfur dioxide, particulates (and <10 micrometers), and lead.[21] As of June 2007, nine counties in the state are in non-attainment for the eight-hour ozone and seven counties are in non-attainment for the < 2.5 micrometers particulates standards. However, Houghton County is not among the counties in non-attainment for these two criteria. Consequently, Keweenaw National Historical Park does not occur within any areas of non-attainment for criteria air pollutants, and therefore this subject will not be further analyzed.

Local air quality would be temporarily affected by dust and vehicle emissions during the period of construction for any cultural landscape alternative. Operating equipment during this period would result in increased vehicle exhaust and emissions. Hydrocarbons, nitrous oxide, and sulfur dioxide emissions would be rapidly dissipated by air drainage since air stagnation is rare in the park vicinity. To reduce equipment emissions, the park would apply appropriate mitigating measures limiting idling of motorized vehicles.

Fugitive dust plumes from equipment would intermittently increase airborne particulates in the area near the construction sites, but loading rates are not expected to be significant. To partially mitigate these effects, project construction activity can be coupled with water sprinkling to reduce dust.

Overall, there would be negligible, short-term, adverse impacts to local air quality due to dust generated from motorized equipment. These effects would last only as long as the life of the project so local and regional air quality is unlikely to be affected by any of the alternatives. Therefore, air quality is dismissed from further analysis in this document.

[20] NPS, *Fire Management Plan for Keweenaw National Historic Park.*
[21] United States Environmental Protection Agency website, http://www.epa.gov/air/data/nonat.html?st~MI~Michigan.

Hazardous Materials

A federal and state database search was conducted for the Calumet Unit and adjacent areas.[22] A total of 51 records were obtained within the search area, which would be the expected amount when searching an entire town the size of Calumet and Calumet Township. The machine shop for the C & H mine at 9 Mine Street is listed as a Comprehensive Environmental Response Compensation and Liability Act (CERCLA) site. The records show that there was an emergency removal and clean up of over 1,600 containers of hazardous material at that site in 2007. Three federally-designated brownfield sites [including the Mihelich Rendering Building (two sites) and the Erkkila Building on 5th Street] were listed on the database search. Eighteen Resource Conservation and Recovery Act (RCRA) generator sites were listed in the study area. These sites are mainly automobile service stations, utility facilities, and governmental sites. Nine State/Tribal Leaking Underground Storage Tank (LUST) sites and twenty State/Tribal Underground Storage Tanks (USTs) and/or Above-Ground Storage Tanks (AST's) were also listed. No National Priority List [(NPL), a.k.a. Superfund] sites were identified in this database search.

Any site where the presence of hazardous materials is considered to be in question would be attempted to be avoided in developing treatment alternatives; however if any potentially hazardous sites are within an area designated for treatment, all appropriate measures will be taken to mitigate hazardous working conditions. Park staff would adhere to appropriate NPS policies and directives, Michigan EPA, and Occupational Safety and Health Administration (OSHA) safety precautions for workers at the project sites. These actions are required of any treatment alternative that is considered for the site. Therefore, this topic is dismissed from further analysis in this document.

Indian Trust Resources

Secretarial Order 3175 requires any anticipated impacts to Indian trust resources from a proposed project or action by Department of Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights and it represents a duty to carry out the mandates of federal law with respect to American Indian and Alaskan Native tribes.

There are no Indian trust resources at the park. The lands comprising the park are not held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Therefore, the topic of Indian trust resources is dismissed from further analysis in this document.

Ethnographic Resources

Impacts associated with ethnographic resources typically deal with questions about contemporary groups or peoples, their identity, and their heritage. As defined by the NPS, an ethnographic resource is a site, structure, object, landscape, or natural resource feature assigned traditional, legendary, religious, subsistence or other significance in the cultural system of a group. The Keweenaw Bay Indian Community has identified no sacred Indian sites on the

[22] First Search Technology Corporation. *Environmental First Search Report for Calumet, Michigan* (February 4, 2011).

subject federal lands.[23] At this time the NPS has no knowledge of any other traditionally affiliated organizations or groups.

Copies of this CLR / EA will be sent to the Keweenaw Bay Indian Community and any other interested tribes for their review and comment. If the tribes subsequently identify the presence of ethnographic resources, appropriate mitigation measures would be undertaken in consultation with the tribes. Also, the park has requested an Ethnographic Overview and Assessment be completed for Keweenaw National Historical Park. In the unlikely event human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during implementation of the proposed action, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990 and Executive Order 13007 would be followed (25 USC 3001). Therefore, Ethnographic Resources is dismissed from further analysis in this document.

Museum Collections

Keweenaw National Historical Park has an extensive museum collection. The *draft Collection Management Plan* will be finalized in 2012. It provides guidance for managing the park's collections and the establishment of a multi-park museum collection storage facility at Keweenaw NHP. The plan indicates that Keweenaw NHP facilities will provide storage for non-exhibited/non-MWAC collections of Isle Royale National Park, Pictured Rocks National Lakeshore, and possibly some of the Apostle Islands National Lakeshore collections.

As of August 2011, there are 501,167 items in the collection, stored in two locations. The two facilities are the Keweenaw History Center and Warehouse No. 1. The park has a draft *Historic Structure Report for the Keweenaw History Center* (2008) and completed a *Historic Structure Report* (HSR) for Warehouse No. 1 in December 2011. The report includes recommendations for improvements to the collection's processing and storage.

The park is upgrading collections facilities primarily to improve preservation standards per the NPS *Checklist for the Preservation and Protection of Museum Collections*. The checklist is the tool used by the agency to measure the level of care provided to collections. In addition, the upgrades will provide more capacity for collections.

Although the park's collections continue to grow, it is not anticipated that implementation of any treatment alternative would result in a large number of new items that require storage and curation in the park's museum collections. During the preparation of the HSR for Warehouse No. 1, park staff stated that recommended improvements to Warehouse No. 1 would accommodate collections storage. Implementation of any treatment alternative would result in negligible impacts to museum collections. Therefore, this topic is dismissed from further analysis in this document.

[23] United States Department of the Interior, National Park Service, *Environmental Assessment and Finding of No Significant Impact for Fire Management Plan for Keweenaw National Historic Park.*

Soundscape Management

In accordance with *NPS Management Policies 2006* and Director's Order #47, *Sound Preservation and Noise Management*, an important part of the NPS mission is preservation of natural soundscapes associated with national park units. Natural soundscapes exist in the absence of human-caused sound. The natural ambient soundscape is the aggregate of all natural sounds that occur in park units, together with the physical capacity for transmitting natural sounds. Natural sounds occur within and beyond the range of sounds that humans can perceive and can be transmitted through air, water, or solid materials. The frequencies, magnitudes, and duration of human-caused sound considered acceptable varies among NPS units, as well as potentially throughout each park unit, being generally greater in developed areas and less in undeveloped areas.

Human-caused noise that is experienced at the developed areas of the park is what a visitor would expect from a small town. Visitors would likely expect to hear sounds from vehicle traffic and general "white noise" emanating from an urban area. Construction associated with any treatment alternative would be consistent with the normal background noise of a small town and would only occur during the length of construction resulting in short-term, negligible adverse impact to the soundscape of the Calumet Unit. Therefore, soundscape management is dismissed from further analysis in this document.

Lightscape Management

In accordance with *NPS Management Policies 2006*, the NPS strives to preserve natural ambient landscapes, which are natural resources and values that exist in the absence of human-caused light. Keweenaw National Historical Park is located within a small town setting which includes lighting associated with streets, businesses, and small neighborhood residential areas. No extensive, new or modified sources of light are anticipated with the proposed action, therefore, lightscape management is dismissed further analysis in this document.

Terminology

This section includes definitions of terminology used in the report.

Character area	An area defined by the physical qualities (such as vegetation, topography, and views) of a cultural landscape and the type and concentration of cultural resources present.
Character-defining feature	A prominent or distinctive aspect, quality, or characteristic of a cultural landscape that contributes significantly to its physical character. Land use patterns, vegetation, furnishings, decorative details and materials may be such features.
Component landscape	A discrete portion of the landscape which can be further subdivided into individual features. A component landscape may be individually eligible for listing on the National Register.
Cultural landscape	A geographic area (including both cultural and natural resources and the wildlife or domestic animals therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.
Cultural landscape report	The primary management document for cultural landscapes within the National Park Service. A cultural landscape report documents the history and existing conditions of a cultural landscape, evaluates its significance according to the Secretary of the Interior's standards, and provides design and management recommendations for the property.
Environmental Assessment	An assessment of the possible positive or negative impact that a proposed project may have on the environment, together consisting of the environmental, social and economic aspects.
Feature	The smallest element(s) of a landscape that contributes to the significance and that can be the subject of a treatment intervention.
Historic character	The sum of all visual aspects, features, materials, and spaces associated with a cultural landscape's history. These qualities are often referred to as character-defining.
Historic designed landscape	A landscape that was consciously designed or laid out by a landscape architect, master gardener, architect, engineer, or horticulturist according to design principles, or an amateur gardener working in a recognized style or tradition. The landscape

	may be associated with a significant person, trend, or event in landscape architecture; or illustrate an important development in the theory and practice of landscape architecture. Aesthetic values play a significant role in designed landscapes.
Historic vernacular landscape	A landscape that evolved through use by the people whose activities or occupancy shaped it. Through social or cultural attitudes of an individual, a family, or a community, the landscape reflects the physical, biological, and cultural character of everyday lives. Function plays a significant role in vernacular landscapes.
Historic site	A landscape significant for its association with a historic event, activity or person.
Integrity	The authenticity of a property's historic identity, evinced by the survival of physical characteristics that existed during the property's historic or prehistoric period. The seven qualities of integrity as defined by the NR program are *location, setting, feeling, association, design, workmanship,* and *materials.*
NEPA	National Environmental Policy Act of 1969
Significance	The meaning or value ascribed to a cultural landscape based on the NR criteria for evaluation.
Vernacular	Term used to categorize methods of construction which use locally available resources and traditions to address local needs. These resources tend to evolve over time and reflect the environmental, cultural and historical context in which they exist.

CHAPTER II:
LANDSCAPE HISTORY

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Chapter II: Landscape History

Geological Development of the Keweenaw Peninsula

The landscape history of the Calumet unit is directly linked to the geological forces that formed the physical landscape of the region. The process that formed the geology of the Keweenaw dates back 1.1 billion years ago. The crust of the earth thinned and molten rock exploded from the earth's core onto the surface where it spread and solidified. This process occurred repeatedly for twenty-five million years depositing layer upon layer of dark basalt on the surface. Between the layers of basalt, levels of sand, rock, and pebbles combined to form conglomerate deposits. Geological changes continued and a series of compressions, faults, and uplift led to the formation of the Lake Superior basin. The edges of the basin in the Keweenaw were formed of rock layers that were exposed through the process of uplift, creating high ground. Native copper is found in many of the rim's exposed edges.[1]

The copper was leached from deep within the earth in a hot liquid form under pressure that forced it into fractures, fissures, and porous rock. The presence of three types of cavities resulted in three forms of native copper known as conglomerate, amygdaloid, and mass copper deposits. *Conglomerate* copper is found in sedimentary rock; *amygdaloid* copper is found in basalts, and is almond shaped; and *mass* copper consists of large deposits found in fissures and fractures in the earth.[2] The settlement of copper within the earth was followed by a period of glaciation that lasted from 1.8 million years ago until about ten thousand years ago. Glacial activity scoured the surface of the earth, occasionally scraping up large pieces of copper and moving them across the landscape before depositing them upon the surface of the ground. These are referred to as *float* copper and they were the first specimens of copper discovered by humans.[3]

Indigenous Use

The Keweenaw Peninsula hosts one of the oldest known copper-working sites in North America, dating to the early Holocene. Prior to the 1800s, almost all copper used by American Indians in the eastern portion of the United States was obtained from the Lake Superior basin.[4] Although historic activity has resulted in extensive ground disturbance at the Calumet unit, evidence of American Indian activities in the area has yet to be systematically investigated, and could offer additional information about indigenous land use in the Upper Great Lakes. Scholars have speculated that there may have been as

[1] Larry Lankton, *Hollowed Ground: Copper Mining and Community Building on Lake Superior, 1840s-1990s* (Detroit: Wayne State University Press, 2010), 8-9.
[2] Ibid., 8.
[3] Ibid., 9.
[4] John R. Halsey, "Miskwabik—Red Metal: Lake Superior Copper and the Indians of Eastern North America," *Michigan History* (Sept./Oct. 1983), 32-41.

many as 3,000 aboriginal mining pits on the Keweenaw Peninsula prior to the arrival of European explorers.[5]

The majority of information available regarding indigenous activities at the Keweenaw focuses on copper mining.[6] While this focus is of pertinence to the development of the copper mining industry that evolved on the peninsula, recent work focusing on a more holistic understanding of the activities of indigenous people in the Lake Superior region can be drawn upon to broaden our understanding of indigenous land use. Tim Cochrane's recently published ethnohistorical work concentrates on north shore Ojibwe, and provides a new perspective on the lifeways of these early inhabitants of the region. He clarifies the importance of mobility in facilitating the use of particular landscapes on a seasonal basis for hunting, trapping, fishing, gathering of natural resources such as maple sugar, sweetgrass, and mining. This perspective encourages a shift in focus from seeking evidence of specific habitation and use sites to developing an expanded understanding of lifeways and land use across the regional landscape.[7]

The Lake Superior basin is dotted with archeological sites dating as early as 8000 years before present (B.P.), when hunters survived on abundant herds of caribou, bison, elk, and moose. Evidence indicates that people were present in the Keweenaw shortly following the retreat of the last glacier. An archeological site located in northern Keweenaw County containing copper beads, a crescent-shaped knife, awls, and a point, has been dated to 7,800 B.P.[8]

The first recognizable human culture in the Lake Superior basin is the Plano tradition. Information regarding the lifeways of the Plano tradition in the area is incomplete due to the limited resources that have been discovered.[9] During the late Archaic period, the Superior basin cultures developed a more diversified material culture, a broader subsistence base, and larger populations. Local subsistence strategies were intensified and relationships between neighboring cultural groups were more structured. Groups exchanged information and raw materials, including copper. The "Old Copper Culture" began as early as 4,950 B.P. and continued until about 3,150 B.P. The center of distribution was in northeastern Wisconsin; however, related artifacts are found distributed widely beyond the core. The artifacts associated with this culture include the most varied assortment of copper items from any time in Upper Great Lakes culture. They include spearheads, knives, gaffs, adzes, awls, beads, and hooks.[10] These hunters lived in the forests along the shores of the Great Lakes basin. Their main source of food

[5] Ron Morton and Carl Gawboy, *Talking Rocks: Geology and 10,000 Years of Native American Tradition in the Lake Superior Region* (Minneapolis, MN: University of Minnesota Press, 2000), 92.
[6] Lankton, *Hollowed Ground* ; Susan R. Martin, *Wonderful Power: The Story of Ancient Copper Working in the Lake Superior Basin* (Detroit, MI: Wayne State University Press, 1999), 183-214; and Halsey, "Miskwabik-Red Metal," 32-41.
[7] Timothy Cochrane, *Minong: The Good Place, Ojibwe and Isle Royale* (East Lansing, MI: Michigan State University Press, 2009).
[8] Martin, *Wonderful Power*, 142. B.P. is used herein to indicate the time "before present" using 1950 as the standard for the present date.
[9] Caven P. Clark, *Archeological Survey and Testing at Isle Royale National Park, 1987-1990 Seasons*, 4-7.
[10] Ibid., 7-8.

was a wide variety of game, which they hunted using weapons they made from stone and copper. The copper tools were especially useful and concentrated efforts were made to obtain the mineral. The copper was sought and laboriously mined when it was located. American Indians sunk pits in the ground using primitive tools identified as hammerstones to break away the bedrock surrounding the mineral deposits.[11]

Large copper deposits were present in the region, including Ontario and Michigan's Keweenaw Peninsula and Isle Royale. The early miners applied a simple process wherein copper deposits were identified through surface exploration, then separated from the surrounding rock using large beach stones as hammers. Some lucrative sites were worked for several generations, with pits being dug over twenty feet deep to follow the vein of copper. These mine pits were excavated throughout the Ontonagon and Keweenaw regions of the Upper Peninsula of Michigan, and also at Isle Royale.[12]

The Initial Woodland substage in the Lake Superior basin is essentially the Laurel culture. Laurel has a geographical range from the northern plains across the Superior basin, dating from about 2,950 B.P. to 1,250 B.P.[13] During the Hopewellian period, Lake Superior tribes continued to find a steady demand for copper among neighboring groups.[14] Evidence of Lake Superior basin copper is widely distributed among areas to the south during the Middle Woodland substage.[15]

During the Terminal Woodland substage, extending from ca. 1,250 B.P. to contact with Europeans around the middle of the seventeenth century, increasing numbers of local groups emerged and a wide variety of styles were developed. There was a high rate of interaction and trade among the many groups, who were extremely mobile. Hunting, mining and trading continued into the late 1500s and early 1600s, ending just prior to the arrival of Europeans in the region. By this time, the presence of Europeans on the continent was affecting American Indian societies. Diseases and economic changes led to alterations in traditions, and may have influenced the activities at the Keweenaw. [16]

Between 1660 and 1690, the French presence in the Upper Great Lakes grew and missions, forts, and trading centers were constructed. A growth in the presence of French trappers and traders in the Upper Great Lakes affected the American Indian population, eventually leading to increased hostilities between local groups. As American Indian groups acclimated to the European-directed trade economy, conflicts related to the acquisition of furs, fur bearing territories, and/or strategic positioning as middlemen between the French and other local groups caused intense hostility.[17]

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[11] Larry Lankton, *Cradle to Grave: Life, Work, and Death at the Lake Superior Copper Mine*, (New York: Oxford University Press, 1991), 6-7; and Theodore J. Karamanski and Richard Zeitlin with Joseph Derose, *Narrative History of Isle Royale National Park*, (Chicago: Mid-American Research Center, Loyola University of Chicago), February 1988, 6-20.
[12] Karamanski and Zeitlin, *Narrative History of Isle Royale*, 7-20.
[13] Clark, *Archeological Survey*, 6-8 and 166.
[14] Karamanski and Zeitlin, *Narrative History of Isle Royale*, 13-14.
[15] Clark, *Archeological Survey*, 6-8 and 166-167.
[16] Ibid., 6-9; and Karamanski and Zeitlin, *Narrative History of Isle Royale*, 13-14.
[17] Clark, *Archeological Survey*, 15.

Although the first detailed map of Lake Superior was published in 1672 (see Figure II-1), it does not accurately depict major land features in the vicinity.

Early History: the Arrival of the Ojibwe

The following section was taken from the Quincy Mine Historic Landscape Cultural Landscape Report and Environmental Assessment.[18]

The Ojibwe have been identified with the Keweenaw and the Great Lakes for centuries. Before the Ojibwe arrived, the Menomini controlled the Upper Peninsula of Michigan.[19] The Menomini's neighbors were the Ojibwe to the east, Winnebago to the south, and Dakota, Fox, Kickapoo, and Mascouter to the west. The Cree dominated lands north of Lake Superior. Although each was a distinct cultural group, they had in common a semi-nomadic way of life, occupying seasonal villages as hunters, fishers, and harvesters of wild rice. By 1608, maps indicate that territories had shifted, largely in response to displacement caused by Europeans acquiring – or appropriating – land, and the impact of European diseases on Native populations. That displacement saw the Ojibwe move into the U.P. in the 16th century, forcing the Menomini south.

The Ojibwe are an Algonquian-speaking people who once occupied more territory than any other Native group in North America. Also known as Chippewa, the Ojibwe emerged from an earlier, ancestral group called the Anishinabe ("original person"), whose homeland was present-day New Brunswick, Canada. [20] Anishinabe and Ojibwe are at times used interchangeably, but Anishinabe may also be used to refer specifically to the ancient ancestral Ojibwe.[21] Individual bands were identified by distinct names, such as the Amikwa, Saulteur, Marameg, and others; then and now, they were united through networks of clans. The Ojibwe likely arrived at the eastern end of Lake Superior some time during the late 1400s, and settled Spirit Island, Wisconsin during the 1500s. Conservative estimates date permanent Ojibwe occupation of the western Great Lakes by the mid-to-late 1500s.[22]

[18] *Quincy Mine Historic Landscape: Cultural Landscape Report and Environmental Assessment* (Calumet: Keweenaw National Historical Park, 2010), 6-9. Authors of the Landscape History chapter of the Quincy report are Jo Urion and Steve DeLong.
[19] Helen Hornbeck Tanner, ed. *The Settling of North America: the Atlas of the Great Migrations into North America from the Ice Age to the Present* (New York: Macmillan, 1995), 31.
[20] M. Nieves Zedeño et al., "Final Report: Traditional Ojibwe Resources in the Western Great Lakes: An Ethnographic Inventory in the States of Michigan, Minnesota, and Wisconsin," (University of Arizona in Tucson, Bureau of Applied Research in Anthropology, 2001), 27.
[21] Zedeño et al., "Final Report," 26-27. According to Morton and Gawboy, the form one uses depends on the subject: 'Ojibwe' when discussing cultural things, 'Chippewa' in political and formal contexts, and Anishinabe 'is what the Ojibwe call themselves, one Ojibwe to another.' See Morton and Gawboy,*Talking Rocks*, 67.
[22] Zedeño et al., "Final Report," 28-29.

A major pre-contact trade center existed at present-day Sault Ste. Marie; it peaked between 950 and 500 B.P.[23] Given its location at a crossroads where three Great Lakes come together, researchers have suggested that thousands of people congregated there several times a year. Copper was likely one of the many items being traded and we can assume that the Keweenaw's residents participated in these gatherings. Raw copper changed hands, as did bracelets, beads, knives, and other finished items. Extensive trade networks facilitated the dispersal of Keweenaw copper: it has been argued that "[n]early all of the copper used by prehistoric Indians in eastern North America probably originated in the Lake Superior basin."[24]

Historic Ojibwe culture revolved around acquiring and preserving enough food during the summer to support themselves through harsh winters.[25] In late fall, they built up stores of wild rice, maple sugar, and dried fish and game. Bands split into family units and traveled to winter hunting camps, which passed down from father to son.[26] After setting up camps, men trapped and hunted large game. Women sewed, repaired fishing nets, and worked on other indoor tasks. In spring, the bands moved to maple sugar camps and made birch bark canoes before reuniting for the summer in large villages close to lakeshores and rivers. There, they fished, gathered plants, and gardened; potatoes and pumpkins were popular vegetables.[27] Medicinal plants and berries were harvested in August, as was wild rice. In early fall, men would go duck hunting and trapping, make preparations to winter camps, and the cycle would repeat.

In the 1650s, Ojibwe informants told French explorers, priests, and traders that their ancestors were not the Keweenaw's ancient copper miners.[28] This is to be expected, as their arrival in the upper peninsula has been dated to the 16th century and mining had been occurring for thousands of years before. Yet copper had undeniable significance in Ojibwe culture: 17th century Jesuit missionaries documented the Ojibwe's spiritual beliefs about the metal as well as the places it was found.[29] Records also confirm the spiritual importance of copper in the 19th century. It was carried in medicine bundles, and was particularly valued and revered. Considered a sacred gift, offerings would be left when copper was removed from the ground.[30] Johann G. Kohl, a German traveler who lived with the Ojibwe during the mid-1800s, noted that explorers and traders would ask the Ojibwe for the locations of metal deposits.[31] Given the number of artifacts that

[23]Tanner, *The Settling of North America*, 28.
[24] Halsey, "Miskwabik – Red Metal," 2.
[25] Zedeño et al., "Final Report," 42-43. Unless otherwise indicated, all ethnographic information comes from the Ojibwe ethnography prepared by Zedeño et al.
[26] Morton and Gawboy, *Talking Rocks*, 73. That winter territory was inherited indicates that while land was occupied seasonally, its ownership and use was determined through longstanding sociopolitical frameworks. Therefore, it is logical to assume that the Keweenaw, as with other Ojibwe-controlled territories, was associated with certain families and bands during the winter.
[27] Ibid.,71.
[28] Arthur Thurner, *Strangers and Sojourners: A History of Michigan's Keweenaw Peninsula* (Detroit: Wayne State Press, 1994) 20.
[29] Zedeño et al., "Final Report," 66.
[30] Ibid., 67.
[31] Ibid., 67. Given the spiritual importance copper had in Ojibwe culture, it is not surprising that they did not always reveal locations to Europeans and Americans. In fact, the Jesuits admit to having used "artifice"

have been found in Historic Period archaeological sites, other Native groups continued to value copper for its practical and ornamental applications.[32] Regardless, new enterprises in the 17th century drew attention to a much different resource.[33]

The Fur Trade

In 1621 the French explorer Samuel Champlain sent Etienne Brule on a mission to learn the Ojibwe language and build trading relationships with the many independent Ojibwe bands.[34] By the mid 1600s the Ojibwe had allied themselves with the French and were well-engaged in the fur trade. The Keweenaw was certainly rich territory: in 1659, the explorers and traders Radisson and Groseilliers paddled along the south shore of Lake Superior to Keweenaw Bay, where they encountered an industrious population of beavers, pieces of native copper, and a convenient, well-established portage route that made traveling across the lake much easier.[35] Ten years later, Jean Talon, the man in charge of the colony of New France (French Canada, founded by Champlain), sent Louis Joliet to "find the copper mine from which pieces of pure copper had been brought." Although he failed to locate it, his journey was one among many which opened the door for French priests to establish thriving missions around Lake Superior.[36]

The resources of the Superior basin factored greatly in the Ojibwe's success in the fur trade. They established permanent communities, with key locations at La Pointe and Keweenaw Bay;[37] another settlement is believed to have existed on the shores of Portage Lake although its location remains unclear.[38] The creation of these settlements transformed Ojibwe society from "mobile bands into village-centered sociopolitical

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in order to learn from the Ojibwe "secret[s] which they did not wish to reveal." See Volume LIV, Chapter XI, "Of the Copper Mines Which are Found in Lake Superior," accessed online at http://puffin.creighton.edu/jesuit/relations/.

[32] Much like historians, who organize the past into time periods of similar cultures and events in order to aid our understanding of the past (for example, the Middle Ages, the Renaissance, and the Gilded Age), archaeologists divide prehistory into a chronology of traditions based on similarities and differences in materials found at archaeological sites. Traditions are further divided into phases. Broadly speaking, the Paleo-Indian tradition begins approximately 9500 years before present (BP), and leads into various stages of the Archaic tradition (roughly 8000 BP) and the Woodland tradition (some 2000 BP). During the Historic tradition (which began approximately 500 BP), many of the First Nations we know today were established. See Martin, *Wonderful Power,*142.

[33] *Quincy Mine Historic Landscape: Cultural Landscape Report and Environmental Assessment*, 6-10.

[34] Carl O. Sauer, *Seventeenth Century North America* (Berkeley, CA: Turtle Island, 1980), 121. See also Russell M. Magnaghi, *A Guide to the Indians of Michigan's Upper Peninsula* (Marquette, MI: Belle Fontaine Press, 1984), 1.

[35] Sauer, *Seventeenth Century North America*, 123. According to Radisson, the beavers had felled so many trees that there was not enough fuel to build a fire. The portage route is followed to this day, but by watercraft through the Portage Lake Shipping Canal instead of on foot via an overland trail.

[36] Ibid., 132-133. One of the early missions included Saint-Esprit, which was established by Father Claude Allouez in 1655 for the Ottawa and Huron living at Chequamegon Bay in 1665. Father Rene Menard, another Jesuit missionary, unsuccessfully tried to establish a mission at Keweenaw Bay in 1661. See Magnaghi, *A Guide to the Indians of North America*, 2-3.

[37] Zedeño et al., "Final Report," 30.

[38] Burt's survey drawing identifies "Indian clearings" on the north shore of Portage Lake, near the current day site of the Quincy Smelting Works.

entities."[39] Their success initiated other changes, including challenges: the Iroquois, allies of the British, began encroaching on Ojibwe territory in the mid 1600s, sparking a war which the Ojibwe eventually won in 1662.[40] Events of the 17th and 18th century are characterized by war, threats of war, and the growing complexities of expanding trade networks. [41]

Treaties and American Mining

Nineteenth century records that document ancient mine sites indicate that prehistoric inhabitants knew the area well. The Portage Lake waterway that provides today's travelers with a shortcut across Lake Superior provided the same benefit thousands of years ago, albeit with a portage; it follows that people got to know the area they traveled through. As the Ojibwe settled in the area in the 16th century, they too traversed and explored the area, becoming familiar with its resources.[42]

British explorer Alexander Henry attempted to start a mine near Ontonagon in the 1770s. Although early efforts such as his were "doomed to failure," they drew attention to the Keweenaw's native copper resources.[43] The Ontonagon Boulder, a 3,700 pound mass of pure copper found near the banks of the Ontonagon River, further intensified interest in the Keweenaw, particularly after it was taken east in 1843. In addition to mining and trading copper, the Peninsula's early residents played a role in the fur trade. Priests and preachers came to minister to the Ojibwe and early European-American settlers. As the fur trade waned, the federal government secured title to the land, American mining efforts intensified and settlements became permanent.

In the course of prospecting in 1847, the Minesota [sic] Mining Company found a six-ton mass of copper at the bottom of a twenty-six foot deep ancient shaft.[44] The mass was supported by timber bracing, and had been worked extensively. The labor, tools, and technology required to extract copper from such a depth is indicative of a specialized mining system. Extraction was straightforward. Fire was used to heat copper-rich rock, and when it got hot enough, water was poured over it. This cracked the encasing rock to the point where stone tools could be used to break it away and remove the copper.[45] The hammers used by prehistoric miners ranged in size from small hand-held tools to others weighing forty pounds.[46] People cleared debris from work sites using wooden shovels, baskets, and leather bags. Some pits were modest in size, reaching only a few feet deep,

[39] Zedeño et al., "Final Report," 30.
[40] Ibid., 32.
[41] *Quincy Mine Historic Landscape: Cultural Landscape Report and Environmental Assessment*, 6-10.
[42] While ethnographic research has been conducted with Great Lakes Ojibwe, work with the Keweenaw Bay Indian Community needs to be completed to understand its history more fully.
[43] Lankton, *Cradle to Grave*, 7.
[44] Naturally, Minesota [sic] personnel removed the boulder. See Lankton, *Cradle to Grave*, 10.
[45] Many sources describe these techniques. See Halsey, Martin, and Thurner's *Strangers and Sojourners* for a broader discussion. Charles W. Whittlesey in "Ancient Mining on the Shores of Lake Superior," *Smithsonian Contributions to Knowledge* (Vol. 13, Contribution No. 155, Washington DC), pp. 1-29 also provides location-specific details.
[46] Halsey, "Miskwabik –Red Metal," 115.

but others were much larger, including one fifteen feet deep with a diameter of 120 feet.[47] Stores of raw copper were kept in caches; one such cache was said to have led to the discovery of the Calumet conglomerate lode.[48]

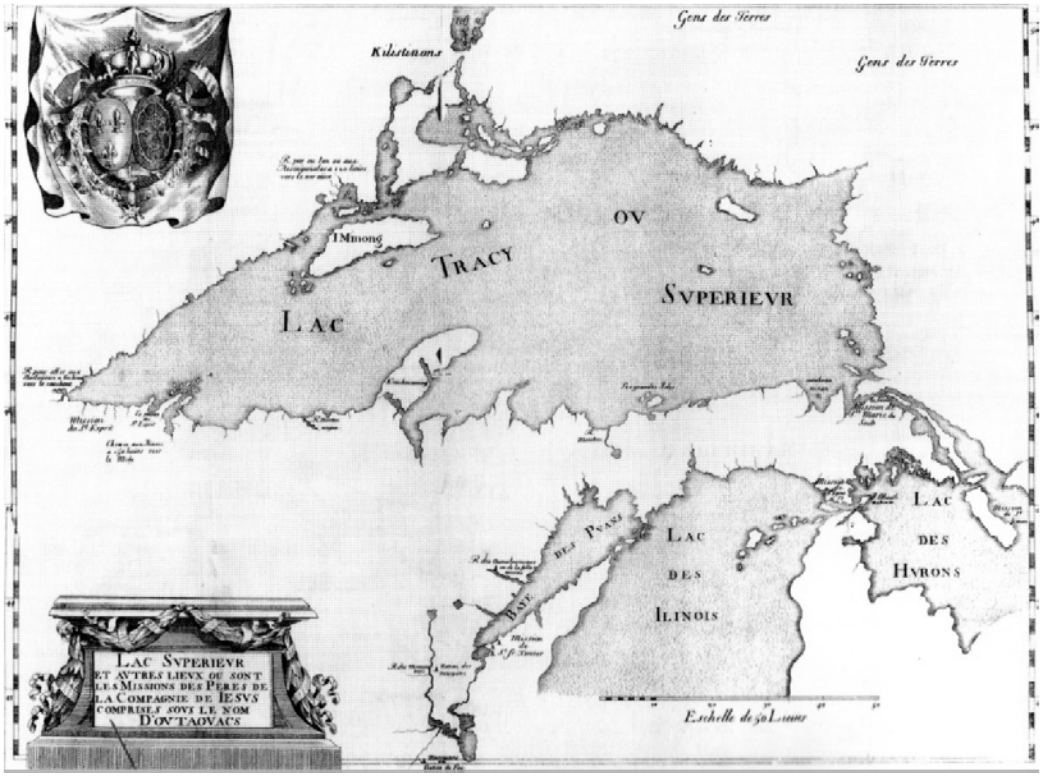


Figure II - 1: First detailed map of Lake Superior, 1672
(source: Gale and Gale, 1995, 10)

[47] Whittlesey, "Ancient Mining on the Shores of Lake Superior," 6. Unfortunately, he did not provide its location.

[48] Thurner, *Strangers and Sojourners*, 90. Edwin Hulbert, who staked claim to the Calumet conglomerate in 1864, denied later reports that it was in fact an ancient mine, not a cache.

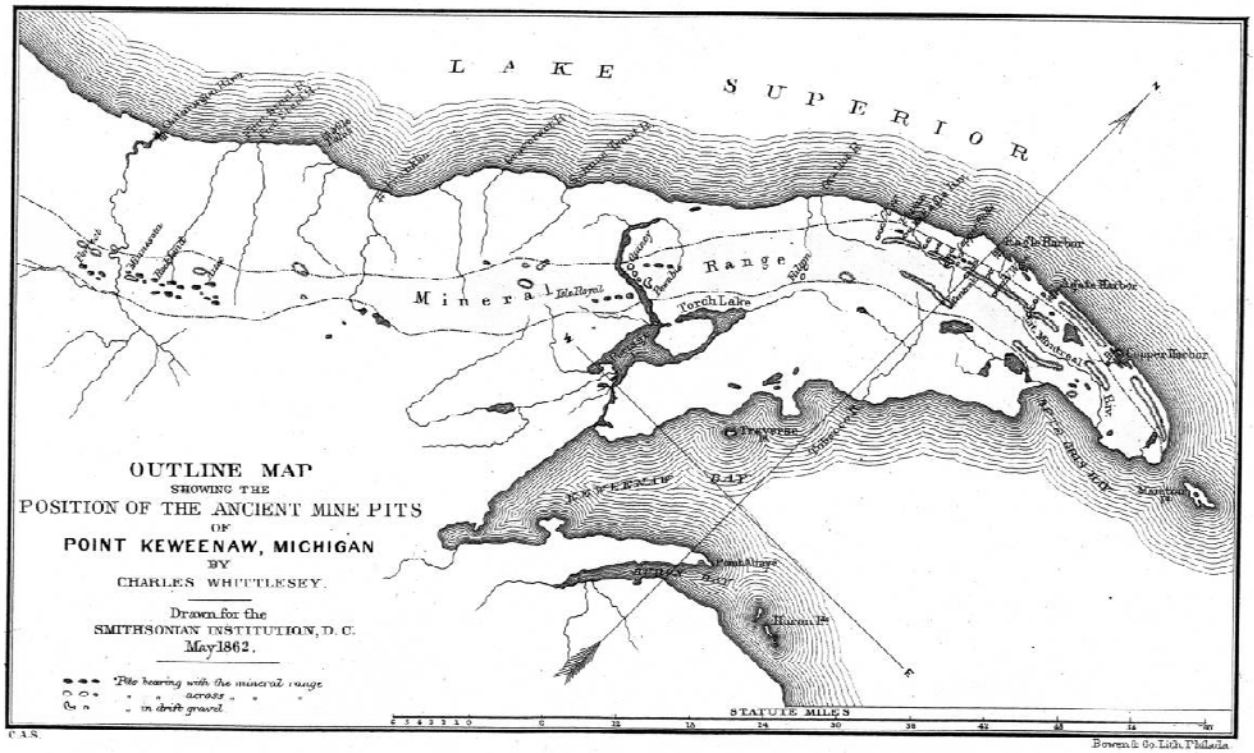


Figure II - 2: Locations of indigenous mines in the Keweenaw, mapped by Charles Whittlesey, 1862 (source: Whittlesey, 1863)

1840s – 1870 First Copper Boom and Establishment of C&H

Keweenaw Copper Boom

In 1840, Douglass Houghton, acting as the state geologist for Michigan, surveyed the copper deposits of the Keweenaw. Although cautious in nature, Houghton's 1841 report to the state legislature provided exciting news for prospectors regarding the extent of mineral resources in the region. Enthusiasm grew to a fever pitch in 1843 when three events heightened interest in the area: the Treaty of LaPointe went into effect, a mineral land office was opened at Keweenaw Point, and the Ontonagon Boulder was taken to the east coast. "Copper fever" took hold of the region and thousands of miners were drawn to the area. Between the 1840s and the 1860s at least 300 mining operations were launched as miners staked claims and initiated digging, often obliterating American Indian workings in the process.[49] In fact, miners sought out American Indian mine sites as indicators of promising copper deposits. A map prepared in 1862 illustrates known locations of indigenous mines in the Keweenaw, see Figure II-2.

During this period, "explorers and speculators flocked to [the Keweenaw] from all quarters, and in 1845 the shores of Keweenaw Point were whitened with their tents."[50]

[49] Lankton, *Cradle to Grave*, 9.
[50] Whittlesey, "Ancient Mining on the Shores of Lake Superior," 4.

The United States government established Fort Wilkins near Copper Harbor in 1844. Infantry were on hand to keep the peace. The land office received over 700 requests for permits to explore for minerals by 1845. There was no accurate land survey and the permit system was not patrolled. As a result, speculation and corruption were widespread.[51]

Origins of the Calumet and Hecla Mining Company (Industrial Corridor)—1840s-1870

The Calumet Conglomerate lode was discovered by surveyor Edwin Hulbert, who surveyed the upper portion of the peninsula for a wagon road in 1858-59. Hulbert discovered promising specimens of copper in a pit which he originally suspected was an ancient Indian digging at the top of a copper lode. In reality, the pit Hulbert found was a hidden cache of copper that had been extracted elsewhere. The pit was situated directly above the mineral deposit that would eventually be renowned as the Calumet Conglomerate copper lode.[52]

Hulbert formed the Hulbert Mining Company and, with funds from Boston capitalist backers, began to purchase promising mineral land in the Keweenaw. The Civil War interrupted activity for a few years, but in 1866 Hulbert formed the Calumet Mining Company to develop the lode in the Calumet area. Later the same year the Hecla Mining Company was incorporated. Although nominally separate companies controlling separate properties, they had the same leadership and were mining the same lode.[53] The Calumet location was developed to the north of Red Jacket Road and the Hecla location was developed to the south of the same road . Shafts for each location were numbered starting with number one being the first and closest to Red Jacket Road. Shaft numbers for the Calumet location increase moving toward the northeast and shaft numbers for the Hecla location increase as they extend toward the southwest.

Initial attempts at mining by Hulbert used an open-pit approach that was neither organized nor successful. Huge open pits were sunk into the mineral lode, with no attempts made to support the walls or roof. This work would have had a tremendous impact on the landscape.[54]

Despite his initial discovery and development of the Calumet Conglomerate lode, Hulbert did not remain in control for long. His Boston-based investors were frustrated with the lack of early profits and sent one of their own, Alexander Agassiz, to the Keweenaw to evaluate Hulbert's work. By 1867 Hulbert was replaced by Agassiz who became the

[51] David J. Krause, *The Making of a Mining District: Keweenaw Native Copper, 1500-1870* (Detroit, MI: Wayne State University Press, 1992, 138 and 140.
[52] Lankton, *Hollowed Ground*, 75-76.
[53] Ibid., 75-77.
[54] Agassiz, G. R., ed. *Letters and Recollections of Alexander Agassiz with a Sketch of his Life and Work* (Boston: Houghton Mifflin Company, 1913), 58-65.

resident agent of the company.[55] In 1867 the first mine office building was developed on the east side of Mine Street northeast of Red Jacket Road.

During these early years of development, Mine Street was the central hub for development. The corridor included a great variety of uses. There were commercial establishments including stores providing dry-goods, meats, hardware, a bank, and a school, hospital, and churches, all tightly interwoven with miners housing, mine management facilities and extensive industrial development. Other elements in the landscape included outbuildings, expansive stockpiles of lumber, a variety of types of fences, elevated tram roads, dirt roads and paths, standing timber and evidence of cutover areas (see Figure II-3). Living and working along Mine Street included the sounds, smells, and vibrations associated with mining. Homes and businesses would shake when railroad cars rolled by, large amounts of timber were moved, monumental structures were erected, and holes were blasted underground. Unpaved roads meant dirt and dust were ubiquitous in the community.

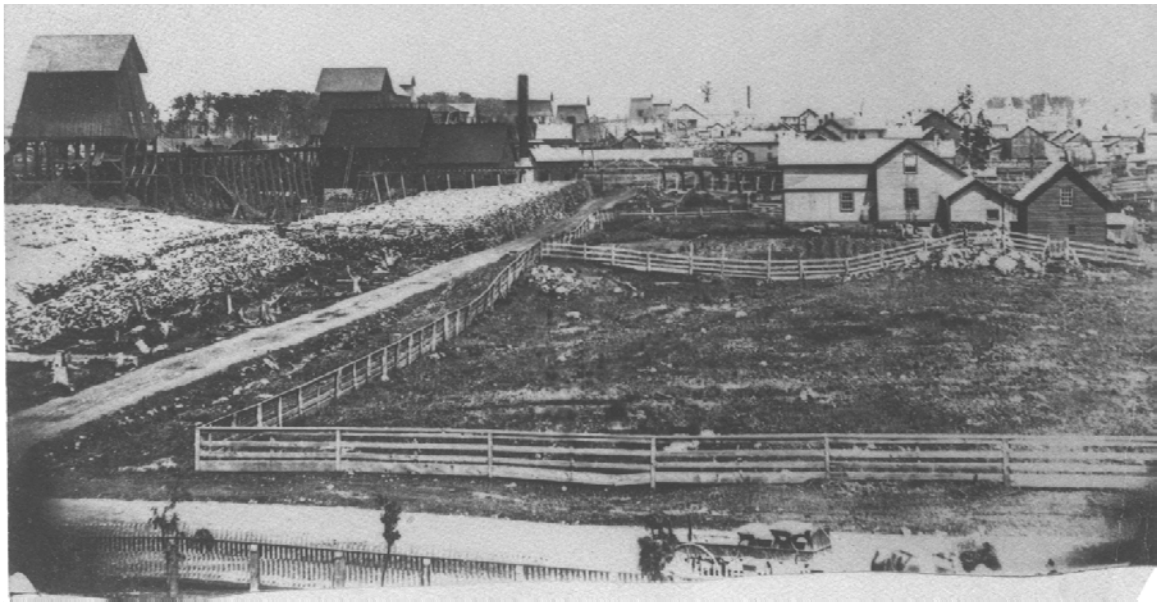


Figure II - 3: Mine Street looking north, ca. 1875 (source: NPS, Keweenaw NHP, Coppertown collection, Box 20, Folder 36, Mines, Mills, Smelters)

[55] Lankton, *Hollowed Ground*, 76-77.

Railroads and Transportation—1840s-1870

Travelling and transporting materials to and from Calumet was extremely challenging. Transportation of mine products between Calumet and the portage at Hancock utilized wagons or sleighs pulled by workhorses or oxen. Soon after its establishment, the Hecla mining company began using steam locomotives to transport materials between its various mines and mills.[56]

In 1873 the first regional railroad reached Calumet, the Mineral Range Railroad. The route included connections to Hancock, Calumet, and later, Lake Linden and Gay. The Hancock and Calumet line was also established in 1873. By 1877 the Copper Range Railroad connected from Ontonagon County to Chicago, Milwaukee and St. Paul (see Figure II-4). These developments, and others, helped to establish easier transportation and access to supplies for people living and working in Calumet.[57]

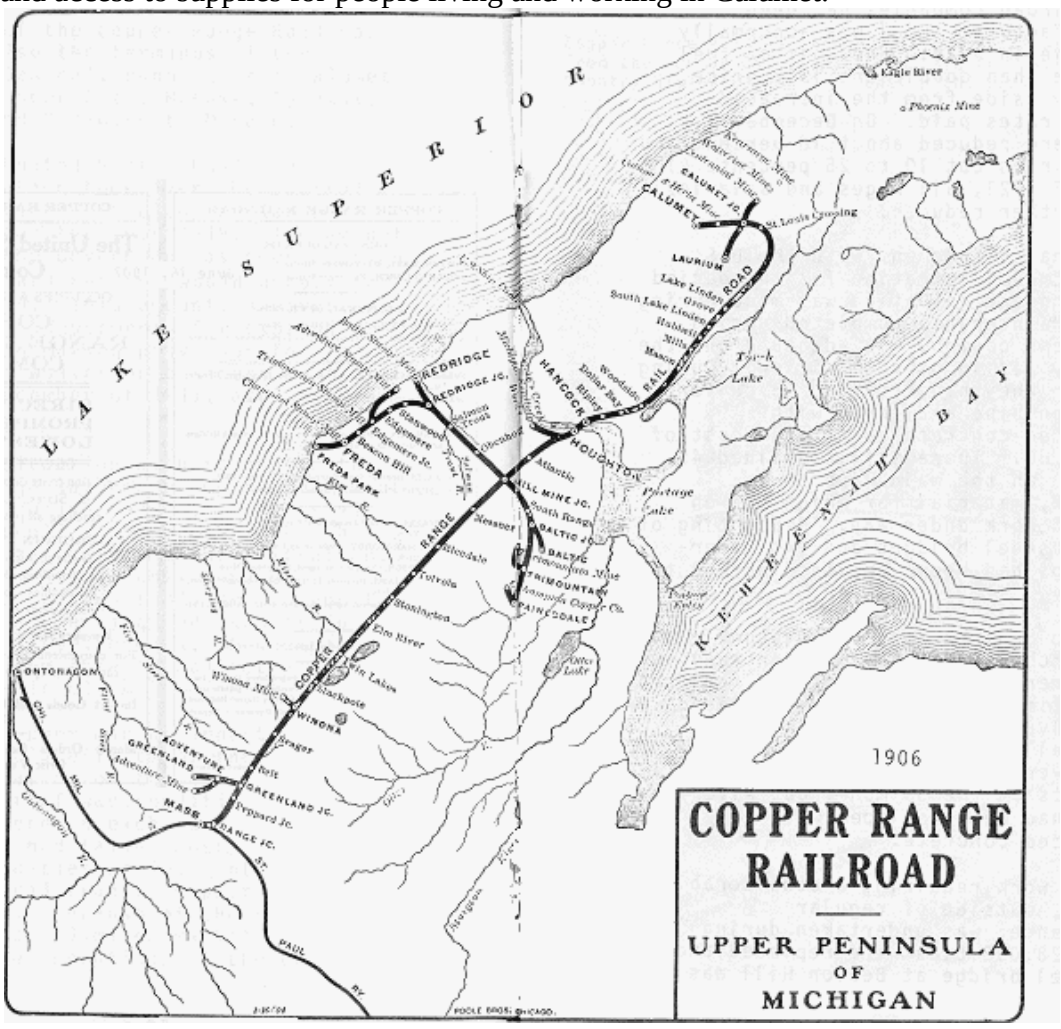


Figure II - 4: Copper Range Railroad System Map, 1906
(source: http://www.copperrange.org/map.gif accessed 1/28/2012)

[56] Ibid., 69.
[57] www.copperrange.org, accessed 28 January 2012.

The Village of Red Jacket (later Village of Calumet)—1840s-1870

By the mid 1860s, the village of Red Jacket (later Calumet) had been platted on a 90 acre L-shaped plot, and the first wood-framed structures were constructed to house the miners working the lode.[58] Hulbert played an important role in the establishment of the village. He selected the level landscape west of the Calumet Conglomerate lode as the location for a commercial district that would serve the needs of the local miners and their families. Being a surveyor by trade, Hulbert possessed the skills necessary to plat the village. He did so using an ordinal (or north-south oriented) grid upon which the property lines and streets were laid. This differed from the development that occurred along the industrial spine of the area, which was oriented at an angle that corresponded to that of the underground copper deposit (see Figure II-7, Period of Change Plan, 1866-1870). The two juxtaposed grids clearly indicated the departure from company owned land to privately owned land in the Calumet area.

The village streets were graded dirt and boardwalks were provided at some storefronts for pedestrians (see Figure II-5). The majority of the original buildings in the village of Red Jacket were constructed of wood. On 17 May 1870 a devastating fire engulfed much of the downtown. The fire originated on the west side of downtown and "the flames travelled eastward, eating their way through the woods and underbrush that bordered close to the village limits." There were old slashings near the intersection of Elm and Sixth Streets that erupted when the fire reached them. The fire proceeded through the village at a quick pace. The two blocks between Elm and Portland Streets, the main developed areas of the village, were completely leveled. The village did not have a formal fire fighting organization, so attempts to halt the blaze were made by individuals with water buckets. At least one building was saved by covering it with wet blankets.[59]

The village was quickly re-built over the summer of 1870. Although some of the new buildings were constructed of fire resistant materials, for the sake of expediency and cost many were reconstructed of wood frame. A fire department established before the end of the year was housed in a new brick building that also served as the Town Hall (see Figure II-8).

[58] Lankton, *Hollowed Ground*, 75-77.
[59] *Calumet News*, 17 May 1921. A summary of the article is recorded in an image located in the Keweenaw NHP archives, Curto Album 12, #001.



Figure II - 5: Fifth Street, 1875 (source: courtesy of Dave Sprenger)



Figure II - 6: Birds eye view of Calumet, Hecla and Red Jacket, facing northwest, 1871. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #016)

Worker Housing—1840s-1870

The mine operations required large numbers of workers that had to be imported to this remote location. Mine companies attracted workers by offering adequate wages and amenities including housing, health care and schools.[60] The paternalistic approach of the Copper County mine companies had a definite effect upon the landscape.[61] Housing constructed for workers covered large areas of the landscape with small-scale residential structures closely spaced and associated with streets, outbuildings and other necessary features. The large number of workers necessary to operate the mines, and the small scale of the majority of the residences, resulted in a large portion of the landscape being dedicated to this use. By the end of this period worker housing locations were developed at Blue Jacket, Hecla, and Calumet (see Figure II-7, 1866-1870 Period of Change Plan). Houses in these areas were often constructed as groups utilizing a typical design. The uniform scale, set-back, spacing, materials, and workmanship of these buildings created a strong sense of character at each location. Figure II-6 is a birds-eye view of the community in 1871. Uniform rows of houses can be seen along the streets.

[60] Alison K. Hoagland, *Mine Towns: Buildings for Workers in Michigan's Copper Country*, (Minneapolis, MN: University of Minnesota Press, 2010), ix.

[61] The topic of paternalism among the Keweenaw mine companies is covered in several publications including: Hoagland, *Mine Towns;* Lankton, *Cradle to Grave;* Lankton, *Hollowed Ground;* Thurner, *Strangers and Sojourners*; and Arnold R.Alanen and Katie Franks, *Remnants of Corporate Paternalism: Company Housing and Landscapes at Calumet, Michigan* (Calumet, MI: Keweenaw National Historical Park, 1997).

Next page:
Figure II - 7: Calumet Period of Change Plan, 1866-1870

Sources for Figure II-7: Calumet Period of Change Plan, 1866-1870

- Lithograph, Birds Eye View of Calumet, Hecla and Red Jacket, 1871 (NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #016)

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

1866-1870 Period of Change Plan

Chronology

1859

Edwin Hulbert discovered a Native American copper carbonite cache in the area.

1866

Calumet Mining Co. founded.

1867

First Mine Office building developed on Mine Street.
Calumet Mill established at Calumet Lake.

1870

Red Jacket Fire destroys much of Fifth and Sixth Streets in the Village of Red Jacket.

During this period, Mine Street was the most important developed corridor including a wide mix of uses including industrial, housing, and commercial. Locations of a few known commercial establishments are indicated, but many more existed.



Legend

- (A) Calumet Rock House
- (B) Hecla Rock House
- (C) Calumet Mill
- (D) Blue Jacket Housing Location
- (E) Hecla Housing Location
- (F) Calumet Housing Location
- (G) Calumet Hotel, 1870
- (H) First Mine Office
- (I) School

Key

- NPS Unit Boundary
- Calumet Conglomerate lode (surface location)
- Formal/Informal Roads
- Historic Railroad Line
- Active Mine Area/Industrial Landscape
- Developed Properties in Village of Red Jacket (later Village of Calumet)
- Woodlands
- Housing Location
- * Commercial Business

Map Notes

1. Locations of elements on plan are aproximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.
2. Mineral lodes are indicated on diagrams only for periods during which they were actively mined.

Created/Revised

June 2012

QUINN EVANS ARCHITECTS

Figure II-7



Figure II - 8: Old Red Jacket Fire Department and Town Hall, 336 Fifth Street, Red Jacket/Calumet, ca. 1880 (source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 8, #011)

1871 – 1889 Calumet and Hecla Mining Company's Initial Years

By 1889, the Calumet area was highly developed, including eighteen shafts along the Calumet Conglomerate lode, associated mine buildings, railroad tracks, utility corridors, and areas for stockpiling materials needed for the mining activities, all within the industrial core of the landscape. In addition, the Village of Red Jacket was thriving, with over 1,000 residents. Multiple residential areas, referred to as housing locations, were established, including Blue Jacket, New Town, Hecla, Calumet, and Raymbaultown. The 1871 to 1889 Period of Change Plan, illustrated in Figure II-9, indicates major developments present upon the landscape during this period. There were a number of mining companies in the vicinity whose activities impacted the regional landscape. The focus of this report is on the Calumet Unit of Keweenaw NHP and information included herein is limited to that directly associated with the development of that specific landscape.

C&H Activities (Industrial Core)—1871-1889

In 1871, the Calumet and Hecla Mining Company (C&H) was formed.[62] Alexander Agassiz became president of the company on 1 August 1871. He remained in that role until his death in 1910. The mines grew quickly and within three years the company was producing over 14 million pounds of ingot copper. This was almost half of the copper production of the entire country.[63] During this period, six shafts were developed on the Calumet location, located northeast of Red Jacket Road. The remaining twelve shafts were located on the Hecla location, southwest of Red Jacket Road . Initially, all mine shafts were exploratory. As the underground area was investigated, the company regularly closed selected shafts and opened new ones as necessary to achieve the most profitable operations. If a shaft proved unproductive, efforts were shifted elsewhere. The buildings associated with unproductive shafts would be removed to make room for other developments.[64]

This was supported by the company's tendency to "overbuild." Rather than building facilities to meet their immediate needs, the company invested in larger facilities that would serve for many decades. They also stayed ahead of their production capacity in identifying and opening up new mining areas, anticipating future needs. The eventual result was the development of the most impressive surface works associated with a mine in the region. A view of the area in 1871 is provided in Figure II-6.

Next Page:

Figure II - 9: Calumet Period of Change Plan, 1871-1889

Sources for Figure II-9: Calumet Period of Change Plan, 1871-1889

- Lithograph, Birds Eye View of Calumet, Hecla and Red Jacket, 1871 (NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #016)
- Map, Calumet and Hecla Mine Location 1886
- Lithograph, Birds Eye View of Calumet, Hecla and Red Jacket, 1881 (NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #015)
- Photo, Old Washington School, 1875 (NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #048)
- Photo, Calumet and Hecla Mining Co. Calumet No. 3 Shaft Mine Fire, 1888 (NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #084, (1~1))
- Photo, Bluejacket Taken from the Smokestack at Calumet, 1885 (NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 5, 019)
- Photo, Calumet and Tamarack Location from Calumet Stack-Isler, 1885 (NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 12, #006)

[62] There were a number of other companies in the vicinity. Future research should address the scope and extent of these companies, and how their activities impacted the landscape.
[63] Lankton, *Hollowed Ground*, 76-77.
[64] Ibid., 80.

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

1871-1889 Period of Change Plan

Chronology

1871

C&H Mining Company formed. Continued efforts to sink 18 shafts. Six shafts were on the northern portion of the property – the Calumet branch. Twelve shafts were on the southern portion – the Hecla branch. (Lankton, HG, 80)

1873

Bird's-eye view of Calumet, Hecla & Red Jacket. Depicts livestock grazing in one corner of the triangular commons that would eventually become Agassiz Park.

1875

Village of Red Jacket officially incorporated over 1,000 residents.

1880

By 1880, the majority of commercial activities are located in Red Jacket and Mine Street is devoted to industrial endeavors.

1881

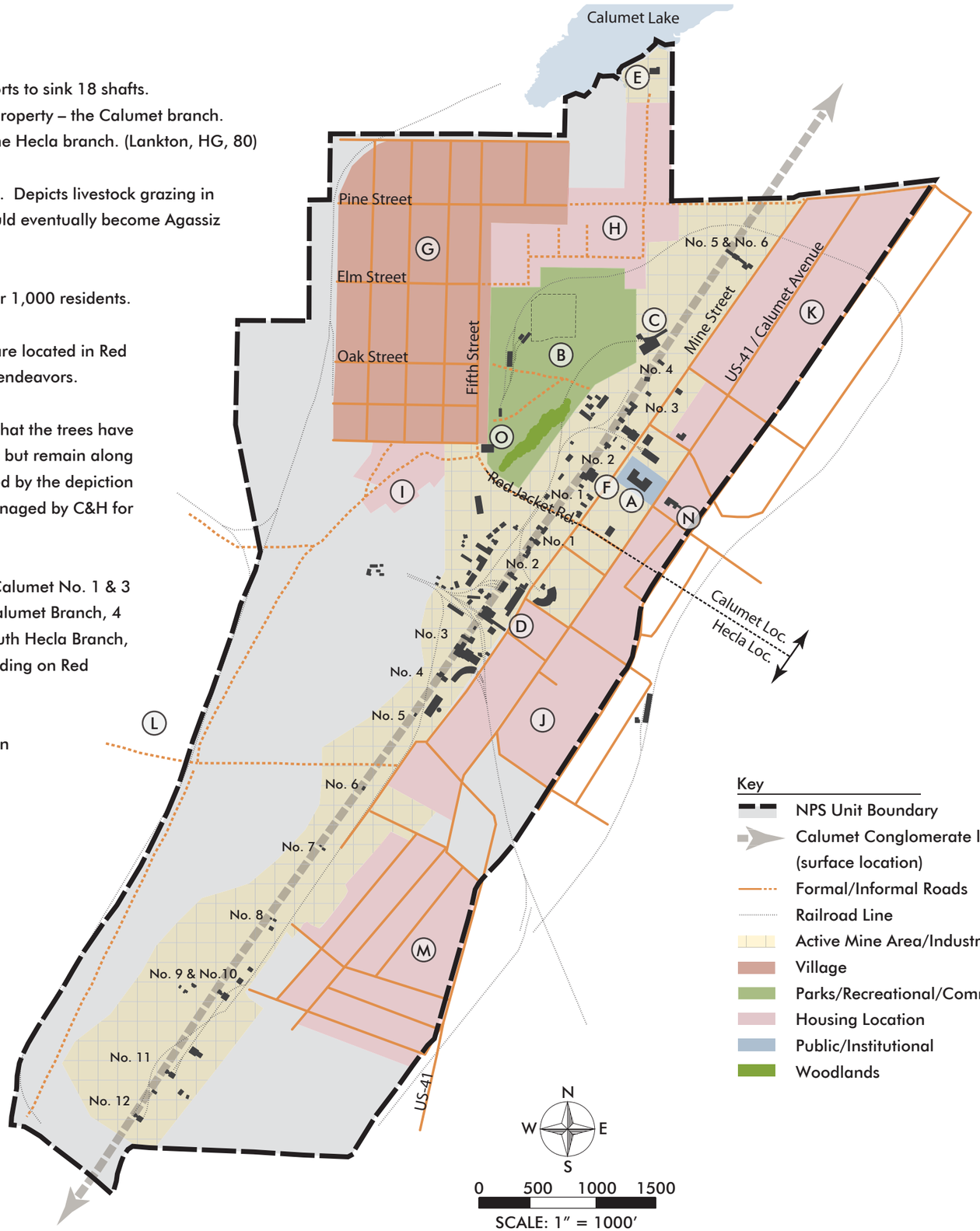
An updated bird's-eye view of Calumet shows that the trees have been removed from the center of the commons but remain along the northern edge. Recreational use is indicated by the depiction of a baseball diamond and the commons is managed by C&H for grazing land.

1887-1888

Fires broke out in the mines. Mine fires close Calumet No. 1 & 3 and Hecla No. 1. After the fires, 3 shafts on Calumet Branch, 4 shafts on Hecla Branch, and 5 shafts on the South Hecla Branch, remained open. C&H constructs new office building on Red Jacket Road.

1889

C&H begins to construct Red Jacket Shaft. Union Building constructred.



Legend

- (A) Old Washington School, 1875
- (B) Commons
- (C) Calumet Rock House
- (D) Hecla Rock House
- (E) Calumet Mill
- (F) Gear House
- (G) Village of Red Jacket (later Village of Calumet)
- (H) Blue Jacket Housing Location
- (I) Newtown Housing Location
- (J) Hecla Housing Location
- (K) Calumet Housing Location
- (L) Swedetown Housing Location
- (M) Raymbaultown Housing Location
- (N) Calumet Hotel
- (O) Union Building

Key

- NPS Unit Boundary
- Calumet Conglomerate lode (surface location)
- Formal/Informal Roads
- Railroad Line
- Active Mine Area/Industrial Landscape
- Village
- Parks/Recreational/Commons
- Housing Location
- Public/Institutional
- Woodlands

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.
2. Mineral lodes are indicated on diagrams only for periods during which they were actively mined.

Created/Revised

February 2012

QUINN EVANS ARCHITECTS

Figure II-9

By 1880, the majority of the non-industrial activities had moved from Mine Street to the Village of Red Jacket. Mine Street was highly developed and functioned as the primary circulation spine of the industrial core of the C&H mining activities (see Figures II-9 through II-10). The route paralleled the Calumet Conglomerate lode, running in a southwest to northeast direction. This alignment was initially established on the surface by the alignment of the shafts along the angle of the lode. Mine Street and the other streets on C&H property were aligned with this common angle, running either parallel or perpendicular to it. Tramroads were constructed at the same angle and tramcars transported rock from the shafthouses to the rockhouses. The two rockhouses were adjacent to railroad lines allowing trains to load material to be conveyed to the stamp mills at Lake Linden. Other industrial structures present included two large engine houses, dry houses, a railroad roundhouse, pumphouses, a compressor building, blacksmith shops, a machine shop, warehouses, man-engine houses, a carpenter shop, and several smokestacks. The earliest versions of many of these buildings were constructed of wood. These were eventually followed by structures built of poor rock from the mine (see Figure II-14). The company's most important structures utilized poor rock and brick (see Figure II-15).[65]



Figure II - 10: Day and night shift of C&H Mine on Mine Street in Calumet, 1874.
(source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 12, #116 and #118)

[65] Lankton, *Hollowed Ground*, 85-86.

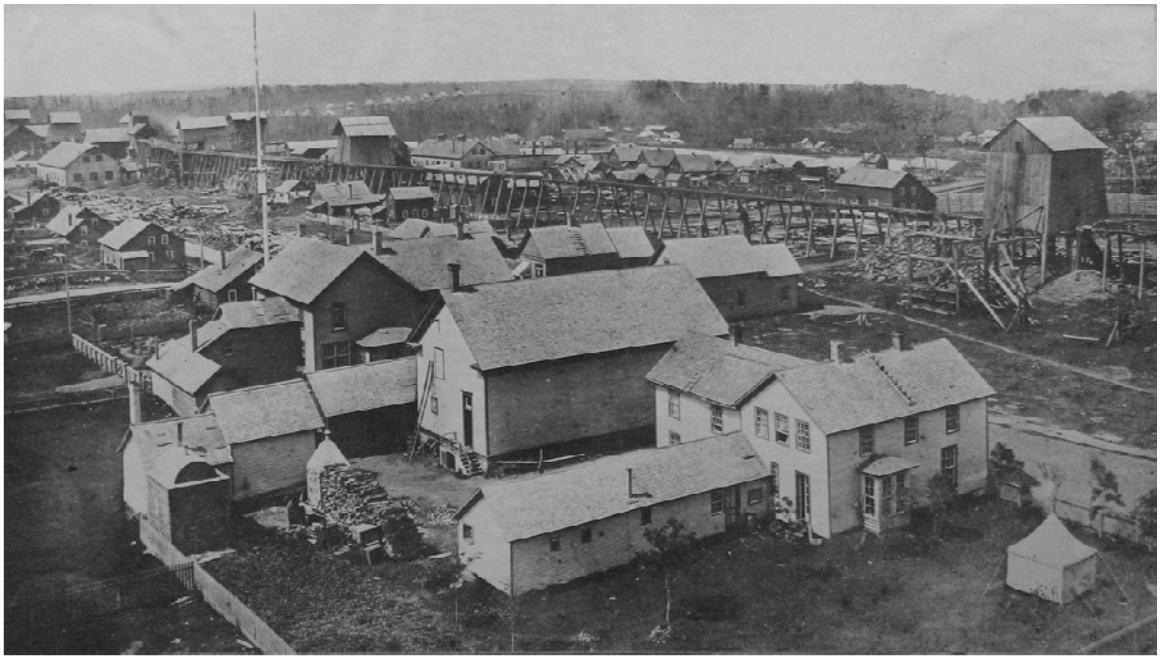


Figure II - 11: Calumet housing adjacent to the industrial works, ca. 1880 (source: Smithsonian, 201001 14 057, Frank Klepetko Album)

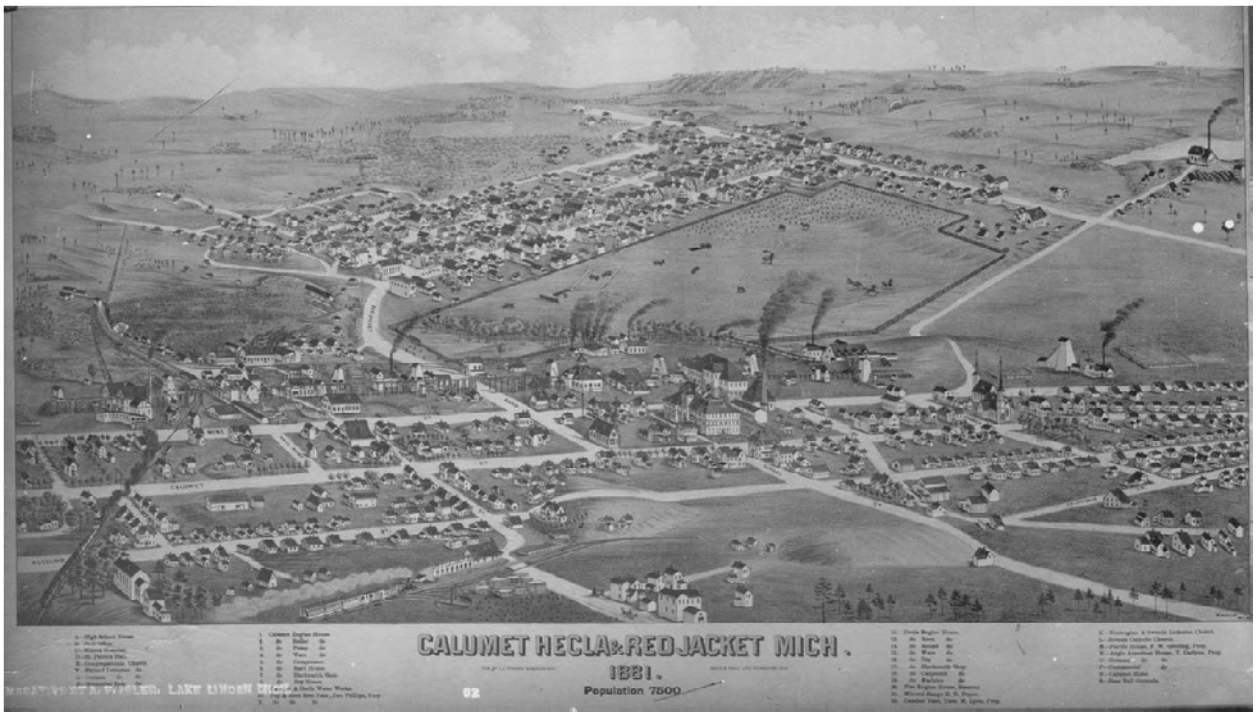


Figure II - 12: Birds Eye View of Calumet, Hecla and Red Jacket, facing northwest, 1881. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #015)



Figure II - 13: Mine Street looking north, 1888. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series II Assembled Albums (002), Book 16, #003; also in Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #406)



Figure II - 14: The general office of the C&H Mining Company was constructed using poor rock from the mines. Note the lawn and fence, ca. 1885. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series II Assembled Albums (002), Album 28, [C&H General Offices] R. Acton)

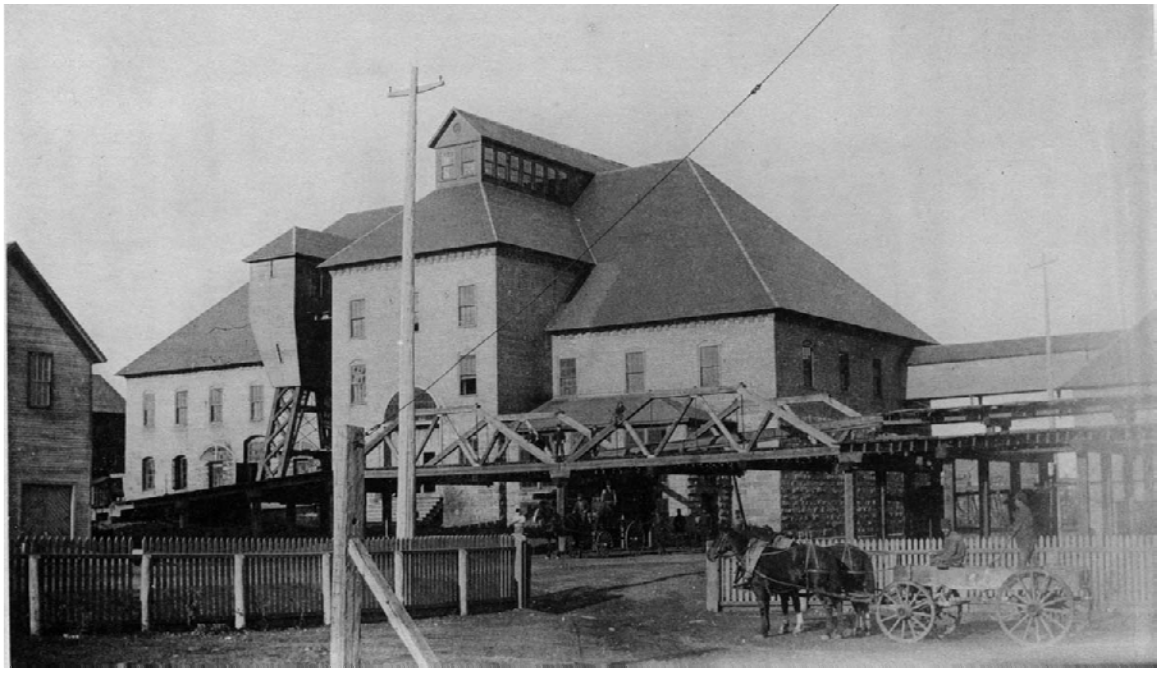


Figure II - 15**: Calumet engine house, containing the celebrated Superior Engine, ca. 1880** (source: NPS, Keweenaw NHP, Jack Foster Collection, Series II Assembled Albums (002), Book 22, #131)

The C&H mine operations had a dramatic effect on the regional landscape, as huge amounts of timber were necessary to support the hanging wall in the mines. Prior to the 1880s, this was achieved using stulls, sections of tree trunks, which were transported across the landscape and down into the mines. The stull was used as a platform braced against the side of the working area of the mine. The miners worked from the stulls up into the stopes. By the mid-1880s square-set timbers (12x12s, 14x14s, and 6x12s milled by the company) were used by C&H. These had mortise-and-tenon connections that were interlocked underground to create a cribwork that supported the hanging wall.[66]

The company purchased large amounts of forested land throughout the Keweenaw and beyond to feed their insatiable need for lumber. Large areas were cut over as timber was harvested for use underground and as a fuel source prior to the use of coal. In the early years, these cut over lands served as opportunities for developing housing for mine workers. Areas less suitable for building were left vacant and volunteer vegetation eventually regenerated into second growth forests.

The extensive quantity of wood was necessary to support the underground hanging wall and make the mines safer. Ironically, the same wood created a fire hazard. On 4 August 1887 timber at the sixteenth level near the Hecla No. 2 shaft ignited. The company closed the mine for several weeks and fought the fire until it was extinguished. Within a few months, on 20 November 1887 another fire began and, since the Calumet and Hecla branches were connected, both had to be closed until June 1888. During that period, only the South Hecla branch, which did not connect to the other branches, remained in

[66] Lankton, *Hollowed Ground*, 81.

operation. On 29 November 1888 a new fire started in the No.3 Calumet shaft, closing the majority of the C&H shafts until 1 May 1889. As a result of the fires in the mines, C&H permanently closed three shafts due to extensive damage. Following the series of underground fires, the company continued to operate three shafts on the Calumet branch, four shafts on the Hecla branch and five shafts on the South Hecla branch.[67] The Calumet branch was located north of Red Jacket Road and the Hecla branch was located to the south. Examples of the appearance of the industrial landscape in 1880 are provided in Figures II-17 and II-18.

In addition to operating these previously established shafts, the company opened a new vertical shaft, the Red Jacket shaft, intended to be separate from the other shafts and available for working if additional fires occurred. The company began digging the shaft, north and west of its main operation, in 1889 and eventually sunk it to a depth of 4,900 feet. Although it was not supposed to include underground connections to the other mines, concerns over safety led the company to provide a connection to the Calumet No. 4 shaft. This was necessary to provide an emergency exit, decrease air temperatures in the mine, and improve ventilation. To reduce the possibility of fire spreading between the two mines, fire doors were installed at the connection point.[68] The surface operations associated with the new Red Jacket shaft were impressive. The engine house measured 220 feet by 70 feet. The tailhouse, located near the engine house, measured 412 feet by 32 feet.[69]

In addition to affecting the landscape by clear-cutting the forests, the extensive development of the mine operations including railroad tracks, tram tracks, elevated trestles, machinery, and stockpiles of materials combined to create a vast industrial landscape (see Figure II-16).

[67] Lankton, *Hollowed Ground,* 82-83.
[68] Ibid., 128-129.
[69] Ibid., 130-131.



Figure II - 16: Calumet looking north, shafts #5 and #6, 1886. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #390, also see same citation, #391)

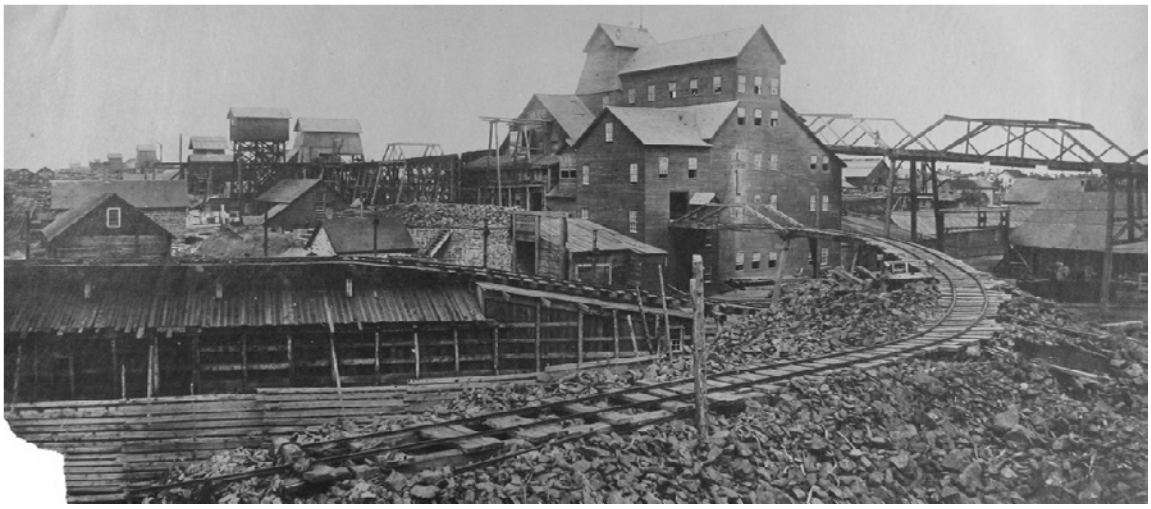


Figure II - 17: Hecla surfaceworks, ca. 1880 (source: Smithsonian, 2010-01-14 055, Frank Klepetko Album)



Figure II - 18: Calumet dump cars, ca. 1880 (source: Smithsonian, 2010-01-14 058, Frank Klepetko Album)

Red Jacket (Calumet Commercial District)—1871-1889

By 1875, the village of Red Jacket had been officially incorporated, with over 1,000 residents. Beginning in the late 1880s, increasing commercial activity resulted in the replacement of the early wood-framed structures with larger, high style commercial structures of brick and stone construction. By the late 1880s the village included a wide variety of specialized services, including "four churches, three hotels, four liveries, four tailors, two harness makers, one bowling alley, eight confectioners, three druggists, eight groceries, seven meat markets, three jewelers, three millineries, five barbers, and thirty-five saloons."[70]

Alexander Agassiz's determination to exclude commercial activities on company land led directly to the growth of the Village of Red Jacket as a commercial and social center for the district.[71] C&H encouraged the development of Red Jacket as private property and purchased land in the village to be sold later for uses that the company approved.[72] Figures II-6 and II-12 provide early views of Red Jacket.

[70] Lankton, *Hollowed Ground*, 71-72.
[71] Arnold R.Alanen and Lynn Bjorkman, "Plats, Parks, Playgrounds and Plants: Warren H. Manning's Landscape Designs for the Mining Districts of Michigan's Upper Peninsula, 1899-1932" (*Journal of Industrial Archeology*, Volume 24, Number 1, 1998),50; and Village of Calumet Historic District Commission and Keweenaw National Historical Park, *Village of Calumet: Civic and Commercial Historic District Design Guidelines*, 2006, 7.
[72] Lankton, *Hollowed Ground*, 97.

Calumet Commons (later Agassiz Park)—1871-1889

The lives of the miners and their families were difficult. In order to help make ends meet, most families raised chickens, pigs, and a tended small vegetable garden. Owning a milk cow was of great benefit to the family diet, and C&H provided pasture space for employees. Each employee was allowed to pasture one cow for free. Additional cattle were charged a small fee. Employees were permitted to cut hay on the Common.[73]

An 1871 view of the Calumet Commons illustrates a roughly triangular shaped open area located between the village and the mine location (see Figure II-19). There is a grove of trees at the southeastern portion of the property, and a few scattered canopy trees in the center of the space. No fence or other structures are apparent within the common space. The western and northern boundaries of the Commons were bounded by residences. By 1881 (see Figure II-20) a fence enclosed the Commons and there appears to be newly planted vegetation at the northwestern portion of the property. In 1885 (see Figure II-21) a fenced baseball field is present in the northern section of the Commons and a barn has been constructed to the east of the ball field. A view of the park in the winter of 1888 illustrates a stark landscape utilized for pedestrian circulation (see Figure II-22).



Figure II - 19: Calumet Commons (later Agassiz Park) excerpt from Birds eye view of Calumet, Hecla and Red Jacket, 1871. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #016)

[73] Arthur Thurner, *Calumet Copper and People: History of a Michigan Mining Community, 1864-1970* (Hancock, MI: Arthur W. Thurner, 1974), 45-46.



Figure II - 20: Calumet Commons (later Agassiz Park), excerpt from Birds Eye View of Calumet, Hecla and Red Jacket, facing northwest, 1881. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #015)



Figure II - 21: Northern portion of the Calumet Commons and Blue Jacket viewed from smokestack at Calumet, facing north, ca. 1885. (source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 5, #019)



Figure II - 22: Calumet Commons (later Agassiz Park) facing east, viewed during the Calumet No.3 Shaft Fire, 1888. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #084(1~1))

Housing Locations —1871-1889

By 1871 the area was home to a large quantity of housing for mine workers, managers, and others. On company property, C&H aligned residential streets within housing locations so that they were parallel and perpendicular to the angle of the copper lodes (see Figure II-23). Residential areas located to the west of the industrial core were aligned on a north-south grid, reflecting the arrangement of the village of Red Jacket.

To quickly supply housing for single miners, the company initially constructed boarding houses. These were soon followed by single-family dwellings, built to attract families to the area. The company preferred to employ married men, as single men were considered less likely to stay committed to the company and more likely to engage in undesirable behavior. The first houses built were constructed of logs, followed by wood frame structures. Many of the houses were one-and-one-half stories tall. The company frequently built houses in batches, resulting in streets with a row of matching houses.[74]

In some areas C&H built and owned full blocks of houses and in other areas employees built their own houses on company land. The land was leased for a nominal fee. Other companies used this same approach,

> …thinking that if workers built their own houses, then they could get away with building and maintaining fewer houses themselves. Companies also believed this practice cemented worker loyalty. When a man put a house on company property, he looked to work for his company for a long time.[75]

[74] Lankton, *Hollowed Ground,* 97; and Thurner, *Calumet Copper and People,* 9-10.
[75] Ibid., 97-98.

Although not affiliated with the C&H Company, the village of Laurium, founded in 1877, also provided housing for C&H workers. Like company housing, Laurium's arrangement paralleled the lode east of company property. Although initially considered too far from the mines, the lack of non-company land available for expansion elsewhere contributed to Laurium's growth in the following decades. [76]

From the first six blocks platted in 1877, a total of nine additions were made to Laurium between 1877 and 1899, its greatest period of growth, and Laurium's population in 1900 was greater than Red Jacket's. Laurium's distance from Red Jacket led to the development of local businesses to serve residents, and a post office was established in the village in 1895. [77]

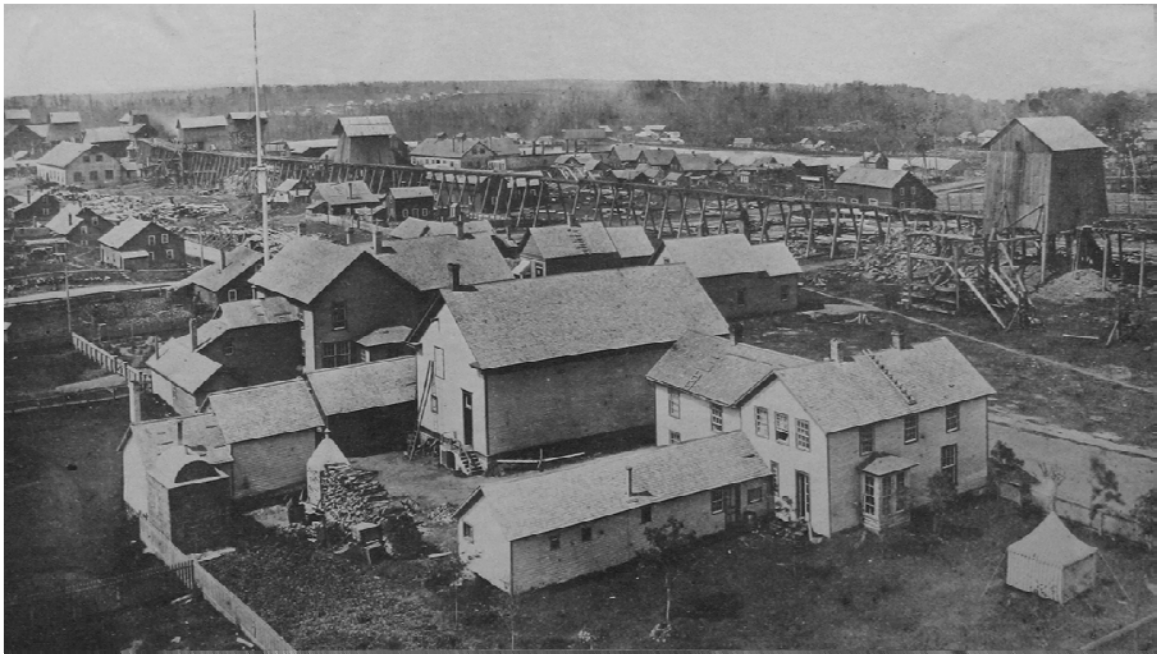


Figure II - 23: Calumet housing adjacent to the industrial works, ca. 1880 (source: Smithsonian, 2010-01-14 057 Frank Klepetko Album)

[76] Jane C. Busch, "National Register of Historic Places, Laurium Historic District, Houghton County, Michigan," National Register #04001578, 2005.
[77] Ibid.

1890-1915-- C&H's Golden Age

C&H Activities (Industrial Core)—1890-1915

From 1890 to 1915, the company entered into a boom period both economically and in terms of new construction. Numerous contractors built thousands of buildings during this period. In 1890 the population of Calumet Township was 12,529 and Red Jacket included 3,073 additional residents.[78] The majority of the area's residents either worked for C&H, or provided support to C&H workers. In the 1890s the C&H surface plant was considered to be second to none in the United States and many additions were made during the next decade (see Figures II-29, II-30, and II-31, the Period of Change Plan for 1890-1915). The machinery operating at C&H by 1900 was able to handle production for the remainder of the company's operational years.[79]

As the mine operations became more established, the appearance of the landscape changed. By 1890 the landscape in the heart of the C&H operations was highly developed. The edge of the forest surrounding the mine site was pushed back, and to provide level surfaces for railroad tracks, the topography was leveled using poor rock to fill low areas. As greater amounts of waste rock accumulated, large poor rock piles mounted up. Stockpiles of coal to fuel the steam engines were ubiquitous. Changes in technology also affected the landscape.[80]

> Mines hoisted from fewer shafts, but each shaft accounted for larger tonnages than before and by now had its own dedicated hoisting engine. Twin wire ropes ran from the hoists to the head sheaves in the shafthouses; the ropes hummed day and night as they crossed over wooden pulley stands and then down into the mine, where they raised and lowered skips. The shafthouses still had virtually no machinery in them but kept the head frame, skip tracks, and skip dumps out of the weather. Kilnhouses were gone, replaced by rock-houses. Air compressors for powering underground rock drills represented a new and important class of machinery on the surface. As the mines mechanized more, they often built larger machine, blacksmith, and drill-sharpening shops to perform essential maintenance and fabricating operations. The look of these buildings changed, too, as fewer of them were constructed of wood. Wooden structures lacked the cachet of permanence, and more than a few had burned to the ground. More and more, companies turned to poor rock and then to brick and dressed stone for construction.[81]

The physical plant at the original mine site expanded considerably. In addition, the company operated two stamp mills at Torch Lake, in Lake Linden, and two smelters, one

[78] Lankton, *Hollowed Ground*, 97.
[79] Ibid., 129 and 131.
[80] Ibid., 69-70.
[81] Ibid., 69-70.

at Torch Lake in Hubbell and one near Buffalo, New York.[82] Figure II-26 illustrates the proximity of the Torch Lake sites to Calumet. In addition to mining the Calumet Conglomerate lode, the company was mining other deposits and expanding its territory in the Keweenaw.[83] The profitability of the original lode was diminishing and the company continued to explore new areas in hopes of locating another large copper deposit.[84] C&H owned some land that included portions of the Osceola and Kearsarge Amygdaloid lodes, which ran parallel to the Calumet Conglomerate lode (see Figure II-31 1890-1915 POC plan). The company sunk shafts to explore where they could, and gradually acquired controlling interests in adjacent mining companies, including Centennial, Tamarack, and Osceola. These companies were operated independently during this time period, but were later merged into C&H itself. This allowed C&H to further explore the Osceola Kearsarge lodes. C&H owned a majority of the developed land in Calumet Township, which included mining, railroad, and residential structures. These developments were arranged on the landscape to correspond with the underlying copper lodes. Streets and buildings were laid out parallel or perpendicular to the copper lodes.[85]

Upon realizing that inadequate rockhouses were slowing down production, the company built equipment for sorting and crushing rock directly over the shafts. From 1891-1893 C&H built eight combined shaft-rockhouses along the Calumet Conglomerate lode and added more later.[86] Shaft-rockhouses dramatically changed the landscape. Their height created a vertical presence that was surpassed in height only by the smokestacks. Their distinct form and large mass was repeated at somewhat regular intervals providing a distinct visual indicator of the alignment of the underground mineral lode.

Figure II-24 depicts a typical shaft-rockhouse at a Hecla location. This style was regularly used by C&H Mining Company during the 1880s and 1890s. The small building in the foreground is a collar house located above the shaft opening. It is connected by rail to the separate and taller rockhouse. The connecting rail is exposed to allow moisture to escape from below, helping to prevent moisture problems common with wood collar houses. Figure II-25 illustrates a plan view showing the relationship between the collar house and the rockhouse. Rail lines served both sides of the mine operation. One side hauled rock, mineral and copper, while the other side was used for materials like logs, timbers and lumber. The Osceola No.13 structure was constructed later, and this more modern assembly was similar to the earlier arrangement with the added amenity of an attached dryhouse. Providing the dryhouse in this location improved worker comfort before and after shifts.

[82] Lankton, *Hollowed Ground*, 90.
[83] Alanen and Franks, *Remnants of Corporate Paternalism*, 59; and Lankton, *Hollowed Ground*, 137.
[84] Horace Stevens, *Copper Handbook*, 1910-1911. The handbook indicates that C&H's life span is 10-15 years at the current production rate, followed by 5-10 years of scramming (robbing pillars and searching abandoned stopes.
[85] Lankton, *Hollowed Ground*, 97.
[86] Ibid., 129-130.



Figure II - 24: Hecla Shaft-rockhouse, date unknown (source: courtesy of Scott See)

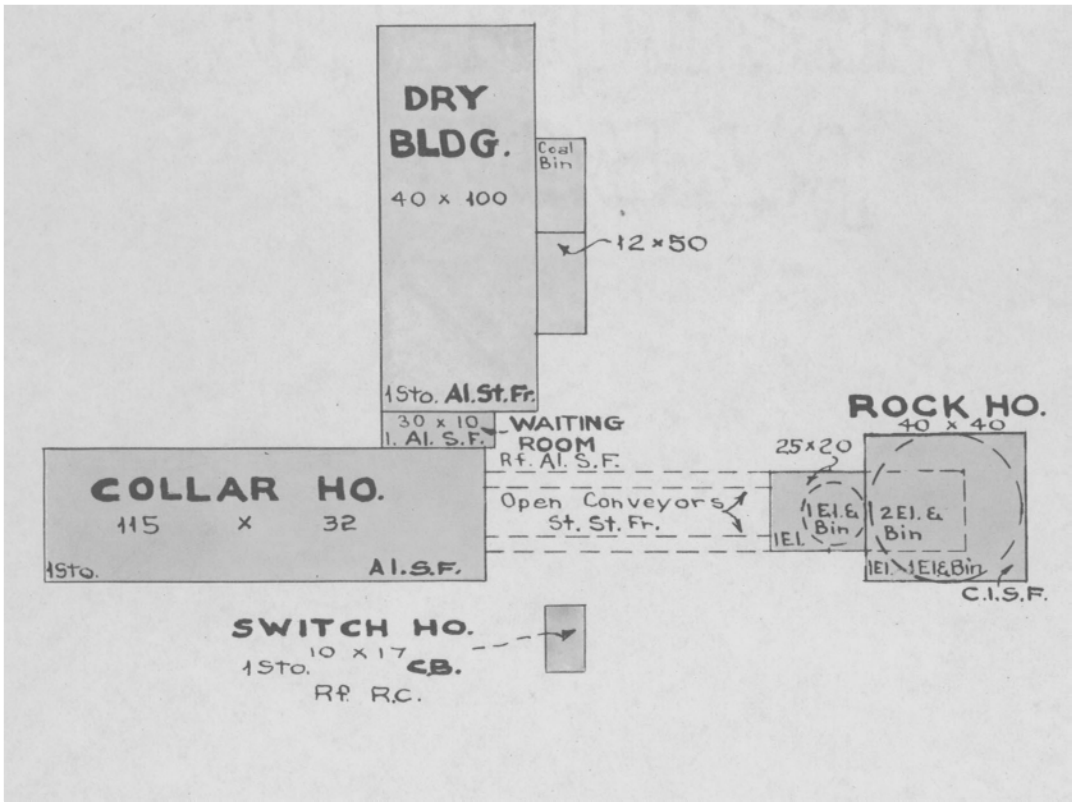


Figure II - 25: Osceola No. 13 Shaft-rockhouse plan, 1955 (source: courtesy of Scott See)

In 1897 C&H opened the Osceola No. 13 shaft and soon after No. 14 and No. 15 were sunk. Osceola shafts No. 16 and 17 were added in 1899 and No. 18 was added in 1906.[87] In 1903 C&H began to explore the Kearsarge lode, located to the east of the Osceola lode. The company sunk shaft Nos. 19, 20, and 21 and conducted testing to determine if the mines merited full development. The shafts were not determined to be profitable and production efforts were not pursued.[88]

The company had a need for, and generated, a tremendous amount of power. In 1899, the company produced "as much power as is now being generated by the great electric plant at Niagara Falls, and about equal to the power used in an average manufacturing city of 200,000 people."[89] C&H began to use electricity to power selected machinery in 1891. Large electrical generating facilities were installed in the old gearhouse (now a powerhouse). The landscape took on a new look when a line of electric power poles and overhead lines extended the length of the surface plant. In addition to electricity, the company continued to use enormous quantities of steam produced in over fifty steam

[87] Lankton, *Hollowed Ground*, 132 and 198.
[88] Ibid., 132.
[89] Kathleen Lidfors, Mary Jo Hrenchir, and Laura Feller, "National Register of Historic Places, Calumet Historic District, Calumet, Houghton County, Michigan," National Register #412258, 1988, Section 8, 2. Lidfors cites Michigan Commissioner of Mineral Statistics, Mines and Mineral Statistics for 1899 (Lansing, Michigan) 276.

engines at the surface plant. By 1906, C&H replaced its two original wood-frame mills with "thoroughly modern steel-and-concrete mills clad in corrugated metal."[90]

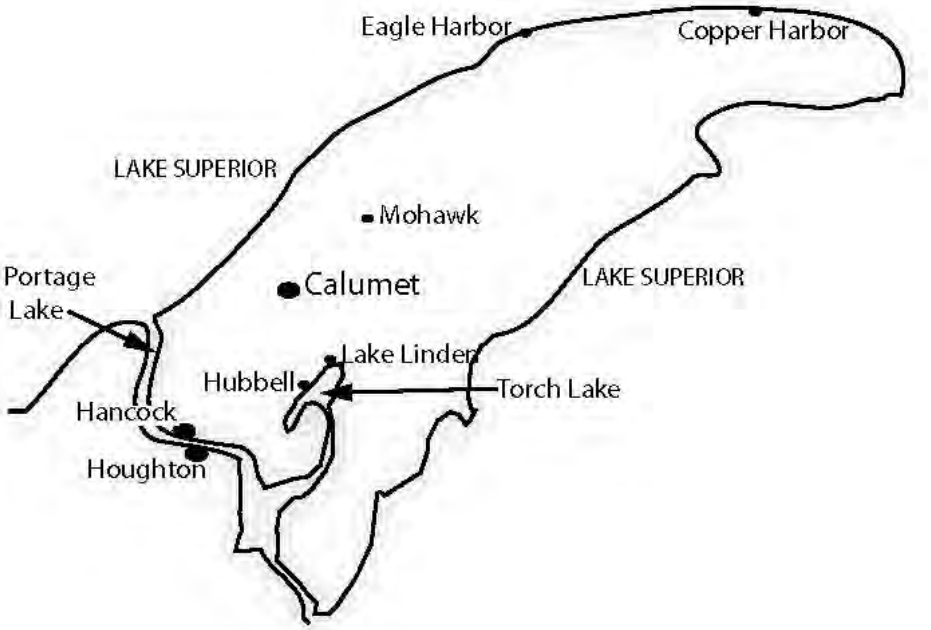


Figure II - 26: Calumet and vicinity. (source: QEA)

Company Sponsored Community Amenities—1890-1915

The Calumet and Hecla Mining Company thought of itself as a generous provider for its workers. In order to attract workers to the remote area, and to encourage them to stay once they arrived, C&H provided housing as well as community amenities for its workers. The company constructed libraries, bathhouses, schools, hospitals and office buildings for the community and provided land and support for numerous churches. During this period of prosperity for the company, the number of public facilities and churches grew rapidly. In 1893 C&H had twenty churches on company property scattered around the Township. By 1913 the company had provided sites to more than thirty churches.[91] Support of churches was considered to be support of a work force that included families and strong morals. Other facilities provided to support healthy living and personal betterment included schools, a hospital, library, bathhouse, YMCA, and Colosseum, all of which were constructed or improved using company funding during this period.

In 1897-98, C&H Company made a grand gesture that it would herald as one of its finest achievements in expressing its concern for and generosity toward its workers. In mining country, the construction of a library for workers was "One of the great symbols of a company's largesse and paternalism… … Not classified as a necessity, it is an amenity—

[90]Lankton, *Hollowed Ground*, 134.
[91] Hoagland, *Mine Towns*, 167.

a gift to the workers."[92] C&H Company constructed a substantial library for the community. The handsome building was constructed using the same 'mosaic' stone walls as the C&H general office building. The library included a large reception room, two floors of open stacks, a reading room, and a men's smoking room (the latter was later converted to a children's room). The basement housed baths which quickly became very popular--so popular, in fact, that the company soon determined to construct a purpose-built bathhouse. That building was completed in 1911 and included separate tubs and showers for men and women, as well as a swimming pool.[93]

The library and bathhouse were both located within one block of the C&H general office and Alexander Agassiz's house on Red Jacket Road. This area also included the Congregational Church. The buildings and landscape associated with these facilities were more refined than those seen in the industrial corridor, downtown Red Jacket, or the workers' housing locations. Ornamental fences surrounded the properties, and lawns with formally arranged paths had a manicured appearance. To the north of the C&H general office the formal landscape was not as distinct, but the fences, walkways and lawns associated with the school and hospital were definitely more refined than those in the adjacent industrial corridor.[94]



Figure II - 27: Calumet looking south from Superior Stack, 1893. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #031)

[92] Hoagland, *Mine Towns*, 173.
[93] Ibid., 181-183.
[94] Ibid., 187 and 190-191.



Figure II - 28: Library and Armory at Mine Street, ca. 1905 (source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 1, #066)



Figure II - 29: Industrial core along Mine Street, gear house in foreground, facing south, 1889. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #407 (7~1))



Figure II - 30: Shoveling snow from the railroad track in Calumet, ca. 1910 (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Foster Glass Plate Negatives, 174)

Workers Strike—1890-1915

In 1913-1914, the landscapes of Calumet became the backdrop for a bitterly fought workers' strike. The strike resulted from years of worker dissatisfaction with corporate paternalism, particularly among recently arrived immigrant workers who were excluded from many of the benefits of that paternalism. Led by the Western Federation of Miners, the strike began on July 23, 1913, and would last for eight and a half months.[95]

Public parades and rallies were a tactic of both strikers and the company, and Red Jacket Road from the village to the C&H headquarters was a frequent route. Strikers were naturally prevented from rallying on company property, meeting instead in the village and in public buildings like Italian Hall, where a Christmas Eve stampede in 1913 claimed the lives of seventy three people, including fifty eight children. This and other deaths during the strike led to public funeral processions, used by union organizers to elicit sympathy for the strikers.[96]

One of the most visible changes to the landscape as a result of the strike, albeit temporary, was the quartering of the National Guard in Calumet. Ostensibly present in a non-partisan capacity to keep the peace, in reality the Guard became an extension of C&H company security. The Company made room for Guard tent encampments on its property, across from the main administration building and between the library and

[95] Hoagland, *Mine Towns*, 55.
[96] Ibid., 56, 66.

Warehouse No. 1. The Company also provided amenities to the soldiers, including access to facilities such as the bathhouse.[97]

Unlike other strike locations, Calumet was not home to worker tent camps, as most of the strikers were not evicted from company housing. C&H did, however, set up temporary frame boarding houses near the shafts to accommodate the strikebreakers it imported from outside of Calumet.[98]

The United States Bureau of Mines was created in 1910, introducing a new era of regulation and inspections of mines. In 1912 the state of Michigan enacted legislation requiring companies to provide workers compensation for employees injured or killed in the mines. As a result of the regulations and inspections, C&H began to become more actively concerned about worker safety.[99]

[97] Hoagland, *Mine Towns*, 61.
[98] Ibid., 71, 85.
[99] Lankton, *Hollowed Ground*, 184-185.

Next Page:
Figure II - 31: Calumet Period of Change Plan, 1890-1915

Sources for Figure II-31: Calumet Period of Change Plan, 1890-1915

- Photos:
  - Hecla 3, ca. 1890 (NPS, Keweenaw NHP, Non-KEWE Collection Images, Mason Collection, eBay, Web Collection, Calumet Area Miscellany, Aerials)
  - View to northwest from Superior smokestack, ca. 1893. (NPS, Keweenaw NHP, Non-KEWE Collection Images, Mason Collection, eBay, Web Collection, Calumet Area Miscellany, Aerials)
  - View to north from Superior smokestack, ca. 1893 (NPS, Keweenaw NHP, Non-KEWE Collection Images, Mason Collection, eBay, Web Collection, Calumet Area Miscellany, Aerials)
  - Hecla 4, ca. 1893. (NPS, Keweenaw NHP, Non-KEWE Collection Images, Mason Collection, eBay, Web Collection, Calumet Area Miscellany, Aerials)
  - Hecla 1, Birds-eye view of the C&H Mining Location, Isler, ca. 1893 (NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 12, #006)
  - View west from Superior smokestack with lumber 189? (NPS, Keweenaw NHP, Andrew C. Curto Collection, album 12, #006)
  - Calumet and Hecla mine locations, May 1901
  - Colosseum, 1915 (NPS, Keweenaw NHP, Non-KEWE Collection Images, Union Building Historic Photos, UB-back0c1915)

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Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

1890-1915 Period of Change Plan

Chronology

1890-1915

Economic and construction boom period in Red Jacket.

1890

Fire near Hecla shaft No. 3 closes all C&H operations except South Hecla

1891-1893

C&H installed enlarged electrical generating facilities. C&H builds 8 combined shaft rockhouses along Calumet Conglomerate Lode.

1893

Commons includes a fenced baseball field with small section of covered bleachers in one corner. Paths from the village to the mine are apparent in the southwestern corner. The C&H Warehouse No. 1 was constructed and the Calumet Rockhouse was removed.

1897

C&H opens Osceola shafts No.13, 14 & 15.

1898

New fire station built on Sixth Street. C&H owned company houses and another 1,000 private homes on Company land. C&H built library and bathhouse for employees.

1898-99

Construction companies were continuously busy building hundreds of buildings in Red Jacket and the surrounding area.

1899

Addition to Village Hall includes an Opera House. C&H opened Osceola shafts No. 16 & 17. St. Anne's Catholic Church constructed.

1900

Village of Red Jacket population 4,500. Streetcar tracks along Oak and Pine Streets and on Sixth Street from Scott to Pine.

1901

Houghton County Traction Company Streetcar line extended from Houghton to Calumet.

1906

C&H opened Osceola shaft No. 18. C&H Opened Kearsarge Lode and includes shaft No. 19, 20 & 21.

1908

Italian Hall constructed.

1910-1915 and beyond

Rate of new construction slows.

1913

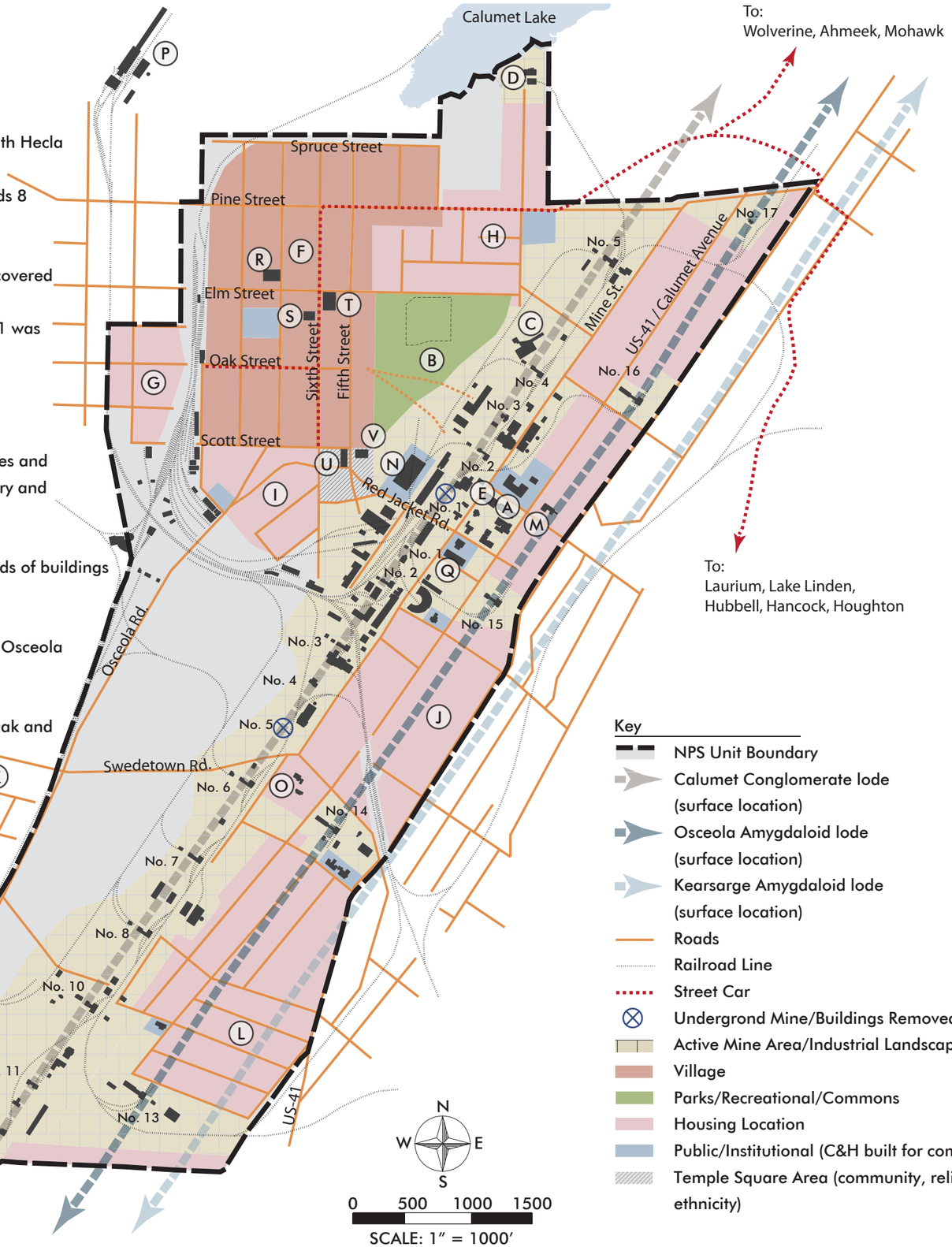
Italian Hall tragedy occurs on Christmas Eve.

1914

WWI begins in Europe, district-wide labor strike in Copper County ends in April.

1915

Price of copper rises due to wartime demand.



Legend

- (A) Old Washington School
- (B) Commons
- (C) Calumet Rock House
- (D) Calumet Water Works
- (E) C&H Gear House
- (F) Village of Red Jacket (later Village of Calumet)
- (G) Yellow Jacket Housing Location
- (H) Blue Jacket Housing Location
- (I) Newtown Housing Location
- (J) Hecla Housing Location
- (K) Swedetown Housing Location
- (L) Raymbaultown Housing Location
- (M) Calumet Hotel
- (N) Colosseum
- (O) Hecla Agent's House
- (P) Red Jacket Shaft
- (Q) Armory
- (R) Italian Hall
- (S) Firehall
- (T) Calumet Theater
- (U) St. Anne's Church
- (V) Union Building

Key

- NPS Unit Boundary
- Calumet Conglomerate lode (surface location)
- Osceola Amygdaloid lode (surface location)
- Kearsarge Amygdaloid lode (surface location)
- Roads
- Railroad Line
- Street Car
- Undergrond Mine/Buildings Removed
- Active Mine Area/Industrial Landscape
- Village
- Parks/Recreational/Commons
- Housing Location
- Public/Institutional (C&H built for community)
- Temple Square Area (community, religion, ethnicity)

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.
2. Mineral lodes are indicated on diagrams only for periods during which they were actively mined.

Created/Revised

June 2012

QUINN EVANS ARCHITECTS

Figure II-31

Village of Red Jacket (Village of Calumet)—1890-1915

The Village of Red Jacket mirrored C&H, experiencing a tremendous period of growth from 1890 through 1915. As C&H and other nearby mines including Tamarack and Osceola grew, the Villages of Red Jacket and Laurium expanded to serve the needs of the miners and their families. The close proximity of the villages to the industrial landscape was unique to the Calumet area. At other Keweenaw mine locations, the industrial activities were more distinctly separated, in a physical sense, from the commercial districts. Zones of industry, commerce, housing, and transportation were adjacent and integrated, yet they were also clearly identifiable. There were municipal and governmental boundaries, but they were apparent, for the most part, only on maps. "Out on the land itself, this was one place, a populous community built around an industrial core, a place where life and work were hardly separated at all; where the spires of churches competed for attention with smokestacks; where railroad lines intersected streets; and where a school had boilerhouses and engine houses for neighbors."[100]



Figure II - 32: Fifth Street, facing north at Oak Street, Red Jacket, ca. 1910. Note the concrete sidewalk and curb. (source: image courtesy of Dave Sprenger)

By 1890 Fifth Street was Red Jacket's main commercial street. A few village streets included residential sections, but the majority of the village was dedicated to providing goods, services, and entertainment to the area's population.[101] Growth in the village included several substantial additions including a new fire station in 1897, and an

[100] Lankton, *Hollowed Ground*, 96-97. Lankton noted *"No other mines on the Keweenaw had as much town right next to them as did C&H,"* 96.
[101] Ibid., 97.

addition to City Hall and construction of the Opera House in 1899.[102] Underground utilities were installed during the 1890s, including water, sewer, and gas lines. Power poles were erected and overhead telephone and electric lines lined the streets.

In 1900 the population of the Village of Red Jacket was approximately 4,500. The village served the wider settlement area, which housed approximately 30,000 people.[103] By 1910, sidewalks were added along the commercial streets in the village (see Figures II-32 and II-33). The dirt streets were paved with wooden pavers, brick, asphalt and concrete and automobiles became more prevalent on the village streets.[104] In 1912 Fifth and Sixth streets were illuminated with electric lights, giving the village a new appearance.[105] The overhead streetcar lines ran between poles apparent in Figure II-33.



Figure II - 33: Sixth Street, Village of Red Jacket, ca. 1910 (source: courtesy of Dave Sprenger)

Railroads and Transportation—1890-1915

Railroad tracks dominated large portions of the landscape during this period. Throughout the industrial core, tracks provided links to routes that connected the location with the mills and smelters at Torch Lake as well as supply sources to the south. Tracks, sidings, roundhouses, areas for stockpiling materials and other related facilities crossed through the industrial core and wrapped around the Village of Red Jacket/Calumet on its south and west edges. The Village was essentially surrounded by railroad corridors.

In 1901 the Houghton County Traction Company established streetcar service between Houghton and Calumet, providing convenient, inexpensive public transportation throughout the peninsula (Figure II-34). The route eventually provided links from Mohawk to Houghton, with a spur route to Lake Linden, Wolverine and Hubbell. The

[102] *Village of Calumet Civic and Commercial Historic District Design Guidelines,* 2006, 6.
[103] Ibid.
[104] Lankton, *Hollowed Ground,* 178-180.
[105] Thurner, *Calumet Copper and People,* 78.

route utilized a private right of way in the countryside, and ran on streets in towns. Tracks in Red Jacket ran along Sixth Street from Scott to Pine, with a spur along Oak Street. Other tracks connected Laurium to Red Jacket and the mines, making it easier for Laurium residents to get to work and leading to more growth for that village. The presence of the streetcar increased commercial growth along the corridor. The streetcar operated until May 1932.[106]

In 1891 the Mineral Range Railroad was acquired by the Duluth, South Shore and Atlantic Railroad, providing connections to a nationwide network. The Mineral Range Railroad passenger depot, located at the intersection of Oak and Ninth Streets, was constructed in 1908. The building contained waiting rooms, ticket offices, toilet rooms, and offices for the dispatcher, superintendent, and clerks.[107] The building served as a gateway to Calumet as the major arrival and departure point for people travelling beyond the region. Its location on Oak Street contributed to the prominence of this route.

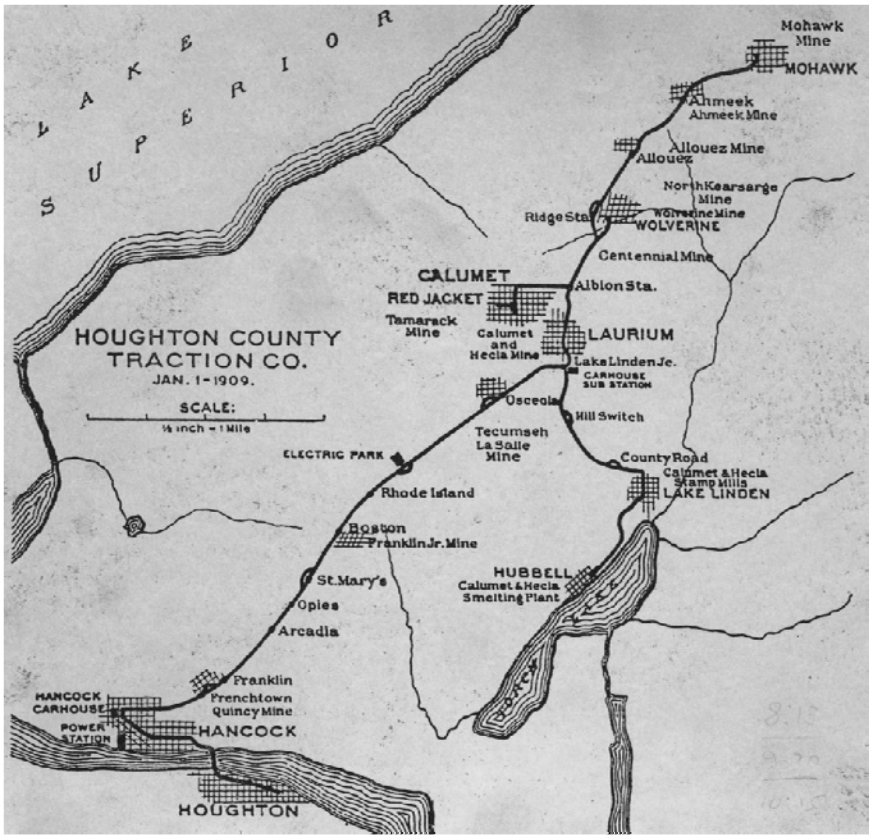


Figure II - 34: Houghton County Traction Company routes, 1909 (source: Copper Range Railroad website, **www.copperrange.org/traction.htm**, accessed 28 January 2012)

[106] Wally Weart, *History of the Houghton County Traction Company*, no date. Copper Range Railroad webside, www.copperrange.org/traction.htm, accessed 28 January 2012; and Lidfors, et., al., "National Register of Historic Places, Calumet Historic District," Section 8, page 3,.

[107] Alison K. Hoagland, "Frank W. Hessenmueller," in *Copper Country Architects.* Michigan Technological University web site, www.social.mtu.edu/CopperCountryArchitects/hf build.htm, accessed 30 January 2012.

Calumet Commons (later Agassiz Park)—1890-1915

During the 1890s residents of Red Jacket and the adjacent housing locations desired additional park space. In 1897, C&H allocated a parcel of land bounded by Seventh, Eighth, and Elm Streets (later the site of Morrison School) for recreational use. A Boston landscape architect, Franklin Brett, was hired to design a park for the site including a lawn, pedestrian paths of crushed stone, and a bandstand.[108]

The Commons continued to be used for recreation and the baseball field was fenced and included a covered grandstand by 1893 (see Figure II-35). The ball field was worn bare and the remainder of the commons had rough turf and bare patches. Additional fences extended around the perimeter of the Commons, although there must have been gates or openings since paths from the village to the mine location were present. An area south of the baseball field was fenced. All of the fences were built of wood board construction. The southeastern portion of the property was utilized to stockpile a large quantity of lumber and two pedestrian paths cut through the site, connecting the industrial area to the village of Red Jacket (see Figure II-36).



Figure II - 35: Calumet Commons (later Agassiz Park) looking northwest, 1893. (source NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #006)

[108] Thurner, *Calumet Copper and People*, 78.



Figure II - 36: Southern portion of Calumet Commons (later Agassiz Park), facing west, ca.1895. (source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 12, #006)



Figure II - 37: Calumet Commons (later Agassiz Park) facing northwest with view of ball field, 1902 (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #105 (1~1))

During the devastating strike of 1913-1914, a tent camp was established at the Calumet Commons, providing housing for Michigan militiamen who came to protect company property and curtail violence. This was one of several sites used to house the militia.

As already mentioned, this period was a time when public events and gatherings were an important part of American culture, and in Calumet, land set aside for public and recreational purposes was at a premium. In addition to the Commons, community events utilized public streets (in the form of parades and processions) and other open spaces. An example is seen in the Calumet Grade School May Day celebration of 1914. Several photographs illustrate the large event that occurred on C&H property south of Red Jacket Road and West of Calumet Avenue (see Figures II-39-41). An image of the commons in ca. 1915 shows the area surrounded by banners in preparation for a celebration (see Figure II-42).



Figure II - 38: Congregational Church, Calumet Elementary School May Day Celebration, 1914, facing northeast, Red Jacket Road is on the left side of the image and Calumet Avenue on the right. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #378)

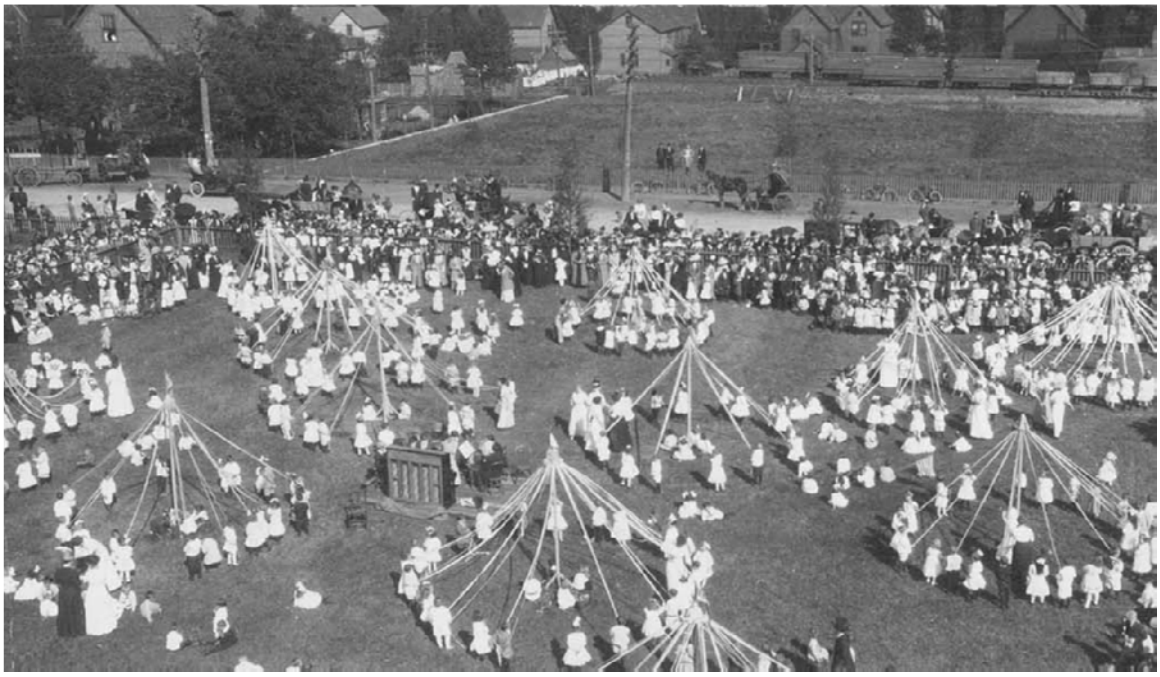


Figure II - 39: Calumet Elementary School May Day Celebration, 1914, facing east toward Calumet Avenue. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #378)



Figure II - 40: Calumet Elementary School May Day Celebration, 1914, facing southwest, the Armory is on the right. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #379)



Figure II - 41: Calumet Elementary School May Day Celebration, 1914, facing south, Calumet Avenue is on the left. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #379)



Figure II - 42: Calumet Commons, facing southwest, ca. 1915 (source: NPS, Keweenaw NHP, Union Building Historic Photos)

Housing Locations —1890-1915

Housing occupied about twenty-five percent of the area included in the Calumet Unit (see Figure II-31, Calumet Period of Change Plan, 1890-1915). Many workers' homes were in close proximity to the industrial activities (an example is provided in Figure II-23). Images of housing locations during this period illustrate the importance of the residential landscape to the miner's families (see Figures II-43 through II-47). In addition to the home, several outbuildings and utilitarian uses were frequently associated with the sites. These included outhouses, smokehouses, sheds, pens and small barns for livestock. Many yards were completely fenced to protect gardens from wandering livestock, or in some cases, to keep livestock enclosed. Horizontal wood board fences were prevalent. Some locations included barns that were shared by two or four properties, located at the intersections of the lot lines. Residential roads were unpaved, and parking and driveways were not yet present.

In contrast to the mine laborer's yard, the mine manager's home landscape clearly reflected the more refined and comfortable living conditions of the inhabitants. Miners' houses were modest and spare with practical landscapes that served functional needs. Managers had larger homes with indoor plumbing and manicured ornamental landscaped yards instead of the outhouses, livestock, wood piles, and vegetable plots found in mine laborers' yards. Even the fences, necessary elements surrounding properties throughout the Calumet Unit, differed in character from the mine laborer's home to the mine manager's home. An example of a manicured yard is seen at the Agassiz house, illustrated in Figure II-48. The discrepancy between the manager's and laborer's living conditions is clearly visible in the size, detailing, and conditions of the exteriors of the homes and associated yards.

Beginning in the 1890s, a movement of progressivism changed the expectations of laborers in the United States. Workers began to desire and demand better living and working conditions. Throughout the country, improved housing conditions became the focus of many groups advocating for workers rights. In the Keweenaw, this was an extremely important issue, since the companies owned a large quantity of residences. By 1898 C&H owned 1,000 dwellings and an equal number of employee-built houses stood on company land. The rents for C&H housing were considered very low compared to those in other mining districts.[109] In order to maintain the low cost, the company resisted installing amenities and improvements that would raise expenses. In a climate where long winters brought severe cold and massive snowfalls, many area residents tolerated living without indoor plumbing or electricity much longer than residents of many other communities in the country. Although most C&H houses had indoor faucets, only about one-third were connected to sewer lines, and fewer than that had indoor bathrooms installed.[110] At the same time, these amenities were available to selected individuals as

[109] Lidfors, et., al., "National Register of Historic Places, Calumet Historic District," Section 8, 3,; Lankton, *Hollowed Ground*, 187-190; and Thurner, *Calumet Copper and People*, 44. Thurner indicates that C&H had invested nearly $1,000,000 in the housing they owned and had trouble convincing stock holders to build enough housing for Calumet.
[110] Thurner, *Calumet Copper and People*, 44.

deemed appropriate by the company. The inconsistency in living conditions among Calumet area residents was one point of contention for workers. In addition to living conditions, fair compensation and worker safety were issues of conflict between the laborers and the company. As families pushed for improvements in their homes and workers sought improved safety and compensation, tensions between labor and the company increased.[111]

For five dollars per year "ground rent," employees could lease a 120 foot by 80 foot lot upon which they could build their own home. This appealed to many, despite the stipulation that upon leaving the employment of C&H the individual was required to vacate the land. Also, the company could ask lessees to leave if the ground became necessary for mining-related operations. A lessee could lose their house if they failed to pay taxes or assessments charged by the company. Finally, the company had the right to approve or deny the sale or transfer of the lease. Despite all of these drawbacks, many miners chose to build homes on company land, and nearly one thousand of these houses were built in a couple of years around 1891.[112]



Figure II - 43: Red Jacket Shaft Location, ca.1890. (source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 5, #043)

[111] Lankton, *Hollowed Ground*, 187-190.
[112] Thurner, *Calumet Copper and People*, 44-45.



Figure II - 44: Detail from Red Jacket Shaft Location, ca.1890. (source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 5, #043)



Figure II - 45: Housing Location near South Hecla viewed from the South Hecla smokestack, ca. 1890. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series II Assembled Albums (002), Book 23, #014)



Figure II - 46: Calumet looking north, 1893. Note the residential fences, outbuildings and lack of shared barns in this location. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #023)



Figure II - 47: Bridge Street in Swedetown and Calumet beyond, taken from water tower, 1903. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #020)



Figure II - 48: Agassiz House and C&H Public Library, facing southwest, 1909, note the manicured lawns, paths, fences, and street trees. (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Sub-series A (C and H), Sub-series (01) Library, #237)

1916-1930

C&H Activities (Industrial Core)—1916-1930

After 1920, new construction was rare in the region. Population declined and many businesses closed. C&H virtually shut down in 1921 and struggled to get back into full operation over the rest of the decade. From 1921 through 1922 the local economy was severely depressed. The labor force in Calumet was idle and families struggled to survive with no reliable income. Many left the area to seek work elsewhere. Although mine production and work picked up after 1922, the community did not fully recover prior to the Great Depression, and never completely rebounded.[113]

The broad patterns of land use remained essentially stable during this period. Comparison of the Period of Change plan for 1890-1915 and the plan for 1916-1930, shows relatively little change in overall land use (see Figures II-31 and II-51). The landscape of the industrial core continued to be a vast industrial presence, but changes were apparent. Most noticeably, the level of activity upon the landscape was greatly reduced as fewer trains, trucks, people, and materials were circulating through the area. Many large areas previously crowded with stockpiles of materials and circulating vehicles were transformed into cleared open areas of dirt and gravel (see Figure II-49). Several large surfaceworks, previously bustling with activity, were idle. Others continued to operate with reduced staff and production (see Figure II- 50).



Figure II - 49: C&H Hecla shaft houses, ca. 1917 (source: NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Foster Glass Plate Negatives, #066)

[113] Lankton, *Hollowed Ground*, 212, 229; and Thurner, *Calumet Copper and People*, 99-102.



Figure II - 50: South Hecla, ca. 1925 (source: NPS, Keweenaw NHP, Jack Foster Collection, Series II Assembled Albums (002), Album 3, #005)

Next Page:
Figure II - 51: Calumet Unit Period of Change Plan, 1916-1930

Sources for Figure II-51: Calumet Period of Change Plan, 1916-1930

- Plan Drawing, Warren Manning, Plan for Agassiz Park, 1920 (NPS, Keweenaw NHP, Structures and Cultural Landscapes Vertical File, Agassiz Park)
- Calumet and Hecla Location, January 1919
- Photo, Agassiz Park Dedication, 1923 (Michigan Technological University archives, Calumet and Hecla Photograph Collection, MS0003-007-004-02)
- Photo, Agassiz Park panorama from standpipe, 1930 (NPS, Keweenaw NHP, Jack Foster Collection, Series I (001), Mounted and Oversized Photos)
- Photo, view of Laurium, ca. 1925 (NPS, Keweenaw NHP, Jack Foster Collection, Series II Assembled Albums (002), Book 4, #031)

Chronology

Limited new construction occurs during this period. The commercial district evolves in response to the growing presence of the automobile. Former stables and warehouses were converted to garages; service stations and auto dealerships opened.

1915

Landscape Architect Warren H. Manning prepared design for garden at home of James MacNaughton in Calumet.

1915-1932

Warren H. Manning provided landscape design guidance for C&H company properties including the hospital and homes of company officials.

1916

C&H Co. 50th anniversary. The commons (later Agassiz Park) was improved for the anniversary celebration. According to Thurner, "the fence around the baseball field was torn down, the ground graded and seeded to grass, and four pavilions were erected."

1917

Original plan for Agassiz Park designed by landscape architect Warren H. Manning.

1918

Calumet Hotel burned.

1921-1922

Agassiz Park developed, dedicated 26 September 1923.

1921-1930

C&H operations are significantly scaled back.

1929

Red Jacket renamed the Village of Calumet. Washington School burns and is replaced. The Great Depression begins.



Key

- NPS Unit Boundary
- Calumet Conglomerate lode (surface location)
- Osceola Amygdaloid lode (surface location)
- Roads
- Railroad Line
- Street Car
- Underground Mine/Buildings Removed
- Active Mine Area/Industrial Landscape
- Village
- Parks/Recreational/Commons
- Housing Location
- Public/Institutional (C&H built for community)
- Temple Square Area (community, religion, ethnicity)

Created/Revised

June 2012

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

1916-1930 Period of Change Plan

Legend

- (A) Agassiz Park
- (B) Osceola Housing Location
- (C) Village of Red Jacket (later Village of Calumet)
- (D) Yellow Jacket Housing Location
- (E) Blue Jacket Housing Location
- (F) Newtown Housing Location
- (G) Hecla Housing Location
- (H) Calumet Housing Location
- (I) Swedetown Housing Location
- (J) Raymbaultown Housing Location
- (K) Village of Laurium
- (L) Calumet Public School
- (M) Red Jacket Shaft
- (N) Colosseum
- (O) Italian Hall
- (P) Firehall
- (Q) Calumet Theater
- (R) St. Anne's Church
- (S) Union Building
- (T) Calumet Hotel
- (U) MacNaughton Home

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.
2. Mineral lodes are indicated on diagrams only for periods during which they were actively mined.

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Figure II-51

Village of Red Jacket / Village of Calumet—1916-1930

The economic troubles of C&H during this period were reflected in the Village of Red Jacket (renamed the Village of Calumet in 1929) and very little new building occurred. However, the downtown continued to evolve. In particular, changes were made to accommodate automobiles. Images of community activities reveal clues about the conditions and public use of the Village landscape. During this period, the automobile became a major feature of the landscape in Calumet. As cars became more common, adjustments were made to accommodate them. Former stables and warehouses were converted to garages and an automobile dealership opened downtown.[114]

Previously unpaved streets were paved and parking became a major concern. Streets were widened, and parking areas were designated. Traffic regulations addressing how and where automobiles were to move became necessary to protect pedestrians, horses, and automobiles from each other. These changes affected the appearance and circulation patterns of communities, including Calumet. Figure II-52 illustrates the new phenomenon of parade attendees arriving in their automobiles; the parade route is lined with cars. The popularity and prevalence of the automobile also led to a gradual decline in use of public transportation, including streetcars and railroads. The eventual abandonment of railroads and streetcars would also change the appearance of the village landscape (see Figures II-53 and II-54).



Figure II - 52: Red Jacket Road, Armistice Day Parade, 11 November 1918
(source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 6, #083).

[114] *Village of Calumet Civic and Commercial Historic District Design Guidelines*, 2006, 5-6.

During the first part of this period, until about 1920, recreational activities were a prominent part of the lives of the residents of the Village of Red Jacket/Calumet. A variety of forms of entertainment and recreation included baseball, billiards, roller skating, bicycling, picnics, "fishing, nutting, berry-picking, hunting, walking and swimming," as well as circuses and touring theatrical groups. Band concerts, boxing and wrestling matches were also well-liked. Sports were very popular, and the Colosseum and Palestra provided indoor arenas for hockey and skating.[115] Also, outdoor hockey and skating were very popular and most neighborhoods maintained outdoor rinks that were important aspects of neighborhood identity. Community gardens and bocce ball were also popular.[116] Although the locations of most of these activities are not documented, many required outdoor common areas and would have been prevalent in views throughout the community.



Figure II - 53: Oak Street looking east, 1918 (source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 4, #057)

[115] Thurner, *Calumet Copper and People*, 84.
[116] NPS staff members Jeremiah Mason and Steve DeLong provided this information.



Figure II - 54: Mineral Range Depot on Oak Street in Red Jacket, ca. 1917
(source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Box 3)

Calumet Commons /Agassiz Park—1916-1930

The landscape known today as Agassiz Park has played an important role in the history of the physical landscape of Calumet. Situated between the mineral lode-aligned grid of the industrial core and the ordinal-aligned grid of the Village, the park's triangular shape evolved as a transition and circulation zone between the activities that occurred in each of these areas. Owned by C&H and used when needed by the company for storage of materials or as a railroad corridor, for many decades a large portion of the space was utilized for common grazing grounds, pedestrian circulation, and recreation.

When the company celebrated its fiftieth anniversary in 1916, the Calumet Commons (later Agassiz Park) was landscaped to serve as the site for a large community-wide anniversary celebration. The fence around the baseball field was removed, lawn was established, and four pavilions and a temporary stage were constructed on the property. Approximately 20,000 people attended the celebration.[117] Soon after the celebration, C&H determined that the Calumet Commons site should be developed as a public park memorializing Alexander Agassiz. Alexander Agassiz served as the president of the Calumet and Hecla Mining Company (C&H) from 1871 until his death in 1910. He headed the company during years of tremendous profits and directed the development of the impressive surface and underground operations of the industrial property.

The prominent sculptor Paul Wayland Bartlett was commissioned by the Agassiz family to create a bronze statue depicting Agassiz. The C&H Mining Company hired noted landscape architect Warren H. Manning to design a 25 acre park that would feature the sculpture. Manning's first project in Calumet was a design for the garden at the home of

[117] Thurner, *Calumet Copper and People*, 46.

James MacNaughton, general manager and vice president of C&H Company in 1915. Over the next seventeen years, Manning prepared designs and oversaw community involvement projects for a number of other Calumet sites. Agassiz Park was the largest and most important. He also guided landscape plans for the hospital, and homes of company officials.[118]

Manning prepared the design for Agassiz Park in 1917 but a "scarcity of men" and "rush to get out copper" during World War I stalled the implementation. When the demand for copper dropped in 1919, the company diverted workers from the mines to construction of the park. "Over the next several years, the park's construction advanced incrementally, reflecting shifts in the company's labor supply and production demands." The park was implemented over a four-year period from 1919-23.[119]

The statue of Alexander Agassiz was the focal point of the park design prepared by Manning. The design responded to the long present patterns of circulation connecting the industrial core to downtown Calumet through the commons. The historic paths created a radial pattern and led from Scott, Portland, Oak and Elm Streets to a point where they converged and continued toward the C&H dryhouse. Another path extended from about mid-way along the Elm path to the north to intersect with Elm at North Fourth Street. The statue was situated in at the intersection of the radial paths, on the eastern side of the park. The paths were paved with crushed stone and lined with native canopy trees. Each path was to be "flanked by a single species of native tree—hard maple, red maple, yellow birch, white birch, and basswood—to create a system of *allees*."[120] Manning specified a "Red Maple Walk" that extended to Portland Street, a "Sugar Maple Walk" provided a connection to Oak Street, and an "Elm Walk" that extended to the intersection of Fourth and Elm Streets. Additional paths included connections from the statue area/focal point to Scott Street and Red Jacket Road (Manning's plans called for these paths to be lined with fewer trees and were not named on the plan), and to the northeastern corner of the park (this path was entitled "Shrub Vista" and was lined with shrubs). It is not clear if the species specified by Manning were ever planted in the park. Today, species lining the park paths include red maple (Acer rubrum), northern red oak (Quercus rubra), and white birch (Betula papyrifera).

Manning intended the park to be a community facility for Calumet. He included recreational facilities and ornamental plantings to provide opportunities for a variety of types of uses.[121] The plan also provided space for a bandstand and parking at the southern portion of the park. Active recreation was accommodated in the northern section of the park with tennis, hand ball, and basketball courts, a playground, baseball field, football field, running track, and two circular areas for "clock golf." The area directly south of the Agassiz statue was proposed for a picnic shelter and formally arranged rectangular spaces that may have been intended to be garden beds. Many of these elements were not implemented.

[118] Alanen and Bjorkman, , "Plats, Parks, Playgrounds and Plants," 49-50.
[119] Ibid., 50-53.
[120] Ibid., 54.
[121] Alanen and Franks, *Remnants of Corporate Paternalism*, 66.



Figure II - 55: Armory Field procession, Calumet, 1918 (source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 3, #035)



Figure II - 56: C&H 50th Anniversary Celebration, future location of Agassiz Park, 15 July 1916 (source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 1, #028)

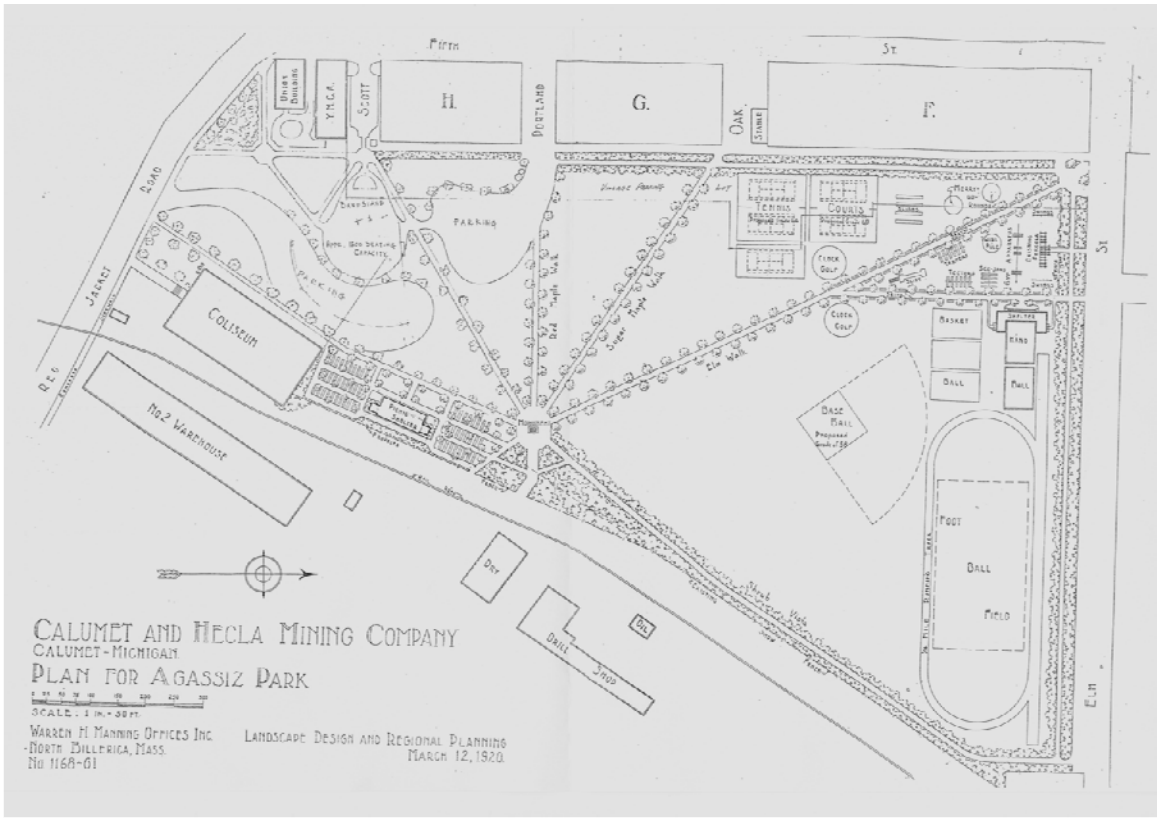


Figure II - 57: Manning Design for Agassiz Park, March 1920 (source: NPS, Keweenaw NHP, Structures and Cultural Landscapes Vertical File, Agassiz Park)



Figure II - 58: Dedication of Agassiz Monument, ca. 1923 (source: NPS, Keweenaw NHP, Coppertown Collection, Carlos Rawlings photographs)



Figure II - 59: Agassiz Monument in park, ca. 1925 (source: NPS, Keweenaw NHP, Mason Postcard Collection)



Figure II - 60: Tennis Courts at Agassiz Park, 1927 (source: Michigan Technological University archives, Calumet and Hecla Photograph Collection, MS003-007-004-05)

Housing Locations —1916-1930

Extensive residential neighborhoods were in place during this period and no new housing locations were developed. The difficult economic times may have increased the use of residential yards for functional activities including vegetable gardens and raising small livestock. The increased presence of automobiles certainly affected more affluent neighborhoods, but the effect on the housing locations occupied by mine laborers was not as apparent. Most of these families could not yet afford cars. Images illustrating the conditions in mine housing neighborhoods during this time are provided in Figures II-61 through II-62.



Figure II - 61: Residential side street, ca. 1920 (source: NPS, Keweenaw NHP, LaMuth Collection, 5x7 negatives)



Figure II - 62: Surface plant at Tamarack, ca. 1920s (source: NPS, Keweenaw NHP, Jack Foster Collection, Series II Assembled Albums (002), Book 3, #016)

1931-1960

During the 1930s, the Great Depression severely impacted the region. C&H continued to operate on a reduced scale, attempting to balance production costs and market returns. The Second World War brought some economic relief, in the elevation of copper prices, but it was short-lived. In 1943 the Keweenaw miners unionized, joining the International Union of Mine, Mill, and Smelter Workers of the Congress of Industrial Organizations. Worker-management relations were stressed, and a series of strikes occurred in the 1950s. C&H attempted to develop other enterprises outside the Calumet area, and miners were discontented with their insufficient wages and lack of opportunities. Workers demanded increased compensation leading to a sixteen week strike in 1955. During this period, the company's board of directors threatened twice to close down the Calumet operations. In the ensuing years, these threats loomed in the minds of workers. With each drop in the price of copper, rumors of the closing of the mines were rampant. The company's focus on other activities continued to grow, and mining became a secondary focus for C&H. Many young people left Calumet for school and work prospects. By 1970 the population of Calumet had declined to approximately one-third of its size in 1890.[122]

As the mining operations and local population were shrinking, the appearance of the landscape changed. The removal of active railroad lines, tram routes, stockpiles of materials, and utility corridors, resulted in large open areas within the industrial core. Where these were once highly active, dirty, noisy locations, they gradually evolved into quiet openings of level land between the large industrial buildings that remained in place (see Figures II-67-69).

[122] Thurner, *Calumet Copper and People*, 105.

Beginning in the late 1930s, C&H divested itself of housing stock. Houses, but not the land under them, were sold to individuals for five to one-hundred and twenty five dollars. The transfer of ownership of housing from the company to individual owners caused a major shift in the concept of residential ownership in the area.[123]

Beginning in 1934, Franklin Roosevelt's New Deal program brought work projects to the Keweenaw. Works Progress Administration (W.P.A.) projects included building sidewalks, repairing streets, constructing a new post office, and other projects aimed at drawing tourists to the area.[124] The post office was the only building project in the Village of Calumet during the 1930s. The late 1940s saw several new construction projects that represented the last new building activity in the Village of Calumet until the 1960s.[125]

Next Page:
Figure II - 63: Calumet Unit Period of Change Plan, 1931-1960

Sources for Figure II-63: Calumet Period of Change Plan, 1931-1960

- Map, C&H Surface Maps ca. 1950 (NPS, Keweenaw NHP, Jack Foster Collection, Series II Assembled Albums (002), Book 10)
- Aerial view of Agassiz Park, ca. 1935, Mason Collection, Web Collection, C&H Non-Industrial, Agassiz Park)
- Aerial photograph, Calumet Avenue, Calumet Michigan, 1938 (NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 5, #041)
- Aerial view facing south, Red Jacket Road and Calumet Avenue, 1938 (NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 3, #043)

[123] It is not clear if these transfers included the land upon which the houses were situated.
[124] Thurner, *Calumet Copper and People*, 102.
[125] *Village of Calumet Civic and Commercial Historic District Design Guidelines*, 2006, 6.

Chronology

Many buildings downtown lost to fire and demolition.

1932
Houghton County Traction Company operations ended in May due to loss of business attributed to the Great Depression.

1939
The Federal Work Relief program builds a post office in Calumet Village.

1940s
Several new construction projects were completed in the late 1940s with a lull in new building until the 1960s. Removal of surface plant associated with Conglomerate Lode workings and Osceola Amygdaloid Lode slightly later.

1942
Armory burns.

1944
Library closes and is renovated. The collection moves to school.

1949
Congregational Church burns.

1950
Bathhouse closes.

1953
ME church burns and is replaced.

1955
Osceola Project - dewatering, construction, etc. Removal of Agent's House (MacNaughton House). C&H Hospital closing and demolition.

1957
New Sacred Heart Central grade school built on Calumet Avenue.

1960-1962
Old Sacred Heart High School and Grade School closing and demolition.



Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

1931-1960 Period of Change Plan

Legend

- (A) Agassiz Park
- (B) Osceola Housing Location
- (C) Village of Calumet (formerly Village of Red Jacket)
- (D) Yellow Jacket Housing Location
- (E) Blue Jacket Housing Location
- (F) Newtown Housing Location
- (G) Hecla Housing Location
- (H) Calumet Housing Location
- (I) Swedetown Housing Location
- (J) Raymbaultown Housing Location
- (K) Calumet Public School
- (L) Colosseum
- (M) Italian Hall
- (N) Firehall
- (O) Calumet Theater
- (P) St. Anne's Church
- (Q) Union Building

Key

- NPS Unit Boundary
- Calumet Conglomerate lode (surface location)
- Osceola Amygdaloid lode (surface location)
- Roads
- Railroad Line
- Underground Mine/Buildings Removed
- Active Mine Area/Industrial Landscape
- Village
- Parks/Recreational/Commons
- Housing Location
- Public/Institutional (C&H built for community)
- Temple Square Area (community, religion, ethnicity)

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.
2. Mineral lodes are indicated on diagrams only for periods during which they were actively mined.

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Figure II-63

In the commercial district, prices were lowered dramatically and many businesses were forced to close. Many storefronts on Fifth Street were boarded up as the stores were closed.[126] Streetcars were replaced with intertown busses. The busses ceased to run during the 1950s. By 1964 there was no passenger rail service into Calumet.

During the 1940s Agassiz Park was a well-maintained park featuring ornamental flower gardens (see Figures II-64 through II-66). The C&H Company maintained Agassiz Park for community use until the early 1950s. Once the company discontinued maintaining the park it entered a period of neglect and incremental change.[127] In 1964, the park's western boundary changed when Fourth Street was constructed and parking was added along the edge of the park.[128]

In general, the broad landscape of the community began a gradual transition from a highly active, dusty, smoky, expanse into one where volunteer vegetation began to grow in areas once used for industrial activities. The community began to become more green, as a result of the loss of jobs and economic prosperity. Images from this time period show the industrial corridor with large open spaces between buildings and vegetation beginning to appear on the edges of these open areas (see Figures II-67 through II-70). In a few locations, including Red Jacket Road, Armory Street, and Mine Street, streetscape improvements were undertaken and included planting vegetation. In other areas the vegetation was not planted or maintained intentionally, rather it was the result of neglect and likely to include invasive species that aggressively encroached into the abandoned lots.



Figure II - 64: Agassiz Park plant bed at Oak Street, facing east, ca. 1940. (source: NPS, Keweenaw NHP, LaMuth Collection, Kodachrome Slides)

[126] Thurner, *Calumet Copper and People*, 104; and Thurner, *Strangers and Sojourners*, 281-283.
[127] Alanen and Bjorkman, "Plats, Parks, Playgrounds and Plants,"57.
[128] Alanen and Franks, *Remnants of Corporate Paternalism*, 71.



Figure II - 65: Agassiz Park near memorial statue, ca. 1940 (source: NPS, Keweenaw NHP, LaMuth Collection, Kodachrome Slides)



Figure II - 66: Agassiz memorial statue in Agassiz Park, ca. 1940 (source: NPS, Keweenaw NHP, LaMuth Collection, Kodachrome Slides)



Figure II - 67: View of Calumet industrial corridor, Laurium, and Torch Lake beyond, facing southeast, ca. 1945. The armory is no longer extant (it burned down in January of 1942) and the Congregational Church is extant (it was present until 1949). (source: NPS, Keweenaw NHP, Jack Foster Collection, Series II Assembled Albums (002), Book 4, #031)



Figure II - 68: Red Jacket Road and Mine Street, facing southeast, 1938 (source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 3, #043)



Figure II - 69: Aerial view of Calumet Avenue looking northwest, 1938 (source: NPS, Keweenaw NHP, Andrew C. Curto Collection, Album 6, #058)



Figure II - 70: Aerial View of Calumet area facing northeast, 1948 (source: NPS, Keweenaw NHP, Keweenaw Historic Photograph Collection, Acc#00180 (Coppertown), photo by W.J. Kraft, #1121)



Figure II - 71: Osceola #13, facing north, August 10, 1954 (source: NPS, Keweenaw NHP, Jack Foster Collection, Series II Assembled Albums (002) Book 22, #155)

1961-2011: The Decline of Mining and Evolution of Heritage Tourism

C&H Mining Company and Universal Oil Products (Industrial Core) – 1961-2011

During the 1960s and 1970s, copper mining declined and members of the community continued to hope that mining would eventually rebound as a primary economic enterprise. In 1969 mining ended in Calumet and the community sought to find new endeavors to boost the local economy. Two approaches emerged as major, and frequently contradictory, influences of landscape change. One sought to enhance the local economy by drawing new business and modernizing through new development. The other focused on the preservation of historically and environmentally significant resources, as a basis for an economy founded on heritage tourism and recreation. Efforts by the community over the last fifty years have supported these goals, but not without conflict. Some efforts toward modernization have impacted the historic integrity of the Calumet Unit and preservation of the historic resources has stretched local finances. Tourism and recreation have proved to be of great importance to the regional economy but the probability of any one industry providing the sole support for the community ever again is unlikely. As community leaders seek to find appropriate economic bases, they frequently find themselves undertaking a delicate balancing act between preservation and development. This section provides a synopsis of the changes to the landscape in the Calumet Unit that have occurred as a result of the end of mining, cultural heritage preservation efforts, and new development over the last fifty years.

By 1968 the Calumet and Hecla Mining Company was a shadow of its former self. This had a profound effect on the local community. The Calumet community evolved as a consequence of the Calumet and Hecla Mining Company, and neither the company nor the community had ever existed in the absence of the other. This changed on 30 April 1968 when the Universal Oil Products Company purchased the Calumet and Hecla Mining Company. By that time, the workforce dedicated to the mine had declined to 1,000 employees and the copper deposits that could be profitably extracted using the current technology were exhausted. Soon after the change in ownership, the workers went on strike. When no compromise could be reached, Universal Oil Products closed the remaining operating mining works in August 1968. Although the mines reopened for exploration purposes, active mining was never resumed. The Calumet Division of Universal Oil Products closed in 1969 and the company began to liquidate its holdings. These included 234,000 acres of land and associated developments in Houghton and Keweenaw Counties.

Local Efforts to Preserve Historic Heritage and Reinvigorate the Economy

After 1969, a non-profit organization, the Copper Country Area Industrial Council, was formed to attract new industry to the area. Local efforts also focused on developing the area as a tourist destination. These occurred both at a local and a regional level. From a

broad scale perspective, planning focused on the entire Upper Peninsula (UP) of Michigan has affected the Calumet Unit. This unique portion of Michigan exists as an area removed and different from the rest of the state (figure II-72). The peninsula is surrounded by the waters of three Great Lakes: Lake Superior, Lake Michigan, and Lake Huron. The region includes dense woods with beautiful streams and waterfalls spread across over 300 miles of landscape. Michigan's northernmost territory provides a compelling location for four seasons of outdoor activities including hiking, camping, kayaking, canoeing, boating, fishing, biking, cross country skiing, snowshoeing, downhill skiing, snowmobiling, all terrain vehicle use, and exploration of the rich mining, shipping and logging heritage of the region.[142]



Figure II - 72: Regions of the state of Michigan

[142] *Pure Michigan*, Michigan's Official Travel and Tourism Site, http://www.michigan.org/Places-to-Go/Locations/Upper-Peninsula/Default.aspx, accessed 30 January 2012.

The first regional tourism plan for Michigan's Upper Peninsula was prepared in 1966. This early report identified an array of natural and cultural resources, and the fact that they had been preserved due to their isolation and large scale. The remoteness and abundance of resources were seen as challenges for attracting tourism to the region, leading to recommendations aimed at educating and drawing people to the area. The plan identified eight zones across the UP with significant attractions that could be visited from centralized communities. The Keweenaw was identified as a zone of industrial attraction where a copper mining historic complex, scenic tour complex and second home subdivisions were recommended.[143] At the time, the C&H Mining Company was still operating mines in Calumet and the idea of replacing the mining industry with tourism in the Keweenaw was not widely accepted.

Within a few years, this changed. When Universal Oil Products closed Calumet mining operations in 1969, the end of mining as the major economic industry in Calumet was a stark reality. Heritage tourism was now seen as a potential economic opportunity for the region and Calumet was well situated to serve as a center for these activities. Promotion of tourism in the Western Upper Peninsula continued through the 1970s and people who had previously moved away for work opportunities began to retire. Many returned to Calumet.[144] Over the past four decades, efforts to preserve the historic character of the community while enhancing the economy have continued. These efforts have experienced a mix of success and failure related to the preservation of the historic landscapes in the Calumet Unit. A list of formal planning reports that have produced by the community and NPS since 1975 is provided in Table II-1.

Industrial Core – 1961-2011

Although mining ended in Calumet, Universal Oil Products (UOP) continued to own a large amount of industrial property. Many industrial buildings and landscape features were removed from the landscape, but a large quantity of substantial mining structures remained. The company considered the potential of developing the area's rich history into a new economy. As the nation's bicentennial approached, UOP developed and promoted a plan to create a history-centered theme park on company owned land in the industrial core. The scheme, entitled Coppertown USA, was envisioned as a public-private partnership that would be directed by a local non-profit organization. When federal funding was not available, the plan was abandoned. The plan's one manifestation was the establishment of a non-profit mining museum in the C&H pattern shop. The Coppertown museum was established in 1972 and continues to operate today, providing visitors with an overview of Calumet's mining past.[145]

In 1976 Sixth Street was extended to meet U.S. 41, cutting through the former industrial corridor with a broad curve, creating a new circulation route, the Sixth Street Extension.

[143] Uel Blank and Clare A. Gunn, *Guidelines for Tourism in the Upper Peninsula (*Johnson Johnson & Roy, Inc., 1966).
[144] Hoagland, *Mine Towns,* 240-241; Thurner, *Calumet Copper and People*, 105-107; and Thurner, *Strangers and Sojourners*, 285-287.
[145] Hoagland, *Mine Towns,* 240-241.

Throughout the industrial core, many buildings and landscape features have been removed, including all of the shaft houses and most railroad tracks. The corridor includes foundations of industrial buildings, landscape features, machinery, and vegetation that is encroaching in areas that are not maintained.

Knowledge and recognition of the area's historic significance evolved during the 1970s and 1980s. In 1974 a National Register survey focusing on the Calumet Civic & Commercial Historic District and the Calumet Industrial District was conducted. The information from the survey was supplemented by a report prepared in 1987 and developed into a National Register of Historic Places nomination in 1988. The role of the Calumet and Hecla Mining Company and the Village of Calumet in the development of the copper mining industry in the United States was clearly documented. In 1989 the property was designated a National Historic Landmark, having the highest level of significance obtainable.[146]

The failure of the Coppertown USA scheme seems to have resulted in resignation by UOP that the large amount of industrial land they owned in Calumet was not inclined to be put to profitable use in the near future. Their pursuit of redevelopment plans ended and a local, grass-roots effort to preserve the heritage of the community gained steam. During the 1980s interest grew in the concept of establishing a national park in the Keweenaw.

The grassroots efforts of numerous individuals and organizations resulted in the establishment of Keweenaw National Historical Park in 1992. The park is a partnership park with limited federal ownership. The park's enabling legislation and General Management Plan stipulate that only a small portion of the land within the park boundaries may be owned by the federal government. The remaining property is owned and managed by several organizations and multiple private property owners.

In 1995 Mine Street Station was developed on the west side of the Sixth Street Extension. The development includes a fast food restaurant, gas station, large parking lots, grocery store, chain hotel and other strip-type developments. The character of the structures and layout of the development are not compatible with the historic character of Calumet, but the facilities are important to the daily lives of the community and visitors.

The school campus for the Public Schools of Calumet-Laurium-Keweenaw is located north of the C&H General Office building (now Keweenaw NHP Headquarters) between Calumet Avenue and Mine Street. Two historic buildings are included in the central school district campus. The 1907 high school and 1929 Washington School were constructed by C&H. The buildings have evolved into combined use as a kindergarten through twelfth-grade school for the merged school district that includes Allouez, Mohawk, Ahmeek, Calumet, and Laurium. The original building is still in use and has been expanded to serve the school needs. A major addition was completed in 1997,

[146] Lidfors, et al., National Register of Historic Places, Calumet Historic District, 1988; Kathleen Lidfors, *Potential National Historic Landmark Eligibility of Historic Copper Mining Sites on the Keweenaw Peninsula, Michigan: A Report to the History Division, National Park Service, Washington, D.C,* 1987.

providing a new elementary school, library, gymnasium, and multi-media center.[147] The addition extends into the area that formerly was part of the C&H industrial corridor. The addition bisects Mine Street in a location where the vehicular circulation route was crucial to mining activities historically. Its placement changed the spatial organization and views in the area as well. In 2012, the grade school was expanded and a commons area was added. The school playground and student gardens are located between the school building and the C&H dryhouse and drill shop. The school parking lot is situated between the school, the C&H gearhouse, dryhouse, and surrounding the powderhouse. Prior to the development of the parking lot, the area included dirt trails and volunteer vegetation.

A few other buildings were constructed during this period. They include the Township Hall, ATT Central Office, and Farmers Mutual Fire Insurance structures, all located along the north side of Red Jacket Road, and the Calumet Electronics building that was constructed as an addition to the C&H roundhouse located on Mine Street. Also, in the northern portion of the Calumet Unit the Peterson Funeral Home was constructed at 57265 Mine Street, just north of the school property, in 1974. At the intersection of Elm and Mine Streets, the Still Waters Assisted Living Community was constructed in 1982. The facility was closed in 2006 and reopened in 2011 as Garden View Assisted Living and Memory Care.[148]

Other changes to the landscape have included the growth of volunteer vegetation in portions of the industrial corridor that are no longer actively used and the establishment of informal recreational trails in the south Mine Street area. Also, the southwestern portion of the Calumet Unit is currently used as an area for stockpiling dirt and stone and possibly for extracting stone for construction projects.

In 1998, the National Park Service, in consultation with the Keweenaw National Historical Park Advisory Commission, prepared a General Management Plan (GMP) to help guide managers in "opening the park to the public, managing the park's resources, and telling the copper mining story."[149] Since then, the National Park Service (NPS) has acquired four buildings within the Calumet Unit. Two have been comprehensively rehabilitated with the third and fourth partially rehabilitated. The NPS also purchased the Russell Snow Plow, located on Red Jacket Road west of Warehouse No.1. The NPS is currently contracted with Quinn Evans Architects to prepare a plan for an accessible route to the snow plow and interpretive information regarding the role of it and similar machines in historic industrial activities.

[147] http://www.clkschools.org/history-of-clk, accessed 8 February 2012.
[148] http://www.pasty.com/faq.html accessed 8 February 2012, and *The Daily Mining Gazette,Garden View Assisted Living & Memory Care opens; announces ties with Northridge Pines*, 5 January 2011 (www.mininggazette.com accessed 8 February 2012).
[149] NPS, *Final General Management Plan*.

Table II-1: Planning Documents Related to the Preservation of Calumet Unit Landscapes

Date	Title	Prepared by
1975	HABS documentation of Agassiz Park	Kevin Harrington
1975	HABS documentation of Italian Hall	Kevin Harrington
1976	UOP Development Plan for Coppertown USA	Barton-Ashman Associates
1979	Calumet Civic & Commercial Historic District Plan	Preservation Urban Design in association with John Roger Johansen Architect
1981	Calumet Civic & Commercial Historic District Plan	John Roger Johansen Architect
1987	Potential National Historic Landmark Eligibility of Historic Copper Mining Sites on the Keweenaw Peninsula, Michigan	Kathleen Lidfors, Historian, Apostle Islands National Lakeshore
1988	National Register Nomination, Calumet Historic District	Kathleen Lidfors, Historian, Apostle Islands National Lakeshore (with assistance from Mary Jo Hrenchir and Laura Feller)
1990	Agassiz Park Development Project	Village of Calumet
1991	Agassiz Park and Fourth Street Redevelopment Plan	U.P. Engineers & Architects, Inc., for Village of Calumet
1992	Village of Calumet Recreation Plan	Village of Calumet
1995	Housing Preservation Issues Workshop Keweenaw National Historical Park	NPS
1997	Remnants of Corporate Paternalism: Company Housing and Landscapes at Calumet, Michigan	Arnold R. Alanen and Katie Franks
1998	Keweenaw National Historical Park General Management Plan and Environmental Impact Statement	NPS
1998	Village of Calumet Recreation Plan	Village of Calumet
1999	Agassiz Park Master Plan	U.P. Engineers & Architects, Inc., for Village of Calumet
1999	Preliminary Historic District Study Committee Report, Calumet Village Civic and Commercial Historic District	Village of Calumet Historic District Study Committee
1999	Preliminary Historic District Study Committee Report, Calumet and Hecla Corporate and Industrial District	Calumet Township Historic District Study Committee
2001	Historic Preservation & Interpretation Projects	Forum, Lansing, Michigan
2002	Calumet Civic and Commercial District established January 15	Village of Calumet

Date	**Title**	**Prepared by**
2002	Village of Calumet Downtown Development Authority Downtown Development Plan	U.P. Engineers & Architects, Inc.
2002	Historic Structure Report, Union Building (Calumet Visitor Center)	NPS
2004	National Register Nomination for Laurium Historic District	Jane C. Busch, Cleveland, Ohio
2004	Keweenaw National Historical Park Visitor Study	NPS
2004	Cultural Landscape Inventory, General Office Building (update)	NPS
2004	Cultural Landscape Inventory, Warehouse No. 1 (update)	NPS
2005	Cultural Landscape Inventory, C&H Library (update)	NPS
2005	Keweenaw National Historical Park Fire Management Plan	NPS
2006	Cultural Landscape Inventory, Union Building (update)	NPS
2006	Keweenaw National Historical Park Alternative Transportation	Jonathan Church, Transportation Planner, Shrewsbury, Massachusetts
2006	Village of Calumet Civic and Commercial Historic District Design Guidelines	Village of Calumet HDC and NPS
2008 (draft)	Historic Structure Report, Keweenaw History Center (C&H Library)	NPS
2010	Keweenaw National Historical Park Motorist Guidance Sign Drawings	NPS
2010	Draft Long Range Interpretive Plan	NPS
unknown	Walking tour brochure – Downtown Calumet	NPS
unknown	Walking tour brochure – Calumet Industrial Core	NPS
2011	Historic Structure Report, Calumet & Hecla Warehouse No. 1	Quinn Evans Architects
2012 (predicted)	Keweenaw National Historical Park Collection Management Plan	NPS
draft	Keweenaw National Historical Park Resource Stewardship Strategy	NPS

Village of Calumet – 1961-2011

The physical conditions of properties in downtown Calumet declined when mining ended in the community in 1969. Many businesses were closed and buildings were vacant. Large quantities of buildings were no longer maintained and their condition declined steadily. Other buildings had to be demolished. Despite this, a large proportion of the historic buildings in downtown Calumet remain today and many have been rehabilitated over the last several decades. The historic street grids, building setbacks, massing of buildings and overall character of the Civic & Commercial Historic District remain intact.

Historic preservation efforts related to the Calumet Civic & Commercial Historic District were set into motion by a project focused on rehabilitation of the Calumet Theater in 1971. The project was followed by the listing of the property on the National Register of Historic Places, establishment of a nonprofit Theater Company, and additional rehabilitation projects through 1988. The efforts instilled great pride into the community and seemed to energize local sentiment in favor of historic preservation.[150]

Plans for the Civic & Commercial Historic District were prepared in 1979 and 1981, solidifying goals focused on preserving and rehabilitating historic resources in the Village. The Calumet Civic and Commercial District was established in 2002 (figure II-73) and design guidelines for properties within the district were published in 2006.[151] These plans set forth recommendations for private property owners and the Village to implement to improve the conditions within the historic district. The Village secured grants to help implement numerous projects including: sidewalk replacement and lighting restoration on Oak and Sixth Streets; brick street restoration and lighting on Fifth Street; reconfiguration of Fourth Street, creating additional off-street parking; repaving of Sixth Street; and brick street restoration on Pine Street. Private investors have rehabilitated downtown buildings and established numerous commercial businesses and residential units.[152]

The community has established a Main Street program focused on revitalizing the historic downtown district so that it is vibrant and attractive to residents and visitors.[153] The program is part of the Michigan Main Street Program within the Michigan State Housing Development Authority and the National Trust for Historic Preservation's National Main Street Program. The National Park Service developed a walking tour brochure for downtown Calumet that it distributes from its Visitor Center.

Despite all of these efforts, Calumet's downtown still is home to several dilapidated buildings, vacant lots, historically incompatible storefronts, and vacant structures.

[150] Hoagland, *Mine Towns*, 238-240.
[151] *Village of Calumet Civic and Commercial Historic District Design Guidelines*, 2006.
[152] U.P. Engineers & Architects, Inc., *Village of Calumet, Downtown Development Authority, Downtown Development Plan*, no date (latest plan according to Sue Dana, Village Comptroller).
[153] www.mainstreetcalumet.com, accessed 9 February 2012.

Specific issues and opportunities related to downtown Calumet are outlined in the current Downtown Development Plan.[154]



Figure II - 73: Calumet Civic and Commercial District Boundary, est. 2002
(source: Village of Calumet Civic and Commercial Historic District Design Guidelines, 2006)

[154] U.P. Engineers & Architects, Inc.*Calumet Downtown Development Plan*.

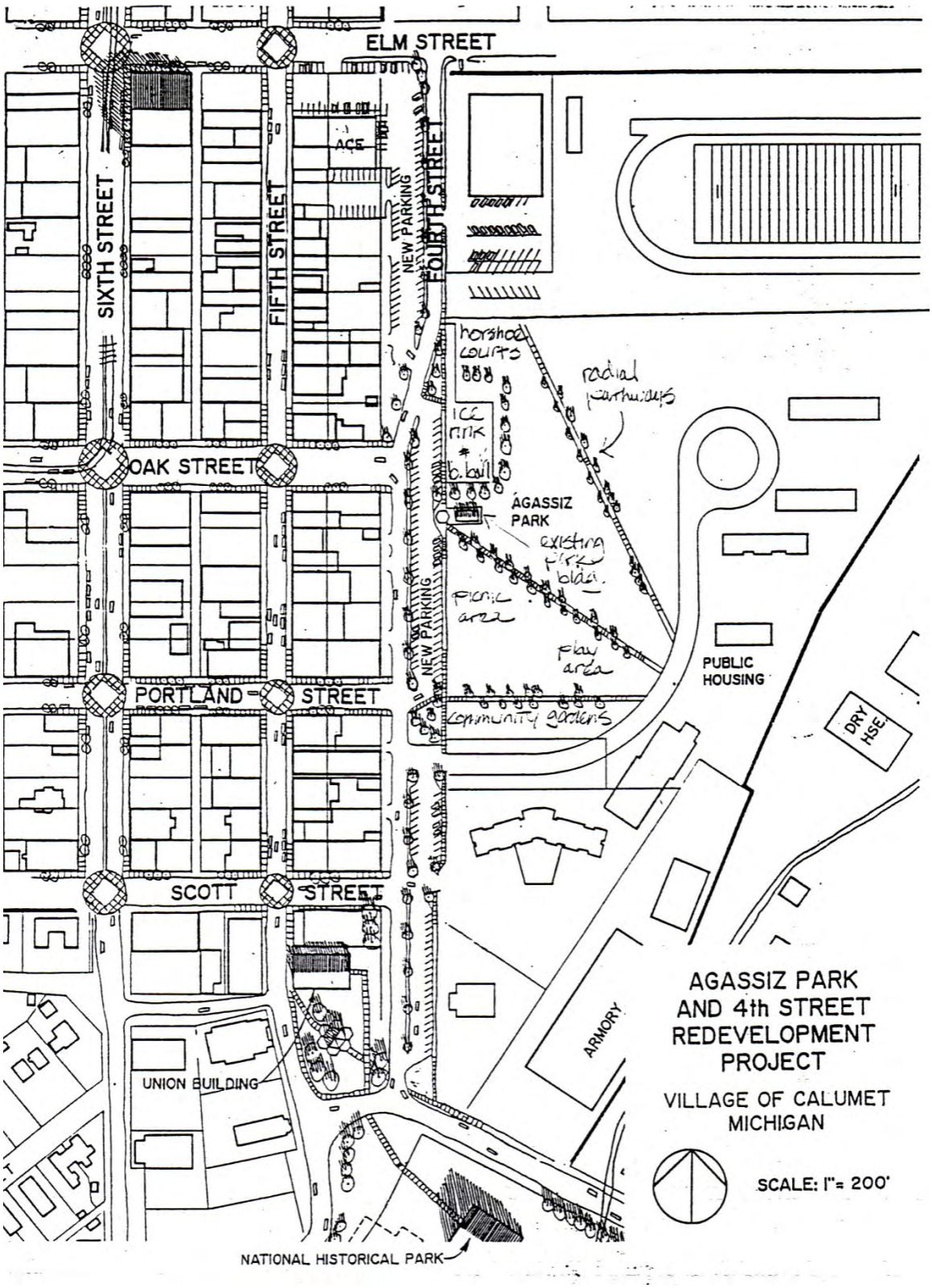


Figure II - 74: Agassiz Park and Fourth Street Redevelopment Project, 1995
(source: attached to *Agassiz Park Master Plan*, prepared by U.P. Engineers & Architects, Inc., and cited in the *Village of Calumet Recreation Plan*, 1998)

Agassiz Park—1961-2011

When Agassiz Park was built the paths in the park connected directly to Scott, Portland, Oak and Elm Streets as well as paths along the western, eastern and northern sides of the park. Flanking both sides of the paths along the western, northern, and north portion of the eastern paths, Manning provided hedges of shrubs. These served to enclose the park by providing a strong definition of its edges. Although not all of the park plan was implemented, it appears that some of these hedges were planted. A cedar hedge is extant along the northern portion of the eastern boundary of the park. Photographs indicate that hedges were also planted along the western side of the park. In 1964, the corridor along the western side of the park was altered. Where there had been a pedestrian corridor, Fourth Street was added as a vehicular circulation route.

From the time it was constructed, Agassiz Park was maintained by C&H Mining Company as a tribute to Alexander Agassiz, the company's founder. The final years of C&H operation were financially difficult and it is likely that the maintenance of the park suffered. When the company was sold to UOP in 1968, the financial situation was dire and mining operations ended within one year. It appears that upkeep of the park was neglected. UOP sought financially rewarding ways to utilize the land they owned in the community, and proposals for new development within the park were considered. The community was in need of senior housing facilities, and a portion of the park was sold to the Calumet Housing Commission for the development of a four-story senior housing facility in 1969. The project was supported with federal funding from the United States Department of Housing and Urban Development (HUD).

Following the abandonment of Agassiz Park's maintenance by C&H, a series of incremental changes degraded the historic property. Several parcels have been divided from the park property and used for new development. A grocery store, insurance company, townhouses, road (Park Avenue), and apartment building now occupy sites that were formerly portions of the park.[155]

In 1974, a parking lot was constructed for the senior apartments on the site where the statue of Alexander Agassiz stood, necessitating the relocation of the statue. It was moved to a site on the eastern side of the 1898 C&H-constructed public library, which is currently owned by the National Park Service and used as a research facility, referred to as the Keweenaw History Center. The statue sits in the side-yard with no paths or other connections to the surrounding landscape.

The northwest corner of the park was sold for development of a grocery store in 1976. The lot was developed with a large flat-roof building that is surrounded by pavement. There are no ornamental features or plants remaining on the grocery store site.

The first Calumet Civic & Commercial Historic District Plan was prepared in 1979 by Preservation Urban Design, Inc (see Figure II-75). The plan identified Agassiz Park as a

[155] Alanen and Bjorkman, *Plats, Parks, Playgrounds and Plants*, 57-58.

valuable community amenity and recommended that it be "defended vigorously against any further development."[156] Three years later, in 1982, a second apartment building for elderly residents and four townhouse structures, a street with a cul-de-sac, and three parking lots were constructed on park land. The project provided much needed housing for elderly residents, as well as units for families. Undertaken by the Calumet Housing Commission, funding was provided by the Department of Housing and Urban Development (HUD). An office building was constructed, to the south of the original elderly apartment complex, by Farmers Mutual Fire Insurance Company. All of these structures remain and are being utilized for their original purpose.

In 1990, the Village of Calumet applied for a Community Development Block Grant (CDBG) to assist in acquisition of Agassiz Park, procurement of the triangular lot next to the Union building (see Red Jacket Road Park section), purchase of a fourteen foot wide strip of land along the west side of Fourth Street, and funding of improvements to Fourth Street. Using funds from the grant, the Village of Calumet purchased 4.5 acres of the formerly 25 acre Agassiz Park to ensure that it would not be developed in an incompatible manner with downtown. A plan entitled "Agassiz Park and 4th Street Redevelopment" was prepared, and is illustrated in Figure II-74. The plan was not approved; however, the Village uses it as a guide for making decisions about the park.

In 1991, a park building including restrooms and an activity area was constructed on the western side of the park. Improvements to Fourth Street included construction of parking lots along the west side of Agassiz Park from Oak Street to the South. The proposed medians with trees were planted with ground cover, as the Village Council was concerned that trees would inhibit snow plowing, but the plants died and were not replaced. The ice rink and parking/street alignment at the northern block of Fourth Street were not implemented. The parking on Fourth Street is used by downtown businesses and for overnight parking by residents. It is considered a vital element in the rehabilitation of downtown Calumet.

The Village prepared a Recreation Plan in 1992 (updated in 1998) to provide guidance for managing recreational properties, including Agassiz Park. Recommendations for Agassiz Park included restoration of the radial walkways and plantings consistent with Manning's design, and installation of an outdoor ice rink, children's play area, picnic area and outdoor stage. The Village Recreation Plan did not give specific direction for the form or locations of these facilities, other than including a copy of a 1995 "Agassiz Park and 4th Street Redevelopment Project" plan in the 1998 update (see Figure II-74). In 1998, U. P. Engineers & Architects, Inc., was hired to develop a master plan for the park. The goal of the plan was to provide direction for the redevelopment of the park in a way that reflects the design intent of the original Manning plan while accommodating present day needs.[157] Specific recommendations provided in the report are outlined in Chapter 6: Recommended Treatment, of this cultural landscape report.

[156] Preservation Urban Design, *Calumet Downtown Historic District Plan*, Public Space Improvements, 1979.
[157] *Village of Calumet Recreation Plan*, 1998; and U.P. Engineers & Architects, Inc., *Agassiz Park Master Plan*, 1998.

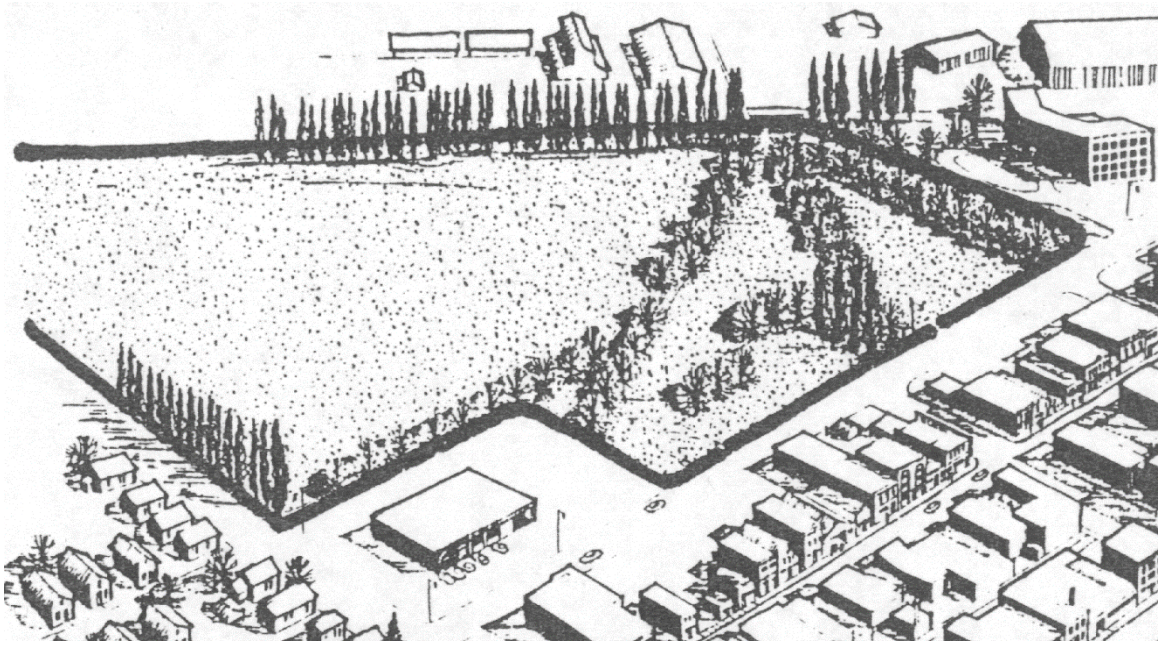


Figure II - 75: 1979 Conditions at Agassiz Park (source: Calumet Civic & Commercial Historic District Plan prepared by Preservation Urban Design, excerpt from plan titled "Public Open Space Improvements" 1979)



Figure II - 76: 2012 Conditions at Agassiz Park
(source: GoogleEarth accessed February 2012)

Red Jacket Road Park—1978-2011

Red Jacket Road Park, is a triangular shaped open space located at the northeast side of Red Jacket Road, adjacent to the Calumet Visitor Center (Union Building) between Fourth and Fifth Streets. The 1979 Public Open Space Improvement plan prepared by Preservation Urban Design identified this space as one that should be developed to create an attractive arrival experience to Calumet's downtown (see Figure II-77). The property was purchased by the Village of Calumet in 1990 to ensure that it be maintained as open space. The park is meant to provide a central gathering place for visitors and residents as they walk between downtown Calumet and other attractions. The current Village Recreation Plan indicates that the older trees on this property should be pruned or removed.

A 1995 plan entitled "Agassiz Park and Fourth Street Redevelopment Project" provided a conceptual landscape plan for the Red Jacket Road Park (figure II-78). The plan was not adopted by the Village, and the concept for this area has not been pursued. The plan included the development of a path, gazebo, and ornamental plantings in the small park. The plan also indicates that Red Jacket Road be re-aligned in this area, making the park larger and eliminating Armory Street.[158]

In October 2011 the new Calumet Visitor Center was opened in the historic Union Building adjacent to this property. The site is an important physical and visual connector between the Red Jacket Road corridor and the Calumet Civic & Commercial Historic District.

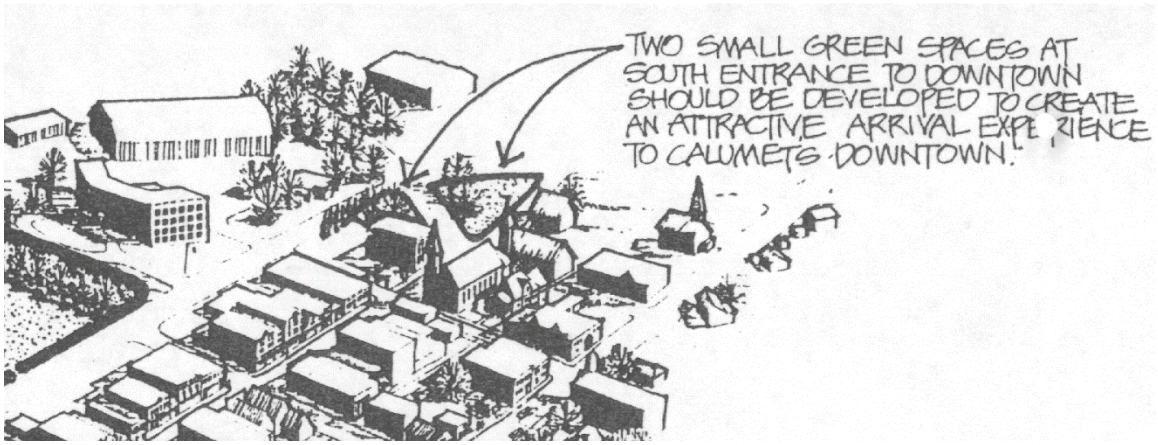


Figure II - 77: Recommendations for Red Jacket Road Park, 1979
(source: Calumet Civic & Commercial Historic District Plan prepared by Preservation Urban Design, excerpt from plan titled "Public Open Space Improvements" 1979)

[158] *Village of Calumet Recreation Plan*, February 1992, updated December 1998; also telephone conversation with Sue Dana, Village of Calumet Comptroller, 8 February 2012. Ms. Dana indicated that the concept for this area was an idea put forth by the consultant, but that the Village did not ever consider it viable.

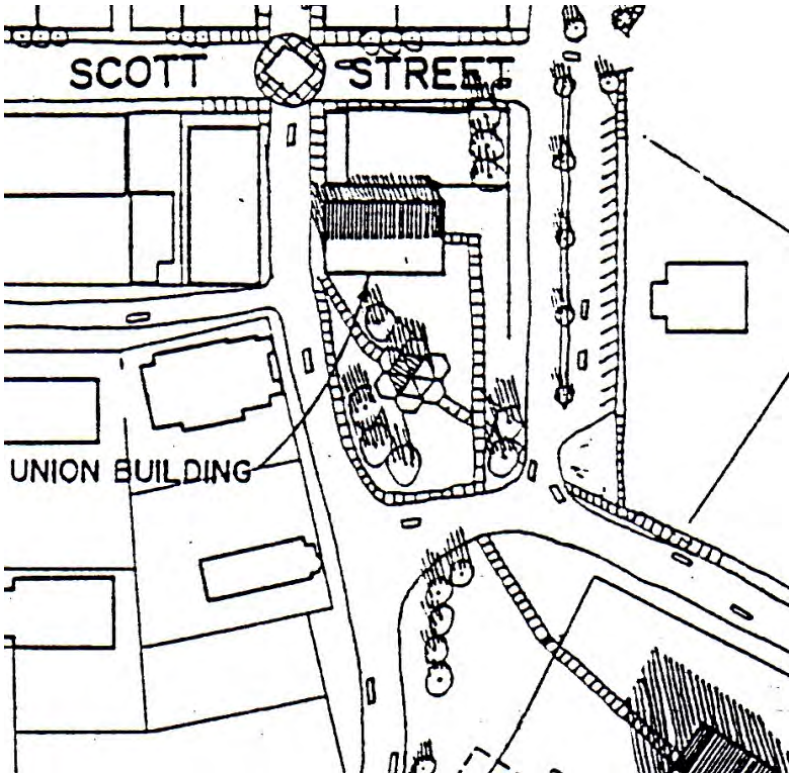


Figure II - 78: Red Jacket Road Park Plan, 1995
(source: attached to *Agassiz Park Master Plan*, prepared by U.P. Engineers & Architects, Inc., and cited in the *Village of Calumet Recreation Plan*, 1998)

Italian Hall Memorial Site—1989-2011

The Italian Hall Memorial Site commemorates the site of the Italian Hall disaster in Calumet on December 24, 1913. The building remained in use for decades after the disaster. Eventually it was vacated and gradually deteriorated. By 1980 the building was in poor condition. The village threatened to condemn the building in 1980 and a Friends group was formed with the goal of preserving the building. Unfortunately, estimated stabilization costs were well beyond the capacity of the group, and the building was demolished in 1984.[159]

Through the efforts of local volunteers and the Village of Calumet, a memorial site was created at the former building location in 1989. The site includes a simple landscape of mown lawn, a few shrubs, benches, a brick path, and the arched doorway from the building, which was relocated when the park was implemented. The story of the Italian Hall disaster is interpreted through a State of Michigan historical marker at the site.[160]

Currently, three lots are reserved for the memorial site. These include: Lot 9 on Seventh Street, the site of the existing memorial site and former location of the Italian Hall building; and lots 8 and 10, both adjacent to Lot 9 and currently vacant (see Figure II-79). Lot 9 is owned by the Village of Calumet and lots 8 and 10 are owned by the National Park Service. The Village and National Park Service plan to enhance the current memorial site in the near future. This is partially due to the need to enhance the site and in part necessary for the upcoming 100 year anniversary of the disaster, which will occur on December 24, 2013.

In January 2011, a *Front-end Planning Report for Italian Hall Memorial Park* was completed. Preparation of the report included a series of pre-planning exercises with historians and local citizens to inform an "enhanced re-design of the Italian Hall site." The report provides recommendations for design approaches and content for the development of a plan for the memorial site.[161]

[159] *Village of Calumet Recreation Plan,* February 1992, updated December 1998.
[160] Hoagland, *Mine Towns,* 222-229.
[161] Wells Resources, Inc., *Front-end Planning Report, Italian Hall Memorial Park, Calumet, Michigan,* 2011. The report is included as Appendix E herein, and the recommendations are summarized in Chapter 6: Recommended Treatment, of this report.

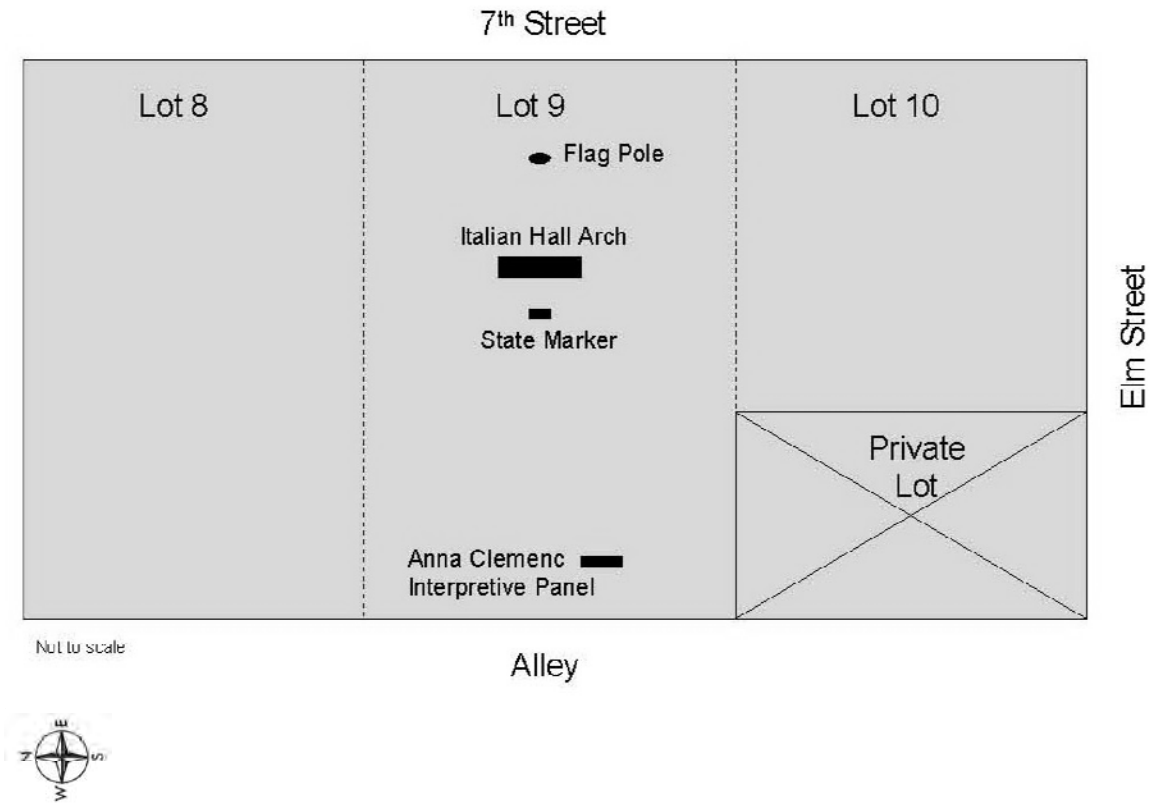


Figure II - 79: Italian Hall Memorial Site Lots
(source: Wells Resources, Inc., *Front-end Planning Report, Italian Hall Memorial Park, Calumet, Michigan,* 2011, 3)

Preservation and Change in Historic Housing Locations – 1961-2011

With the decline and end of mining operations in Calumet, the residential population decreased. The need for housing also declined, and many houses were vacated and eventually demolished. However, a large quantity of historic miners' housing remains in the Calumet Unit and adjacent Village of Laurium. Privately owned and maintained, historic houses are an important part of the historic landscape but present a challenge to preservation. The local economic conditions, severe climate, large quantity of resources, and historical integrity of the housing in the Calumet area make the challenge even more difficult.

Preservation of historic housing in the Calumet Unit has mirrored trends throughout the Copper Country. Although a great deal of intact housing remains, this is mainly due to a lack of resources to make changes, and an absence of development pressures. When the mines closed, the mining companies sold the houses to their occupants for minimal sums. "Although not particularly valued for their history, the company houses continue to serve as single-family houses. There is little preservation awareness in terms of the value of the architecture, and vinyl siding, smaller windows, and attached garages tend to distort the original buildings, but their survival rate is high."[162]

Following the establishment of the National Historic Landmark District in 1989 and Keweenaw National Historical Park in 1992, the Western Upper Peninsula Planning & Development Regional Commission (WUPPDR) and the National Park Service became concerned regarding the way that Section 106 review was coordinated for housing rehabilitation projects. In response to the concern, in 1995, the Michigan State Historic Preservation Office and Keweenaw National Historical Park organized a workshop to identify problems and potential solutions related to the accommodation of both historic preservation concerns and efforts of residents to improve the quality and condition of their housing. The workshop resulted in a list of character defining features related to housing, alternative treatment standards to be utilized for housing rehabilitation projects in the Keweenaw, and a recommendation that the Michigan State Historic Preservation Office and WUPPDR work in consultation with the Advisory Council on Historic Preservation to develop a programmatic agreement for HUD assisted housing rehabilitation programs that incorporates the alternative treatment standards.[163]

[162] Hoagland, *Mine Towns*, 244-245.
[163] *Housing Preservation Issues Workshop, Keweenaw National Historical Park*, 1995. (unpublished)

Next page:

Figure II - 80: Calumet Unit Period of Change Plan, 1961-2004

Sources for Figure II-80: Calumet Period of Change Plan, 1961-2004

- Calumet and Hecla Consolidated Copper Company, Mine Location, 1981
- Photo, Calumet, ca. 1964 (NPS, Keweenaw NHP, Non-KEWE Collection Images, Mason Collection, eBay, Web Collection, Calumet Area Miscellany, Aerials)

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

1961-2004 Period of Change Plan

Chronology

1964

Construction of Fourth Street along the edge of Agassiz Park.

1968

Calumet copper mine operations closed and many industrial buildings were removed.

1969

Calumet Housing Commission Park Avenue Apartments constructed.

1974

Statue of Alexander Agassiz moved from its original location in Agassiz Park to a new site adjacent to the former C&H library.

1975

Coppertown Mining Museum dedicated.

1976

Sixth Street Extension implemented. Agassiz Park grocery store development.

1982

Calumet Housing Commission Park Avenue Appartments addition and townhouses constructred.

1989

National Historic Landmark boundary established.

1992

Keweenaw National Historical Park establishment.

1995

Mine Street Station developed on west side of Sixth Street Extension impacting the NHL.

1997

CLK Elementary School addition constructed.

2000

Calumet and Hecla Corporate and Industrial Historic District established by Calumet Township local ordinance.

2002

Calumet Village Historic Civic and Commercial District established by Calumet Village local ordinance.

During this period, the Calumet Township Office and the AT&T Calumet Central Office were constructed on the northwest side of Red Jacket Road in between the Agassiz House and Warehouse #2.

Also, rock was extracted from the southwest portion of the district, south of Swedetown Road and west of Mine Street.



Key

- NHL Boundary
- NPS Unit Boundary
- Calumet Conglomerate lode (surface location)
- Osceola Amygdaloid lode (surface location)
- Roads
- Railroad Line
- Underground Mine/Buildings Removed
- In-active Mine Area/Industrial Landscape
- Active Mine Area/Industrial Landscape
- Village
- Parks/Recreational/Commons
- Housing Location
- Public/Institutional (C&H built for community)
- Non-historic Development
- Temple Square Area (community, religion, ethnicity)

Created/Revised

April 2013

Legend

- (A) Red Jacket Road Corridor
- (B) Mine Street Industrial Corridor
- (C) Agassiz Park
- (D) Osceola Housing Location
- (E) Colosseum
- (F) Historic Railroad Corridor
- (G) Village of Calumet (formerly Village of Red Jacket)
- (H) Yellow Jacket Housing Location
- (I) Blue Jacket Housing Location
- (J) Newtown Housing Location
- (K) Hecla Housing Location
- (L) Calumet Housing Location
- (M) Tamarack Housing Location
- (N) Swedetown Housing Location
- (O) Raymbaultown Housing Location
- (P) Village of Laurium
- (Q) CLK Public School
- (R) Italian Hall Site
- (S) Firehall
- (T) Calumet Theater
- (U) St. Anne's Church
- (V) Union Building

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.
2. Mineral lodes are indicated on this diagram for reference, but no active mining occurred during this period.

QUINN EVANS ARCHITECTS

Figure II-80

CHAPTER III:
EXISTING CONDITIONS
(Affected Environment)
ANALYSIS OF LANDSCAPE INTEGRITY

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Chapter III: Existing Conditions (Affected Environment) and Landscape Analysis

Introduction - Cultural Landscape Methodology

This chapter describes the existing conditions and contributing landscape features in the Calumet unit and explains the potential effects of landscape treatment alternatives to the environment. The "affected environment" includes the existing physical, biological, and social conditions of an area that are subject to change, both directly and indirectly, as a result of a proposed human action. Chapter I provides clarification for why each environmental assessment impact topic was either selected for analysis, or dismissed from further consideration. The impact topics addressed herein include: socioeconomics and environmental justice, visitor experience, park operations, and cultural resources (consisting of cultural landscapes and archeological resources).

The project area includes the Calumet unit of Keweenaw National Historical Park (see Figure III-1). The Calumet unit contains extensive historic resources related to the development and use of the area as a significant industrial region, touching on the themes of industry, labor, immigration, social change, architecture, archeology, geology, and the natural environment. These include physical evidence of mine shafts, hoist houses, extensive other industrial remnants, schools, theaters, churches, parks, commercial districts, company housing locations and a range of other housing types.

Next page

Figure III- 1: Calumet Unit Landscape Character Areas (source: QEA)

Sources for Figure III-1: Calumet Unit Landscape Character Areas

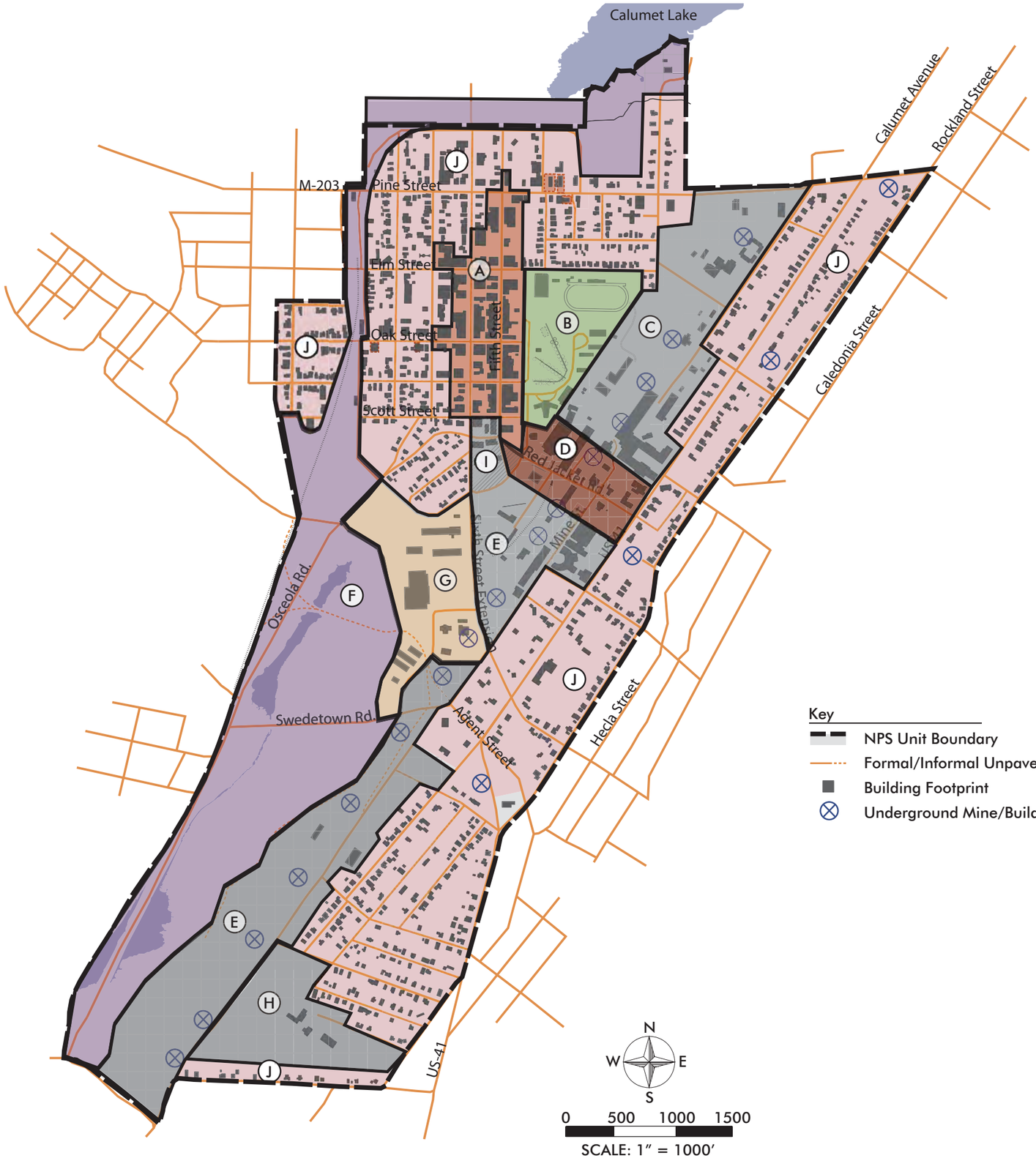
- Aerial Photography, 2002, NPS
- Site Investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Landscape Character Areas



Legend

- (A) Calumet Civic & Commercial Historic District
- (B) Agassiz Park
- (C) North Mine Street Industrial Corridor
- (D) Red Jacket Road Corridor
- (E) South Mine Street Industrial Corridor
- (F) Railroad / Recreational Corridor
- (G) Sixth Street Extension & Mine Street Station
- (H) Osceola No. 13
- (I) Temple Square
- (J) Housing Location/Residential Neighborhood

Key

- NPS Unit Boundary
- Formal/Informal Unpaved Roads
- Building Footprint
- Underground Mine/Buildings Removed

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

February, 2012

QUINN EVANS ARCHITECTS

Figure III-1

Socioeconomics and Environmental Justice

Demographics

According to US Census Bureau 2000 data, the population in Houghton County was 36,016 persons. This represents a 1.6 percent increase in population in the county from the year 1990; however, the population of Calumet Village for the year 2000 was 879 persons which was a 7.4 percent decrease in population since 1990. Calumet Township also experienced a slight decline in population during that decade. The population of the township declined from 7,015 in 1990 to 6,997 in 2000. The population of these communities has traditionally been white, as a high percentage of residents are descendents of European immigrants that moved to this area to work in the mining industry.

The results of the 2010 Decennial census will be released in the near future; however, the US Census Bureau has published data that reflects demographic changes for the past few years. These data are estimates based on averages from the past 5 years. The "2009" estimates reveal only minor changes in race/ethnic character of the community. Although estimates show that the state may have seen an increase in overall population, the local communities have likely experienced a continuation of population decline. Table III-1 summarizes demographic information.

Table III-1
Demographic Summary

	Calumet Village	Calumet Township	Houghton County	State of Michigan
Population				
2000	879	6,997	36,016	9,938,492
2009 Estimates	799	6,615	35,214	10,039,208
Race				
2000				
• White	99.0%	98.4%	95.5%	80.2%
• Black	0%	0.1%	0.9%	12.3%
• American Indian	0.5%	0.5%	0.5%	0.0%
• Other	0.5%	1.0%	3.1%	7.5%
2009 estimates				
• White	97.2%	98.3%	94.9%	81.3%
• Black	0%	0.3%	1.4%	14.9%
• American Indian	0%	0%	0.9%	1.3%
• Other	2.8%	1.4%	2.8%	2.5%
Source: US Census Bureau, 2011				

Income and Employment

According to US Census Bureau estimates, income levels for families in the Village of Calumet rose slightly faster than families in the township and about the same rate as families throughout the county in the past decade. Although the rate of increase for family income for village residents was similar to the township and county residents, the median income was much lower throughout the decade. This is partially reflected in the percentage of families and individuals that live below the poverty level. There is a much higher percentage of families and individuals in the village that live below the poverty level compared to the balance of residents throughout Houghton County and statewide. Table III-2 summarizes income information.

The economic situation is further defined for the Village of Calumet by the State of Michigan Housing Development Authority. The state has designated the village as an "Eligible Distressed Area".[1] This designation is for communities that have exhibited higher than statewide average levels of economic distress.

Table III-2
Income Summary

	Calumet Village	Calumet Township	Houghton County	State of Michigan
Personal Income				
2000				
Median Family Income	$22,750	$34,236	$38,635	$53,457
Per Capita Income	$12,111	$14,771	$15,078	$22,168
2009 Estimates				
Median Family Income	$28,021	$36,988	$44,608	$60,635
Per Capita Income	$15,177	$16,047	$17,627	$25,172
Poverty Status				
2000				
Families Below Poverty Rate	29.0%	11.9%	9.9%	7.4%
Individuals Below Poverty Rate	35.0%	17.6%	16.8%	10.5%
2009 Estimates				
Families Below Poverty Rate	29.7%	11.8%	12.0%	10.3%
Individuals Below Poverty Rate	35.1%	16.3%	22.6%	14.5%
Source: US Census Bureau, 2011				

[1] Michigan State Housing Development Authority, March 2010

Economic Resources

Major employment sectors in Houghton County are generally health, education and social services, retail and other businesses associated with tourism. In 2000, the largest employment sectors in Houghton County were in the areas of educational, health and social services (40.1 percent), retail trade (13.4 percent), and arts, entertainment, recreation, accommodation and food services (10 percent). According to US Census Bureau estimates, at the end of the decade the overall distribution of important employment sectors did not change very much; however, there appears to have been a slight increase in employment in sectors that are influenced by tourism.

Tourism on the Keweenaw Peninsula has both a summer and a winter season. Summer and early fall is the main tourist season and lasts from Labor Day through mid-October. Winter activities like ice fishing, snowmobiling, and cross country skiing makes this region popular from November through March.

In studies conducted in the mid 1990s, it was estimated that tourism generated $137,459,000 in the Keweenaw Region which includes Baraga, Houghton, Iron, Keweenaw and Ontonagon Counties[2]. Houghton County accounted for approximately 23 percent of the revenue generated or roughly $32,000,000. In 2000, Houghton County accounted for over 46 percent of revenues generated from tourist expenditures in the region.

[2] Economic Impacts of Recreation & Tourism Web Site, Michigan Tourism, Michigan State University, 2007

Visitor Expenditures

Keweenaw NHP had a visitor study conducted in 2004. During the study, 332 visitor groups were questioned. Of the visitor groups questioned, the average group expenditure was $365 with an average per capita expenditure of $189 for Keweenaw National Historical Park and partner sites. At the Calumet unit, visitor group's expenditures averaged $166 with a $47 per capita average expenditure. A summary of how visitors spend their money in the region is summarized in Table III-3 below.

Table III-3
Visitor Expenditure Summary

Category	**Proportion of Total Expenditures (Dollar value by percent of visitor group is rounded)**	
	Keweenaw NHP and Partner Sites	**Calumet Unit**
Hotel/Motel Cabin	21% ($77)	26% ($43)
Restaurant/Bar	17% ($62)	18% ($30)
Gas/Oil	11% ($40)	12% ($20)
Camping Fees	10% ($36)	NA
Groceries/Take-Out Food	10% ($36)	15% ($25)
Admission/Recreation	9% ($33)	7% ($12)
Other Transportation	4% ($15)	4% ($7)
Donations	1% ($4)	1% ($2)
All other Purchases	17% ($62)	16% ($27)
Source: Keweenaw National Historical Park Visitor Study, 2004		

Visitor Experience

The Upper Peninsula of Michigan provides a wide variety of outdoor experiences for visitors throughout the year. Opportunities for hiking, camping, skiing, hunting, biking, paddling and boating as well as the option to visit numerous cultural sites are attractive to residents from local communities as well as visitors from throughout the United States. Because Keweenaw National Historical Park is a partnership park there are a large number of partner organizations that contribute resources to the overall experience of visitors to the park and region. Table III-4 summarizes partners of Keweenaw National Historical Park.

Table III-4
Current Partners with Keweenaw National Historical Park

Adventure Mining Company	Keweenaw Peninsula Chamber of Commerce
A.E. Seaman Mineral Museum	Keweenaw Convention and Visitors Bureau
Calumet Theatre	Houghton County Historical Museum
Charter Township of Calumet	Keweenaw County Historical Society
Village of Calumet	Keweenaw Heritage Center at St. Anne's
Calumet Village Historic District Commission	Keweenaw National Historical Park Advisory Commission
Chassell Heritage Center	Laurium Manor Mansion Tours
Copper Country Intermediate School District	Main Street Calumet
Copper Country Trail National Byway	Michigan Technological University
Copper Range Historical Museum	Old Victoria
Coppertown Mining Museum	Ontonagon County Historical Museum
Delaware Copper Mine	Porcupine Mountains Wilderness State Park
Finnish American Heritage Center	Quincy Mine Tours
Fort Wilkins Historic State Park	U.P. Firefighters Memorial Museum
Franklin Township	
Hanka Homestead Museum	
Source: Keweenaw National Historical Park, 2011	

Keweenaw Heritage Sites that are heavily visited include Porcupine Mountains Wilderness State Park and Fort Wilkins Historic State Park. Some of the more frequented attractions in the Calumet unit include Park Headquarters and the Calumet Theater; however, there are many retail stores, restaurants and coffee shops in downtown Calumet that benefit from park visitors.

Keweenaw National Historical Park's Division of Interpretation and Education has prepared and is currently implementing the park's Education Plan. The Education Plan, developed with local educators and school administrators, identifies a prioritized listing of agreed upon education goals and projects that are to be developed by the park and Keweenaw Heritage sites. The plan includes recommendations for teacher workshops, history camps and ranger-guided and self-guided tours of the park. Park interpretive staff will soon complete the Long-Range Interpretive Plan that, in addition to the park's Education Plan, is intended to outline the interpretation and education vision for Keweenaw National Historical Park.

Ranger-guided tours are offered for both units of the park. There is a self-guided walking tour in the Calumet unit that is available throughout the year; however, ranger-guided tours are only available during the summer months. Although there is a self-guided walking tour and ranger-guided tours available to visitors, the park's Long-Range Interpretive Plan states that it is likely that a visitor's experience may be disjointed and their understanding of the park may be somewhat limited. In addition to ongoing efforts to aid visitors in developing an understanding of the stories associated with Keweenaw National Historical Park, another important role for Keweenaw National Historical Park interpretive staff is providing interpretive training and support for Keweenaw Heritage Sites and partner organizations.

On 27 October 2011, the park opened its first permanent visitor facility known as the Calumet Visitor Center. Visitors are able to tour exhibits, get information regarding Keweenaw Heritage Sites and park partners, get assistance with local trip planning, and purchase history association sales items. The facility is fully accessible and is open year round. It also serves as the starting point for walking tours into downtown Calumet and the former C&H industrial core.

To better understand visitor preferences and demographic information, Keweenaw National Historical Park contracted for a Visitor Study in the summer of 2004. The visitor study was conducted by the Park Studies Unit at the University of Idaho. A visitor questionnaire was utilized to generate data on visitor experiences and expenditures at Keweenaw National Historical Park and cooperating sites. According to the survey, the majority of visitors tend to be from Michigan and immediately surrounding states. Michigan accounts for over half of the park visitors and the states of Wisconsin, Illinois, and Minnesota account for another 30 percent. The average group size is five people and the average visitor age is about 49. The primary reason visitors cited for coming to Keweenaw Peninsula was to see natural resources / scenic beauty. Another important reason for visiting the region was for outdoor recreation. Other attractions in the region that are often seen on the same trip as visits to Keweenaw NHP include Copper Harbor, Pictured Rocks National Lakeshore, Apostle Islands National Lakeshore, and Isle Royale National Park.

Keweenaw NHP does not have a Visitor Survey Card program. Current data on visitor satisfaction at this time is based solely on results of the 2004 Visitor Study. The NPS has a service wide goal of 95 percent visitor satisfaction with park facilities, services, and recreational opportunities. Fifty-three percent of visitors rated the overall quality of visitor services as very good. Keweenaw NHP also has goal that 70 percent of visitors will understand significance of the park after their visit. The visitor study revealed that 86 percent of visitors reported a better understanding of park significance after visiting the park.

Visitor safety is one of many goals of the NPS. Since most property in Keweenaw NHP is not owned by the NPS, park staff must work collaboratively with partners and Keweenaw Heritage Sites to mitigate hazards and to educate visitors about safety concerns. Interpretive staff insert safety-related articles in the annual park newspaper.

Park Operations

Park Headquarters is located on Red Jacket Road in the Village of Calumet. The *Superintendent's Annual Report, Fiscal Year 2009 and 2010* listed a total of 47 employees at Keweenaw National Park. Park staff during the 2009-2010 timeframe was composed of permanent, temporary, or seasonal employees. During that timeframe only 18 of these employees were designated as permanent. In addition to permanent, seasonal and temporary staff, the park relies heavily on volunteers and interns. As an example, the Volunteers-In-Parks program resulted in 2,835 hours of volunteer service at Keweenaw National Historical Park in 2009. Park administrative, interpretive and maintenance staff are stationed at the Park Headquarters and maintenance facility in the Village of Calumet.

Preservation Services (including maintenance and construction staff) had the greatest number of employees and serves both the Calumet and Quincy units of the park. The NPS Preservation Services division provides professional technical assistance for the preservation of landscapes and buildings. Preservation Services staff provides routine maintenance for park facilities, provides repair and rehabilitation to structures in both units, and collaborates with Keweenaw Heritage Sites and other partners on their rehabilitation projects.

As described in the Visitor Experience section, Keweenaw National Park interpretive staff provides on-site interpretation and visitor contact at both units of the park; however, much of park interpretive and museum staff's time is spent working with cooperating sites and school groups throughout the region to tell the story of the park's history. Park interpretive staff also participates in several community festivals during the summer months.

Although the park has permanent and seasonal interpretive rangers, there are no law enforcement rangers at Keweenaw National Historical Park. Public safety (law enforcement and fire and rescue services) is provided by local communities.

Cultural Resources

Cultural Landscapes

The Calumet unit contains extensive cultural landscape resources significant for their association with copper mining and associated activities during the copper mining era from ca. 1840s through the 1930s. A majority of the property within the Calumet unit is part of a National Historic Landmark District (see Figure I-3).

Due to the large size of the project area, and the complexity of the historic landscape resources, information regarding the Calumet unit cultural landscapes has been organized into landscape character areas. Landscape character areas are places containing similar physical characteristics, qualities, attributes and associated cultural landscape resources. The landscape character areas that make up the Calumet unit are illustrated in Figure III-1 and include:

A. Red Jacket Road Corridor
B. South Mine Street Industrial Corridor
C. Agassiz Park
D. Osceola No.13
E. Calumet Civic & Commercial Historic District
F. Historic Railroad Corridor and North Mine Street
G. Village of Calumet
H. Housing Locations
    a. Yellow Jacket Housing Location
    b. Blue Jacket Housing Location
    c. New Town Housing Location
    d. Hecla Housing Location
    e. Calumet Housing Location
    f. Tamarack Housing Location
    g. Swedetown Housing Location
    h. Raymbaultown Housing Location
I. Village of Laurium
J. Calumet-Laurium-Keweenaw (C-L-K) Schools Area

A site survey was conducted in September and November 2011 to record existing conditions of landscape features within the project area. National Park Service guidelines indicate that cultural landscapes are to be evaluated through an assessment of landscape characteristics. Landscape characteristics are the tangible and intangible aspects of a landscape that individually and collectively give the landscape its historic character and aid in the understanding of its cultural importance. The landscape characteristics that are relevant to the overall Calumet unit are: environmental setting, spatial organization, land use, circulation, topography, vegetation, views, and archeological resources. This chapter describes the landscape characteristics in the Calumet unit in two ways. The first portion of each description pertains to its existing condition, the latter to landscape analysis. The landscape analysis compares the historic site conditions to the current conditions and identifies landscape characteristics that retain integrity and contribute to the significance of the overall project area.

As indicated, the existing conditions and analysis begins by addressing conditions and topics that relate to the entire Calumet unit, or the overall project area. This is followed by descriptions of six landscape character areas: the Red Jacket Road Corridor, South Mine Street Industrial Corridor, Agassiz Park, Osceola No. 13, Calumet Commercial District, and the historic railroad corridor and North Mine Street. Finally, a brief discussion of each of the housing locations within the Calumet unit is provided.

Overall Project Area - Environmental Setting

Existing Conditions – Environmental Setting

The Keweenaw Peninsula extends about 100 miles into Lake Superior and averages about 25 miles wide. The region's most prominent geologic feature is the Copper Range, a highland that forms a spine along the length of the peninsula at about 600 feet above the lake level. The width of the spine varies from four to twelve miles wide and extends from the southwest to the northeast. Situated on the upthrust side of the Keweenaw fault, the Copper Range is an exposed example of a 1.1 billion-year-old mid-continent rift system. The rift extends to the southwest to the Black River area near the Wisconsin border. Beyond the northern tip of the Keweenaw Peninsula, the rift turns northwest and continues under Lake Superior to Isle Royale where it rises to the surface again.

The topography of the region includes steep rocky ridges, glacial deposits, gently sloping lake plains and level outwash plains. The Calumet unit is located along the spine near the center of the peninsula and includes about 750 acres of relatively level land upon which the historic mining community of Calumet is situated.

Lake Superior is a dominant feature of the region providing scenic beauty and influence upon the local climate. The warm summers and cold winters in this continental temperate climate are moderated by the proximity of Lake Superior. The annual precipitation averages 40 inches, much of which comes from over 200 inches of annual snowfall. The moisture-laden weather systems affected by Lake Superior result in snow cover lasting about 150 days per year.[3]

Analysis – Environmental Setting

The rich mineral deposits of the Copper Range attracted mining companies to Calumet and resulted in extensive industrial, commercial, and residential development in the unit. The topography and climate affected the form of these developments and influenced daily life in the Calumet unit.

[3] Keweenaw National Historical Park General Management Plan, 5-7.

Overall Project Area - Spatial organization

Existing Conditions – Spatial Organization

The majority of the landscape within the Calumet unit is arranged in relation to two juxtaposing grid patterns (refer to Figures III-1 and III-2). The streets in the eastern and southern portions of the unit are aligned along a southwest to northeast angle that corresponds to the parallel alignment of the Calumet conglomerate lode and the Osceola lode. Mine Street, Calumet Avenue, and Rockland Street provide key southwest to northeast alignments parallel to the copper lodes. Mine Street lies slightly southeast of the Calumet conglomerate lode and the Osceola lode is located between Calumet Avenue and Rockland Street. Although each of these streets contains interruptions that break their alignment from being continuous straight lines, each presents strong linear organizational spines upon the landscape. Perpendicular streets in this area are spaced irregularly and further apart than the parallel streets, creating large, long blocks. The central industrial spine along Mine Street includes large scale buildings spaced irregularly. Other areas include residential developments that are smaller in scale and more consistent in spacing.

The Calumet Commercial District, Village of Calumet, and adjacent housing locations are aligned with a grid that corresponds to compass coordinates. Numbered streets are oriented north-south and named streets are oriented east-west. The street grid is tighter here, creating square blocks in the southern portion of this area and rectangular blocks to the north. The core of this area is the Downtown Commercial District, where two, three, and four-story commercial and professional office buildings are aligned adjacent to the sidewalks that parallel the streets. Buildings share adjoining walls, or are closely spaced. In some areas buildings have been removed and vacant lots are present between structures. Residential areas are predominately occupied by single-family houses that include small yards and typical outbuildings are garages and sheds. Selected streets contain a variety of combinations of curb and gutter, lawn terraces, street trees, sidewalks, driveways, and building set-backs. Several streets do not have curbs and the building set-back is utilized for parallel parking.

The spatial organization of the unit also includes two exceptions to the grid-related layouts. Although the buildings within the parcel on the west side of the Sixth Street Extension (Sixth Street Station) are aligned according to compass coordinates, their scale and layout on the landscape does not correspond to either of the two aforementioned grid patterns. This development is arranged around large parking lots in the fashion of a current-day strip mall development. The southwest portion of the unit is made up of a former industrial landscape that is currently used for stock-piling and mining dirt and gravel materials.

Analysis – Spatial Organization

Historically, Hulbert platted Red Jacket on an ordinal grid and everything developed by C&H was organized on a grid that was aligned with the Calumet conglomerate lode and the Osceola lode, both natural features (see Figure III-2). Both organizational systems continue to be apparent today in the majority of the unit. The southwest to northeast orientation of the streets in the south and eastern portions of the unit can serve as valuable interpretive tools in conveying the story of the underground operations of C&H, as is apparent in Figure III-2. Railroad routes were

developed in response to topography and emphasis on accessing key industrial and passenger hubs. The location of the Mineral Range railroad and depot served as an edge to the Village that affected development patterns.

Next Page
Figure III- 2: Calumet Unit Spatial Organization, 1916-1930 (source: QEA)

Sources for Figure III-2: Calumet Unit Spatial Organization, 1916-1930

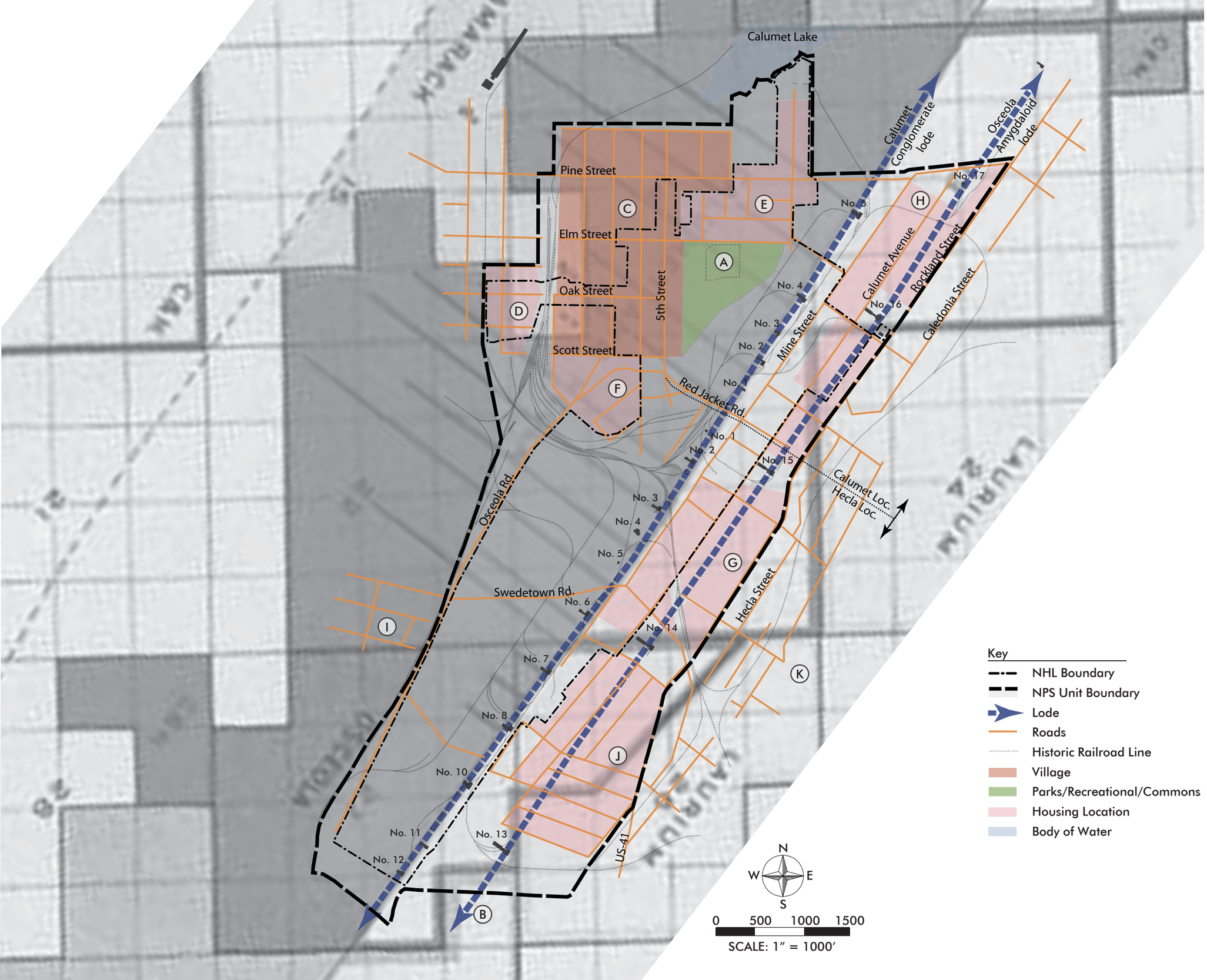
- NPS, Keweenaw NHP, Mason Collection, NW from Superior Stack, 1893
- Calumet and Hecla Mine Locations, May 1901
- Calumet Conglomerate Lode, MTU

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

1916-1930 Spatial Organization



Legend

- (A) Agassiz Park
- (B) Osceola Housing Location
- (C) Village of Calumet (formerly Village of Red Jacket)
- (D) Yellow Jacket Housing Location
- (E) Blue Jacket Housing Location
- (F) Newtown Housing Location
- (G) Hecla Housing Location
- (H) Calumet Housing Location
- (I) Swedetown Housing Location
- (J) Raymbaultown Housing Location
- (K) Village of Laurium

Key

- NHL Boundary
- NPS Unit Boundary
- Lode
- Roads
- Historic Railroad Line
- Village
- Parks/Recreational/Commons
- Housing Location
- Body of Water

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

August 22, 2011

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Figure III-2

Overall Project Area - Land use

Existing Conditions – Land Use

Current land use in the Calumet unit is categorized into seven main land use types that correspond with historic and recent activities (see Figure III-1).

Inactive Mine / Industrial Landscape
Areas that are actively used for industry and those that are inactive mine sites but continue to convey aspects of the historic mine activities are included in the *Inactive Mine / Industrial Landscape* category. Related landscape character areas include the Mine Street industrial corridor and Osceola No. 13.

Village
The Village of Calumet includes the Calumet Commercial District and the residential neighborhoods in the Village that were not housing locations.

Parks/Recreational Areas
Open space set aside for recreational use within the Calumet unit includes Agassiz Park, adjacent school athletic fields, the Italian Hall Site, and a portion of the Swedetown Recreation Area located north of Swedetown Road and east of Osceola Road / County Road C-45.

Railroad Corridor
This former railroad corridor includes a snowmobile/all terrain vehicle trail that is used recreationally. The remainder of the corridor is home to industrial remnants and volunteer vegetation.

Housing Locations / Residential
Housing locations are residential neighborhoods that were originally developed to provide housing for mine workers and their families. The housing locations within the Calumet unit include Yellow Jacket, Blue Jacket, New Town, Hecla, Calumet, and Raymbaultown.

Public / Institutional
The main institutional landscape within the Calumet unit is the Calumet-Laurium-Keweenaw school campus, located north of Red Jacket Road, West of U.S. 41, and east of Agassiz Park. The property includes the school buildings as well as parking, playground, and athletic fields.

Non-Historic Development
Areas developed after the end of the period of significance that do not reflect the historic character of the Calumet unit are designated as *non-historic development* areas. These include the Sixth Street Extension, Mine Street Station strip development, residential and commercial development within the historic boundaries of Agassiz Park, and new development at the north end of the Mine Street industrial corridor.

Analysis – Land Use

During the period of significance, a large portion of the Calumet unit was utilized for mining-related industrial activities (see Figures II-7, 9, 31, 51, the period of change plans for the Calumet unit). Although remnants of industrial buildings and landscape features remain on the landscape within the *Inactive Mine / Industrial Landscape* and *Railroad Corridor* areas illustrated in Figure III-1, the intense industrial operations historically associated with mining are no longer present. The sounds, scents, and appearance of these portions of the district have changed substantially from that present during the historic period, due to the absence of large-scale industrial land use.

Several other land use types have remained substantially intact and clearly represent their historic characteristics. These include the Village of Calumet, Calumet Commercial District, Agassiz Park, and housing locations.

The properties categorized as *Non-historic Development* areas have land uses that no longer reflect the historic character of the Calumet unit.

Next pages:

Figure III- 3: Calumet Unit Existing Land Use (source: QEA, drawing)

Sources for Figure III-3: Calumet Unit Existing Land Use

- Aerial Photography, 2002, NPS
- Site Investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Calumet Unit

Keweenaw National Historical Park

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Existing Land Use

Legend

- (A) Calumet Residential Area
- (B) Blue Jacket Housing Location
- (C) Calumet Housing Location
- (D) Tamarack Housing Location
- (E) Yellow Jacket Housing Location
- (F) Agassiz Park
- (G) Newtown Housing Location
- (H) Swedetown Housing Location
- (I) Hecla Housing Location
- (J) Village of Laurium
- (K) Raymbaultown Housing Location
- (L) Hecla Cemetery
- (M) Osceola No. 13

Key

- NPS Unit Boundary
- Formal/Informal Unpaved Roads
- Railroad Line
- Building Footprint
- Inactive Mine Area/Industrial Landscape
- Calumet Downtown Historic District
- Parks/Recreational Areas/Vegetation
- Railroad/Recreational Corridor
- Housing Location/Residential
- C-L-K Schools
- Temple Square Area (community, religion, ethnicity)
- Non-Historic Development
- Body of Water
- Underground Mine/Buildings Removed

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

June 2012

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Figure III-3

Overall Project Area - Circulation

Existing Conditions - Circulation

Access to the Calumet unit is mainly by automobile. U.S. Highway 41/Calumet Avenue is the primary road through the Keweenaw Peninsula; the road provides access to Calumet from Houghton/Hancock, located approximately twelve miles to the south, and from Copper Harbor, thirty-five miles north of Calumet. The Houghton County Memorial Airport is seven miles south of Calumet just off of U.S. Highway 41. The majority of first-time visitors to the park approach Calumet from the south.

Within the unit, transportation consists mainly of automobiles and foot traffic. Main connector roads that provide access into Calumet are Red Jacket Road, Fifth Street, and Sixth Street (see Figure III-5). On the north side of the unit, M-203/Pine Street runs east-west, connecting U.S. 41 to the village and beyond. Village streets and neighborhood roads link the commercial and residential areas within the unit. Mine Street, running parallel to U.S. Highway 41/Calumet Avenue, creates a spine connecting the historic industrial portions of the unit.

Opportunities also exist for biking, cross-country skiing, hiking, all terrain vehicles, and snowmobiles. All terrain vehicles and snowmobiles frequently utilize the former railroad corridor extending from Calumet Lake to the west, then south through the village. Near Scott Street, this route splits and recreationalists may choose to continue parallel to Osceola Road on the west or toward the former industrial corridor, on an unimproved extension of Mine Street, on the east. The western route is a State of Michigan snowmobile trail that extends beyond Calumet through the Keweenaw. The eastern route is very rough, with extensive irregularities and access to commercial services like fuel and food. Bikers using this route do so for the recreational challenges, not for easy transportation.

Swedetown Trails is a recreational area located to the west of the Calumet unit. The site offers more than 30 km of groomed ski and snowshoe trails in winter while warm weather activities include: cycling, hiking, bird watching, hunting, fishing and ATV use (see Figure III-4). The small scale of the village makes it ideal for walking and casual bike riding.

Analysis - Circulation

Historical development of circulation routes within the Calumet unit was heavily influenced by industrial activities. Circulation systems were developed for two main purposes, the movement of people and the movement of industrial materials. The movement of industrial materials took precedence and the corridor immediately above the Calumet lode was established primarily as an industrial corridor (see Figure III-6). This area included extensive railroad tracks, tram routes, utilities, massive industrial buildings, and storage yards. It was not desirable for public traffic to cross the corridor at multiple points, as this would cause circulation conflicts and safety concerns. The industrial corridor lay between the main public circulation route, U.S. Highway 41/Calumet Avenue, and the Village of Red Jacket/Calumet. As an important commercial district in the region, Red Jacket/Calumet drew merchants, customers, doctors, patients, entertainment venues and other services to the locale on a daily basis. Most of these individuals needed to cross the industrial corridor to reach the Village. Historically, Red Jacket Road provided the main

point of intersection between industrial and public traffic in the Calumet unit. The road connects Highway 41/Calumet Avenue and Fifth Street in downtown Calumet with a route that is perpendicular to the industrial corridor, Mine Street, and Calumet Avenue. It was adjacent to this road that the C&H Mining Company constructed its prominent headquarters building, as well as the Agassiz House and the library. The street continues to provide an important link between regional traffic and the commercial and historic industrial sections of Calumet.

In 1995 the Mine Street Station strip development was implemented on the west side of the Sixth Street Extension, which was constructed in 1976. Sixth Street Extension connects Sixth Street in Calumet to the south along a curved alignment to U.S. Highway 41/Calumet Avenue. The intersection of U.S. 41 and Sixth Street Extension is located approximately three blocks south of the Red Jacket Road intersection. The Sixth Street Extension intersection with U.S. 41 is the first major intersection encountered by those travelling north on the highway. The street has a wide right-of-way and a traffic light. This intersection is confusing to many first-time visitors to the park, as they interpret it as the main access route into the Calumet unit. Visitors who turn left onto Sixth Street are welcomed to Calumet by the newly developed Sixth Street Station, including a gas station, fast food restaurants, hotel, and grocery store, rather than the historic industrial and commercial features present in the Red Jacket Road corridor.

On a broad scale, the circulation patterns within the Calumet unit retain a high level of integrity related to the aspects of location, setting, and design. The absence of the historic activities and some important features, as well as additions of non-contributing buildings and elements, have greatly diminished the historic feeling within the unit. The aspect of association has been reduced in the industrial corridor, but is still strong in the housing locations and downtown district. Materials and workmanship have changed in some areas due to changes in the surfaces of roads and removal of railroad tracks; however the historic pavement is extant in many locations.



Figure III- 4: Swedetown Ski Trails, 2010 (source: Swedetown Ski Trails web site: www.swedetowntrails.org, accessed 7/13/2012)

Next pages:

Figure III- 5: Calumet Unit Existing Circulation (source: QEA, drawing)

Sources for Figure III-5: Calumet Unit Existing Circulation

- Aerial Photography, 2002, NPS
- Site Investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Figure III- 6: Calumet Unit Historic Circulation (source: QEA, drawing)

Sources for Figure III-6: Calumet Unit Historic Circulation

- Agassiz Park Design, 1917
- Calumet and Hecla Location, January 1919, NPS, Keweenaw NHP, Headquarters Collection.
- Michigan Technological University Online Photograph Collection, 1923 Agassiz Park Dedication MS003-007-004-02, 1923
- NPS, Keweenaw NHP, Jack Foster Collection, Agassiz Park Panorama from Standpipe, 1930
- NPS, Keweenaw NHP, Jack Foster Collection, Photo, #031 View of Laurium, ca. 1920s.

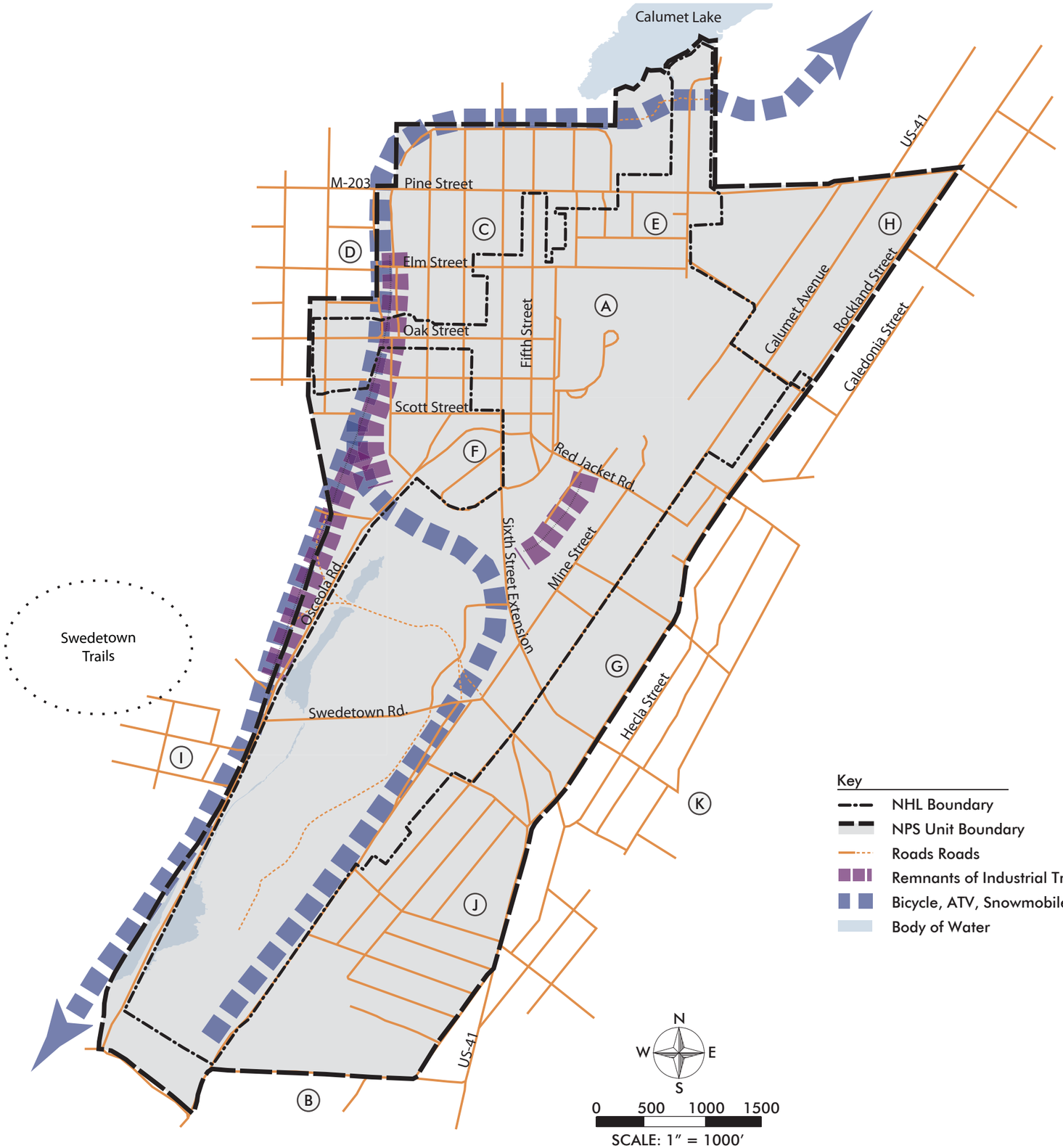
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Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Existing Circulation



Legend

- (A) Agassiz Park
- (B) Osceola Housing Location
- (C) Village of Calumet (formerly Village of Red Jacket)
- (D) Yellow Jacket Housing Location
- (E) Blue Jacket Housing Location
- (F) Newtown Housing Location
- (G) Hecla Housing Location
- (H) Calumet Housing Location
- (I) Swedetown Housing Location
- (J) Raymbaultown Housing Location
- (K) Village of Laurium

Key

- NHL Boundary
- NPS Unit Boundary
- Roads Roads
- Remnants of Industrial Transportation Corridor
- Bicycle, ATV, Snowmobile
- Body of Water

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

June 2012

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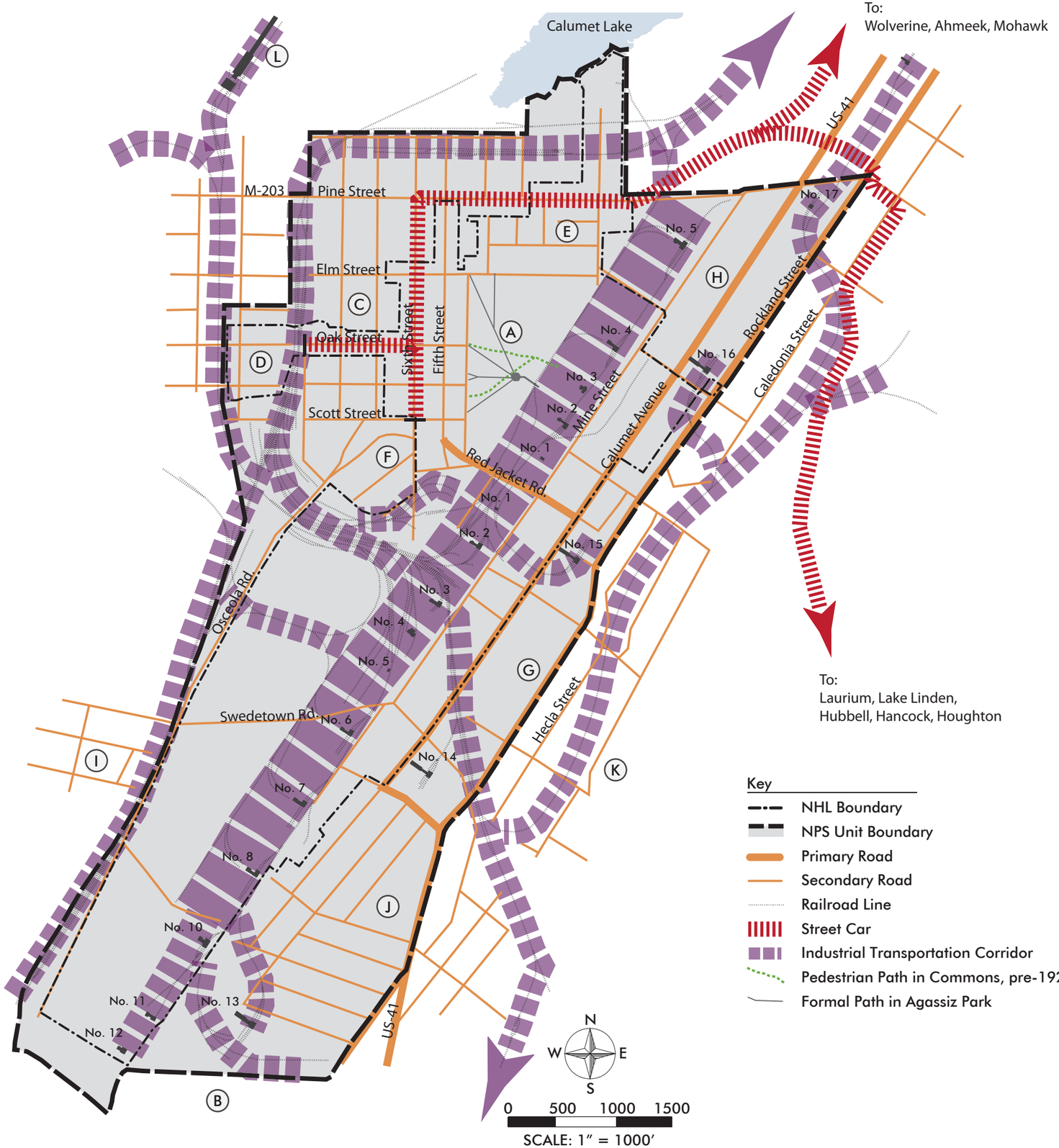
Figure III-5

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Historic Circulation



Legend

- (A) Agassiz Park
- (B) Osceola Housing Location
- (C) Village of Calumet (formerly Village of Red Jacket)
- (D) Yellow Jacket Housing Location
- (E) Blue Jacket Housing Location
- (F) Newtown Housing Location
- (G) Hecla Housing Location
- (H) Calumet Housing Location
- (I) Swedetown Housing Location
- (J) Raymbaultown Housing Location
- (K) Village of Laurium
- (L) Red Jacket Shaft

Key

- NHL Boundary
- NPS Unit Boundary
- Primary Road
- Secondary Road
- Railroad Line
- Street Car
- Industrial Transportation Corridor
- Pedestrian Path in Commons, pre-1920
- Formal Path in Agassiz Park

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

February 2012

QUINN EVANS ARCHITECTS

Figure III-6

Overall Project Area - Topography

Existing Conditions - Topography

The elevation of the Calumet unit is relatively even throughout and averages nearly 1,200 feet above sea level. This is about 600 feet above Lake Superior and Portage Lake. The overall unit slopes gradually from the north and west down to the south and east (see Figure III-7). The southwestern portion of the unit contains a highly disturbed area that is used for stockpiling and extraction of soil and gravel. The topography in this area is markedly irregular and not similar to any other portion of the unit. High points in and around the unit include the northern boundary of the unit and Swedetown. The raised elevation in these locations provides partial views of the unit.

Analysis - Topography

Historically, developments within the Calumet unit were undertaken as necessary to access the copper lode. In these areas, extensive manipulation of the topography occurred to create massive level areas for industrial buildings, railroad tracks, and utility corridors. Large amounts of material were moved around the landscape altering the surface topography and resulting in the landscape that is present today. The location of the Village of Red Jacket (now Calumet) was selected due to its proximity to the Calumet conglomerate lode and also because it was a level area providing prime buildable space. Today's topography clearly reflects these activities.

The topography in the southwest corner of the unit is currently being manipulated extensively and does not accurately represent the historic topography.

Next page:
Figure III- 7: Calumet Unit Topography (source: QEA)

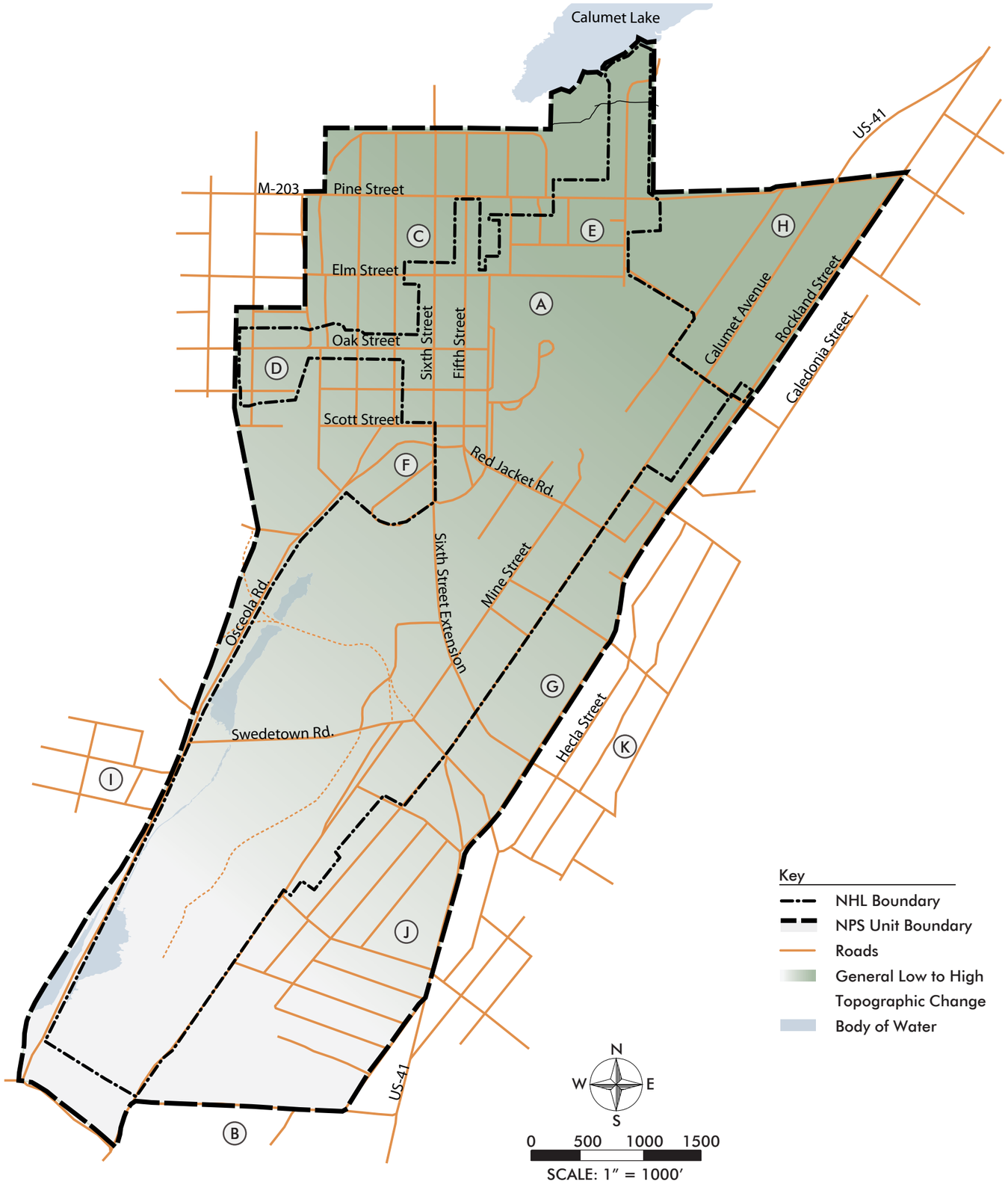
Sources for Figure III-7: Calumet Unit Topography

- Aerial Photography, 2002, NPS
- Site Investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment



Topography

Legend

- (A) Agassiz Park
- (B) Osceola Housing Location
- (C) Village of Calumet (formerly Village of Red Jacket)
- (D) Yellow Jacket Housing Location
- (E) Blue Jacket Housing Location
- (F) New Town Housing Location
- (G) Hecla Housing Location
- (H) Calumet Housing Location
- (I) Swedetown Housing Location
- (J) Raymbaultown Housing Location
- (K) Village of Laurium

Key

- NHL Boundary
- NPS Unit Boundary
- Roads
- General Low to High Topographic Change
- Body of Water

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

June 2012

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Figure III-7

Overall Project Area - Vegetation

Existing Conditions - Vegetation

Vegetation within the Calumet unit is organized into six categories including woodland, understory vegetation, canopy trees, meadow, wetland and turf/lawn (see Figure III-9).

Woodland areas in the unit are those that include a mixture of native canopy and understory species. The largest expanse of woodland is located in an area east of Osceola Road, north of Swedetown Road, and west of Mine Street Station. This wooded area extends south of Swedetown Road until it reaches an area where rock and dirt are being extracted. Smaller woodland areas exist north of Pine Street and in small lots within the Village.

The understory vegetation category is composed of woody understory species (examples are prunus, acer, balsam, birch, raspberry, honeysuckle, etc…); they are mostly volunteer plants that are establishing in disturbed areas. Locations where this type of vegetation is found include the edges around former railroad corridors and industrial sites. This type of vegetation provides wildlife habitat and visual screens between land uses but is considered unsightly to some.

Large areas within the unit include canopy trees that are street trees and individual trees in yards and parks. These trees are not associated with understory vegetation. The most common canopy trees are acer (Maple) and quercus (Oak). Many are large and mature, creating corridors of shade along the residential streets in the Village, housing locations, and Agassiz Park, adding to the historic character of these areas.

Meadow areas are dry locations with tall herbaceous species, including grasses and forbs. These areas include very little woody species. A meadow is located in the field between Third Street and Waterworks Street, and other small meadows are found adjacent to residential lots and former industrial sites. One area within the Calumet unit includes wetlands. The southwest portion of the study area, bounded on the west by Osceola Road and traversed by Swedetown Road, includes wetlands. These wetlands are impoundments made up of open water ponds and emergent areas. Vegetation includes an assemblage of emergent, scrub-shrub, and forested vegetation. Several areas include mown turf or lawn. The athletic fields associated with the C-L-K schools are the largest expanses of turf in the unit. A large area of lawn is located on the west side of U.S. 41/Calumet Avenue, just south of Red Jacket Road. Smaller lawn areas are associated with parks, homes and businesses.

Analysis - Vegetation

Prior to European settlement, historic vegetation consisted of northern coniferous forest characterized by balsam fir, white spruce, and paper birch (see Figure III-10). Mining activities and other development stripped the area of vegetation (see Figures III-8 and III-11). Since the end of copper mining activities in the 1960s, grasses, shrubs and volunteer trees are re-vegetating areas that are not actively developed or managed. When Edwin Hulbert came through the area in the late 1850s it is likely that dense woodland covered much of the area known today as the Calumet unit. Graphic images illustrating vegetation are not available for the earliest periods, but by the 1870s the majority of the Calumet unit had been cleared of vegetation. Large portions of

the area within the Calumet unit were graded to provide building sites and adequate slopes for maneuvering industrial materials, the vegetation had to be removed to manipulate the grades and provide construction locations. Roads and railroad tracks were constructed, and large amounts of timber were required to support the underground shafts and stopes in the mines. Some vegetation was left undisturbed, but the majority was removed. As housing locations and the Village grew, vegetation was established in the form of vegetable gardens and some limited ornamental gardens. During the later years of the mining activities, street trees became more common in affluent neighborhoods, and Agassiz Park was established as a formal park with a designed landscape.

Today, many portions of the Calumet unit are notably greener than they were during the period of significance. The street and yard trees in the housing locations and portions of the Village of Calumet have matured, increasing the canopy coverage. Large expanses of understory vegetation and woodland have emerged along the Mine Street corridor in locations where buildings and surface operations have been removed. Other areas include ornamental plants that enhance the daily activities of the businesses, schools, churches, and other facilities within the project area. Two large areas are void of vegetation and present an industrial-type character on the landscape. They are the resource extraction area located between Osceola Road, Mine Street, and Woodland Road; and the former railroad corridor between Osceola Road, Spruce Street and Ninth Street. The Sixth Street Station development, although bare of vegetation, includes a large expanse of pavement that does not reflect the historic character of the district. Integrity of vegetation within the Calumet unit varies in relationship to the landscape character areas, therefore the analysis of integrity will be addressed for each landscape character area in the following sections.



Figure III- 8: Birds eye view of Calumet, Hecla and Red Jacket, 1871. (source: NPS, Keweenaw NHP, Foster Collection, C&H Photos, Library Card Photo #016)

Next pages:

Figure III- 9: Calumet Unit Existing Vegetation (source: QEA)

Sources for Calumet Unit Existing Vegetation

- Aerial photography, 2002, NPS
- Site investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Figure III- 10: Calumet Unit Vegetation ca. 1870 (source: QEA)
Sources for Calumet Unit Vegetation ca. 1870

- Birds eye view of Calumet, Hecla and Red Jacket, 1871, NPS, Keweenaw NHP, Foster Collection, C&H Photos, Library Card Photo #016

Figure III- 11: Calumet Unit Historic Vegetation, 1916-1930 (source: QEA)

Sources for Calumet Unit Historic Vegetation, 1916-1930

- Agassiz Park Design, 1917
- Calumet and Hecla Location, January 1919, NPS, Keweenaw NHP, Headquarters Collection.
- Michigan Technological University Online Photograph Collection, 1923 Agassiz Park Dedication MS003-007-004-02, 1923
- NPS, Keweenaw NHP, Jack Foster Collection, Agassiz Park Panorama from Standpipe, 1930
- NPS, Keweenaw NHP, Jack Foster Collection, Photo, #031 View of Laurium, ca. 1920s.

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Existing Vegetation



Legend

- (A) Agassiz Park
- (B) Osceola Housing Location
- (C) Village of Calumet (formerly Village of Red Jacket)
- (D) Yellow Jacket Housing Location
- (E) Blue Jacket Housing Location
- (F) Newtown Housing Location
- (G) Hecla Housing Location
- (H) Calumet Housing Location
- (I) Swedetown Housing Location
- (J) Raymbaultown Housing Location
- (K) Village of Laurium

Key

- NPS Unit Boundary
- Underground Mine/Buildings Removed
- Roads
- Railroad Line
- Body of Water
- Woodland
- Wetland
- Canopy Trees in this area
- Understory Vegetation
- Meadow
- Turf/Lawn

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

June 2012

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Figure III-9

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Vegetation, ca. 1870



Legend

- (A) Commons (future site of Agassiz Park)
- (B) Village of Calumet (formerly Village of Red Jacket)
- (C) Blue Jacket Housing Location
- (D) Newtown Housing Location
- (E) Calumet Housing Location
- (F) Hecla Housing Location
- (G) Swedetown Housing Location
- (H) Raymbaultown Housing Location

Key

- NHL Boundary
- NPS Unit Boundary
- Underground Mine/Buildings Removed
- Roads
- Railroad Line
- Body of Water
- Woodland
- Wetland
- Canopy Trees
- Understory Vegetation
- Meadow

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

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April 2013

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Figure III-10

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Vegetation 1916-1930



Legend

- (A) Agassiz Park
- (B) Osceola Housing Location
- (C) Village of Calumet (formerly Village of Red Jacket)
- (D) Yellow Jacket Housing Location
- (E) Blue Jacket Housing Location
- (F) Newtown Housing Location
- (G) Hecla Housing Location
- (H) Calumet Housing Location
- (I) Swedetown Housing Location
- (J) Raymbaultown Housing Location
- (K) Village of Laurium
- (L) Calumet Public School
- (M) Red Jacket Shaft

Key

- NPS Unit Boundary
- Roads
- Railroad Line
- Body of Water
- Woodland
- Wetland
- Canopy Trees
- Understory Vegetation
- Meadow
- Turf/Lawn

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

June 2012

QUINN EVANS ARCHITECTS

Figure III-11

Overall Project Area - Views

Views play an important role in establishing the feeling and character of historic landscapes. Visual continuity within a viewshed can reinforce historic stories; alternatively, insertion of incongruous elements within a view can greatly impair the ability of a landscape to clearly represent a historic period. The relatively level topography of the Calumet unit, combined with fairly dense development in several areas, results in views that are confined to one or two blocks and represent specific types of landscape character areas. Several examples are described in this section. Additional views related to specific landscape character areas are described in the sections that follow.

This section includes photographs of existing views, indicated as "EV- ." The locations of these views are illustrated in Figure III-36: "Calumet Unit Existing Views." Also included are historic views, indicated as "HV-" and illustrated in Figure III-37: "Calumet Unit Historic Views." Each image includes a caption and brief statement regarding the view. When possible, views are groups to allow comparison of changes to views over time, as well as common characteristics throughout the unit. Additional statements addressing these comparisons are found at the bottom of the page associated with the images they address.



Figure III- 12: EV.1 / Existing View 1, Osceola No. 13, shaft-rockhouse, 2010
(source: QEA 7345)

View facing east from near Mine Street illustrates the Osceola shaft/rockhouse number 13 and surrounding landscape. The area includes uneven ground with stockpiles of rock and dirt, areas where volunteer vegetation has grown, an unimproved road, and overhead utility lines.



Figure III- 13: EV.3 / Existing View 3, Railroad Corridor facing north, 2010
(source: QEA 7384)

The railroad corridor includes a roughly graded atv/snowmobile route surfaced in gravel and dirt. There are many large potholes and irregularities in the route. The railroad overpass is a remnant of a historic industrial feature related to the movement of mine materials. The edges of the corridor include volunteer vegetation and industrial artifacts.

Both of the views above are somewhat similar to the character of views within the industrial corridor during the historic periods. The main difference is the lack of industrial equipment and activities as well as the addition of vegetation that would not have been present historically. The rugged character of the area represents the historic character that is difficult to capture with manicured landscapes.



Figure III- 14: EV.5 / Existing View 5, Calumet Avenue facing south, 2010
(source: QEA 9240001)

Calumet Avenue/U.S. 41 is a primary transportation route through the region. Entering the Calumet unit from the north (heading south) on this road, the residential character of Calumet is apparent. While this character is also apparent when heading in a northerly direction, the view is pronounced when heading south, due to the slope of the landscape. The consistent set back of the houses, presence of lawns, sidewalks, and street trees, all contribute to the character of this corridor. This portion of U.S. 41 presents a unique character compared to the highway north and south of Calumet. In other areas, views from the highway alternate between dense woodland and commercial strip development.



Figure III- 15: HV.6 / Historic View 6, Calumet Avenue facing North, 1910 (source: Keweenaw NHP archives)

Calumet Avenue during the historic period was already a major regional transportation route. Fences were likely used to keep livestock from wandering into the road.



Figure III- 16: EV.8 / Existing View 8, Fifth Street at Scott Street facing north, November 2010 (source: QEA 6456)

Upon turning the corner from Red Jacket Road to Fifth Street, views include the historic downtown scene. Although the car dealership at the corner of Scott and Fifth is incongruent with the historic character, the historic storefronts, brick paving, historic style light fixtures and consistent building massing establish a strong historic setting.



Figure III- 17: EV.9 / Existing View 9, Fifth Street facing south, June 2011 (source: QEA 9062)

The view of the Fifth Street facing south is enhanced by the rise in topography toward Elm Street. The historic storefronts, brick paving, historic style light fixtures and consistent building massing establish a strong historic setting. Non-historic building materials, signs and other elements detract from the historic character but the overall impact is not substantial.



Figure III- 18: EV.10a / Existing View 10a, Oak Street facing west, September 2010 (source: QEA P9220148)



Figure III- 19: EV.10b / Existing View 10b, Oak Street at Fifth Street facing east, September 2010 (source: QEA P9220147)

The Oak Street corridor between the Mineral Range Depot and Agassiz Park includes important visual connections for the community. The majority of the corridor is flanked by extant historic buildings including commercial properties in the blocks between Fourth Street and Seventh Street, and historic residences from Seventh Street to Ninth Street. St. Paul's church is clearly viewed from both directions and provides a strong anchor for views.



Figure III- 20: EV.2a / Existing View 2a, View of Oak Street from within Agassiz Park facing west, June 2011 (source: QEA 9121)

From Agassiz Park, the long-range view along Oak Street includes the commercial buildings along the street and the steeples at St. Paul's Church. This important connection between Agassiz Park and downtown Calumet is not clearly addressed at the park, Fourth Street or Oak Street.



Figure III- 21: EV.2b / Existing View 2b, View of Oak Street from Agassiz Park at Fourth Street facing west, June 2011 (source: QEA 9110)

The current conditions along Fourth Street and Oak Street do not encourage pedestrian oriented activities. The street is wide and does not include crosswalks, the parking area at the park does not include clearly defined pedestrian zones. The buildings do not include welcoming facades along Fourth or Oak in this block.



Figure III- 22: HV.1 / Historic View 1, View of Agassiz Memorial statue and surrounding plaza in Agassiz Park, facing northeast, ca. 1940 (source: NPS, Keweenaw NHP, LaMuth Collection, Kodachrome Slides)

The statue and plaza provided a focal point for the park and a pivotal pedestrian link between the industrial core and downtown Calumet. The vegetation was well maintained and provided a pleasant environment for community members.



Figure III- 23: EV.12/ Existing View 12, Parking lot at former site of Agassiz Memorial plaza, June 2011 (similar view point as HV.1) (source: QEA 9151)

A parking lot and maintenance sheds are currently situated on the former site of the Agassiz Memorial statue and plaza.



Figure III- 24: HV.2 / Historic View 2, Hecla/Mine Street looking South, 1893
(source: Chuck Voelker Collection, Copper Country Reflections, www.pasty.com/reflections)

Mine Street in 1893 included the Hecla shafthouses, a tram route, work areas, stockpiles of materials, and the street itself. Note the fence on the east (left) side of the street. It appears that the area to the east (left) of Mine Street was not yet being used for industrial activities.

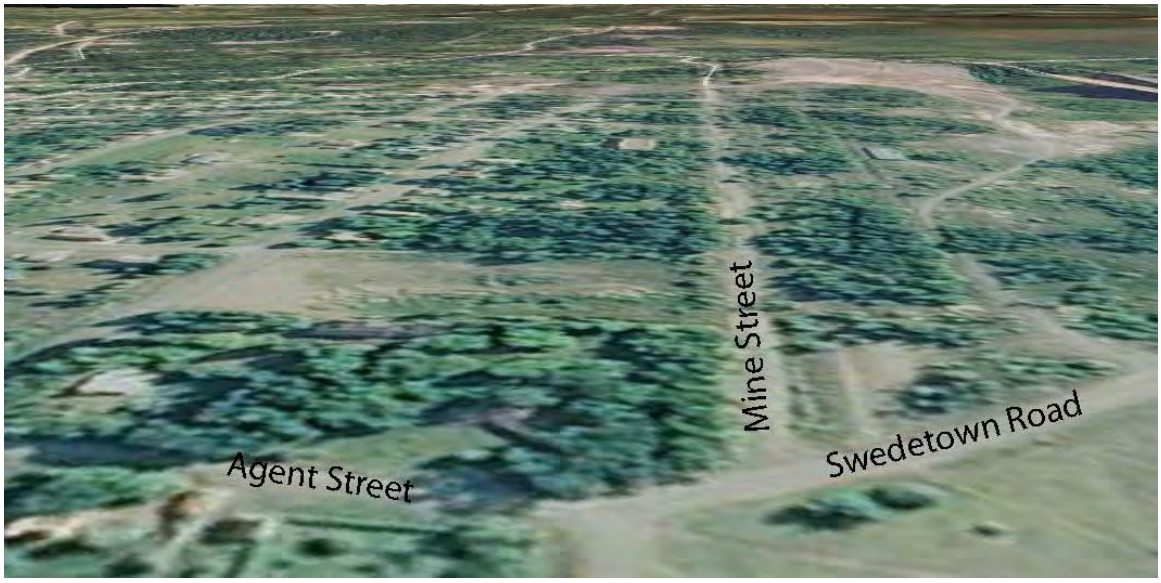


Figure III- 25: EV.13 / Existing View 13, Mine Street looking South, 2012 (similar view as HV.2) (source: QEA, base image from Google earth)

The street alignments have not changed and traces of the industrial buildings exist in the form of foundations on the north (right) side of Mine Street. The corridor provides an opportunity to interpret historic use and provide recreational activities.

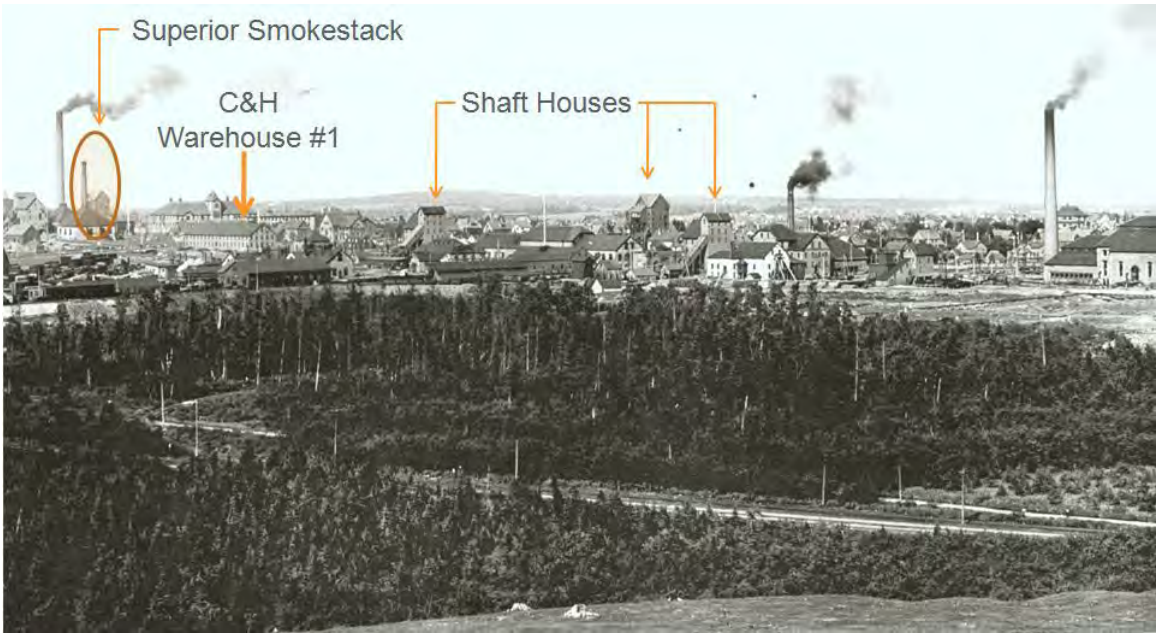


Figure III- 26: HV.3 / Historic View 3, Calumet and Hecla from Swedetown
(source: Keweenaw NHP archives)

Viewed from the highpoint of Swedetown, Calumet was highly developed during the historic period. Vertical elements within the landscape added to long-distance views and gave visual cues related to the industrial and community activities. Smokestacks, shaft houses, and church steeples were especially prominent during the historic periods.



Figure III- 27: EV.11: Existing View 11, Overview of Calumet skyline from Swedetown, facing northeast, June 2011 (source: QEA 9171)

Today, many of the vertical elements, including shaft houses and smokestacks, are no longer extant. The Superior Smokestack and several churches in the Village of Calumet continue to provide visual reference points.



Figure III- 28: HV.5a / Historic View 5a, Red Jacket Road facing northwest, 1913 (source: NPS, Keweenaw NHP)

Red Jacket Road was an important corridor linking the company property to private development in Calumet. It served as the main east-west vehicular and pedestrian corridor from the Village to Calumet Avenue. Since it cut across the industrial corridor, Red Jacket Road was crossed by many railroad tracks, roads, and utility facilities during the historic period. These north-south oriented linear features accentuated the importance of movement along the industrial core.



Figure III- 29: EV.7a Existing View 7, Red Jacket Road facing northwest, June 2011 Current View near HV.5 (source: QEA 8970)

Red Jacket Road is the primary entrance corridor for park visitors. Heading northwest along the corridor Temple Square and the First Presbyterian Church draw the eye to the end of the corridor. The north-south features present historically are no longer apparent. The road is very wide and there are large areas that have no curbs or sidewalks. Sidewalks that do exist are interrupted my multiple curb cuts for driveways.



Figure III- 30: HV.5b / Historic View 5b, Temple Square from Red Jacket Road, ca. 1895 (source: Houghton County Historical Society)

Red Jacket Road was an important corridor linking the company property to private development in Calumet. The intersection of Red Jacket Road and Fifth Street was a key connector made visually distinct by the numerous churches in Temple Square. A board walkway was located on the north side of Red Jacket Road for pedestrians. The triangular area in the foreground was unfinished and some images show it used for parking during events.



Figure III- 31: EV.7b Existing View 7b, Temple Square from Red Jacket Road facing northwest, June 2011, Current View near HV.5b (source: QEA 1320347406820)

Heading northwest along the corridor, Temple Square and the First Presbyterian Church continue to draw the eye to the end of the corridor. There is more vegetation present today in the area. The vegetation partially screens views of the buildings. The alignment of the road is similar to its historic condition, and a concrete sidewalk is located on the north side of the street in the location of the historic boardwalk. Red Jacket Road park (at the corner of Fifth and Red Jacket and adjacent to the Calumet Visitor Center) is more level and includes lawn and mature cedars.



Figure III- 32: HV.7 / Historic View 7, Corner of Oak Street and Eighth Street, facing west (source: NPS, Keweenaw NHP, Curto Collection, Album 8, #028)

The Village of Calumet was a well developed metropolis during the period of significance. St. Paul's church is on the right side of the image, the street car tracks are in the center of Oak Street, and three-story commercial buildings line the left side of the street.



Figure III- 33: EV.10c / Existing View 10c, Corner of Oak Street and Eighth Street, facing west (Current View at HV.7) (source: QEA Oak Street St.Pauls)

St.Paul's church remains an iconic figure on Oak Street. Remaining commercial buildings help to retain form and scale along the corridor, however the replacement of several commercial buildings with smaller residences has changed the feeling of the street somewhat.

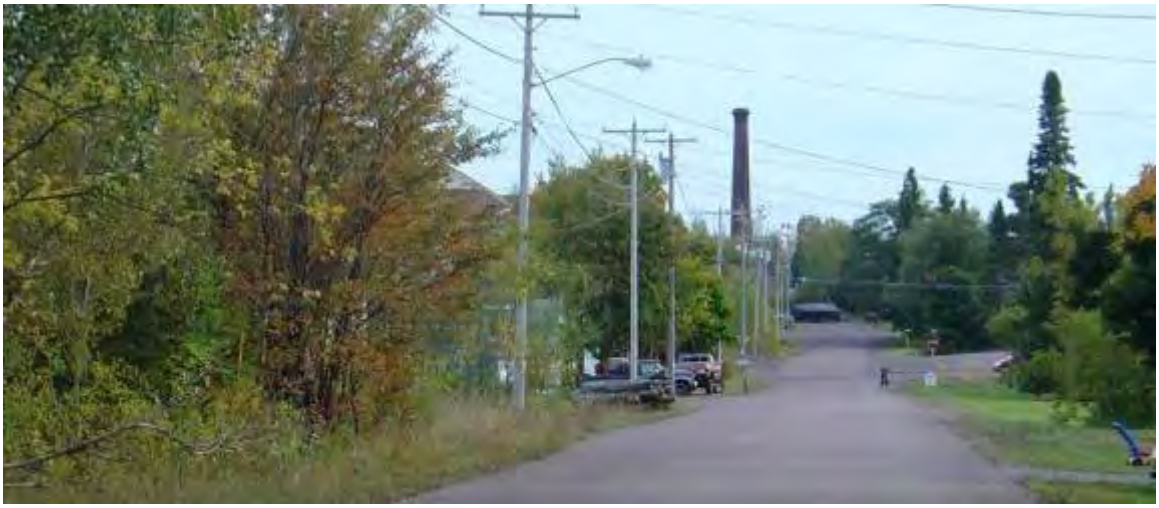


Figure III- 34: EV.4 / Existing View 4, Waterworks Road facing south, 2010 (source: QEA 6935)

From this vantage point just south of Calumet Lake, the remaining C&H smokestack is visible beyond the vegetation and residential street in the foreground.



Figure III- 35: EV.6 / Existing View 6, Raymbaultown-Log Street facing south toward Osceola No. 13 Area, 2010 (source: QEA 7277)

Log Street in Raymbaultown presents a typical housing location. The road edges are irregular and no curbs are present. Houses are situated close to the road edge and the spaces between houses and the road are often used for parking. Very little vegetation is present in this area. The houses are modest one and one-half and two story structures; several of the same model are located adjacent to each other.

Next pages:

Figure III- 36: Calumet Unit Existing Views (source: QEA)
Sources for Figure III-36: Calumet Unit Existing Views

- Aerial photography, 2002, NPS
- Site investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Figure III- 37: Calumet Unit Historic Views (source: QEA)

Sources for Figure III-37: Calumet Unit Historic Views

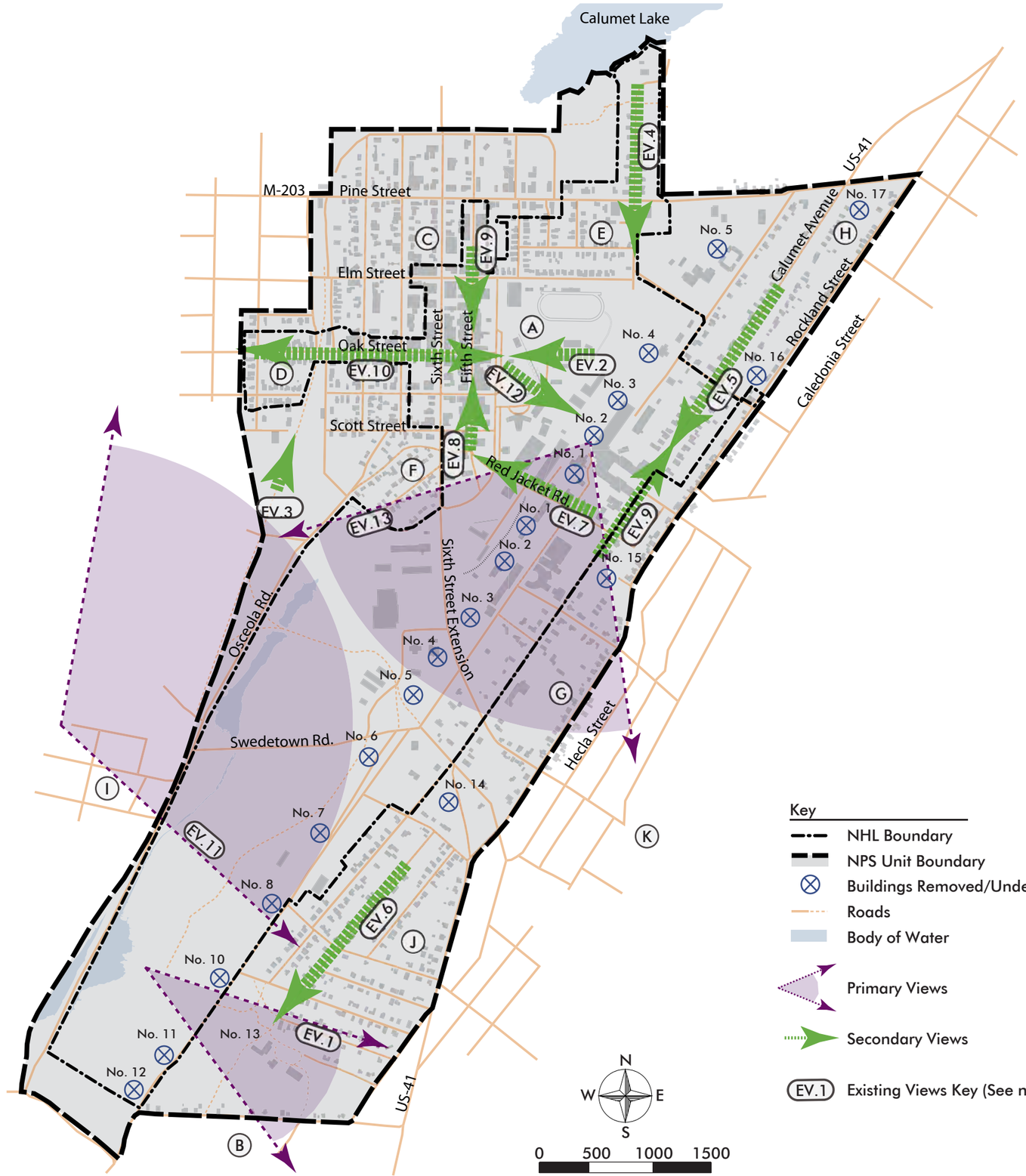
- Period of Change Plan 1890-1915
- Period of Change Plan 1916-1930

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Existing Views



Legend

- (A) Agassiz Park
- (B) Osceola Housing Location
- (C) Village of Calumet (formerly Village of Red Jacket)
- (D) Yellow Jacket Housing Location
- (E) Blue Jacket Housing Location
- (F) New Town HousingLocation
- (G) Hecla Housing Location
- (H) Calumet Housing Location
- (I) Swedetown Housing Location
- (J) Raymbaultown Housing Location
- (K) Village of Laurium

Key

- NHL Boundary
- NPS Unit Boundary
- Buildings Removed/Underground Mine
- Roads
- Body of Water
- Primary Views
- Secondary Views
- (EV.1) Existing Views Key (See narrative)

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

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September 2012

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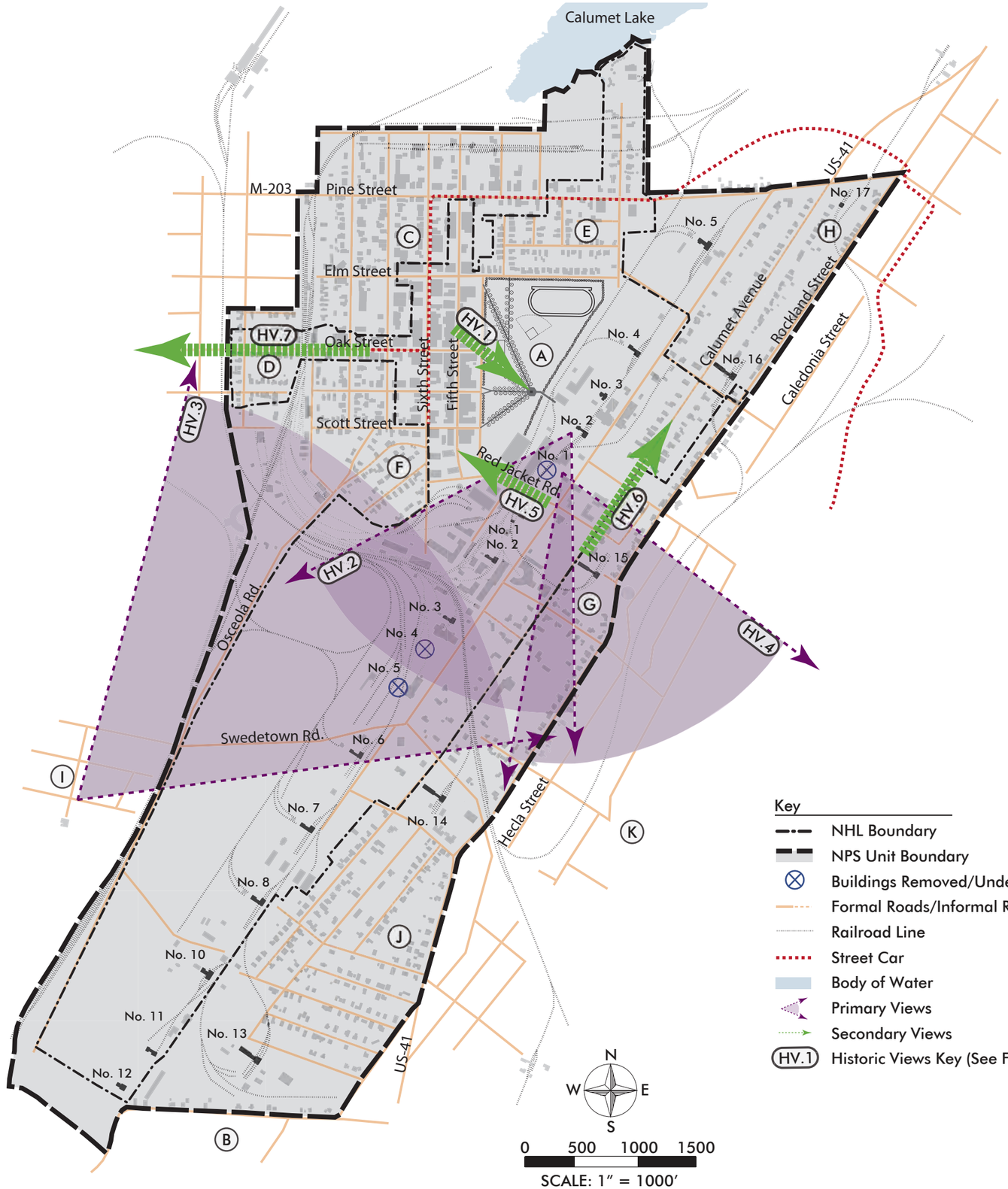
Figure III-36

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Historic Views



Legend

- (A) Agassiz Park
- (B) Osceola Housing Location
- (C) Village of Calumet (formerly Village of Red Jacket)
- (D) Yellow Jacket Housing Location
- (E) Blue Jacket Housing Location
- (F) New Town HousingLocation
- (G) Hecla Housing Location
- (H) Calumet Housing Location
- (I) Swedetown Housing Location
- (J) Raymbaultown Housing Location
- (K) Village of Laurium

Key

- NHL Boundary
- NPS Unit Boundary
- Buildings Removed/Underground Mine
- Formal Roads/Informal Roads
- Railroad Line
- Street Car
- Body of Water
- Primary Views
- Secondary Views
- (HV.1) Historic Views Key (See Figures)

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

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Figure III-37

Overall Project Area - Archeological resources

The purpose of this CLR/EA is to addresses above ground historic landscape resources. It is not an archeological report and does not attempt to thoroughly address archeological resources within the project area. That said, since the recommendations made herein could possibly affect archeological resources, it is necessary to take into account known and potential archeological resources. Data regarding the extent of archeological resources in the park is incomplete, but there is great potential for historic archeological resources within the Calumet unit.

Plans are underway for the preparation of an Archeological Inventory and Evaluation for the two units of Keweenaw National Historical Park. It is likely that extensive archeological resources related to historic copper mining will be identified. In addition, it is possible that prehistoric resources may be discovered. The Keweenaw Peninsula hosts one of the oldest known copper-working sites in North America, dating to the early Holocene. Although historic activity has resulted in extensive ground disturbance at Keweenaw National Historical Park, the prehistoric record has yet to be systematically investigated, and could offer additional information about early activity in the Upper Great Lakes.

Red Jacket Road Corridor – Existing Conditions and Landscape Analysis

Existing Conditions – Red Jacket Road Corridor

The Red Jacket Road Corridor, illustrated in Figure III-27, is located near the center of the Calumet unit (see Figure III-1). The corridor includes Red Jacket Road and the adjacent buildings and sites from Calumet Avenue / U.S. 41 on the east to Fifth Street on the west. This corridor contains significant historic buildings and landscape features related to the C&H Mining Company operations, and is the primary entrance into the industrial and downtown districts of the Calumet unit. Table III-5 includes a list of major buildings within the corridor. Ownership and management of the properties within this area includes multiple entities.

The current use and management of the Red Jacket Road corridor is determined by multiple public and private property owners, as well as the Houghton County Road Commission. The corridor is located in Calumet Township

Historic Facility with Interpretive Features
Calumet Colosseum
Keweenaw National Historical Park Visitor Center (Union Building)
Keweenaw Heritage Center (St. Anne's Church)
Coppertown Museum (C&H Pattern Shop)
Russell Snow Plow

Historic Building with Public Access
Keweenaw National Historical Park Headquarters (C&H General Office)
Calumet Art Center (First Presbyterian Church)
Christ Episcopal Church
Keweenaw History Center (C&H Library, Lake Superior Land Company Office)

Historic Building without General Public Access
Miscowaubik Club
Agassiz House
CLK School Bus Maintenance Buildings (C&H Gear House, C&H Power Station, and C&H Warehouse No. 2)
CLK Schools & Township Garage (C&H Warehouse No. 2)
Snow Country Greenhouses (Swedish Lutheran Church)
Keweenaw National Historical Park Archival and Materials Storage (C&H Warehouse No. 1)

Non-Historic Building
AT&T Calumet Central Office
Calumet Township Office
Farmers & Merchants Mutual Fire Insurance Company
Calumet Electronics

Analysis – Red Jacket Road Corridor

The Red Jacket Road corridor has the ability to convey its historical significance, therefore it retains integrity. The corridor includes several primary significant buildings in their historic locations oriented along the historic street alignment resulting in integrity of location, setting and design. The historic materials and workmanship of these buildings are also intact and clearly reflect historic conditions; however, changes to the surrounding landscape including the removal of railroad tracks, utility corridors, and stockpiles of materials have diminished the overall integrity of materials and workmanship. Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. Despite the absence of the active mining operations and additions of non-contributing structures, the scale, materials, and architectural style of the remaining historic industrial structures clearly convey a feeling of historic character within the corridor. Association is the direct link between an important historic activity and the historic property. The loss of active mining operations and small-scale landscape features within the Calumet unit has resulted in the loss of integrity of association in the Red Jacket Road Corridor.

Next page:
Figure III- 38: Red Jacket Road Corridor, Existing Conditions (source: QEA)

Sources for Figure III-38: Red Jacket Road Corridor, Existing Conditions

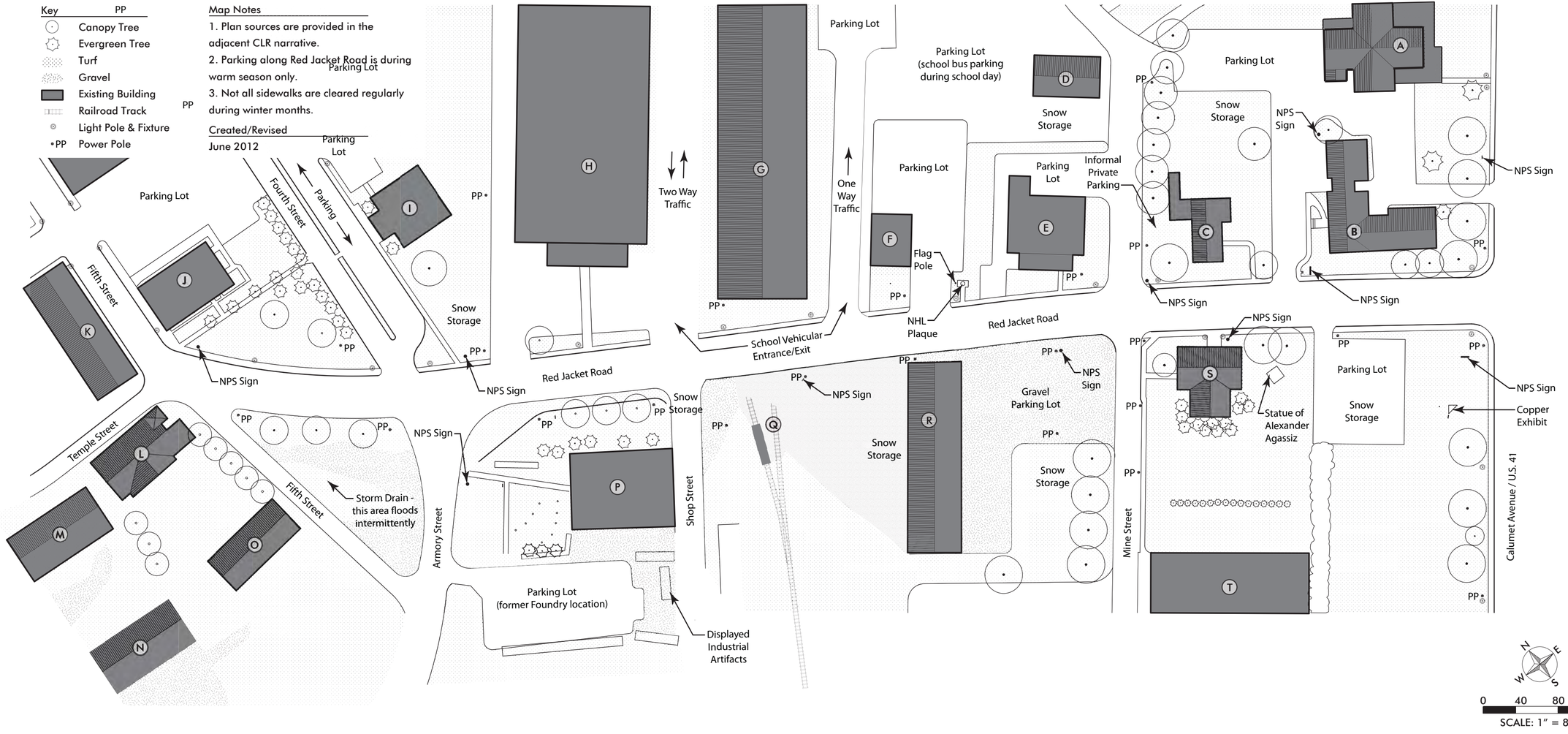
- Aerial photograph, 2002, NPS
- Googlemaps
- Site investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Red Jacket Road Corridor
Existing Conditions



Legend

- (A) Miscowaubik Club
- (B) KNHP Headquarters (C&H General Office Building)
- (C) Barbara Kettle Gundlach Shelter (Agassiz House)
- (D) CLK School Bus Maintenance (C&H Power Station)
- (E) AT&T Calumet Central Office
- (F) Calumet Township Office
- (G) C&H Warehouse No. 2
- (H) Calumet Colosseum
- (I) Farmers & Merchants Mutual Fire Insurance Company
- (J) Calumet Visitor Center (Union Building)
- (K) Keweenaw Heritage Center (St. Anne's Church)
- (L) Calumet Art Center (First Presbyterian Church)
- (M) Calumet Elks Lodge #404 (first Calumet YMCA)
- (N) Snow Country Greenhouse (Swedish Lutheran Church)
- (O) Christ Episcopal Church
- (P) Coppertown Mining Museum (C&H Pattern Shop)
- (Q) Russell Snow Plow
- (R) C&H Warehouse No. 1
- (S) Keweenaw History Center (C&H Library)
- (T) Calumet Electronics

0 40 80 120

SCALE: 1" = 80'

QUINN EVANS ARCHITECTS

Figure III-38

Table III-5: Buildings, Red Jacket Corridor

Map Key	Building	Figure #	Contributing/ Non-cont.	Rationale
A	Miscowaubik Club	III-39	Contributing	Originally a mine captain's house, the building became the home of the Miscowaubik Club, a social club, in 1903.
B	Keweenaw National Historical Park Headquarters (C&H General Office Building)	III-40	Contributing	C&H General Office Building 1887-1968.
C	Barbara Kettle Gundlach Shelter (Agassiz House)	III-41	Contributing	Summer residence of Alexander Agassiz during the period of significance. Currently used for a housing shelter.
D	C-L-K School Bus Maintenance Building	III-42	Contributing	C&H power station
E	AT&T Calumet Central Office	III-43	Non-cont.	Constructed after the end of the period of significance.
F	Township Office	III-44	Non-cont.	Constructed after the end of the period of significance.
G	Township/School Garage (C&H Warehouse No. 2)	III-45	Contributing	Built as part of C&H Mining Company operations. Today the warehouse is utilized by Calumet Township (owner) and the Public Schools of C-L-K as a maintenance and storage facility.
H	Calumet Colosseum	III-46	Contributing	Built in 1913 as a hockey rink with a removable floor for roller-skating. Still in use today, it is the oldest operating indoor rink in the world.[4]
I	Farmers & Merchants Mutual Fire Insurance Company	III-47	Non-cont.	Built after end of period of significance.
J	Calumet Visitor Center (Union Building)	III-48	Contributing	Built for community during period of significance.
K	Keweenaw Heritage Center / St. Anne's Church	III-49	Contributing	Built for community during period of significance.

[4] Other rinks were built earlier, but are either no longer in use, or have been rebuilt. See http://www.cchockeyhistory.org/CCIceRinks.htm for more information.

L	Calumet Art Center (formerly First Presbyterian Church)	III-50	Contributing	Built for community during period of significance. Formerly known as the First Presbyterian Church.
M	Calumet Elks Lodge #404 (formerly the first YMCA location in Calumet)	III-51	Contributing	Built for community during period of significance
N	Snow Country Greenhouses (formerly Carmel Evangelical Swedish Lutheran Church)	III-52	Contributing	Built for community during period of significance
O	Christ Episcopal Church	III-53		Built for community during period of significance
P	Coppertown Museum (C&H Pattern Shop)	III-54	Contributing	Built as part of C&H Mining Company operations
Q	Russell Snowplow	III-55	Contributing	Associated with C&H Mining Company operations
R	C&H Warehouse No. 1	III-56	Contributing	Built as part of C&H Mining Company operations
S	Keweenaw History Center (C&H Library, Lake Superior Land Company Office)	III-57	Contributing	Built in 1898 as combination bathhouse and library by C&H for the Village of Calumet. Now houses historic materials.
T	Calumet Electronics New Building	III-58	Non-cont.	Information will be added in next draft.



Figure III- 39: Miscowaubic Club, south elevation (source: http://miscowaubik.org/ accessed 25 March 2011)



Figure III- 40: Keweenaw National Historic Park Headquarters, 2010 (source: QEA)



Figure III- 41: Agassiz House, east elevation (source: http://www.nps.gov/kewe//images/20070202091902 accessed 25 March 2011)



Figure III- 42: C-L-K School Bus Maintenance Building, west and south elevations, 2011 (source: QEA 37303)



Figure III- 43: AT&T Calumet Central Office, south elevation, 2011 (source: QEA 9446)



Figure III- 44: Calumet Township Office, south elevation, 2010 (source: QEA 0538)



Figure III- 45: C&H Warehouse No. 2, south and east elevations (source: http://keweenawfreeguide.com/ch-warehouse-no2/, accessed 25 March 2011)



Figure III- 46: Calumet Colosseum, south elevation (source: http://www.cchockeyhistory.org/CLKimages/CalArmory_s.jpg accessed 25 March 2011)



Figure III- 47: Farmers & Merchants Mutual Fire Insurance Company, west elevation, 2011 (source: QEA 9028)



Figure III- 48: Calumet Visitor Center (Union Building), south elevation, 2010 (source: http://www.nps.gov/kewe/parkmgmt/union-building-planning.htm, photo by Dan Johnson, accessed 25 March 2011)



Figure III- 49: St. Anne's Church, 2010 (source: QEA 6472)



Figure III- 50: Calumet Art Center (formerly First Presbyterian Church), east elevation, 2011 (source: QEA 9408)



Figure III- 51: Calumet Elks Lodge #404 (formerly the first YMCA in Calumet), south and west elevations, 2011 (source: QEA 9386)



Figure III- 52: Snow Country Greenhouses, formerly Carmel Evangelical Swedish Lutheran Church, north and west elevations, 2011 (source: QEA 9390)



Figure III- 53: Christ Episcopal Church
(source: http://www.coppercountry.com/images/pages/Churches/HoughtonChurches/Christ-Epis-Cal.jpg, accessed 25 March 2011)



Figure III- 54: Coppertown Museum (Pattern Shop), west elevation, 2011 (source: QEA 9363http://www.keweenawheritagesites.org/site-coppertown.php accessed 3/25/2011)



Figure III- 55: Russell Snowplow, 2010 (source: QEA 0542)



Figure III- 56: C&H Warehouse No. 1, 2010 (source: QEA 5464)



Figure III- 57: Keweenaw History Center (C&H Library, Lake Superior Land Company Office), 2010 (source: QEA 0533)



Figure III- 58: Calumet Electronics, west elevation on east side of Mine Street, 2011
(source: QEA 9454)

Table III-6: Landscape Features, Red Jacket Road Corridor

Landscape Feature	Contributing/ Non-cont.	Rationale
Mature deciduous street trees at Red Jacket Road between Calumet Avenue and Mine Street	Contributing	The canopy trees represent efforts to provide ornamental plants within the mine management area.
Green light poles with acorn fixtures	Non-contributing compatible	Historic-style green posts with acorn fixtures. Added since the end of the period of significance. Style selected to reflect poles and locations as documented in historic photographs post 1930.
Sidewalks on eastern portion of Red Jacket Road.	Non-contributing compatible	Although not historic, the sidewalks in this block continue a historic pedestrian route.
Lawn in the eastern portion of Red Jacket Road properties	contributing	Reflect presence of lawns in the mine management area during the historic period.
Parking lot between Keweenaw NHP Headquarters and Miscowabik Club	Non-contributing	Added after the end of the period of significance.
Street Signs, waysides and directional signs throughout corridor	Non-contributing	All signs have been added since the end of the period of significance.
Statue of Alexander Agassiz	Does not contribute to the Red Jacket Road Corridor, but does contribute to the NHL district	The statue has been moved from its original location and is no longer associated with Agassiz Park. The statue was not historically associated with the Red Jacket Road Corridor. However, the statue dates to the period of significance and has a strong association with the historical significance of the Calumet Unit.
Parking lot at Red Jacket and Calumet Avenue	Non-contributing	The parking lot is located at the former site of the Congregational Church, an important historic structure that is no longer extant.
Mature Cedar hedge parallel to Calumet Avenue	Non-contributing compatible	Added after the end of the period of significance in a location that was utilized as a community open space. Represents efforts of C&H to improve the visual character of their holdings/facilitites. Currently provides a buffer screening views of the Calumet Electronics building.

Landscape Feature	Contributing/ Non-cont.	Rationale
Immature Juniper hedge between Keweenaw History Center and Calumet Electronics	Non-contributing	Situated upon the site where the historic Armory stood. When mature, the hedge may provide a visual screen.
Cedars around the Keweenaw History Center	Contributing	The Cedars were installed at the end of the period of significance as foundation plants and have outgrown that purpose. They no longer reflect the designer's intent. These historic plantings require maintenance and/or replacement to more accurately reflect their original purpose as foundation plantings.
Flag poles in the corridor	Non-contributing	All flagpoles present were added after the end of the period of significance.
Curb-cut and driveway at Keweenaw NHP Headquarters	Non-contributing compatible	Historic access point where a gate was present in the fence to access the crushed stone forecourt ca. 1890s. The materials, character and width have changed.
Mine Street	Contributing	Important historic circulation route.
Black light poles at Keweenaw History Center entrance	Non-contributing compatible	Black posts with historic-style fixtures. Added after the end of the period of significance. The features were selected based upon photos of the fence which once supported carriage lights of this type in this location.
Power poles and overhead utility lines	Non-contributing compatible	Added after the end of the period of significance but help to convey the industrial character of the corridor.
Fire hydrants in the corridor	Non-contributing	Added after the end of the period of significance.
Sidewalks in the middle portion of the Red Jacket Road corridor, northeast side of road.	Non-contributing compatible	Although not historic, the sidewalks reflect a historic pedestrian route that was present during the later portion of the period of significance.
Lawn in the middle portion of the Red Jacket Road corridor.	Non-compatible	Historically, this area contained railroad tracks, exposed dirt, equipment, industrial buildings, and gravel areas utilized for industrial activities.

Landscape Feature	Contributing/ Non-cont.	Rationale
Parking lot on south side of RJR at Mine Street.	Non-contributing compatible	Although a portion of this area was fenced with turf during most of the period of significance, the unpaved lot reflects the historic industrial character of the corridor.
Curb cuts and parking lots on the northeast side of RJR in the middle portion.	Non-contributing compatible	Historically, this area contained railroad tracks, exposed dirt, equipment, industrial elements, and gravel areas utilized for industrial activities. Although these are no longer present, the unrefined character of the curb-less parking areas reflect a utilitarian approach to development.
National Historic Landmark plaque on concrete base (near Calumet Township Office).	Non-contributing	Added after the end of the period of significance.
Gravel lot and remnant railroad tracks on northwest side of Warehouse No.1	contributing	The railroad tracks were an important feature in the historic landscape. The gravel lot reflects the historic industrial character of the corridor.
Mature Cedars at Coppertown Museum	Contributing	The Cedars were installed at the end of the period of significance as foundation plants and have outgrown that purpose. They no longer reflect the designer's intent. These historic plantings require maintenance and/or replacement to more accurately reflect their original purpose as foundation plantings.
Parking at entrance to Calumet Colosseum	Non-contributing	Not present during historic period.
Freestanding illuminated sign on metal post at Colosseum.	Non-contributing	Not present during historic period.
Mature street trees in western portion of Red Jacket Road Corridor	Contributing	Planted during the period of significance.

Landscape Feature	Contributing/ Non-cont.	Rationale
Ornamental features between Coppertown Museum and Armory Street	Non-contributing	Added as part of the museum complex after the end of the period of significance. These include a cluster of flagpoles, a raised plant bed, portions of tram tracks, mine cars, and brick walkways.
Armory Street	Non-contributing	Not present during historic period.
Mature Cedars at Red Jacket Road Park	Contributing	The Cedars were installed at the end of the period of significance as small-scale ornamental features defining the location of the walkway. Although they may not reflect the designer's intent as small scale plantings, they continue to support the intended experience of pedestrians moving through a walkway defined by vegetation.
Fourth Street intersection with Red Jacket Road	Non-contributing	Not present during historic period.
Mature canopy trees at Red Jacket Road Park	Contributing	Planted during the period of significance as canopy trees.

South Mine Street Corridor – Existing Conditions and Landscape Analysis

Existing Conditions – South Mine Street Corridor

The South Mine Street Corridor, illustrated in Figure III-48, is located south of Red Jacket Road and extends along Mine Street to the southwestern portion of the unit (see Figure III-1). South of the Sixth Street Extension, the corridor widens to the west, extending to the western edge of the unit. The corridor contains significant historic buildings and landscape features related to the C&H Mining Company operations. There is also a large area of new development associated with the Sixth Street Extension that is non-contributing. The Mine Street Station development includes a motel, gas station, fast food restaurant, strip mall, department store and grocery store, all surrounding a large parking lot adjacent to the Sixth Street Extension. These developments include large illuminated signs. Finally there are broad open areas used for stockpiling materials and extraction of gravel and dirt at the southwestern portion of the corridor (see Table III-7).

Analysis – South Mine Street Corridor

The ability of the South Mine Street Corridor to convey its historical significance has been greatly diminished by the removal of numerous industrial buildings, railroad tracks, utility corridors, stockpiled materials and mining-related activities; therefore, it does not retain historic integrity. Although the corridor includes several significant historic industrial buildings, many more have been removed. There are large gaps between structures where vacant land and volunteer vegetation leave the observer wondering what might have been there previously. The southwestern portion of the character area includes an intensely manipulated landscape that conveys an industrial character; however, it is not representative of the character found within the Calumet unit during the period of significance.

The construction of the Sixth Street Extension in 1976 was a major impact to the views, circulation and spatial organization of the Calumet Unit. Prior to the extension of Sixth Street, the only access to downtown Calumet through the industrial core was along the historic route of Red Jacket Road. The new road bypasses the historic route between U.S. 41 and downtown Calumet. The new connection is lined with incompatible development that does not reflect the historic character of the Calumet Unit. It has created a wide, fast route through town that is confusing for visitors who come to visit the historic community. In addition, the large buildings, signs, parking lot and lighting associated with the 1995 Mine Street Station development (located on the west side of the Sixth Street Extension) are highly visible from locations within the South Mine Street Corridor. These views impact the historic character of the corridor.

Next page:
Figure III- 59: South Mine Street Corridor, Existing Conditions (source: QEA)

Sources for Figure III-59: South Mine Street Corridor, Existing Conditions

- Aerial Photography, 2002, NPS
- Site Investigations, September 2010, by Brenda Williams and Lindsey Pickornik

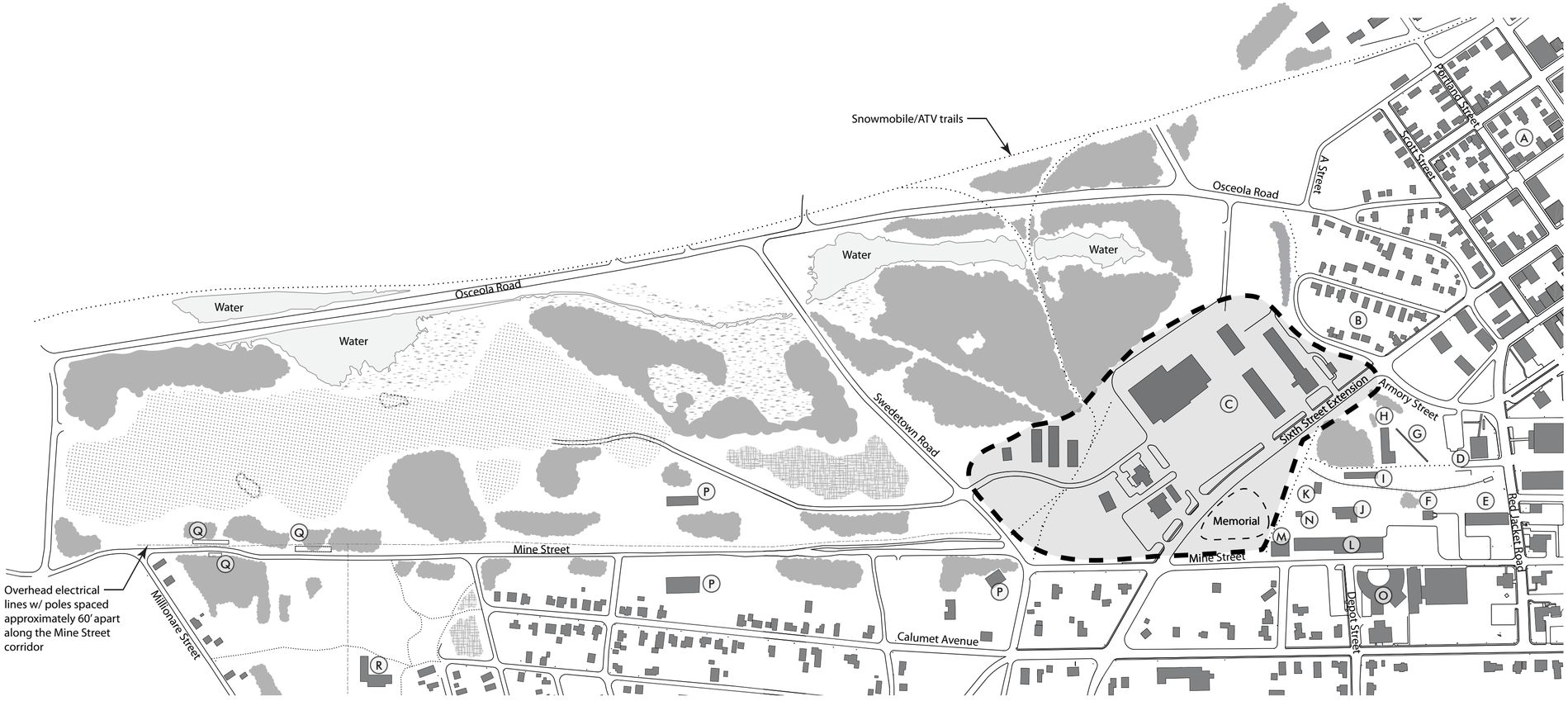
Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

South Mine Street Corridor

Existing Conditions



Legend

- (A) Village of Red Jacket (Now Calumet)
- (B) Newtown Housing Location
- (C) Mine Street Station
- (D) Coppertown Museum
- (E) C&H Warehouse No. 1
- (F) Man Engine House
- (G) C&H Stone Retaining Wall
- (H) C&H Pattern Storage Warehouse
- (I) Sand Storage
- (J) C&H Blacksmith Shop
- (K) Hecla Mine Captain's Office
- (L) C&H Machine Shop
- (M) Calumet Township Volunteer Fire Dept.
- (N) C&H Railroad Shack
- (O) Calumet Electronics
- (P) Remnant of Industrial Building
- (Q) Foundation of Industrial Building
- (R) Osceola No.13 Dryhouse & Warehouse

Key

- Buildings
- Railroad Tracks
- Industrial Materials/Foundations
- Informal Unpaved Roads
- Woodland
- Understory Vegetation
- Wetlands
- Rock Piles
- Overhead Power Lines
- Resource Extraction Area
- New Development

W S N E

0 200 400 600

SCALE: 1" = 400'

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

September 2012

QUINN EVANS ARCHITECTS

Figure III-59

Table III-7: Buildings, South Mine Street Corridor

Map Key	Building	Figure #	Contributing/ Non-contributing	Rationale
D	C&H Pattern Shop / Coppertown Mining Museum	III-54	Contributing	Built as part of C&H Mining Company operations.
E	C&H Warehouse No. 1	III-56	Contributing	Built as part of C&H Mining Company operations.
F	C&H Man Engine House / Warehouse No.3	III-60	Contributing	Part of C&H mining operations.
G	C&H Stone Retaining Wall	III-61	Contributing	1909, part of C&H mining operations.
H	C&H Pattern Storage Warehouse	III-62	Contributing	1909, part of C&H mining operations.
I	C&H Sand Storage	III-63	contributing	Part of C&H mining operations.
J	C&H Locomotive Shop	III-64	Contributing	Part of C&H mining operations.
K	C&H Mine Captain's Office	III-68	Contributing	C&H Mine Captain's Office during period of significance.
L	C&H Machine Shop	III-66	Contributing	Original built ca. 1882, altered 1907 and 1911. Used to repair large equipment, including mining skips and trams.
M	Hecla Fire Station	III-67	contributing	Part of C&H mining operations.
N	C&H Railroad Shack	III-65	Contributing	Part of C&H mining operations.
O	C&H Round House	III-69	Contributing	Built 1888 to service locomotives. Additions in 1902 and 1907. Altered ca. 2000 for Calumet Electronics Corporation headquarters.



Figure III- 60: C&H Man Engine House/Warehouse No. 3, 2011 (source: QEA 08453)



Figure III- 61: C&H Stone retaining wall, facing southeast. The parking lot in the foreground is the site where the Foundry stood, 2010 (source: QEA 0545)



Figure III- 62: C&H Pattern Storage Warehouse, 2010 (source: QEA 0545)



Figure III- 63: C&H Sand Storage facing northeast, 2011 (source: QEA 09013)



Figure III- 64: C&H Locomotive Shop (in vegetation), 2011 (source: QEA 09297)



Figure III- 65: C&H Railroad Shack, 2011 (source: QEA 09303)



Figure III- 66: C&H Machine Shop, 2011 (source: QEA 09456)



Figure III- 67: Hecla Fire Station, M, 2011 (source: QEA 09463)



Figure III- 68: C&H Mine Captain's Office, 2011 (source: QEA 09303)





Figure III- 69: C&H Round House (source: http://keweenawfreeguide.com/ch-roundhouse/, accessed 25 March 2011)

Agassiz Park – Existing Conditions and Landscape Analysis

Existing Conditions – Agassiz Park

Agassiz Park is located in the north central portion of the Calumet unit (see Figure III-1). Although larger historically, the area known as Agassiz Park today is bounded by a parking lot adjacent to Fourth Street on the west and Park Avenue on the south and east. The northern park edge is defined by a parking lot for Louie's Super Foods grocery store and a chain link fence that identifies the boundary between the park and the adjacent school athletic fields. Buildings in and adjacent to the park are listed in Table III-9. Landscape features in the park are addressed in Table III-10 and illustrated in Figures III-76 and III-77. Photographs of existing conditions at Agassiz Park are provided in Figures III-78 through III-85.

The park contains features that reflect the historic design and implementation of the park as well as non-historic features that have been added since the end of the period of significance. The features that contribute to the historic significance of the park include three crushed stone paths, canopy trees lining the paths, and the surrounding lawn.

Deciduous trees present in the park today include two paper birch, six red oak, and sixty-one red maple. The sizes and conditions of the trees in the park are described in table III-10. Of the trees present, all of the birch and oak and seventy-two percent of the maples are mature.[5] Most of the trees in the park are in need of pruning. The extreme environmental conditions in Calumet and the compacted soil throughout the park are stressing the trees and lawn. The lawn includes large areas of bare patches.

A fence extends along the eastern edge of the historic boundary of the park (on the eastern side of the Park Place Townhouses and the Park Place Senior Housing Complex). The fence is bordered on its western side by a linear planting of mixed species including cedar, juniper, pine, and columnar populars. This vegetative border reflects Manning's design, which indicates a vegetative border around the eastern, northern and portion of the western side of the park.

The C-L-K Schools athletic fields are enclosed by a chain link fence that also is lined with trees. The athletic field is consistent with Manning's plan. The fence and row of trees are not, as Manning indicated a row of trees along Elm Street instead.

Other elements in the park include a basketball court, bike pump track, horseshoe pits, and restroom building, all located in the northwest corner of the park. These features have been added since the end of the period of significance. While they reflect Manning's concept of active recreation in the park, their placement and relationships to other features do not reflect an overall organization, as presented by Manning. Their incremental placement is obvious and detracts from the historic character of the park.

A sloped sidewalk provides a pedestrian connection between Agassiz Park and the C-L-K Schools property. The school property includes several historic C&H buildings, a large parking

[5] Trees over eight inches diameter at breast height are considered to be mature in the Calumet environment. This includes forty-four of the maples.

lot, storage sheds, playground, community garden, and athletic field. The C-L-K Schools building complex includes a recent addition that overlays a portion of Mine Street. This addition severed the Mine Street corridor and makes it difficult to understand the relationship of the C&H Superior Boiler House related to the other historic industrial buildings in this area. The C&H Dry House and Drill Shop are located near Agassiz Park and can be viewed from within the park.

Analysis – Agassiz Park

The property known today as Agassiz Park contained a village commons used for grazing livestock during the early portion of the period of significance (see Figures III-70-73). In 1881 a fence enclosed the entire area, keeping livestock from wandering (see Figure III-71). By 1886 pedestrian paths connected the downtown commercial district with the C&H mine site through the park, a railroad track was present at the northwestern portion of the parcel, materials were being stockpiled along the eastern edge of the site, and a fence had been added to enclose a baseball field at the north end of the property (see Figures III-72 and 73). The property was associated with sports, recreation, and leisure events for many years prior to the 1913-1914 strike, when a tent camp was established on the site for the Michigan militiamen who were encamped in Calumet to subdue violence. The existing landscape does not retain integrity for this early period.

In 1917, landscape architect Warren Manning developed a master plan for a community park and memorial to Alexander Agassiz. Key features of the plan were implemented, including the radial, tree-lined paths, lawns, memorial statue with surrounding ornamental gardens, and vegetative buffers around the eastern, northern, and western boundaries of the park. The park was maintained by C&H through the early 1950s. Once the company discontinued maintaining the park it entered a period of neglect and incremental change. The Village of Calumet maintains the park today however inadequate funding has resulted in this maintenance being very limited.

Since the end of the period of significance, portions of the park have been developed for other uses. Features located on the property that was once part of the park include two commercial businesses, school athletic fields, townhouses, apartment buildings, a road and nine parking lots. The development of these elements within the area that was once part of the park has had a considerable impact on the integrity of the park. Most damaging is the absence of the memorial statue of Agassiz—the original focus of the design. Portions of three main radial paths remain; however, they were truncated by the construction of Park Avenue and no longer converge at a central point. Mature trees present at the site today include red maple, red oak and white birch. Although the allees are clearly visible, and each is dominated by a single species, alternate species are interspersed irregularly along the rows. A non-contributing curved path parallels the curve of Park Avenue and connects the three radial paths. Parking lots and a public restroom have been added at the western side of the park. Other non-contributing elements include a bike pump track, basketball court, horseshoe pits and a grocery store at the northwestern corner of the property.

Despite the intense impacts to integrity that have been suffered, the park remains recognizable and its significance is of great importance to the history of the community. In Calumet, the physical landscape of the overall community provides fascinating tangible examples of the

complex relationship between the C&H Mining Company and the Village of Red Jacket/Calumet. Agassiz Park is one of the most compelling of these. Portions of the historic land use, circulation patterns, spatial organization, views, and vegetation of the park are still apparent today. The portion of the park that remains retains integrity of location, setting, association, and design.



Figure III- 70: Detail of Calumet Commons, (future site of Agassiz Park) from Birds eye view of Calumet, Hecla and Red Jacket, 1871. (source: NPS, Keweenaw NHP, Foster Collection, C&H Photos, Library Card Photo #016).



Figure III- 71: Detail of Calumet Commons, (future site of Agassiz Park) from Birds Eye View of Calumet, Hecla and Red Jacket, 1881. (source: NPS, Keweenaw NHP, Foster Collection, C&H Photos, Library Card Photo #015)



Figure III- 72: Southern Portion of Calumet Commons, (future site of Agassiz Park) from Calumet location, facing west, ca.1885. (source: NPS, Keweenaw NHP, Curto Collection, Book 12, #006)



Figure III- 73: Northern portion of Calumet Commons (future site of Agassiz Park), viewed from smokestack at Calumet, ca. 1885. (source: NPS, Keweenaw NHP, Curto Collection, Album 5, #019)

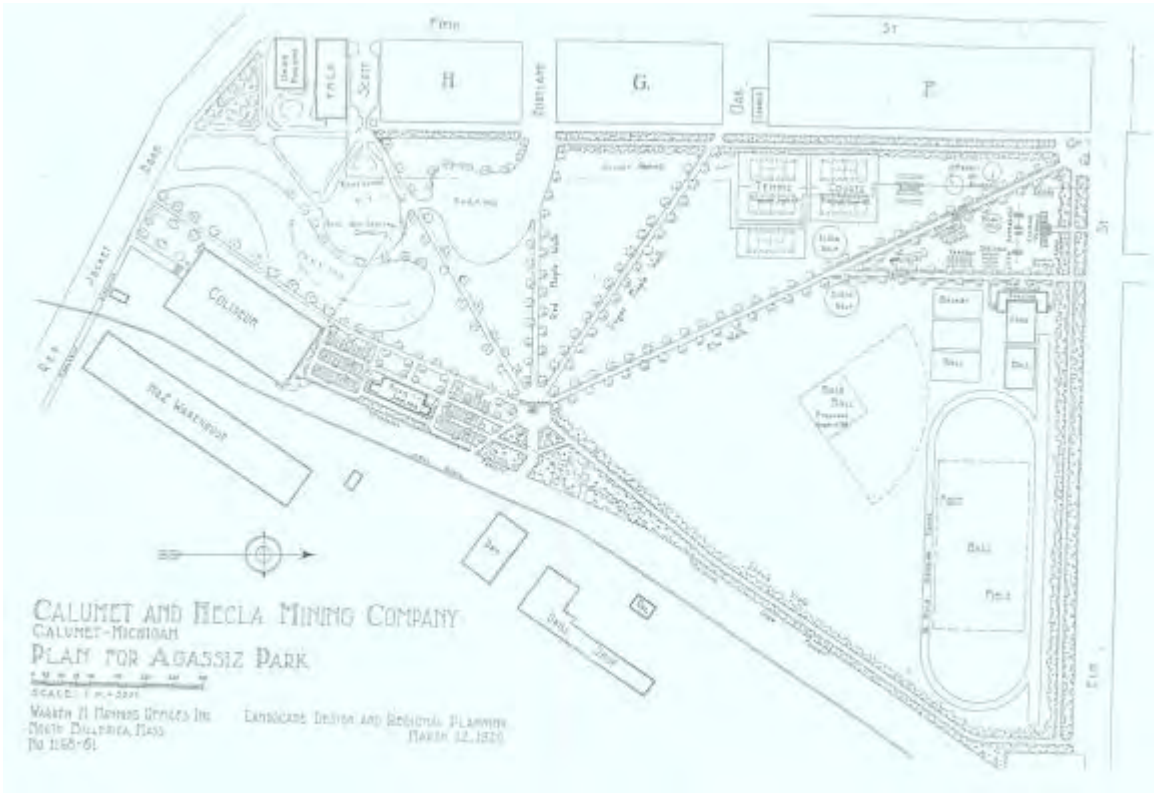


Figure III- 74: Manning Design for Agassiz Park, March 1920 (source: NPS, Keweenaw NHP, Structural and Cultural Landscapes Vertical File, Agassiz Park).



Figure III- 75: Birds-eye view of Agassiz Park, facing west (source: NPS, Keweenaw NHP, Foster Collection, Photos, Oversized, Agassiz Park Panorama from Standpipe, ca. 1930).

Next pages:
Figure III- 76: Agassiz park, Existing Conditions (source: QEA)
Sources for Figure: Agassiz Park, Existing Conditions

- Aerial Photography, 2002, NPS
- Site Investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Figure III- 77: Agassiz park, Existing Trees (source: QEA)
Sources for Figure: Agassiz Park, Existing Trees

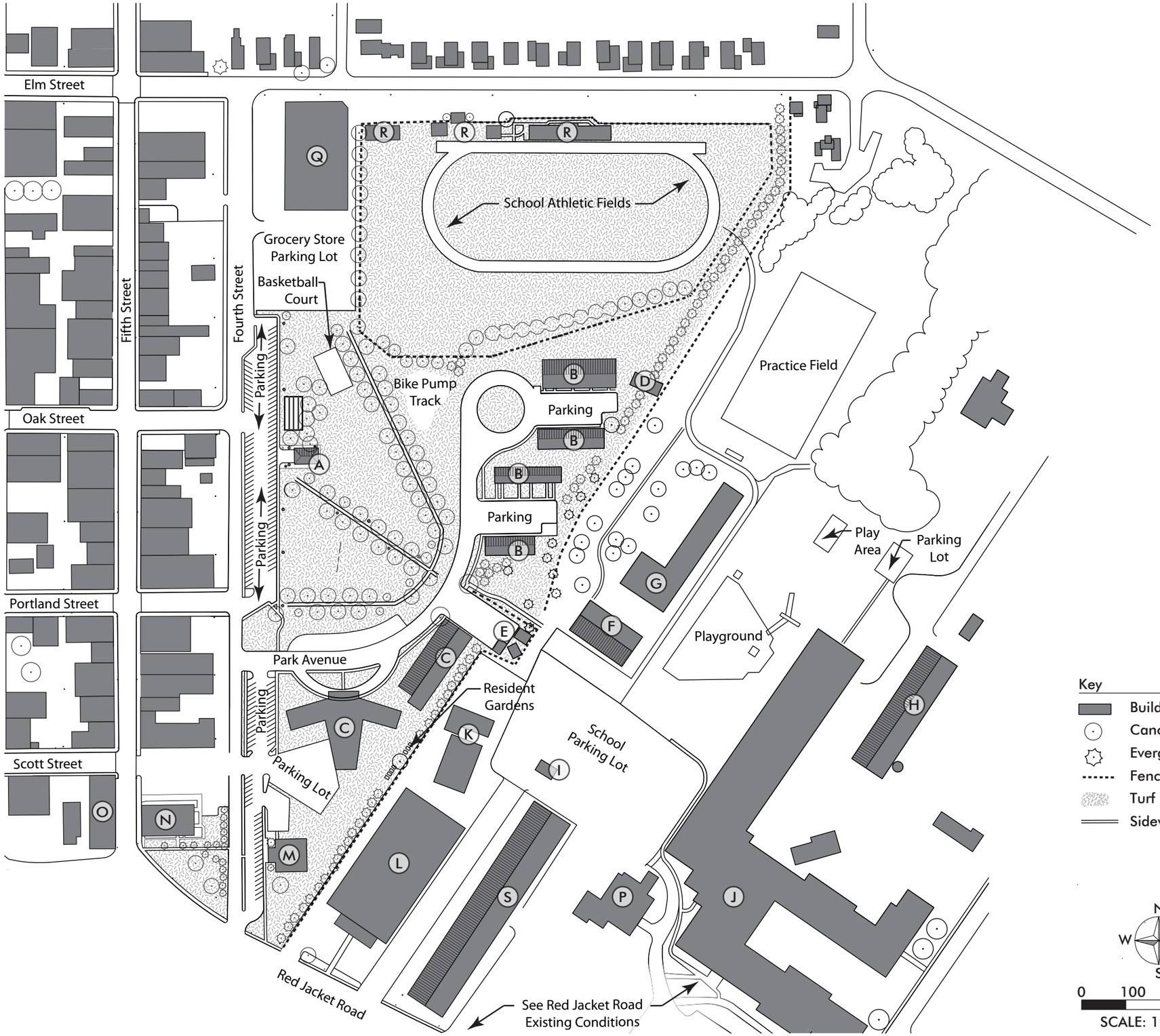
- Aerial Photography, 2002, NPS
- Site Investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Agassiz Park
Existing Conditions



Legend

- (A) Restrooms
- (B) Park Place Townhouses
- (C) Park Place Senior Housing Complex
- (D) Large shed (Housing Commission)
- (E) Sheds (Housing Commission)
- (F) C & H Dry House
- (G) C & H Drill Shop
- (H) C & H Superior Boiler House
- (I) C & H Powder House
- (J) C-L-K Schools
- (K) National Guard Unit Indoor Range and Calumet Township Garage with NPS Maintenance Facility
- (L) The Colosseum
- (M) Farmers and Merchants Mutual Fire Insurance Company
- (N) KNHP Visitor Center (Union Building)
- (O) Keweenaw Heritage Center (St. Anne's)
- (P) C & H Gear House
- (Q) Grocery Store
- (R) C-L-K Schools Stadium & Outbuildings
- (S) C & H Warehouse #2

Key

- Buildings
- Canopy Tree
- Evergreen Tree
- Fence
- Turf
- Sidewalk or Path

N
W E
S

0 100 200 300

SCALE: 1" = 200'

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.
2. Location of elements on plan are approximate.

Created/Revised

September 2012

QUINN EVANS ARCHITECTS

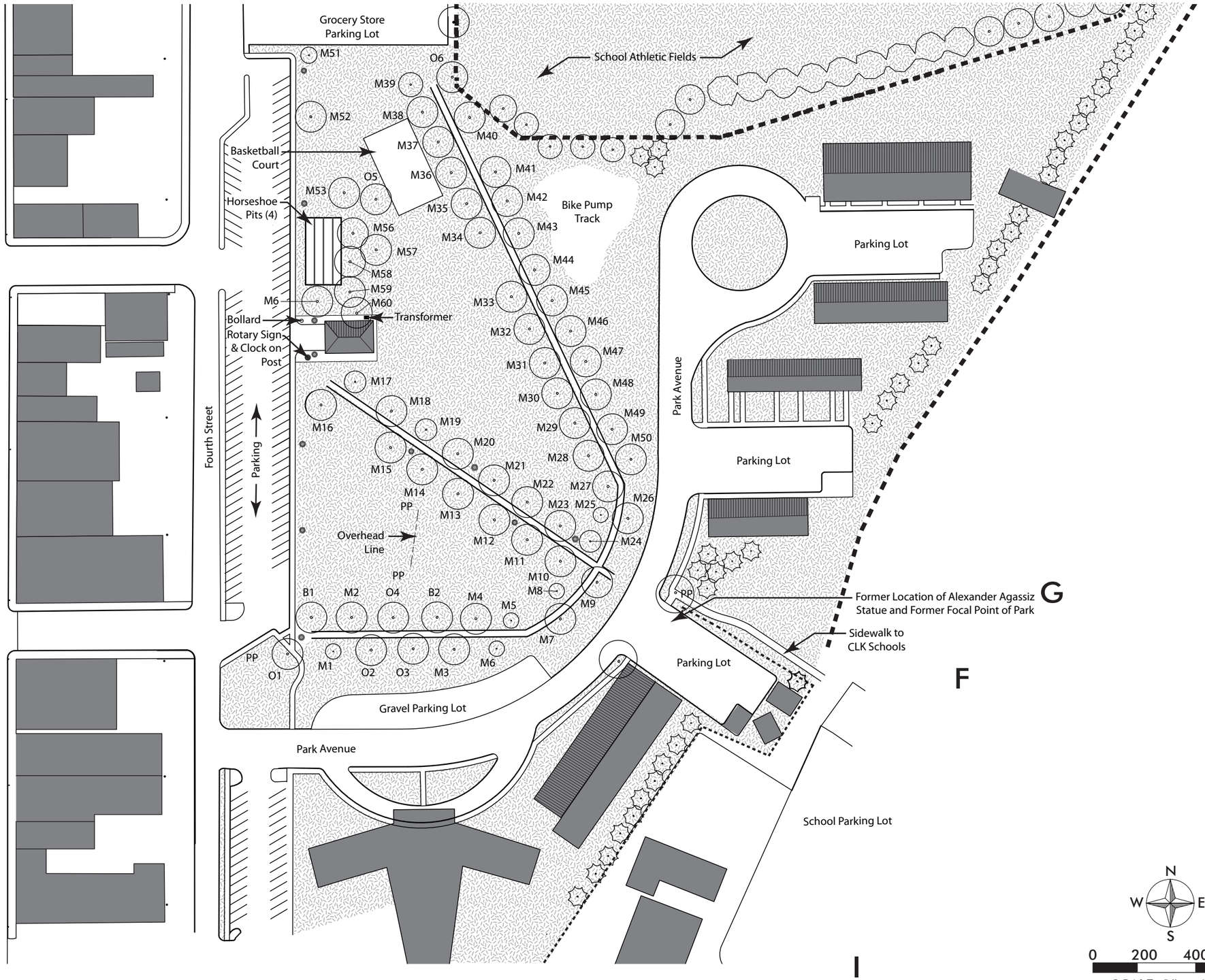
Figure III-76

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Agassiz Park
Existing Trees



Legend

B1-B2	Existing Birch Trees
O1-O6	Existing Oak Trees
M1-M61	Existing Maples Trees

Key

- Buildings
- Canopy Tree
- Evergreen Tree
- Fence
- Turf
- Sidewalk or Path

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.
2. Location of elements on plan are approximate.

Created/Revised

September 2012

N
W E
S

0 200 400 600

SCALE: 1" = 400'

QUINN EVANS ARCHITECTS

Figure III-77

Table III-9: Buildings, Agassiz Park

Note: the map key for this table is coordinated with Figure III-76.

Map Key	Building	Figure #	Contributing/ non-contributing	Rationale
A	Restrooms	III-78	Non-contributing	Built after 1960. Not part of Manning design for park.
B	Park Place Townhouses	III-79	Non-contributing	Four residential townhouses built in 1982. Encroaches on historic park.
C	Park Place Senior Housing Complex	III-80	Non-contributing	Two residential apartment buildings built in 1969 and 1982. Encroaches on historic park.
D	Large shed (Housing commission)		Non-contributing	Built after end of period of significance, does not reflect the historic design character. Used for maintenance purposes by Calumet Housing Commission.
E	Sheds (Housing Commission)		Non-contributing	Built after end of period of significance in location of ornamental plantings associated with the statue of Alexander Agassiz. Used for maintenance purposes by Calumet Housing Commission.

Table III-10: Landscape Features, Agassiz Park

Note: The map key for this table is coordinated with Figure III-65b.

Map Key	Landscape feature	Contributing / non-contributing	Description / Rationale
	Trees		
B1	Birch	contributing	16" dbh, suckers at base, needs pruning, on "Red Maple Walk" designed by Manning
B2	Birch	contributing	16" dbh, scars and fungus, on "Red Maple Walk" designed by Manning
O1	Oak	contributing	12" dbh, needs pruning, on "Red Maple Walk" designed by Manning
O2	Oak	contributing	12" dbh, needs pruning, on "Red Maple Walk" designed by Manning
O3	Oak	contributing	16" dbh, needs pruning, on "Red Maple Walk" designed by Manning
O4	Oak	contributing	14" dbh, needs pruning, on "Red Maple Walk" designed by Manning
O5	Oak	contributing	20" dbh, needs pruning
O6	Oak	contributing	17" dbh, fair condition, needs pruning, on "Elm Walk" designed by Manning
M1	Maple	contributing	4" dbh, scars on trunk, on "Red Maple Walk" designed by Manning
M2	Maple	contributing	16" dbh, needs pruning, on "Red Maple Walk" designed by Manning
M3	Maple	contributing	9" dbh, good condition, on "Red Maple Walk" designed by Manning
M4	Maple	contributing	12" dbh, good condition, on "Red Maple Walk" designed by Manning
M5	Maple	contributing	4" dbh, good condition, on "Red Maple Walk" designed by Manning
M6	Maple		4" dbh, good condition, on "Red Maple Walk" designed by Manning
M7	Maple	contributing	13" dbh, on "Red Maple Walk" designed by Manning
M8	Maple	contributing	4" dbh
M9	Maple	contributing	10" dbh, good condition, on "Sugar Maple Walk" designed by Manning
M10	Maple	contributing	8" dbh, needs pruning, on "Sugar Maple Walk" designed by Manning
M11	Maple	contributing	10" dbh, on "Sugar Maple Walk" designed by Manning
M12	Maple	contributing	14" dbh, needs pruning, on "Sugar Maple Walk" designed by Manning

Map Key	Landscape feature	Contributing / non-contributing	Description / Rationale
M13	Maple	contributing	15" dbh, needs pruning, on "Sugar Maple Walk" designed by Manning
M14	Maple	contributing	16" dbh, some damage and rot, on "Sugar Maple Walk" designed by Manning
M15	Maple	contributing	15" dbh, needs pruning, on "Sugar Maple Walk" designed by Manning
M16	Maple	contributing	17" dbh, needs pruning, scars, on "Sugar Maple Walk" designed by Manning
M17	Maple	contributing	10" dbh, needs pruning, on "Sugar Maple Walk" designed by Manning
M18	Maple	contributing	10" dbh, needs pruning, on "Sugar Maple Walk" designed by Manning
M19	Maple	contributing	4" dbh, ripped limbs, on "Sugar Maple Walk" designed by Manning
M20	Maple	contributing	18" dbh, needs pruning, on "Sugar Maple Walk" designed by Manning
M21	Maple	contributing	12" dbh, needs pruning, on "Sugar Maple Walk" designed by Manning
M22	Maple	contributing	16" dbh, needs pruning, on "Sugar Maple Walk" designed by Manning
M23	Maple	contributing	12" dbh, on "Sugar Maple Walk" designed by Manning
M24	Maple	contributing	2" dbh, limbs torn, poor condition, on "Sugar Maple Walk" designed by Manning
M25	Maple	contributing	10" dbh, good condition, on "Sugar Maple Walk" designed by Manning
M26	Maple	contributing	13" dbh, needs pruning, on "Sugar Maple Walk" designed by Manning
M27	Maple	contributing	1-1/2" dbh, cracked trunk, poor condition, on "Elm Walk" designed by Manning
M28	Maple	contributing	1-1/2" dbh, damaged, poor condition, on "Elm Walk" designed by Manning
M29	Maple	contributing	12" dbh, fair condition, on "Elm Walk" designed by Manning
M30	Maple	contributing	10" dbh, needs pruning, on "Elm Walk" designed by Manning
M31	Maple		4" dbh, fair condition, on "Elm Walk" designed by Manning
M32	Maple	contributing	11" dbh, needs pruning, on "Elm Walk" designed by Manning
M33	Maple	contributing	8" dbh, fair condition, on "Elm Walk" designed by Manning

Map Key	Landscape feature	Contributing / non-contributing	Description / Rationale
M34	Maple	contributing	2” dbh, damaged, prune and protect, on “Elm Walk” designed by Manning
M35	Maple	contributing	18” dbh, needs pruning, on “Elm Walk” designed by Manning
M36	Maple	contributing	17” dbh, damaged, needs pruning, on “Elm Walk” designed by Manning
M37	Maple	contributing	18” dbh, needs pruning, on “Elm Walk” designed by Manning
M38	Maple	contributing	17” dbh, needs pruning, on “Elm Walk” designed by Manning
M39	Maple		1-1/2” dbh, on “Elm Walk” designed by Manning
M40	Maple	contributing	17” dbh, needs pruning, on “Elm Walk” designed by Manning
M41	Maple	contributing	15” dbh, needs pruning, on “Elm Walk” designed by Manning
M42	Maple	contributing	11” dbh, needs pruning, on “Elm Walk” designed by Manning
M43	Maple	contributing	11” dbh, scars and torn branches, needs pruning, on “Elm Walk” designed by Manning
M44	Maple	contributing	1-1/2” dbh, leaning, needs pruning and protection, or replacement, on “Elm Walk” designed by Manning
M45	Maple	contributing	1-1/2” dbh, damaged, needs pruning and protection, on “Elm Walk” designed by Manning
M46	Maple	contributing	4” dbh, recent scar, fair condition, on “Elm Walk” designed by Manning
M47	Maple	contributing	8” dbh, multiple scars, needs pruning, on “Elm Walk” designed by Manning
M48	Maple		2” dbh, damaged, needs pruning and protection, on “Elm Walk” designed by Manning
M49	Maple	contributing	10” dbh, damaged, needs pruning, on “Elm Walk” designed by Manning
M50	Maple	contributing	14” dbh, needs pruning, on “Elm Walk” designed by Manning
M51	Maple	contributing	8” dbh, needs pruning
M52	Maple	contributing	20” dbh, needs pruning
M53	Maple	contributing	16” dbh
M56	Maple	contributing	20” dbh

Map Key	Landscape feature	Contributing / non-contributing	Description / Rationale
M57	Maple	contributing	10” dbh
M58	Maple	contributing	16” dbh
M59	Maple	contributing	10” dbh
M60	Maple	contributing	15” dbh
M61	Maple	contributing	12” dbh, large scar, needs attention
	Crushed stone paths	contributing	Primary element in Warren Manning’s design for the park.
	Turf/Lawn	contributing	Primary element in Warren Manning’s design for the park. Rough turf/lawn is the dominant ground cover in the park. The lawn is in fair condition with bare patches in many locations.
	Parking lots along west side of park	Non-contributing	Added after the end of the period of significance, does not reflect the designer’s intent for the park.
	Sidewalk at east edge of parking lot	Non-contributing	Added after the end of the period of significance, does not reflect the designer’s intent for the park.
	Ornamental clock on post near restrooms	Non-contributing	Added after the end of the period of significance, does not reflect the designer’s intent for the park.
	Basketball court	Non-contributing	Added after the end of the period of significance, does not reflect the designer’s intent for the park.
	Bike pump track	Non-contributing	Added after the end of the period of significance, does not reflect the designer’s intent for the park.
	Power poles and overhead lines	Non-contributing	Added after the end of the period of significance, does not reflect the designer’s intent for the park.
	Signs	Non-contributing	Added after the end of the period of significance, does not reflect the designer’s intent for the park.
	Fence between Park Place residences and C-L-K School property	Non-contributing	Added after the end of the period of significance.

Map Key	Landscape feature	Contributing / non-contributing	Description / Rationale
	Vegetative border between Park Place residences and C-L-K School Property	contributing	Reflects Manning's plan for a vegetative screen surrounding the park.
	School athletic fields	contributing	Reflects Manning's plan for an athletic field in this portion of the park



Figure III- 78: Restrooms, 2010 (source: QEA 0558)



Figure III- 79: Park Avenue and Park Place Townhouses on eastern side of Agassiz Park, 2010 (source: QEA 6722)



Figure III- 80: Retirement Community building and parking lot near location where Agassiz memorial once stood, 2010 (source: QEA 6696)



Figure III- 81: Oak Street Path Agassiz Park, facing North, 2011 (source: QEA 9510)



Figure III- 82: Oak Street Path in Agassiz Park, facing southeast, 2011 (source: QEA 9117)



Figure III- 83: Path from Grocery Store Parking Lot through Agassiz Park, facing southeast, 2011 (source: QEA 9120)



Figure III- 84: Portland Street Path in Agassiz Park, facing west, 2011 (source: QEA 9153)



Figure III- 85: Oak Street Path, facing northwest, 2011 (source: QEA 9145)

Osceola No. 13 – Existing Conditions and Landscape Analysis

Existing Conditions – Osceola No. 13

The Osceola No. 13, illustrated in Figure III-69, is located at the southeastern corner of the project area (see Figure III-1). This landscape character area contains the only remaining shaft-rockhouse in the Calumet unit. Additional industrial resources include the hoisthouse, a dryhouse, poor rock piles, and utility poles and overhead utility lines (see Tables III-11 and II-12).

Analysis – Osceola No. 13

The Osceola No. 13 landscape character area retains the ability to convey its historical significance; therefore, it retains integrity. The presence of the shaft-rockhouse, hoist house, and dryhouse in their historic locations present a strong visual image that clearly represents the mining activities at this site. The surrounding landscape has not been developed or extensively altered since the period of significance. The result is a property that retains integrity of location, setting, design, materials and workmanship. Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. Despite the absence of the active mining operations, the scale, materials, and architectural style of the remaining historic industrial structures clearly convey a feeling of historic character within this area. Association is the direct link between an important historic activity and the historic property. The loss of active mining operations and small-scale landscape features within the Calumet unit has resulted in the loss of integrity of association at Osceola No. 13.

Next page:
Figure III- 86: Osceola No. 13, Existing Conditions (source: QEA)

Sources for Figure III-86: Osceola No. 13, Existing Conditions

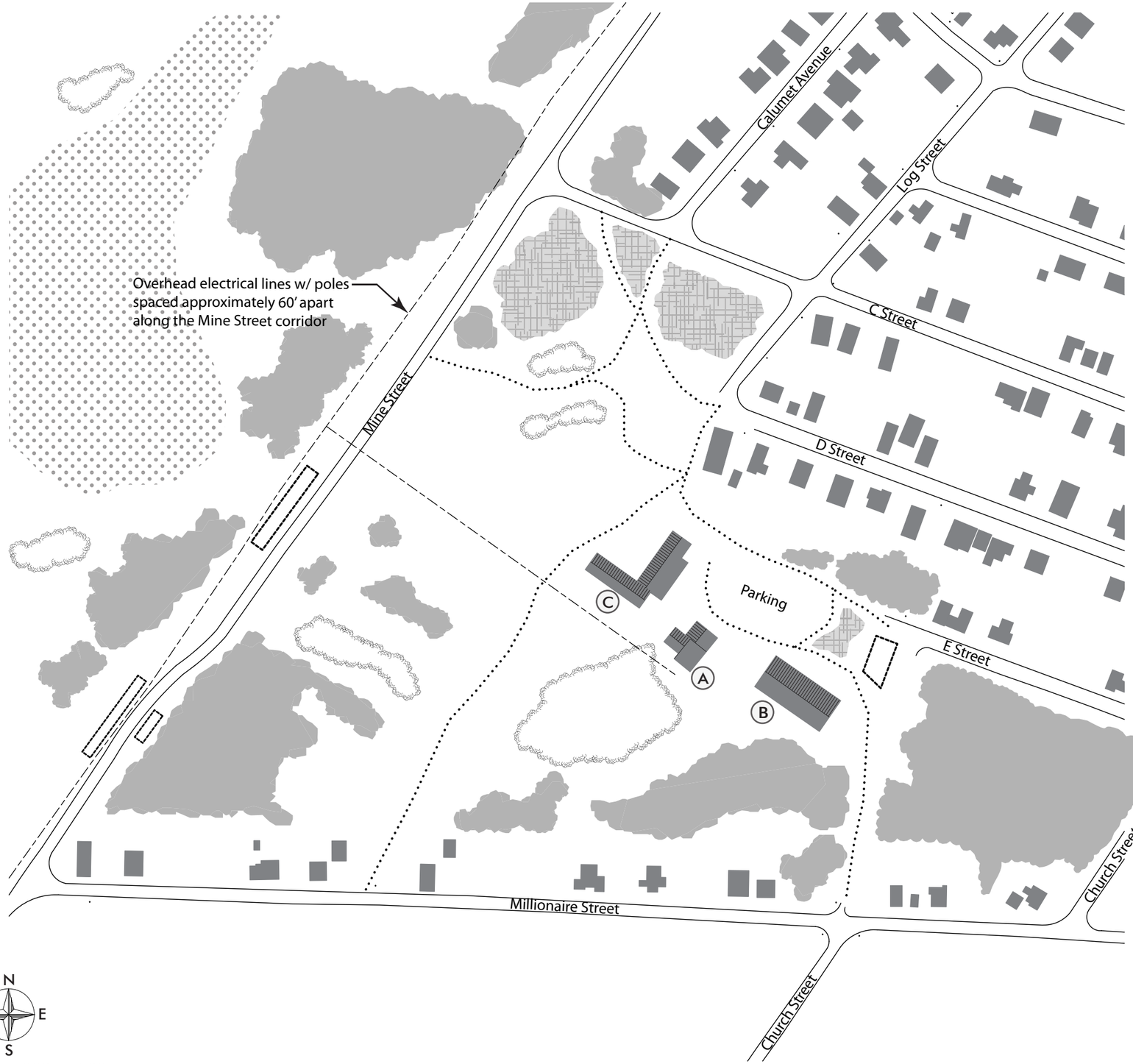
- Aerial Photography, 2002, NPS
- Site Investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Osceola No.13
Existing Conditions



Legend

- (A) Osceola Shaft House No.13
- (B) Hoist House
- (C) Dryhouse

Key

- Buildings
- Industrial Materials/Foundations
- Informal Unpaved Roads
- Woodland
- Understory Vegetation
- Rock Piles
- Overhead Power Lines
- Resource Extraction Area

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

September 2012

N W E S

0 100 200 300

SCALE: 1" = 200'

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Figure III-86

Table III-11: Buildings, Osceola No. 13

Map Key	Building	Figure #	Contributing/ Non-contributing	Rationale
A	Osceola No. 13 Shaft Rockhouse	III-87	Contributing	Part of C&H mining operations during period of significance.
B	Hoist House	III-88	Contributing	Part of C&H mining operations during period of significance.
C	Osceola No. 13 Dryhouse	III-89	Contributing	Part of C&H mining operations during period of significance.

Table III-12: Landscape Features, Osceola No. 13

Landscape Feature	Figure #	Contributing/ Non-contributing	Rationale
Industrial materials	III-89	contributing	Parts of machinery used for mining
Informal unpaved roads			Dirt and gravel roads on property. Historic locations are unknown.
Route extending from Log Street and connecting to E Street.	III-86	*contributing	* Believed to be part of historic circulation route, but documentation is conjectural.
Route extending from near the Hoist House to Church Street.	III-86	*contributing	* Believed to be part of historic circulation route, but documentation is conjectural.
Route extending from Log Street to Millionaire Street	III-86	*contributing	*Believed to be part of historic circulation route, but documentation is conjectural.
Other routes	III-86	Non-contributing	These routes appear to have been established by all terrain vehicles for recreational use.
Wooded areas	III-86	Non-contributing	Vegetation appears to have established and grown since the end of mining. Vegetation would not have been prevalent at an active mining site.
Understory vegetation	III-86	Non-contributing	Vegetation appears to have established and grown since the end of mining. Vegetation would not have been prevalent at an active mining site.
Rock piles	III-86	contributing	Piles created as part of mining process.
Overhead power lines	III-86	contributing	Provide power to the facility.



Figure III- 87: Osceola No. 13 Shaft-rockhouse, 2010 (source: QEA 7833)



Figure III- 88: Osceola No. 13 Hoist House and pulley stand, 2010 (source: QEA 7999)



Figure III- 89: Osceola No. 13 Dryhouse, 2010 (source: QEA 7791)

Calumet Civic & Commercial Historic District –Existing Conditions and Landscape Analysis

Existing Conditions – Calumet Civic & Commercial Historic District

The Calumet Civic & Commercial Historic District, illustrated in Figures III-90 through III-100, is located within the Village of Calumet, near the center of the Calumet unit (see Figure III-1). The National Register-listed historic district includes the area bounded by Pine Street on the north, Scott Street on the South, Fourth Street on the east, and mid-block between Seventh and Sixth Streets on the west. The district includes two, three, and four-story rectangular commercial buildings constructed of wood, sandstone, brick and metal. Most display a combination of ornamental features that may include terra cotta trim, metal cornices, turrets, bays, cast iron thresholds and columns. The district is anchored by the towers of St. Anne's church on the south and the Calumet Opera House toward the north. Major buildings in the district are enumerated in Table III-13. In several locations historic buildings have been removed and vacant lots are present. The loss of building masses creates voids along the streetscape that reduce the density and feeling formerly associated with the historic downtown. This loss of historic fabric is most visible on Sixth Street south of Oak Street and on Fifth Street north of Elm Street.

The streets within the district all retain their historic alignment and several blocks include historic paving materials. Changes to the sidewalk and curb alignments have been made along Oak Street and Sixth Street, to provide angled parking. Historic light poles and fixtures are present along Sixth Street, from Elm to Scott. Curb, sidewalk, and pavement conditions have been documented by the Village of Calumet, and plans are in place to make repairs where needed, as funding becomes available.

There are five public parks or open spaces located within or adjacent to the Calumet Civic & Commercial Historic District. Agassiz Park and the C-L-K Schools athletic fields are described in the section of this document addressing Agassiz Park.

Italian Hall Memorial Park
The Italian Hall Memorial Park consists of three lots at the corner of Seventh Street and Elm Street (see Figures II-79 and III-91). A concrete sidewalk extends along the three blocks on Seventh Street. Lot 10 is located at the corner of Elm and Seventh Streets and contains an asphalt parking lot that is in poor condition with volunteer vegetation growing through the cracks. The asphalt extends to Elm Street without a curb on the south side of the property. A historic light pole is situated at the corner and a pedestrian crossing sign is nearby. There are no curb cuts for pedestrian access. The concrete sidewalk adjacent to Lot 10 includes portions that are in need of repair. Lot 9 is the lot associated with the former Italian Hall building. The sidewalk adjacent to this lot is new and in good repair. The property includes a flag pole, the entrance arch from the non-extant building, a historical marker, interpretive panel, brick paving, and a couple of ornamental shrubs, all in a mown lot. The western edge of the lot is lined with mature trees and the north and south boundaries are lined with volunteer herbaceous and woody vegetation. Lot 8 is located to the north of Lot 9 and is vacant. The lot contains volunteer herbaceous vegetation and is lined with trees and shrubs on the north and west sides. The Village and National Park Service are planning to work together to address the development of an appropriate design for the park.

Theater Park
Theater Park is located on the east side of Sixth Street south of the Calumet Theater. The park occupies one-half of the open space between Shute's Saloon and the theater. The southern half of the open space contains a gravel driveway/parking area. Currently, the park consists of a turf area with four mature maple trees, a flagpole, and a State of Michigan historic site marker. The back/eastern edge of the park is defined by gravel and a garbage dumpster. Views from the street are drawn to the partially demolished back of a building that faces Fifth Street. The space is not inviting to pedestrians. The Village has a site design for the park that it plans to implement when funding is available.

Red Jacket Road Park
At the intersection of Red Jacket Road and Fifth Street, a roughly triangular open space is situated directly south of the Calumet Visitor Center (Union Building). This property is owned by the Village of Calumet and is intended to serve as a small park. The park includes lawn, mature cedar trees along the West side of Fourth Street, and sidewalks. The location is important as part of the arrival experience to Calumet, and as the entrance to the Calumet Visitor Center.

Analysis – Calumet Civic & Commercial Historic District

The Calumet Civic & Commercial Historic District retains the ability to convey its historical significance; therefore, it retains integrity. The majority of the district is occupied by significant historic buildings oriented along the historic street alignments, resulting in integrity of location, setting and design. The historic materials and workmanship of many of these buildings are intact, reflecting the historic characteristics of the district. The grid pattern of the streets, presence of sidewalks, uniform building set-backs, scale of the buildings, historic materials, and architectural style all combined result in integrity of feeling in the district. The continued use of the area as a downtown commercial and entertainment hub provides a strong sense of association with an active downtown environment.

Next page:
Figure III- 90: Calumet Civic & Commercial Historic District, Existing Conditions (source: QEA)

Sources for Figure III-90: Calumet Civic & Commercial Historic District, Existing Conditions

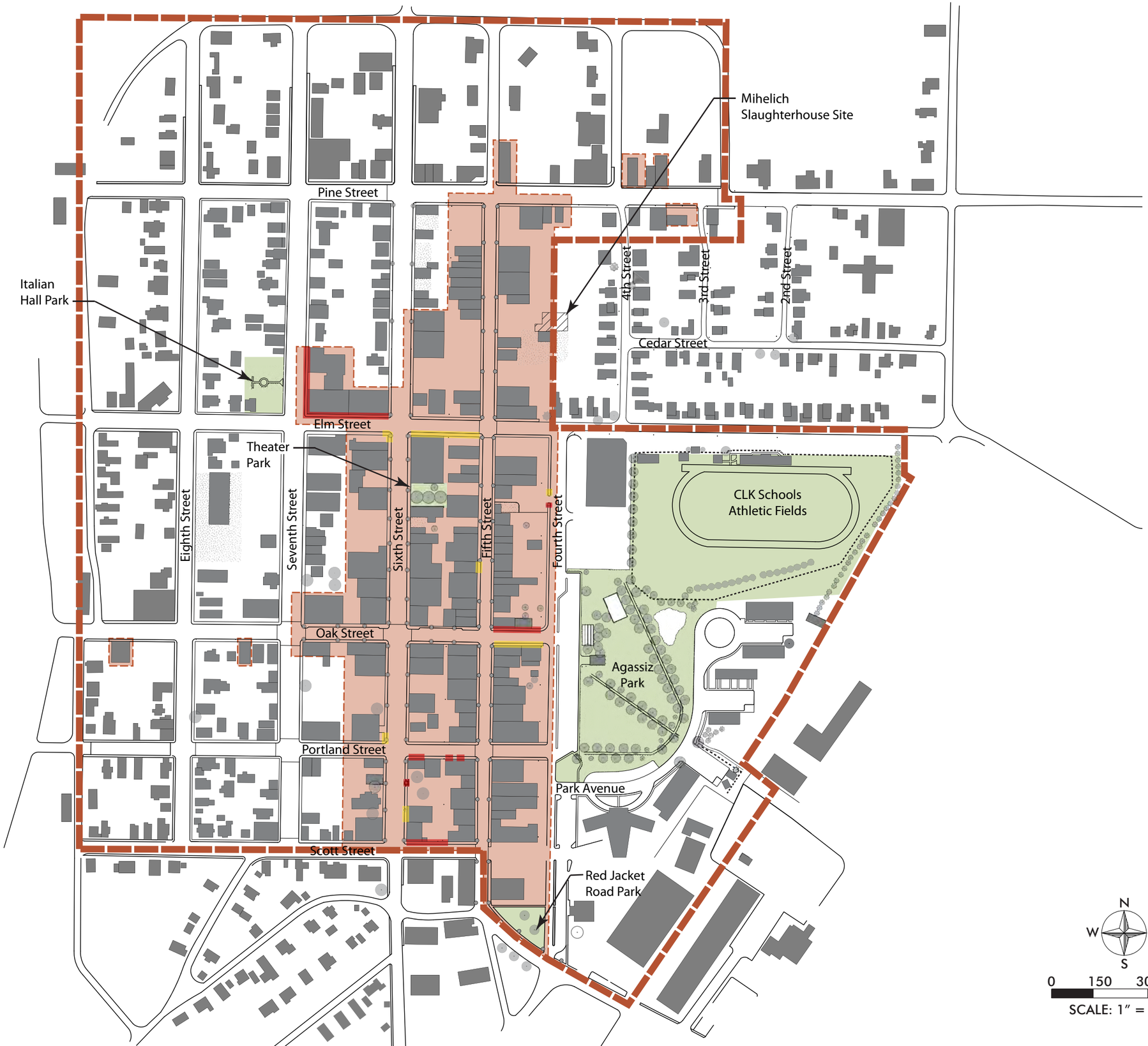
- Aerial Photography, 2002, NPS
- Site Investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Calumet Village and Downtown Existing Conditions



Key

- Calumet Civic & Commercial Historic District
- Calumet Village Limits
- Buildings
- Existing Sidewalk
- Parks
- Canopy Tree
- Evergreen Tree
- Lawn Area
- Building
- Ruin
- Chain Link Fence
- Historic Style Light Pole & Fixture
- Other Light Pole & Fixture
- Historic district sidewalk/curbs in poor condition. Repairs neccessary.
- Historic district sidewalk/curbs in fair condition. Some repairs neccessary.
- Historic district sidewalk/curbs in good condition. No repairs neccessary.

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

November 2012

N W E S

0 150 300 450

SCALE: 1" = 300'

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Figure III-90

Table III-13: Major Buildings, Calumet Civic & Commercial Historic District

Note: The 1989 National Historic Landmark nomination for Calumet provides a comprehensive survey of buildings and structures that contribute to the National Historic Landmark District. Included are the majority of the buildings in the Calumet Civic & Commercial Historic District. The list provided in Table III-13 includes only selected buildings relevant to the narrative in this report.

Building	Figure #	Contributing/ Non-contributing	Rationale
Upper Peninsula Firefighters Memorial Museum	III-92	Contributing	1890, historic fire department
Calumet Theater	III-93	Contributing	Regional entertainment center during period of significance.
Shute's Bar (Marco Curto's Saloon)	III-94	Contributing	Present in commercial district during period of significance.
Sterk Block	III-95	Contributing	Present in commercial district during period of significance.
New Ryan Block	III-96	Contributing	Present in commercial district during period of significance. Addition is non-contributing.
Michigan House Hotel	III-97	Contributing	Present in commercial district during period of significance.
Coppo Block	III-98	Contributing	Present in commercial district during period of significance.
Vertin Brothers Department Store	III-99	Contributing	Present in commercial district during period of significance.
The Kinsman Block	III-100	Contributing	Present in commercial district during period of significance.



Figure III- 91: Italian Hall Site, 2010 (source: QEA P9230215)



Figure III- 92: Upper Peninsula Firefighters Memorial Museum, 2010 (source: QEA P9220170)



Figure III- 93: Calumet Theater, 2010 (source: QEA P9220162)



Figure III- 94: Shute's Bar (Marco Curto's Saloon), 2010 (source: QEA P9220159)



Figure III- 95: Sterk Block, 2010 (source: QEA P9220104)



Figure III- 96: New Ryan Block, 2011 (source: Keweenaw NHP)



Figure III- 97: Michigan House Hotel, 2010 (source: QEA 6629)



Figure III- 98: Coppo Block, 2010 (source: QEA 6652)



Figure III- 99: Vertin Brothers Department Store, 2010 (source: QEA P9220142)



Figure III- 100: The Kinsman Block, 2010 (source: QEA 6583)

Railroad/Recreational Corridor– Existing Conditions and Landscape Analysis

Existing Conditions – Railroad/Recreational Corridor

The Calumet Railroad corridor, illustrated in Figure III-101, is located at the northern and western edges of the unit, between the Village of Calumet and the Yellow Jacket housing location (see Figure III-1). The corridor also extends beyond the unit boundary to the north and parallels Spruce Street in an easterly direction to Waterworks Street. The corridor includes a former railroad right-of-way is a State of Michigan snowmobile and ORV trail. The trail is roughly graded and surfaced with gravel and dirt. There are many large potholes and irregularities along the route. The trail passes under a former railroad crossing at the southwest corner of the corridor and continues, connecting to a trail that parallels Osceola Road to the south. The edges of the corridor include volunteer vegetation and industrial artifacts.

Analysis – Railroad/Recreational Corridor

The Calumet Railroad corridor was historically a route that connected to the north and south as part of a regional industrial transportation network. The conversion of many regional historic railroad corridors to snowmobile and all terrain vehicle trails has preserved aspects of the historic transportation routes. As a portion of a larger railroad corridor system, the parcel retains the ability to convey its historical significance therefore it retains integrity of location, setting and feeling. However, integrity has been diminished by the removal of key elements and activities from the historic period. The tracks, trains, and associated features have been removed therefore the site does not retain integrity of design, materials or workmanship. Association is the direct link between an important historic activity and the historic property. The loss of active railroad operations and small-scale landscape features within the railroad corridor has resulted in the loss of integrity of association.

Next page:
Figure III- 101: Railroad/Recreational Corridor, Existing Conditions (source: QEA)

Sources for Figure III-101: Railroad/Recreational Corridor, Existing Conditions

- Aerial Photography, 2002, NPS
- Site Investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Railroad/Recreational Corridor Existing Conditions



Legend

- (A) Mineral Range Depot
- (B) Historic Railroad Overpass

Key

- Calumet Unit Boundary
- Rough turf and gravel
- State ATV/snowmobile route
- Informal ATV/snowmobile route
- Vegetation
- Body of water

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

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September 2012

QUINN EVANS ARCHITECTS

Figure III-101

Table III-14: Buildings, Railroad / Recreational Corridor

Map Key	Building	Figure #	Contributing/ Non-contributing	Rationale
A	Mineral Range Railroad Depot	III-102	Contributing	Important transportation hub during the period of significance.
B	Railroad overpass	III-103	Contributing	Part of industrial circulation system during period of significance.



Figure III- 102: Mineral Range Railroad Depot, East elevation, 2010 (source: QEA P92303P9230319)



Figure III- 103: Railroad overpass, 2010 (source: QEA 7383)

North Mine Street– Existing Conditions and Landscape Analysis

Existing Conditions – North Mine Street

The North Mine Street Area is located north of Red Jacket Road, east of Agassiz Park, and west of U.S. 41/Calumet Avenue. The area includes several historic industrial buildings and is currently dominated by the CLK School buildings, parking lot, play ground, and athletic field. Extant historic industrial structures include the C&H Warehouse No.2, C&H Dry House, C&H Drill Shop, C&H Gear House, C&H Superior Boiler House, and the historic portion of the school (see Figures III-104 through III-112).

Analysis – Railroad/Recreational Corridor

The North Mine Street area historically included a highly active mining operation with a dense complex of large scale industrial buildings, train tracks, stock piles of materials, and equipment. The extant historic industrial buildings contribute to the integrity of this location however the school additions have impacted the area. The construction of an addition to the school over a portion of Mine Street interrupts the historic corridor and the relationships between various historic buildings. This area retains integrity of location and partial integrity of materials and workmanship due to the presence of intact extant mining buildings. Integrity of design, setting and feeling have been diminished due to additions of new buildings and parking areas including changes to patterns of circulation, views, topography, and small scale features. Association is the direct link between an important historic activity and the historic property. The loss of active industrial operations and small-scale landscape features associated with those activities has resulted in the loss of integrity of association.



Figure III- 104: C-L-K Schools parking lot facing south, and north elevation of C&H Warehouse No. 2 (center of image) and Calumet Colosseum (right of image), 2010 (source: QEA 6668)



Figure III- 105: C&H No. 2 Dry House, 2010 (source: QEA 0562)



Figure III- 106: Drill Shop, 2010 (source: http://sites.google.com/site/coppercountrycurlingclub/ about-us/the-drill-house, accessed 25 March 2011)



Figure III- 107: C-L-K Schools parking lot, facing southeast, and C&H Gear House, 2010 (source: QEA 6662)



Figure III- 108: C-L-K Schools, northeast corner, 2010 (source: QEA P9240040)



Figure III- 109: C-L-K Schools, northwest corner, 2010 (source: QEA P9240030)



Figure III- 110: C-L-K Schools, west elevation, 2010 (source: QEA 6660)



Figure III- 111: Superior Boilerhouse, 2010 (source: QEA P9240042)



Figure III- 112: Calumet No. 3 Shaft (source: http://www.coppercountryexplorer.com/category/calumet-hecla-mine/ accessed 25 March 2011)

Housing Locations – Existing Conditions and Landscape Analysis

Existing Conditions – Housing Locations

Housing locations in Calumet are residential neighborhoods that were originally developed to provide housing for mine workers and their families. The housing locations completely within the Calumet unit include Blue Jacket and Newtown (see Figure III-113). Some housing locations are partially within the boundaries Calumet unit. These include the Calumet housing location, Yellow Jacket, Hecla, Raymbaultown, and a very small portion of Osceola (formerly Opechee). Several historic housing locations and residential neighborhoods are adjacent to the Calumet unit, these include: Albion, Red Jacket Shaft, Tamarack, Tamarack Heights, Swedetown, Florida, and the Village of Laurium. Although not within the unit, these neighborhoods were developed to provide housing for mine workers and other residents during the period of significance. The housing locations surround the industrial core of the unit and contain extensive historic residences and associated landscape features including streets, yards, out buildings, and vegetation.

These historic housing locations are also current residential neighborhoods. The present residents use their homes and yards to support their day to day lives and often find it necessary to make changes to accommodate current needs. The housing locations today present a range of historic integrity and conditions. Some have been updated to improve occupant comfort at the expense of historic integrity while others are occupied but need improvements. Others are vacant and dilapidated. Overall, the resources related to worker housing provide valuable information about the historic conditions of the Calumet unit.

The housing locations in and near the Village of Calumet (including Blue Jacket, Red Jacket, Newtown and Yellow Jacket Housing Locations and Village of Calumet (formerly Red Jacket), are aligned with a grid that corresponds to compass coordinates. Numbered streets are oriented north-south and named streets are oriented east-west. The street grid is tight, creating square blocks in the southern portion of this area and rectangular blocks to the north. The core of this area is the Downtown Commercial District, where two, three, and four-story commercial and professional office buildings are aligned adjacent to the sidewalks that parallel the streets. Many of these buildings include residential use in the upper floors. Buildings share adjoining walls, or are closely spaced. In some areas buildings have been removed and vacant lots are present between structures. The remaining housing locations within the project area are aligned along the northeast/southwest diagonal grid that reflects the development of the C&H Mining Company's operations. These properties tend to include blocks that are longer in a northeast/southwest orientation with short blocks on the perpendicular streets.

Throughout the project area, housing locations are predominately occupied by single-family residences that include small yards. Typical outbuildings are garages and sheds. Street conditions vary. Some contain curbs and gutters while others have no defined edges. Many include lawn terraces, street trees, sidewalks, driveways, and consistent building set-backs. On several streets the building set-back is utilized for parallel parking, rather than lawns or terraces.

Analysis – Housing Locations

The housing locations associated with the Calumet unit are extensive and of great significance. Company housing locations portray the theme of corporate paternalism and serve as reminders of the day to day conditions of the lives of people who worked for the mining company. The historic housing locations in the Calumet area include an extensive collection of examples of housing developed by the mining company and individual speculators for workers. Standard house plans were frequently used to efficiently construct entire streets or blocks at one time. This approach resulted in a uniformity of housing types in clusters throughout the area. The majority of the houses were constructed for single families of wood-frame construction and exposed stone foundations. Most are one and one-half to two and one-half stories high and roof lines are typically gable, but sections including gambrel roofs are present and a few salt boxes. The consistency of the rooflines creates rhythms along the streets that are distinct and important to the integrity of the neighborhoods.[6]

This cultural landscape report is not meant to provide an extensive analysis of the housing locations. Rather, it presents an introduction to the resources as they relate to the overall Calumet unit of Keweenaw National Historical Park. The Keweenaw NHP Advisory Commission is currently overseeing a historic resource survey that is focused on the four counties of the Keweenaw Peninsula (Baraga, Houghton, Ontonagon, and Keweenaw). The survey, together with research and documentation conducted previously, will provide a comprehensive basis for analysis of the relative significance and integrity of the housing locations in the region, including those associated with the Calumet unit.

A workshop focused on housing preservation issues in the Keweenaw was conducted in 1995 and the resulting unpublished report includes helpful information for considering the historic integrity of housing locations in Calumet. It indicates that "one of the most distinctive characteristics of the Keweenaw area's housing is that it remains in-situ; it has not been moved around, as housing in comparable Lake Superior mining areas has been." The original, historic, pattern of development is a key characteristic when considering integrity of housing locations.[7] Important landscape features include outbuildings, front setbacks from the streets, and yards and gardens. Although fences were prevalent historically, most have been removed. The current approach to snow removal makes maintenance of fences very difficult.

During the historic period, the mining company directed the appearance of the houses they owned but as the homes moved into private ownership a wider diversity of approaches to the exterior appearance of the houses evolved. "Houses were enlarged with additions, and various cosmetic changes were made. Typical patterns of modification are easily discernable today. In fact, the original, uniform character of the houses heightens the appreciation of subsequent changes. Because of the commonalities of massing, setback and roof shape, the physical evolution of a single house—and an entire streetscape—from its original form can easily be deduced. For this reason, individual cosmetic changes may be less detrimental than they would be in other residential contexts."[8]

[6] Housing Preservation Issues Workshop, Keweenaw National Historical Park, 1995. (unpublished)
[7] Housing Preservation Issues Workshop, Keweenaw National Historical Park, 1995. (unpublished)
[8] Housing Preservation Issues Workshop, Keweenaw National Historical Park, 1995. (unpublished)

Many of the changes made represent regional adaptations to the climate or personal aesthetic preferences. "To many mine workers, the changes made to standardized, company-built houses represented the increased control they had over their own private lives. Thus, it may be important to allow owners to continue to modify their houses according to their own needs and preferences. However, it may be desirable to mediate owners' plans to the extent that the overall historic pattern of the neighborhood and streetscape is retained."[9]

The 1995 workshop report concludes that it is more important to focus on neighborhoods than individual homes as the "historic property." It suggests that an approach to preserving historic housing in the Keweenaw should focus on keeping the buildings occupied and working to ensure that that local community values these historic resources. This is presented as an approach to ensure that the "regular spacing of the buildings and uniformity of forms" are preserved by discouraging the removal or severe alteration of historic houses.[10]

The following section provides a brief overview of the historic housing locations associated with the Calumet unit.

Next page:
Figure III- 113: Housing Locations, Existing Conditions (source: QEA)

Sources for Figure: Housing Locations, Existing Conditions

- Aerial Photography, 2002, NPS
- Site Investigations, September 2010, by Brenda Williams and Lindsey Pickornik
- Michigan subdivision plat maps can be viewed on line at: http://www.dleg.state.mi.us/platmaps/sr_subs.asp
- Boundaries of housing locations based on above sources, consultation with NPS staff, and annotated version of "Calumet & Hecla Mine Location, 1919" located in KNHP headquarters flat files.

[9] *Housing Preservation Issues Workshop, Keweenaw National Historical Park,* 1995. (unpublished)
[10] *Housing Preservation Issues Workshop, Keweenaw National Historical Park,* 1995. (unpublished)

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Housing Locations

Legend

- (A) Albion Housing Location
- (B) Calumet Housing Location
- (C) Blue Jacket Housing Location
- (D) Red Jacket Housing Location
- (E) Village of Calumet (formerly Red Jacket)
- (F) Newtown Housing Location
- (G) Yellow Jacket Housing Location
- (H) Tamarack Housing Location
- (I) Swedetown Housing Location
- (J) Hecla Housing Location
- (K) Village of Laurium (formerly Calumet)
- (L) Raymbaultown Housing Location
- (M) Osceola Housing Location (formerly Opechee)
- (N) Florida Housing Location

Key

- NHL Boundary
- NPS Unit Boundary
- Formal/Informal Unpaved Roads
- Railroad Line
- Inactive Mine Area/Industrial Landscape
- Village of Calumet
- Housing Location
- Body of Water
- Underground Mine/Buildings Removed

N W E S

0 500 1000 1500

SCALE: 1" = 1000'

Map Notes

1. Locations of elements on plan are approximate based on best available sources. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

September 2012

QUINN EVANS ARCHITECTS

Figure III-113

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Blue Jacket

The Blue Jacket housing location is located north of Agassiz Park. Its boundaries are illustrated in figure III-113. The overall character of the portion of Blue Jacket between Pine and Elm Streets is an in-tact historic housing location. In particular, the north side of Elm Street between Fourth and Waterworks Streets includes a row of two and one-half story frame houses with front end gables and consistent spacing and setbacks from the street (see Figure III-114). There have been additions and alterations made to most of the individual structures, but the overall historic character of the street is high. There is very little vegetation in the fronts of the houses, so their facades are clearly visible along the street. There is no curb or sidewalk along this portion of Elm Street, and the asphalt street is extended to provide parking at the fronts of many of the houses. The East side of Fourth Street also retains a distinct historic character with consistently sized, spaced historic buildings (see Figure III-115). Portions of several streets in Blue Jacket include vacant lots, overgrown vegetation, and additions that extend into the setback, reducing the historic character in some areas, but the impact is minor compared to the extensive historic resources present (see Figure III-116).

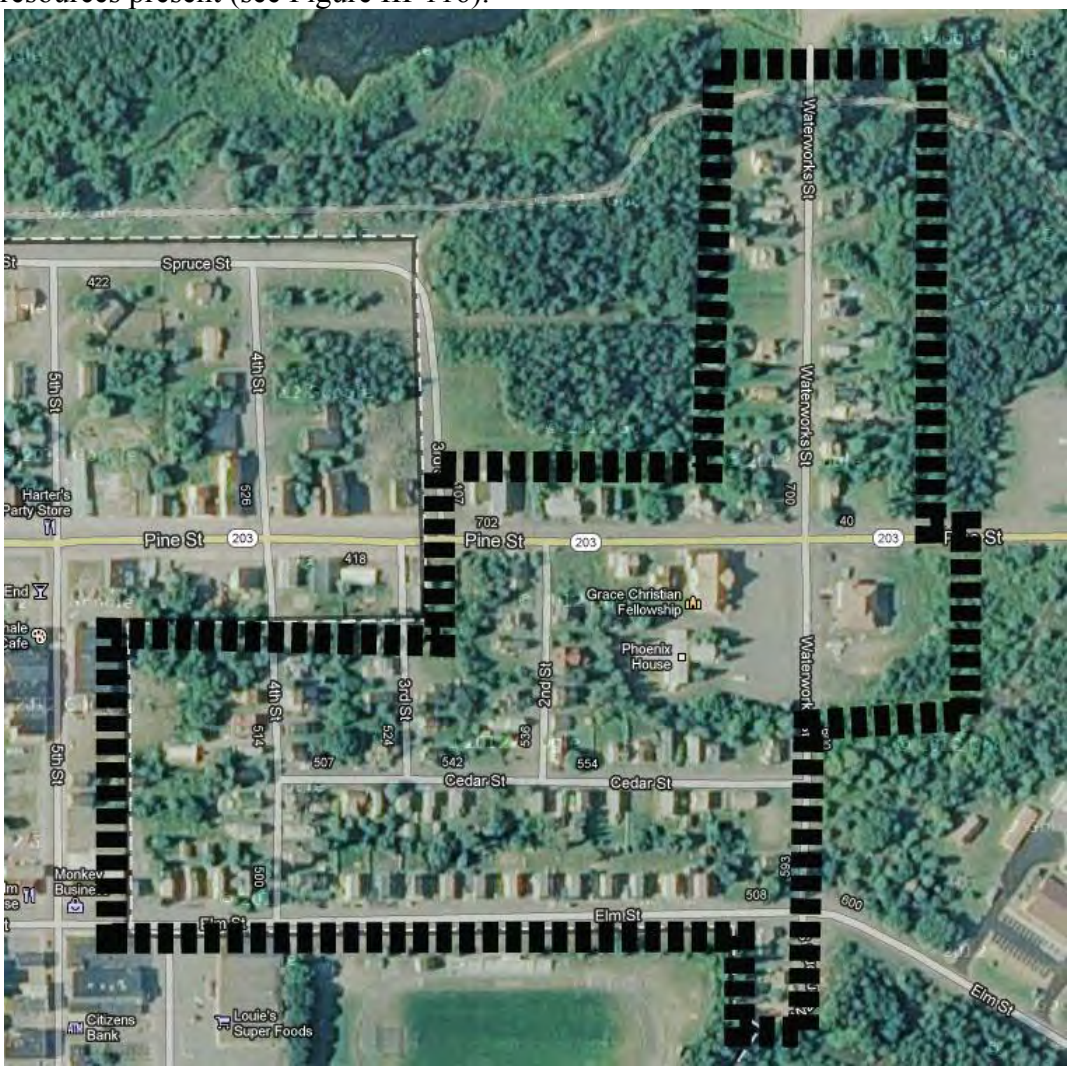


Figure III- 114: Blue Jacket Housing Location, 2012 (source: 2012 DigitalGlobe, GeoEye, USDA Farm Service Agency, Mapdata @ 2012 Google, adapted by QEA)



Figure III- 115: Blue Jacket Housing Location, North side of Elm Street, facing east, 2010 **(source: QEA 06774)**



Figure III- 116: Blue Jacket Housing Location, East side of Fourth Street, facing north, 2010 (source: QEA 06764)

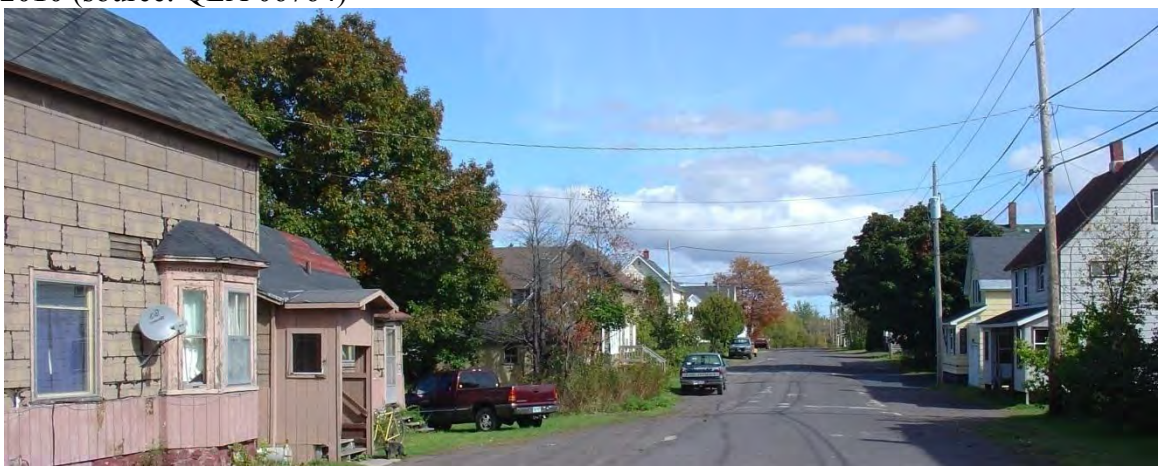


Figure III- 117: Blue Jacket Housing Location, Cedar Street, facing east, 2010 (source: QEA 06772)

Newtown

The Newtown housing location is located south of the Village of Calumet and directly west of Temple Square (see Figure III-118). The area includes a large number of historic houses, examples are illustrated in Figure III-119. Some portions of the Newtown housing location include landscape characteristics with high integrity, but the overall neighborhood includes numerous vacant lots, overgrown vegetation, additions and alterations to historic buildings that diminish the integrity of this housing location landscape. The neighborhood includes a mixture of historic residences with non-contributing buildings (see Figure III-120). The spacing of new buildings is not consistent with that of historic structures. The overall landscape does not retain as high a level of integrity as others in the Calumet area.

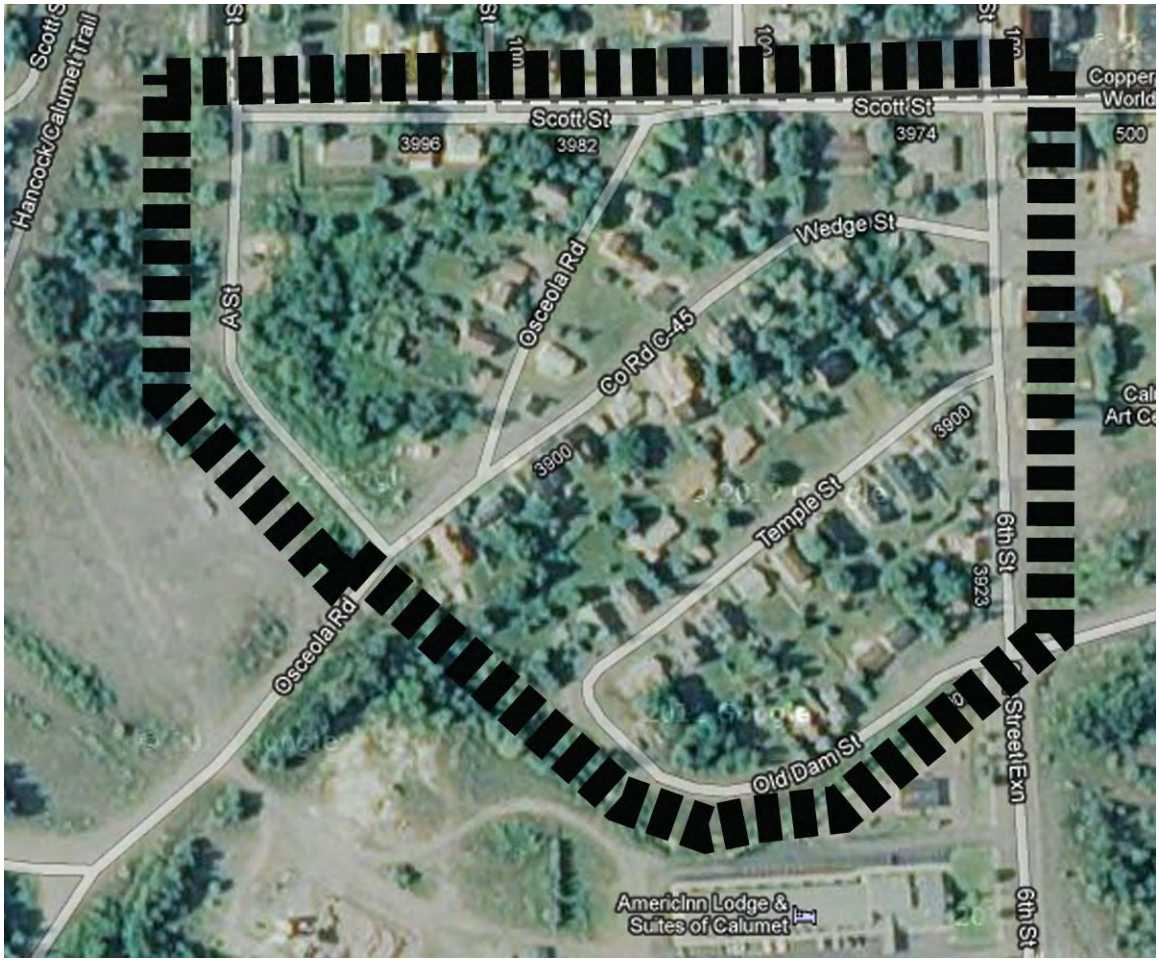


Figure III- 118: Newtown Housing Location, 2012 (source: 2012 DigitalGlobe, GeoEye, USDA Farm Service Agency, Mapdata @ 2012 Google, adapted by QEA)



Figure III- 119: Newtown Housing Location, Northwest side of Temple Street at southwest end of street, facing southwest, 2010 (source: QEA 7266)



Figure III- 120: Newtown Housing Location, Temple Street near Sixth Street, facing southwest, 2010 (source: QEA 7266)

Calumet Housing Location

The Calumet housing location is located at the northeastern portion of the Calumet unit (see Figures III-113 and III-121). The portion of this housing location that is northwest of Rockland Street is included in the Calumet unit. This housing location includes a large amount of historic residences, as well as structures built more recently that do not reflect the historic character of the neighborhood (see Figures III-122 and III-123). Selected areas hold together well as historic landscapes, including sections of Calumet Avenue and Rockland Street (see Figures III-124 and III-125). These areas contain rows of historic houses and out buildings that are constructed of similar materials, with forms and sizes that are alike and that are adjacent to each other. They have consistent set backs and spacing. Other areas include vacant lots, masses of vegetation, or buildings that are out of context with the historic neighborhood.



Figure III- 121: Calumet Housing Location, 2012 (source: 2012 DigitalGlobe, GeoEye, USDA Farm Service Agency, Mapdata @ 2012 Google, adapted by QEA)



Figure III- 122: Calumet Housing Location, Calumet Avenue near Pine Street, facing northeast, 2010 (source: QEA 9240082)



Figure III- 123: Calumet Housing Location, Calumet Avenue near Pine Street, facing southeast, non historic house next to the house on the right side of Figure III-122, 2010 (source: QEA 9240081)



Figure III- 124: Calumet Housing Location, Rockland Street at Church Street, facing south, 2010 (source: QEA 920109)



Figure III- 125: Calumet Housing Location, west side of Rockland Street between Church Street and Stable Street, facing southwest, 2010 (source: QEA 9240111)

Yellow Jacket Housing Location

Yellow Jacket is located to the west of the Village of Calumet (see Figure III-113). The area is bounded by Pine Street on the north, First Street on the west, Ninth Street on the east, and Scott Street on the south (see Figure III-126). About one quarter of this housing location, the southeastern portion, is located within the Calumet unit. This portion includes the blocks of Oak and Portland Streets that lie between Ninth and Tenth Streets. These blocks are highly intact historic landscapes that include historic houses of consistent form, scale, spacing, and setback. There are also good visual connections to the heart of the Calumet Civic & Commercial Historic District facing east and viewing along Portland and Oak Streets. Other portions of this housing location also include a high level of integrity. Examples include East and West Cone Streets, Ash Street and Elm Street (see Figures III-127 through III-131). Although many of the homes have been altered, their historic forms, spacing, and setbacks are still clearly apparent. This housing location has a high percentage of extant landscape elements, especially houses but also streets, outbuildings and lot arrangements.



Figure III- 126: Yellow Jacket Housing Location, 2012 (source: 2012 DigitalGlobe, GeoEye, USDA Farm Service Agency, Mapdata @ 2012 Google, adapted by QEA)



Figure III- 127: Yellow Jacket Housing Location, Oak Street between Tenth and Ninth Streets, facing east, 2010 (source: QEA 9230343)



Figure III- 128: Yellow Jacket Housing Location, South side of East Cone Street facing west, 2010 (source: QEA 08399)



Figure III- 129: Yellow Jacket Housing Location, north side of Ash Street at Second Street facing east, 2010 (source: QEA 08548)



Figure III- 130: Yellow Jacket Housing Location, West Cone Street, 2010 (source: QEA 08489)



Figure III- 131: Yellow Jacket Housing Location, north side of Elm Street between Eleventh and First Streets, facing northwest, 2010 (source: QEA 08521)

Hecla Housing Location

The Hecla housing location is located at the eastern side of the Calumet unit, between the Calumet housing location and the Raymbaultown housing location (see Figure III-113). The boundaries of this location are irregular (see Figure III-132). Approximately one-half of this housing location is located within the Calumet unit. This housing location includes a large amount of historic residences, and also includes structures built more recently that do not reflect the historic character. Selected areas have integrity as historic landscapes, including sections of Rockland, Hecla, Laurium and Cemetery Streets (see Figure III-133). These areas contain rows of historic houses and out buildings that are constructed of similar materials, with forms and sizes that are alike and that are adjacent to each other. They have consistent set backs and spacing. Of particular distinction are the southern sections of Cemetery, Lauirum and Hecla Streets, where intact rows of homes with gambrel roofs display a strong character and rhythm. Other areas include vacant lots, masses of vegetation, or buildings that are out of context with the historic neighborhood.

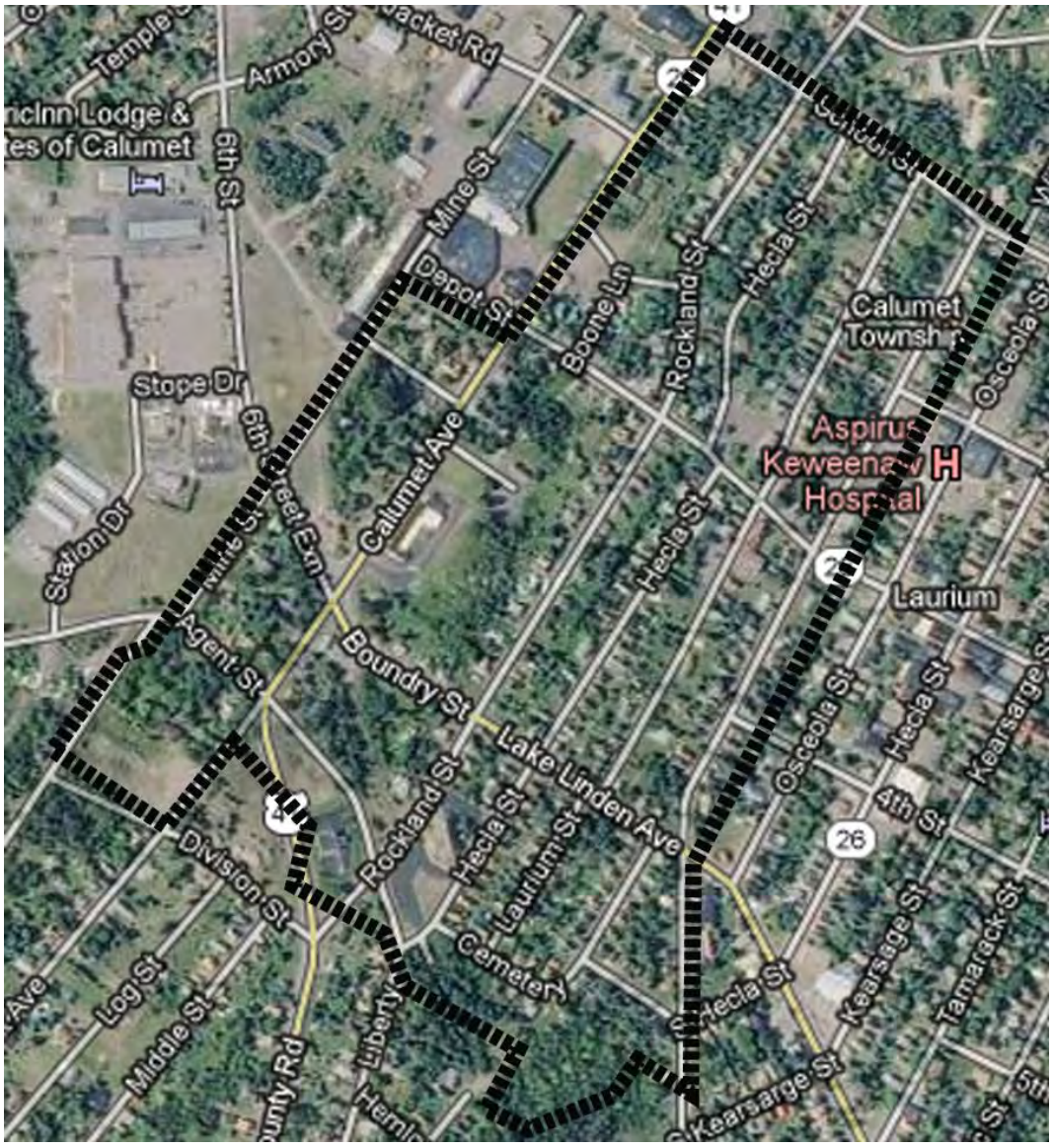


Figure III- 132: Hecla Housing Location, 2012 (source: 2012 DigitalGlobe, GeoEye, USDA Farm Service Agency, Mapdata @ 2012 Google, adapted by QEA)



Figure III- 133: Hecla Housing Location, Cemetery Street facing north, 2010 (source: QEA MS 006)

Raymbaultown Housing Location

Raymbaultown is located at the southeastern edge of the Calumet unit directly north of the Osceola No. 13 mine location (see Figures III-113 and III-134). The portion of this housing location that is west of Calumet Avenue / U.S. 41 is included in the Calumet unit. This housing location includes a large amount of historic residences, as well as structures built more recently that do not reflect the historic character of the neighborhood. Selected areas have integrity as historic landscapes, including sections of A, C and D Streets and the northern portion of Middle Street (see Figures III-135 through III-137) as well as others. These areas contain rows of historic houses and out buildings that are constructed of similar materials, with forms and sizes that are alike and that are adjacent to each other. They have consistent set backs and spacing. Other areas, such as portions of A Street, B Street, and Log Street include one-story ranch style homes with larger footprints than the historic residences as well as vacant lots, masses of vegetation, or buildings that are out of context with the historic neighborhood.



Figure III- 134: Raymbaultown Housing Location, 2012 (source: 2012 DigitalGlobe, GeoEye, USDA Farm Service Agency, Mapdata @ 2012 Google, adapted by QEA)



Figure III- 135: Raymbaultown Housing Location, C Street facing west, 2010 (source: QEA 7324)



Figure III- 136: Raymbaultown Housing Location, northern portion of Middle Street, facing southwest, 2010 (source: QEA 7277)



Figure III- 137: Raymbaultown Housing Location, eastern portion of A Street, facing east, 2010 (source: QEA 7309)

Osceola Housing Location (formerly Opechee)

A portion of the north side of Millionaire Street, a part of the Osceola housing location (formerly Opechee) is included in the Calumet unit. This street includes several historic mining homes that may be significant as individual structures that contribute to the historic housing of the Calumet area, but as a landscape the street does not retain integrity. The historic houses are interspersed with vacant lots, wooded areas, and non-contributing new construction that is not consistent with the character of the historic landscapes identified at several other housing locations.

Housing Locations Adjacent to the Calumet Unit

In addition to the housing locations that are located within the Calumet unit, there are several housing locations in the Calumet area that are directly related to the historical significance of the unit. These include Albion, Red Jacket Shaft, Tamarack, Tamarack Heights, Swedetown, Florida, and the Village of Laurium. Although not within the unit, these neighborhoods were developed to provide housing for mine workers and other residents during the period of significance. The housing locations surround the industrial core of the unit and contain extensive historic residences and associated landscape features including streets, yards, out buildings, and vegetation. They include historic landscapes that have integrity and their preservation should be considered within the context of an overall approach to housing preservation in the region. An example is Caledonia Street in Albion, which includes an excellent grouping of two-story homes with gambrel roofs (see Figure III-138).



Figure III- 138: Albion Housing Location, west side of Caledonia Street, facing south, 2010 (source: QEA 08570)

CHAPTER IV:
LANDSCAPE MANAGEMENT PHILOSOPHY

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Chapter IV: Landscape Management Philosophy

Landscape Management Philosophy

The publication The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes provides professional standards and guidance for treatments to cultural landscapes listed in or eligible for the National Register of Historic Places. The document defines four types of treatment for historic landscapes including preservation, restoration, reconstruction, and rehabilitation.[1] Each of the philosophies is described herein and discussed in relation to the historic landscapes at the Calumet Unit of Keweenaw National Historical Park.

Preservation

Preservation involves applying measures to sustain the *existing* form, integrity, and materials of (the contributing features of) a historic property. This approach focuses upon stabilizing and protecting extant historic resources, rather than replacing missing elements. It is appropriate when a historic property is essentially intact and does not require extensive repair or replacement; when depiction at one particular period of time is not appropriate; and when continuing or new use does not require additions or alterations.[2]

Although a preservation management approach is appropriate for portions of the Calumet Unit historic landscapes, it is not the most suitable overall philosophy. An overall preservation philosophy would preclude the introduction of new elements that could improve visitor experience and safety.

Restoration

Restoration is the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period in time. This includes reconstruction of missing features from the restoration period, and removal of features from all other periods. The approach can be considered only when the property's significance during a particular period of time outweighs the loss of extant elements from other historical periods; and when there is substantial physical and documentary evidence for the work; and when contemporary alterations and additions are not planned.[3]

Although a restoration approach can be suitably applied to select historic landscape *elements* within the Calumet Unit, it is not the most fitting overall philosophy. The significant extant features relate to more than one historic period, adequate documentary evidence does not exist to restore the entire Calumet Unit to one period, and contemporary needs require some alterations.

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[1] Birnbaum, Charles A. and Christine Capella Peters, 1996. The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes. Washington DC: Department of the Interior, National Park Service, 3-5.

[2] Ibid., 17-18.

[3] Ibid., 89-90.

Reconstruction

Reconstruction is the act or process of using new construction to depict a non-surviving site, landscape, building, structure, or object as it appeared at a specific period of time in its historic location. The approach is appropriate only when the property's significance during a particular period of time outweighs the potential loss of extant features that characterize other historical periods. In addition, there must be substantial physical and documentary evidence for the work, and the work must be clearly identified as a contemporary re-creation.[4]

As a whole, the Calumet Unit historic landscapes are not eligible for reconstruction because significant extant features relate to more than one historic period, adequate documentary evidence does not exist to reconstruct the property to one period, and contemporary needs require some alterations. A reconstruction approach may be suitably applied to select elements within the historic landscapes at the Calumet Unit.

Rehabilitation

The act or process of rehabilitation allows repairs, alterations, and additions necessary to enable a compatible use for a property as long as the portions or features which convey the historical, cultural, or architectural values are preserved. This approach is appropriate when depiction at one particular period of time is not appropriate; repair or replacement of deteriorated features is necessary; and alterations or additions are needed for a new use.[5]

Rehabilitation has been selected as the most appropriate overall management philosophy for the historic landscapes at the Calumet Unit of Keweenaw National Historical Park. This philosophy has been selected because of the existence of features that relate to more than one type and period of significance, the need for alterations to accommodate visitor services, and the need to protect the historic resources. This philosophy will allow for preservation, restoration, and reconstruction of selected features as appropriate. The treatment alternatives presented have been developed using a rehabilitation approach. They are presented in Appendix A.

Landscape Management Overview

A general management philosophy of rehabilitation has been identified as the most appropriate for the Calumet Unit historic landscape. Rehabilitation allows repairs, alterations, and additions necessary for compatible use of a property as long as the characteristics or features which convey the historical, cultural, or architectural values are preserved. This philosophy has been selected to enable preservation of contributing resources and to allow specific alterations necessary to accommodate use and interpretation of the historic landscape.

[4] Ibid., 127-129.
[5] Ibid., 47-48.

CHAPTER V:
RECOMMENDED LANDSCAPE TREATMENT

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Chapter V: Recommended Landscape Treatment

Overview

Recommendations for the treatment of the historic landscapes within the Calumet Unit of Keweenaw National Historical Park are provided in this chapter at two scales. At a broad scale, general management recommendations are provided for the overall Calumet Unit, Village of Calumet and Civic and Commercial Historic District, Osceola No.13 site, South Mine Street corridor, Calumet Railroad / Recreational corridor, and Historic Housing Locations within the Unit. At a more detailed scale, conceptual design recommendations are provided for the Red Jacket Road corridor and Agassiz Park. Features shown on the plans are conceptual, providing general locations and layouts. Specific locations and layouts for proposed features need to be developed at schematic and detailed levels prior to implementation of the recommendations. Design and management alternatives for property owned by the National Park Service are more detailed than those related to privately owned land. It is recommended that the NPS and their partners work with other land owners to achieve the design and management goals.

Herein, "management issues" are concerns or needs identified related to landscape treatment in the early phases of the project. "Treatment guidelines" address the management issues by providing recommendations for design and management of the landscapes.

The recommended treatments were selected by evaluating several treatment alternatives to determine the environmentally preferable and NPS recommended alternative. All of the treatment alternatives are described in Appendix A: Landscape Treatment Alternatives. Development and consideration of treatment alternatives for the Calumet Unit is organized by landscape characteristics related to the overall unit, followed by those addressing the landscape character areas within the unit. In the current chapter, the Calumet Unit landscape treatment guidelines are those presented in Appendix A as "Calumet Unit landscape treatment guidelines common to all alternatives." These include management issues and treatment guidelines that address the overall issues, views, vegetation, landscape interpretation, and archeological resources within the Calumet Unit. The recommended treatment alternatives for the Calumet Civic and Commercial Historic District, Osceola No. 13 site, South Mine Street corridor, Railroad / Recreational corridor, and Historic Housing Locations, are each described in Appendix A as treatment alternative B. The recommended treatment alternatives for the Red Jacket Road Corridor and Agassiz Park are both described in Appendix A as treatment alternative C. The environmentally preferable alternative (also the recommended alternative) was identified through an analysis of environmental impacts associated with each alternative (see Table A-3). Table A-3 is a condensed presentation of the detailed analysis and conclusions of potential impacts provided in Appendix B: Impacts from Treatment Alternatives / Environmental Consequences.

Calumet Unit Landscape Treatment Guidelines

At a broad scale, general management recommendations are provided for the overall Calumet Unit, addressing unit-wide themes including overall issues, views and new development, vegetation, patterns of circulation, and interpretation. In addition, general management recommendations are provided for the Osceola No.13 site, South Mine Street Corridor, Railroad / Recreational Corridor, Village of Calumet and Civic and Commercial Historic District, Italian Hall, and historic housing locations within the Calumet Unit. All of the planning and implementation efforts related to the resources within the Calumet Unit need to be coordinated with the property owners and applicable regulatory agencies. Herein, "management issues" are concerns or needs identified related to landscape treatment in the early phases of the project. "Treatment guidelines" address the management issues by providing recommendations for design and management of the landscapes.

Calumet Unit Overall (Management Issues)

This section includes a list of management issues related to overall Calumet Unit identified by stakeholders and the project team.

1. The boundaries of Keweenaw NHP have not been finalized. When Keweenaw NHP was established in 1992, the enabling legislation stated that a detailed description and map of the boundaries would be established within 180 days of the enactment of the Act. The boundary of the Calumet Unit needs to be finalized.
2. The Calumet Unit and the National Historic Landmark boundary are not the same, and adjacent landscapes that appear to contribute to the historic integrity of the Calumet Unit are not included in either boundary. These include Swedetown, Tamarack, Red Jacket Shaft, Centennial, the Village of Laurium, Florida and the Hecla Cemetery. The historic resources in these locations need to be evaluated to determine if they should be included in the NHL or Calumet Unit boundary. As the NPS Calumet Unit boundary is finalized, the possibility of including these resources within Keweenaw NHP should be considered.

Calumet Unit Overall (Treatment Guidelines)

Treatment guidelines for the overall unit are those that address broad-scale issues, or topics that are not otherwise addressed in the treatment guidelines addressing landscape characteristics and landscape character areas. These are presented in Appendix A as Calumet Unit Overall Issues Treatment Guidelines common to all alternatives. Treatment guidelines for specific landscape character areas are provided in the following sections addressing the Osceola No. 13 site, South Mine Street Corridor, Railroad / Recreational Corridor, Village of Calumet and Civic and Commercial Historic District, and historic housing locations within the Calumet Unit.

1. Preserve contributing historic resources through stabilization, preservation, rehabilitation and restoration.
2. Conduct thorough analysis of historic structures by preparing Historic Structure Reports (HSRs) before undertaking non-reversible treatment actions.
3. Encourage specific additions or alterations that are compatible with the historic character of the landscape and that meet current needs. Conduct Section 106 analysis for any projects that utilize federal funds.
4. Evaluate the historic resources present in Swedetown, Tamarack, Red Jacket Shaft, Centennial, the Yellow Jacket, Calumet, Hecla, and Raymbaultown locations, the Village of Laurium, Florida, the Hecla Cemetery, and the remaining portion of Calumet that is

not currently included to determine if they contribute to the C&H Mining Company National Historic Landmark district. If so, amend the National Historic Landmark district nomination to expand the boundary.

5. Finalize the boundary of the Calumet Unit of Keweenaw National Historical Park.

Calumet Unit Views (Management Issues)

This section includes a list of management issues related to views in the Calumet Unit identified by stakeholders and the project team.

1. Significant and threatened views need to be identified.
2. Recommendations for maintaining or restoring important views are needed.

Calumet Unit Views (Treatment Guidelines)

Treatment guidelines addressing views topics that are not addressed in the guidelines focused on landscape character areas are included in this section. These are presented in Appendix A as Calumet Unit Views Treatment Guidelines common to all alternatives. Treatment guidelines related to views for specific landscape character areas are provided in the following sections addressing the Osceola No. 13 site, South Mine Street Corridor, Railroad / Recreational Corridor, Village of Calumet and Civic and Commercial Historic District, and historic housing locations within the Calumet Unit.

1. Preserve or enhance significant views into and within the Calumet Unit.
    a. Interpret the view of Calumet from near the Swedetown watertower. Consider installing an interpretive wayside with historic photographs overlooking Calumet from this vantage and interpretive text explaining the relationship between the current view and the historic view.
    b. Enhance visual cues along the industrial corridor and interpret the historic activities. Visual cues consist of historic industrial buildings and landscape features including church steeples, the C&H Superior smokestack, the C&H dryhouse, street alignments and related buildings, and remnants of railroad tracks.
    c. Develop / strengthen visual connections for the following significant and threatened views:
        i. Red Jacket Road and Mine Street;
        ii. The Union Building/Keweenaw NHP Visitor Center and Red Jacket Road;
        iii. The Union Building/ Keweenaw NHP Visitor Center and Agassiz Park;
        iv. The Union Building/ Keweenaw NHP Visitor Center and downtown Calumet;
        v. Red Jacket Road Corridor and Temple Square;
        vi. Red Jacket Road Corridor and Calumet Avenue;
        vii. Downtown Calumet and Agassiz Park;
        viii. Downtown Calumet and the Depot;
        ix. Osceola No. 13 and the Superior smokestack;
        x. Historic housing locations and adjacent historic areas.
    d. Strengthen or preserve views within historic housing locations.
2. Enhance visual buffers between significant historic landscapes and non-compatible development.
3. Mitigate negative views by enhancing the appearance of the areas viewed, or screening undesirable views.

4. Consider additional views as issues related to managing the Calumet landscape arise.

Calumet Unit Vegetation (Management Issues)

This section includes a list of management issues related to vegetation in the Calumet Unit identified by stakeholders and the project team.

1. Existing vegetation impacts historic resources in some locations and, if not managed, vegetation will continue to encroach on the historic landscape and compromise the historic setting.
2. Keweenaw NHP needs guidance regarding managing, maintaining and/or replacing historic vegetation and, where it is appropriate, to remove vegetation that impacts the integrity of the historic landscape, including invasive non-native vegetation.

Calumet Unit Vegetation (Treatment Guidelines)

Treatment guidelines addressing vegetation that are not addressed in the guidelines focused on landscape character areas are included in this section. These are presented in Appendix A as Calumet Unit Vegetation Treatment Guidelines common to all alternatives. Vegetation treatment guidelines for specific landscape character areas are provided in the following sections addressing the Osceola No. 13 site, South Mine Street Corridor, Railroad / Recreational Corridor, Village of Calumet and Civic and Commercial Historic District, and historic housing locations within the Calumet Unit.

1. Remove non-contributing woody vegetation that impacts historic resources, including views.
2. Preserve contributing vegetation. Consider developing a historic vegetation maintenance plan.
3. Environmental conditions result in slow growth rates for trees in Calumet. When possible, throughout the unit preserve mature trees unless they are impacting other resource.
4. Discourage the spread of invasive or noxious species within the Calumet Unit. An invasive species is a plant whose presence is likely to cause economic or environmental harm or harm to human health.
5. Table A-1 provides a list of federal noxious weeds and indicates if they have been identified in Houghton County or Keweenaw County. Although some of the plants have not been identified in the area, the entire list is included since the nature of these plants is to spread quickly. All of the plants on the list should be removed when possible. These plants should not be planted in the landscape.

Table A-1: Federal Noxious Weeds (* indicates the plant is also a Michigan Noxious Weed)

Scientific Name	Common Name	Present in Houghton County	Present in Keweenaw County
Abutilon theophrasti	Velvetleaf		
Allium vineale	Field Garlic		
Avena fatua	Wild Oats	Y	
*Barbarea vulgaris**	Yellow Rocket	Y	Y
*Berteroa incana**	Hoary Alyssum		
Brassica juncea	Indian Mustard		Y
*Brassica nigra**	Black Mustard		Y
Cardaria draba	Hoary Cress		
Cardaria pubescens	White-Top		
*Carduus acanthoides**	Plumeless Thistle		
*Carduus nutans**	Musk Thistle		
*Centaurea maculosa**	Spotted Bluet	Y	Y
Centaurea repens	Russian Knapweed		
*Cirsium arvense**	Canadian-Thistle	Y	Y
*Cirsium vulgare**	Bull-Thistle	Y	Y
*Convolvulus arvensis**	Field Bindweed	Y	Y
Cuscuta epilinum	Flax Dodder		
Cuscuta epithymum	Clover Dodder		
Datura stramonium	Jimson-Weed		
*Daucus carota**	Queen-Anne's-Lace	Y	Y
*Euphorbia esula**	Leafy Spurge	Y	
Galega officinalis	Professor-Weed		
Heracleum mantegazzianum	Giant Hogweed		
Ipomoea hederacea	Ivy-Leaved Morning Glory		
Iipomoea purpurea	Common Morning Glory		
Ipomoea xmultifida	Cardinal Climber		
Ipomopsis rubra	Standing-Cypress		
Lythrum hyssopifolia	Hyssop Loosestrife		
*Lythrum salicaria**	Purple Loosestrife	Y	Y
Plantago lanceolata	English Plantain	Y	
Raphanus raphanistrum	Wild Radish		
*Rumex crispus**	Curly Dock	Y	Y
*Solanum carolinense**	Horse Nettle	Y	
*Solanum dulcamara**	Bittersweet Nightshade	Y	Y

Scientific Name	Common Name	Present in Houghton County	Present in Keweenaw County
*Solanum physalifolium (s. sarachoides)**	Hairy Nightshade		
Sonchus arvensis (s. uliginosus)	Perennial Sow Thistle	Y	
*Sorghum halepense**	Johnson Grass		
Thlaspi arvense	Penny Cress	Y	Y
Tribulus terrestris	Caltrop		
Xanthium strumarium	Common Cocklebur		

Sources: Michigan Invasive Plants Council (http://invasiveplantsmi.org) and the Michigan State University Extension lists of plants in Keweenaw and Houghton Counties (http://michigansaf.org/ForestInfo/MSUElibrary/CountyPlantLists).

Calumet Unit Landscape Interpretation (Management Issues)

This section includes a list of management issues related to landscape interpretation in the Calumet Unit identified by stakeholders and the project team.

1. A cohesive, unit-wide visitor experience needs to be identified and endorsed by Keweenaw NHP, the Advisory Commission, and the Keweenaw Heritage Sites.
2. Interpretive opportunities to convey landscape significance and Keweenaw NHP purpose need to be identified.
3. A stronger approach, arrival and entry sequence needs to be defined to help visitors experience the Unit and Keweenaw NHP as a whole.

Calumet Unit Landscape Interpretation (Treatment Guidelines)

Throughout the Calumet Unit, landscape resources that provide interpretive opportunities to convey the significance of the region and the purpose of Keweenaw NHP are extensive. The majority of these resources are owned by entities other than the National Park Service. All of the treatment guidelines require close consultation and approval by the property owners. Treatment guidelines addressing landscape interpretation that are not addressed in the guidelines focused on landscape character areas are included in this section. These are presented in Appendix A as Calumet Unit Landscape Interpretation Treatment Guidelines common to all alternatives. The CLR provides recommendations for visitor interactions with the landscape throughout the unit. Interpretation treatment guidelines for landscape character areas are provided in the following sections addressing the Osceola No. 13 site, South Mine Street Corridor, Railroad / Recreational Corridor, Village of Calumet and Civic and Commercial Historic District, and historic housing locations within the Calumet Unit. More specific recommendations are provided for the Red Jacket Road Corridor and Agassiz Park.

1. The CLR provides recommendations for interpretive opportunities to convey landscape significance and Keweenaw NHP purpose.
2. Treatment recommendations for the Red Jacket Road Corridor provide improvements to the approach, arrival and entry sequence for visitors.
3. Interpretation of the Italian Hall landscape will increase understanding of the meaning of this site for visitors.
4. Preserve and interpret the Superior smokestack and Osceola No.13 shaft house as the two tallest extant elements in the Unit.

Calumet Unit Archeological Resources (Management Issues)

This section includes a list of management issues related to archeological resources identified by stakeholders and the project team.

1. There is no comprehensive Archeological Inventory of Keweenaw NHP. The Calumet Unit has a high potential to yield new information regarding the historic industrial activities that occurred during the period of significance as well as pre-industrial/pre-contact mining activities. More information regarding the archeological resources is needed.

Calumet Unit Archeological Resources (Treatment Guidelines)

Treatment guidelines addressing archeological resources that are not addressed in the guidelines focused on landscape character areas are included in this section. These are presented in Appendix A as Calumet Unit Archeological Resources Treatment Guidelines common to all alternatives.

1. Prepare an Archeological Inventory for Keweenaw National Historical Park. Determine sites within the Calumet Unit that have the greatest potential to yield new information of value and are likely to inform the management of the landscapes.
2. Based on the Archeological Inventory, develop a list of projects that will help to address gaps in knowledge regarding the historic resources, pre-industrial resources, and pre-contact resources.
3. If any surface archeological deposits are present, work to preserve them on site and consider interpreting them.

Village of Calumet and Calumet Civic & Commercial Historic District (Management Issues)

This section includes a list of management issues related to the Village of Calumet and Calumet Civic and Commercial Historic District identified by stakeholders and the project team. Management issues related to the Village of Calumet and the Calumet Civic and Commercial Historic District were identified through a series of public and stakeholder meetings, and review of the current version of the Calumet Downtown Development Plan. The issues are summarized here.[1]

1. The perception of there not being enough parking in Calumet is a bigger problem than actually having enough places for parking. There are off-street parking lots that are not utilized and signage for parking is inadequate, leading to confusion.
2. The construction of commercial businesses along the Sixth Street Extension has reduced the amount of traffic flow in the Calumet Civic and Commercial Historic District.
3. The approach/arrival sequence to the Civic and Commercial Historic District is difficult to address because people arrive both via Sixth Street and Red Jacket Road. It is not clear to visitors when they are entering/leaving the historic district.
4. Traffic along Sixth Street moves too fast. Consider adding stop signs at all intersections along Sixth Street.
5. The area within the Civic and Commercial Historic District lacks trees and green space and the small parks that exist need improved maintenance.
6. The 300 and 400 blocks of Fifth Street need improvements.
7. Connections between Fourth and Fifth Streets need to be improved.
8. The business district is fragmented and need to be more cohesive.
9. Improvements to directional and wayfinding cues are needed.
10. Although there are public restrooms in Agassiz Park, they are not reliably open.
11. Infrastructure improvements are needed.
12. Property owners need more information and support regarding historic preservation.
13. The rail corridor is underutilized open space. Consider creating a park utilizing this space.
14. It is reported that the pavement on Portland Street is historically significant and should be preserved.
15. Many of the downtown streets and sidewalks are in poor condition.
16. Calumet Lake is an underutilized community resource. Consider developing a recreation area with camping and trails in this area.
17. The important role that the streetcar played in the community historically is no longer understood by most residents and visitors.
18. The practice of heavily sanding (non-state maintained) roads during the winter is causing sand to build up. This damages grass along the edges of the streets.

[1] U.P. Engineers & Architects, Inc., *Village of Calumet, Downtown Development Authority, Downtown Development Plan*, no date (latest plan according to Sue Dana, Village Comptroller).

Village of Calumet and Calumet Civic & Commercial Historic District (Treatment Guidelines)

Treatment guidelines addressing the Village of Calumet and the Calumet Civic and Commercial Historic District are addressed in this section. These are also presented in Appendix A as Village of Calumet and the Calumet Civic and Commercial Historic District Treatment Guidelines common to all action alternatives. A number of planning documents have been prepared that provide guidance for landscape treatment within the Village of Calumet and the Calumet Civic and Commercial Historic District. These reports have been prepared through interaction with Village officials and residents and serve as valuable frameworks for projects. This CLR is not intended to supersede the existing plans. Rather, the recommendations set forth have been carefully considered in the context of historic landscape recommendations for the Calumet Unit and reinforced. Figure V-1 provides a visual reference for locations of recommendations.

The current Village of Calumet Downtown Development Plan provides a list of prioritized development strategies to be undertaken when funds are available. Several of these strategies apply to the landscape. Those applicable to landscapes are reaffirmed and explained in the following section.[2]

1. Improve street paving, sidewalks, and curbs throughout downtown.
    a. Complete Sixth Street improvements: the street has been repaved, stop signs have been installed at the intersection of Sixth and Oak Streets, and stamped concrete has been installed at the intersection of Oak and Sixth Streets; improvements that still need to be implemented include replacement of the sidewalks and restoration of lights along the street.
    b. Install brick paving in the 300 block of Sixth Street.
    c. Repair sidewalks and curbs at: Seventh Street across from Italian Hall Park, north side of Elm Street between Seventh and Sixth Streets, southwest corner of Elm and Sixth Streets, south side of Elm Street between Sixth and Fifth Streets, mid-block on Fifth Street, west side, between Elm and Oak Streets, west side of Fourth Street across from grocery store, south side of Portland Street between Sixth and Fifth Streets.
    d. Define curb cuts clearly throughout downtown.
2. Consider providing subtle interpretive markers relating to the NPS Downtown Calumet walking tour brochure.
3. Work with property owners to improve the visual appearance of Pine Street. Utilize financial incentives, such as preservation tax credits or development grants, to stimulate reinvestment and rehabilitation of historic structures and landscapes. Consider the following enhancements:
    a. Improve landscaping and facades.
    b. Landscape vacant lots.
    c. Develop infill projects.
    d. Explore opportunities for off-street parking lots.

[2] U.P. Engineers & Architects, Inc., *Village of Calumet, Downtown Development Authority, Downtown Development Plan*, no date (latest plan according to Sue Dana, Village Comptroller).

4. Improve signage throughout downtown providing consistent, simple designs and eliminating obsolete or unnecessary signs. The NPS has recently implemented wayfinding signs in selected areas in Calumet. To enhance this effort, consider preparing a wayfinding plan to guide visitors to the historic district. Village of Calumet, NPS and Calumet Township, work together to prepare the plan and consider installing identification signs indicating routes to the historic district from key locations on Sixth Street, M-203/Pine Street, and U.S. 41/Calumet Avenue.
5. Improve and maintain small parks including Theatre Park, Italian Hall Park, and Red Jacket Road Park.
    a. Implement the previously-prepared plan for Theatre Park.
    b. Facilitate a planning process with the local community to develop a master plan for the Italian Hall Site.
    c. Preserve Red Jacket Road Park as an open space and provide pedestrian links to Fourth Street as indicated on plans for the Red Jacket Road corridor.
    d. Detailed recommendations for Agassiz Park are provided in a separate section.
6. Identify the location and extent of code violations and dispense citations to property owners to encourage proper maintenance. Enforce the Demolition by Neglect provision of the Historic District Ordinance, as determined by the Threatened Buildings Workshop held in Calumet in August 2012 and approved by the Michigan SHPO.
7. Encourage property owners to utilize existing design guidelines when making changes to properties within the historic district.
8. Continue to provide education opportunities for property owners regarding the benefits of historic preservation and appropriate design.
9. Continue to enforce the Historic District Ordinance and support the Historic District Commission in requiring that owners submit an application prior to implementing exterior changes to buildings and that changes adhere to the Design Guidelines.
10. Evaluate angle parking vs. wide sidewalks in downtown.
11. Consider winter, snow, and multi-seasonal use in the design of all facilities.
12. Prepare a parking demand study to determine locations of high demand areas and parking areas that are underutilized.
13. Consider extending the DDA district boundary to the west along Oak Street.
14. Consider developing an alternative transportation plan to encourage sustainable transportation and recreation (bus, train, bike, snowmobile, cross-country ski, etc..).
15. Although a transportation study is beyond the scope of this CLR, recommendations for recreational corridors are provided. These include:
    a. A pedestrian / bike path throughout the Calumet Unit, as indicated in Figures V-1 and V-4.
    b. Improve connections between the recreational corridor on the west side of town and the historic district by utilizing Oak Street as a recreational, interpretive, and pedestrian corridor.
        i. Consider establishing bike lanes along Oak Street.
        ii. Maintain sidewalks, curbs, curb ramps and crosswalks.
        iii. Encourage commercial businesses with street-related activities.
    c. Improve pedestrian connections between the C-L-K School grounds and Agassiz Park (see Figure V-1).
16. Consider interpreting the location of the historic streetcar route in Calumet

   a. Provide information at the Calumet Visitor Center and a wayside (possibly designed to resemble a streetcar stop) that describes the historic use of the streetcar route as a means of transportation during the historic period.

17. Work with road maintenance entities to develop a solution to the issue of grass damage caused by winter sanding of roads.

Next page:
Figure V- 1: Calumet Village and Downtown (Treatment Guidelines)

Sources for Figure V-1: Calumet Village and Downtown (Treatment Guidelines)

- Aerial photography, 2002, NPS
- Site investigations, September 2010, by Brenda Williams and Lindsey Pickornik

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Calumet Village and Downtown Treatment Alternative B

Recommendations

1. Complete Sixth Street Improvements.
2. Consider adding subtle interpretive markers relating to the downtown walking tour brochure.
3. Pine Street enhancement - Improve landscaping and facades, landscape vacant lots, develop infill projects, explore opportunities for off-street parking lots.
4. Improve signage throughout downtown providing consistent, simple designs and eliminating obsolete or unnecessary signs.
5. Improve and maintain small parks including Theater Park, Italian Hall Park and Red Jacket Road Park. Recommendations for Agassiz Park are provided in a separate section of this report.
6. Define curb cuts clearly throughout downtown.
7. Consider extending DDA district boundary to the west along Oak Street.
8. Improve connections between the recreation corridor on the west side of town and the Downtown Historic District by utilizing Oak Street as a recreational, interpretive, and pedestrian link.
9. Improve pedestrian connection between school grounds and Agassiz Park.

Pine Street enhancement - Improve landscaping and facades, landscape vacant lots, develop infill projects, explore opportunities for off-street parking lots.

Pine Street / M-203

Repave Sixth Street

Italian Hall Park

Theater Park

Elm Street

Improve connections between the recreation corridor on the west side of town and the Downtown Historic District by utilizing Oak Street as a recreational, interpretive, and pedestrian link.

Eighth Street

Seventh Street

Sixth Street

Fifth Street

Fourth Street

4th Street

3rd Street

2nd Street

Cedar Street

Install brick paving in 300 block of Fifth Street.

Refer to Agassiz Park recommended treatment plan for this area.

Oak Street

Consider extending DDA district boundary to the west along Oak Street

Portland Street

Park Avenue

Scott Street

South of the intersection of Sixth Street and Armory, provide identification sign on east side of road indicating route to Downtown Historic District

Red Jacket Road Park

Red Jacket Road

Refer to Red Jacket Road recommended treatment plan for this area

Improve pedestrian connection between school grounds and Agassiz Park

Calumet Avenue / US 41

Key

- Calumet Civic & Commercial Historic District
- Calumet Village Limits
- Buildings
- Parks
- Repair sidewalk and curb
- Proposed bike/pedestrian route (see figure V-4)

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

September 2012

N W E S

0 150 300 450

SCALE: 1" = 300'

QUINN EVANS ARCHITECTS

Figure V-1

Osceola No. 13 (Management Issues)

This section includes a list of management issues related to the Osceola No. 13 site identified by stakeholders and the project team.

1. The property is currently vacant most of the year.
2. The historic buildings on the site need to be assessed and stabilized.
3. There is a need for a connection to the site for visitors.
4. The site is remote from the visitor center and other activities.
5. Significant views need to be identified.
6. Can a visual connection to the Superior smokestack be established?
7. Can access for visitors be provided in the shaft house?
8. Is it appropriate to provide interpretive materials on upper level of shaft house?
9. How does interpretation of this location relate to interpretation at Quincy? Need to avoid competition between the two.
10. Poor rock piles were historically dominant features on the industrial landscape, but today they are being depleted by mining and obscured by vegetation. Keweenaw NHP needs recommendations for preserving the poor rock piles that remain in the Calumet Unit and providing visitor opportunities related to them.
11. The hoists remain in the hoist house and could be utilized as interpretive features on the site.
12. It is not anticipated that the NPS will provide staff at this site.

Osceola No.13 (Treatment Guidelines)

The twenty-five acre Osceola No. 13 property is owned by Calumet Township, including the dryhouse, engine house, and shaft house. The Township also owns the Osceola No. 13 skips and tram cars. The dry house is currently used for a couple of months each year by Michigan Technological University researchers focused on Emerald Ash borer. The remainder of the property is vacant and unused. The property includes the only remaining shaft house in the Calumet district. Its location reflects the southern end of the industrial core developed by C&H Mining Company.

Of the treatment alternatives considered for Osceola No. 13, Treatment Alternative B is the recommended approach. Treatment guidelines for this area focus on preserving the extant historic features related to the mining activities, and providing opportunities for visitors to explore and learn about the history of the site. The guidelines are outlined below and illustrated in Figure V-2.

1. Landscape management and use:
    a. Provide three to six visitor parking spaces in the location indicated in Figure V-2. Utilize crushed stone for a surface that blends with the industrial character of the site. Design the parking lot to include at least one universally accessible parking space.
    b. Establish a pedestrian connection between Osceola No. 13 and the south Mine Street corridor. The route should be universally accessible, and have an appearance that is consistent with the industrial character of the site.
    c. Convert informal unpaved roads to pedestrian routes. Do not allow vehicular traffic on these routes and provide information to pedestrians regarding the routes.

d. Establish a pedestrian route, but not a paved path, for visitors to explore the rock piles and views from the site.
e. Preserve rock piles and industrial character of landscape. Protect rock piles from extraction and remove encroaching vegetation. Where traces of circulation routes and equipment related to mining operations are present, remove encroaching vegetation and interpret the use of these resources.
f. Establish and maintain an industrial character zone by removing volunteer vegetation on a regular basis.
g. Do not remove volunteer vegetation that has grown between the Osecola No. 13 site and adjacent residences to the south. This vegetation provides a visual screen.
h. Preserve the mining equipment located on the property. Inventory the equipment and provide interpretive information regarding the role of the equipment in the mining process. Consider rearranging the equipment to create a display that is authentic to the site operations. Assess the condition of the equipment and develop a plan for preserving these resources.

2. Buildings:
    a. Prepare a Historic Structure Report (HSR) focused on the Osceola No. 13 property structures to inform decisions.
    b. Take into account plans for the Quincy Mine site prior to determining best uses for buildings at Osceola No. 13.
    c. Consider rehabilitating the shaft house for interpretive programs.
    d. Consider rehabilitating the dryhouse for adaptive reuse.
    e. Stabilize and preserve the engine house at the Osceola No. 13 property.
    f. Consider seeking funding sources for specific projects at Osceola No. 13.
3. Interpretation:
    a. Take into account decisions regarding interpretation of the Quincy Mine site prior to finalizing decisions for Osceola No. 13. Consider how the two sites can relate different parts of the Keweenaw copper industry story. If a greater level of restoration is applied at the Quincy site, the Osceola site can be rehabilitated to allow more changes and possibly greater access for users of all abilities.
    b. Consider interpreting the hoists that remain in the hoist house.
    c. Consider audio interpretation at this site.
    d. Consider use of a remote live feed for increased accessibility to upper level programs.
    e. Consider proving access to upper levels of the shaft house for interpretive information and views toward north.

Next Page:
Figure V- 2: Osceola No. 13 (Treatment Guidelines)

Sources for Figure V-2: Osceola No. 13 (Treatment Guidelines)

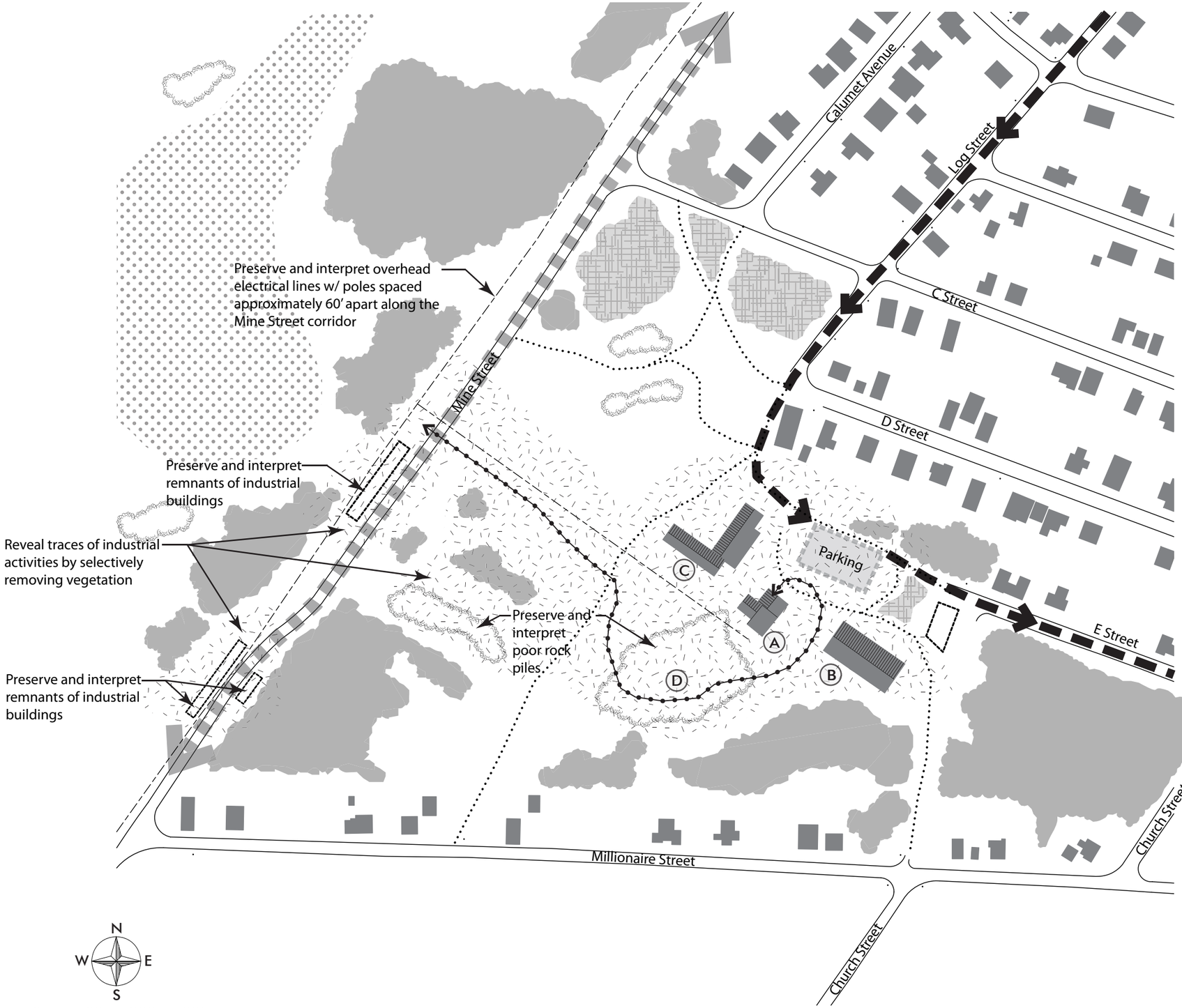
- Aerial photography, 2002, NPS
- Field investigations, September 2010, by Brenda Williams and Lindsey Pickornik.

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Osceola #13 Shaft Area
Treatment Alternative B



Legend

- (A) Osceola No. 13 Shaft rehabilitated to provide visitor access to upper level - not universally accessible.
- (B) Hoist House rehabilitated for adaptive reuse. No visitor access.
- (C) Warehouse used by Michigan Tech for research project. Interpretive overlap.
- (D) Preserve and interpret poor rock piles

Key

- Existing buildings
- Existing industrial materials/foundations
- Existing informal pedestrian route
- Existing woodland
- Existing understory vegetation
- Existing rock piles
- Existing overhead power lines
- Existing resource extraction area
- Existing parking
- Existing vehicular circulation
- Existing recreational circulation
- Proposed pedestrian circulation
- Proposed area of cleared vegetation

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

June 2012

QUINN EVANS ARCHITECTS

Figure V-2

South Mine Street Corridor (Management Issues)

This section includes a list of management issues related to the South Mine Street corridor identified by stakeholders and the project team.

1. Although interesting industrial remnants remain, many historic buildings and features are missing, making it difficult to envision the scale of the historic development in this area.
2. Ownership/future management is a concern. The NPS does not control the management or use of the properties adjacent to the corridor. Existing stewardship of historic resources varies extensively from one property to the next.
    a. The Sixth Street Extension is an important vehicular route through the Calumet Unit. The Mine Street Station development along the western side of the Sixth Street Extension distracts from the historic character of the unit.
    b. Volunteer vegetation along the eastern side of the Sixth Street Extension screens views of historic features from this route.

South Mine Street Corridor (Treatment Guidelines)

The South Mine Street Corridor provides an important conceptual connection between the core of the Calumet Unit (at Red Jacket Road) and the remnants of industrial activities in the southern portion of the unit. In addition, the route is aligned with the calumet conglomerate lode, and its length illustrates the extent of the industrial activities. Many historic images display a series of shaftrock houses, other industrial buildings, railroad tracks, utility lines aligned along this route. Providing opportunities for visitors to explore this corridor can enhance their understanding of the historic operations and their experiences at Calumet.

Of the treatment alternatives considered for the South Mine Street Corridor, Treatment Alternative B is the recommended approach. Treatment guidelines for this area focus on preserving the extant historic features related to the mining activities, and providing opportunities for visitors to explore and learn about the history of the site, while providing recreational opportunities and pedestrian and bike links within the Calumet Unit. In addition, recommendations for vegetation management along the Sixth Street Extension are aimed at increasing views of historic features and screening views of non-historic structures to improve the overall character of this route. The guidelines are outlined below and illustrated in Figure V-3.

1. Landscape management and use along South Mine Street:
    a. Work with property owners to preserve historic resources.
    b. Work with property owners to establish use agreements.
    c. Work with adjacent property owners to protect views and guide development.
    d. Provide a pedestrian and bicycle route along the corridor, connecting the Red Jacket Road corridor to the Osceloa No.13 site.
        i. From Red Jacket Road to Swedetown Road, provide sidewalks and a bike lane along the existing road.
        ii. From Swedetown Road to the Osceola No.13 site, provide paths for bikes and walking and discourage vehicular use.
        iii. Extend the bike and pedestrian route to other locations, including Calumet Lake, Swedetown Ponds, and the Mineral Range Depot at Oak Street.
    e. Consider re-routing unofficial ATV and snowmobile use from the southern portion of the Mine Street Corridor to other routes.

   f. Establish a pedestrian connection to the Osceola No.13 site.
   g. Retain volunteer vegetation to screen undesirable views.
2. Landscape management and use along the Sixth Street Extension:
   a. Work with stakeholders to create a vegetated landscape buffer along the west side of the Sixth Street Extension to enhance views along this corridor.
   b. On the east side of the Sixth Street Extension, carefully select vegetation to be pruned and/or removed to provide views of the historic resources in this area from the street. Clearly flag materials to be taken out prior to removal and verify that their removal will not open undesirable views from the historic resources toward Mine Street Station. The goal is to establish a balance that improves views into this area while maintaining an adequate visual screen.
3. Buildings:
   a. Assess the condition of the buildings and remnants within the corridor.
   b. Advocate for the stabilization of the historic resources within the corridor.
   c. Remove volunteer vegetation that is threatening historic resources.
4. Interpretation:
   a. Along the length of the corridor, interpret historic industrial remnants with small waysides, alternative digital media tours, and/or a walking tour brochure.
   b. Provide information at the Calumet Visitor Center that describes the historic extent of the industrial remnants in the landscape, their relationship to the mining industry and their visual impact on the regional landscape.
   c. Consider conducting ranger-guided interpretive tours of the South Mine Street Corridor.
   d. Encourage visitors to explore the industrial remnants that are located on land owned by the NPS or its partners throughout the Calumet Unit.
   e. Wherever possible, reveal industrial remnants in the South Mine Street Corridor by removing vegetation and opening views.
   f. Consider developing a guidebook for visitors that includes information about the industrial remnants in the South Mine Street Corridor.
   g. Consider implementing an interpretive paving pattern indicating the locations of the C&H Mining Company shafts and the dates the associated shaft houses were present. Extend the paving application from Calumet shaft No. 6 at the north to Hecla shaft No. 12 at the south. Provide a pedestrian route in association with the interpretive paving.

Next page

Figure V- 3: South Mine Street Corridor, Treatment Alternative B, Recommended Treatment

Sources for Figure V-3: South Mine Street Corridor, Treatment Alternative B, Recommended Treatment

- Aerial photography, 2002, NPS
- Field investigations, September 2010, by Brenda Williams and Lindsey Pickornik.

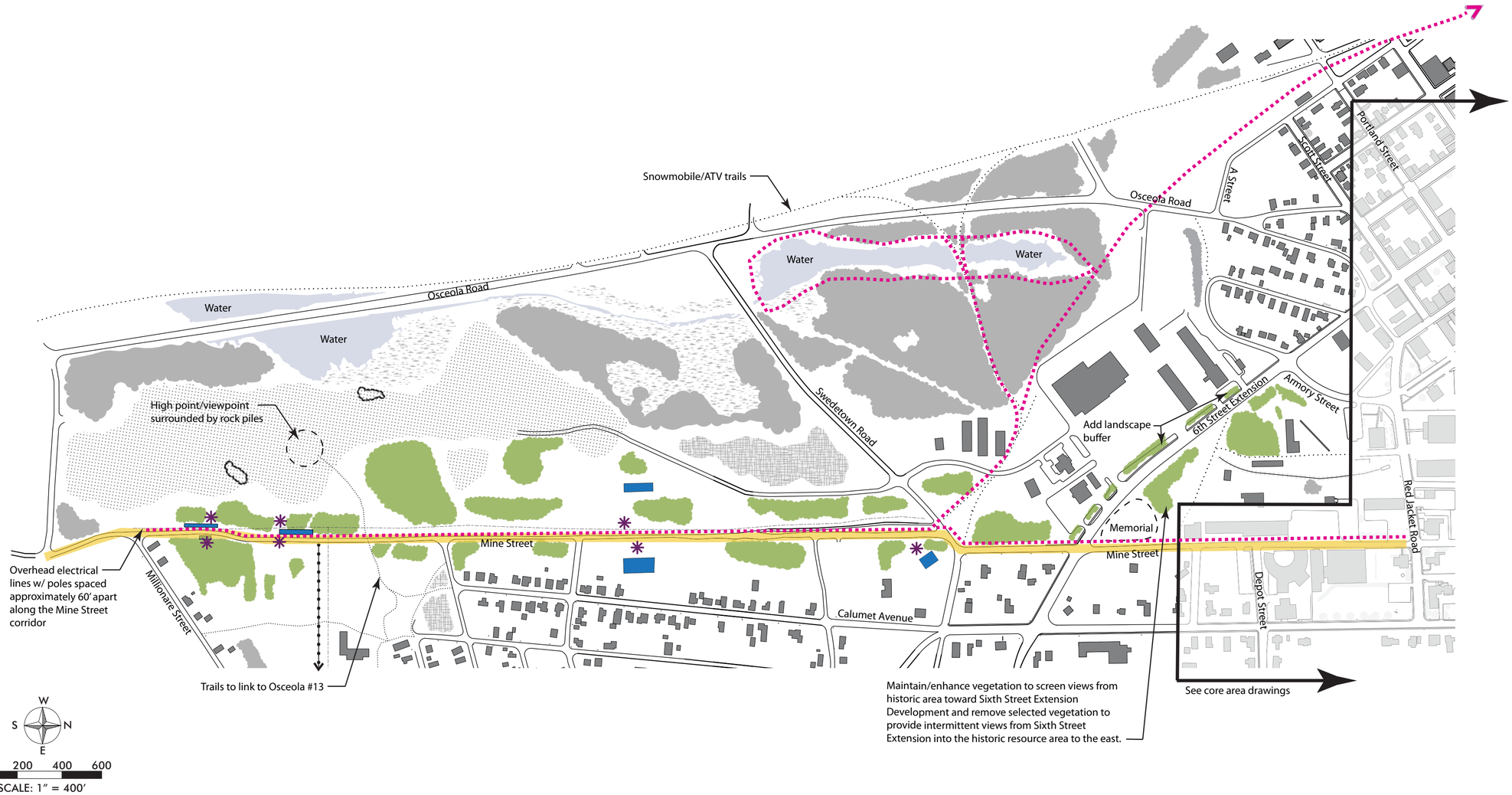
Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

South Mine Street Corridor

Treatment Alternative B



Key

- Vehicular route/Mine Street
- Interpretive wayside and historic information
- Stabilize, preserve and interpret historic building remnants. Consider adaptive reuse where feasible.
- Vegetation along the corridor: manage to enhance positive views and screen negative views
- Body of water
- Woodland
- Understory Vegetation
- Rock Piles
- Resource Extraction Area
- Informal Pedestrian Route
- Pedestrian Circulation
- Proposed Pedestrian/Bike Path

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

September 2012

QUINN EVANS ARCHITECTS

Figure V-3

Railroad / Recreational Corridor (Management Issues)

This section includes a list of management issues related to Railroad / Recreational corridor identified by stakeholders and the project team.

1. The Mineral Range Railroad Depot is a valuable historic resource that is in poor condition.
2. Residents would like to have more bike and pedestrian trails in Calumet.
3. The existing ATV/Snowmobile route is popular and desirable. It would be good to have links from the trail to Calumet businesses.
4. In the area where the ATV/Snowmobile is adjacent to Calumet residences, the dust and noise is undesirable.

Railroad / Recreational Corridor (Treatment Guidelines)

Former railroad corridors in Calumet are ideal locations for recreational activities. Existing use by ATVs, snowmobiles, bikers, and pedestrians is considerable. In meetings local residents clearly expressed their desire to have additional opportunities for walking and biking in Calumet. Additional recreational routes are provided to enhance the lives of the local residents and provide additional experiences for Keweenaw NHP visitors.

Of the treatment alternatives considered for the Railroad/Recreational Corridor, Treatment Alternative B is the recommended approach. Treatment guidelines for this area focus on preserving the extant historic features related to the mining activities, providing increased recreational opportunities for local residents and visitors, establishing buffers in selected areas. The guidelines are outlined below and illustrated in Figure V-4.

1. Landscape management and use:
    a. Establish a pedestrian / bike route loop in Calumet that provides a variety of opportunities (see Figure V-4). Separate from the ATV/snowmobile trail that exists along the western side of Calumet. At the Depot, establish the bike route on the eastern side. Where the trail is parallel to motorized traffic maintain separation.
    b. Work with Michigan Department of Natural Resources to consider connections, develop visual and dust screens, and minimize conflicts with the existing ATV/snowmobile trail.
    c. In the area northeast of the railroad overpass (labeled 2 on Figure V-4), maintain the industrial character of this area and consider developing an active recreational space for summer use (examples include a skate park or pump track). Continue to use this space for snow storage during the winter season.
    d. Eliminate unsightly outdoor storage. Consider adding vegetative screens in areas where the ATV/snowmobile trail is close to residences or local businesses.
    e. Preserve existing vegetation in areas that help to provide buffers for trail users.
    f. Work with adjacent property owners to protect views and guide development adjacent to recreational corridors.
    g. Consider re-routing unofficial ATV and snowmobile use from the southern portion of the Mine Street Corridor to other routes.
    h. Establish a pedestrian connection to the Osceola No.13 site.
    i. Retain volunteer vegetation where it screens undesirable views.

2. Buildings:
    a. Prepare an HSR focused on the building and site then rehabilitate the Mineral Range Railroad Depot and utilize for functions supporting recreational use. Consider refreshments (coffee shop, ice cream shop, restaurant, etc…), recreational rentals/sales, and information centers, as well as other options. Prior to rehabilitation, prepare a HSR focused on the building to help guide decisions.
    b. Preserve and interpret the railroad overpass near Spruce Street.
    c. Remove volunteer vegetation that is threatening historic resources.
3. Interpretation:
    a. Along the length of the corridor, interpret historic industrial remnants with small waysides, alternative digital media tours, and/or a walking tour brochure.
    b. Provide information for trail users (of all kinds, including those that use the existing ATV/snowmobile trail) informing them about the history of Calumet.
    c. Encourage activities at the Depot and along Oak Street to draw recreational trail users into downtown Calumet.

Next Page:
Figure V- 4: Railroad / Recreational Corridor (Treatment Guidelines)

Sources for Figure V-4: Railroad/Recreational Corridor (Treatment Guidelines)

- Aerial photography, 2002, NPS
- Field investigations, September 2010, by Brenda Williams and Lindsey Pickornik.

Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Railroad Corridor Landscape Treatment



Legend

1. Mineral Range Railroad Depot
   Rehabilitate and adaptively reuse Depot for function supporting trail use. Examples are snack/ice cream/coffee shop, restaurant, bike/ATV/snowmobile rentals, or small office.
2. Maintain industrial character & consider active recreational space for summer use. Continue winter snow storage.

Key

- Unit Boundary
- Maintain Existing Rough/Turf Gravel or consider developing park/recreational space
- Maintain existing ATV/snowmobile route
- Interpretive wayside and historic information
- Existing vegetation to remain
- Consider adding native grasses, forbs and small shrubs to create low vegetation buffer
- Body of water
- Proposed pedestrian/bike path

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

September 2012

QUINN EVANS ARCHITECTS

Figure V-4

Calumet Unit Historic Housing Locations (Management Issues)

This section includes a list of management issues related to historic Housing Locations within the Calumet Unit identified by stakeholders and the project team.

1. The importance of historic housing in the Keweenaw cannot be over stated, nor can the fragility of these resources. Whenever possible, efforts to preserve these resources should be developed or enhanced. This CLR is not the appropriate document for comprehensively addressing these issues but it is recommended that additional efforts be pursued. Also, it is important that relationships between the NPS and homeowners be strengthened.
2. Future plans for the historic housing locations should consider the issues related to private ownership and occupant needs.
3. Increased approaches for Keweenaw NHP and its partners to help homeowners maintain the integrity of their homes need to be explored.
4. Historic company housing locations are identified and described in this CLR, however additional research is needed.
    a. There is a need to develop a more in-depth understanding of the historic resources present at each company housing location.
    b. The significance and integrity of the resources associated with the company housing locations needs to be determined.
5. There are outbuildings within the unit that are important historic features, but they have not been studied previously. These include barns, sheds, privies and garages associated with residential buildings.

Calumet Unit Historic Housing Locations (Treatment Guidelines)

Historic housing is an extremely important resource in the region. These properties are owned and maintained by homeowners who do not necessarily have the time, finances, or desire to preserve the historic resources. It would be of great value for the NPS to strengthen relationships with homeowners. All of the resources related to historic housing locations associated with the Calumet Unit are privately owned. The following treatment guidelines require close consolidation and approval by the property owners. The historic housing locations associated with the Calumet Unit are identified in Figure I-6. Descriptions are provided in Chapter 3.

1. Interpretation of historic housing locations landscape
    a. Consider developing a self-guided brochure that describes the housing locations, a route to follow to visit them, protocol necessary when visiting these privately owned resources, and information about their historic significance.
    b. Consider providing small site identifier signs indicating the locations of historic housing locations. The signs should be simple and compatible with the historic character of the area.
2. Where research indicates the historic housing locations are historically significant, consider amending the National Historic Landmark nomination to include these resources, or preparing a separate multiple property nomination for the historic housing locations in the region. Include outbuildings and landscape features in the nomination.
3. Encourage property owners to preserve significant historic residences, outbuildings, and landscape features.
4. Consider developing a preservation grant program focused on historic housing, outbuildings and residential landscape features.

5. Consider developing partnerships with landowners to help guide development within the historic housing locations to ensure that it is compatible with the historic character of the Unit.
6. Provide education, assistance and guidance to landowners to encourage compatible development.
    a. Develop design guidelines for the significant historic housing locations to help develop and communicate common goals and provide tools for preservation of historic houses, outbuildings and residential landscape features. Provide examples of compatible and non-compatible new development to help owners. Include general treatment guidelines for specific topics including vegetation, buildings, small scale features, and appropriate approaches for infill.
    b. Provide education about tax credits or other financial incentives for adhering to guidelines.
    c. Strengthen the technical assistance outreach program. Consider publicizing the opportunities available by creating a brochure or catalogue of technical assistance that is available for landowners.
    d. Provide one-on-one technical assistance to individuals to help with specific issues.
    e. Consider conducting workshops and presentations focused on issues that will help landowners meet their needs while preserving the historic landscapes.
    f. Encourage people who approach the NPS staff with questions about structures to consider the historic landscapes as well.
    g. Consider developing partnerships with landowners to help guide development within primary views to ensure it is compatible with the historic character of the Calumet Unit.
    h. Provide assistance and guidance to landowners to encourage compatible development.
7. Work closely with local governments to enact historic preservation or zoning ordinances to avoid incompatible development.
8. Conduct or support scholarly research to fill gaps in knowledge about the historic landscape conditions at the historic housing locations, specifically addressing their chronology of development and physical changes.
    a. It appears that the following historic housing locations within (or largely within) the Calumet Unit may retain historical integrity: Calumet Housing Location, Blue Jacket Housing Location, Village of Calumet (formerly Red Jacket), Newtown Housing Location, Hecla Housing Location, and Raymbaultown Housing Location (see Figure III-113).
    b. In addition, several significant housing locations are adjacent to (or partially within) the Calumet Unit that may retain historical integrity, including: Albion Housing Location, Red Jacket Shaft Housing Location, Yellow Jacket Housing Location, Tamarack Housing Location, Swedetown Housing Location, Village of Laurium, Osceola Housing Location, and Florida Housing Location.
    c. Conduct research to develop a more in-depth understanding of the historic resources present at each company housing location.
    d. Determine the significance and integrity of the resources associated with the company housing locations.

e. Clearly identify the extant resources associated with historic housing locations within the Unit. This includes outbuildings associated with historic residences that may be significant.
f. Conduct research to develop a clear understanding of the roles of outbuildings in the region and ways to preserve those that remain.
h. Consider utilizing alternative media formats for interpretation of the historic housing locations throughout the Calumet Unit.
i. Consider providing interpreter-led tours of the historic housing locations.

Red Jacket Road Corridor Recommended Treatment

The Red Jacket Road Corridor is divided into three treatment zones which are illustrated in Figure V-5. The East zone includes the eastern portion of the Red Jacket Road Corridor containing the area between U.S. 41 (Calumet Avenue) and Mine Street. Historic structures included in this zone include the C&H General Office (Keweenaw NHP Headquarters), Agassiz House, and C&H Library (Keweenaw History Center). The Middle zone extends from Mine Street west to Shop Street. Historic structures included are C&H Warehouses No. 1 and No. 2, as well as the Russell Snow Plow. Two non-historic buildings are located in this zone, the AT&T Central Office and the Calumet Township Hall. The West zone extends from Shop Street to Fifth Street and Temple Square. Historic Structures related to this zone are the Calumet Colosseum, C&H Pattern Shop (Coppertown Museum), Union Building (Keweenaw NHP Visitor Center), St. Anne's Church (Keweenaw Heritage Center), First Presbyterian Church (Calumet Art Center), and Christ Episcopal Church. One non-historic building, the Farmers & Merchants Mutual Fire Insurance Company office, is located in this zone.



Figure V- 5: Red Jacket Road Corridor Treatment Zones

Vision Statement for Red Jacket Road Corridor Landscape Treatment:

In the action alternatives, the Red Jacket Road Corridor (RJR) serves as the primary entrance to the Calumet Unit of Keweenaw NHP and as a core interpretive area related to the industrial landscape of the C&H Mining Company. The three landscape management zones within the corridor represent the historic conditions related to mine management, industrial activities, and public facilities.

Goals for Red Jacket Road Corridor Landscape Treatment:

1. Improve the ability of the landscape to convey and represent its significant historic conditions.
2. Reveal the extant historic landscape features
3. Improve the RJR corridor ability to convey the historic character of the landscape during the (key historic period) through strong landscape connections.
4. Provide expanded opportunities for visitors to experience the cultural landscape in context with its historical significance.

Objectives for Red Jacket Road Corridor Landscape Treatment:

1. Rehabilitate the RJR historic landscape and connections to other significant landscape character areas within the Calumet Unit.
2. Preserve, restore or rehabilitate significant cultural resources.
3. Improve physical and visual connections between historic landscapes such as those between the RJR corridor and Agassiz Park, the South Mine Street Corridor, and downtown Calumet.
4. Improve the ability of the RJR landscape to convey the historic character of the landscape by rehabilitating missing small scale features. (Rehabilitate missing small scale features that are important in telling the story of the C&H Mining Company and related community of Calumet.)
5. Preserve significant historic ornamental plants.
6. Preserve known and potential archeological resources.
7. Provide sustainable solutions that include energy conservation measures and are compatible with the historic character of the corridor. Consider utilizing historic industrial buildings to house sustainable energy features such as sub-stations for power. Also, consider innovative concepts for developing energy utilizing wind, solar, or geothermal power in ways that are compatible with the historic character of the district.
8. Provide interpretive materials in the landscape that clarify relationships between underground and non-extant features with specific locations within the current landscape.
9. Provide a safe and easily navigated interpretive pedestrian route through the corridor.
10. Provide parking for regular vehicles, recreational vehicles, and universal access near key buildings and locations within the corridor.
11. Provide universal accessibility to key buildings and interpretive sites within the corridor.
12. Provide a bus drop off location for the Calumet Visitor Center.
13. Provide areas to accommodate winter snow storage.
14. Designate landscape management zones along the RJR corridor that provide a basis for establishing landscape characters related to the mine management area, industrial core, and public amenities.

15. Conduct archeological investigations prior to implementing treatment recommendations to verify locations of non-extant features. Use non-invasive techniques when possible.
16. Work with partners to identify parking at Coppertown and C-L-K Schools for use by visitors in the summer.

Red Jacket Road Corridor Recommended Treatment (Alternative C): Rehabilitation with interpretation of the entire corridor focused on the period beginning in 1890 and ending in 1915.

Although this alternative focuses on one specific time period, it is not intended to result in the restoration of the landscape of the entire corridor. Significant features that were not present during this period may be preserved, if their presence does not create confusion. Non-historic features that are required for current needs will be maintained or added. Care will be taken to ensure that visitors can easily understand that these features were not present during the period from 1890 through 1915. Illustrations of the recommended treatment are provided in Figures V-11 through V-13.

Throughout the Red Jacket Road corridor, as maintenance issues arise and opportunities present themselves, consider converting street lighting to more energy efficient fixtures. Consider conducting an overall analysis of lighting throughout the corridor to determine an appropriate approach for future lighting.

To ensure that visitors have access to the historic resources throughout the corridor, the NPS should work with local road authorities to develop an agreement for keeping selected sidewalks clear for pedestrians through the winter.

East Landscape Treatment Zone (Alternative C):

The NPS continues to maintain Keweenaw NHP headquarters and the Keweenaw History Center as well as the landscapes associated with these properties. The landscape between Keweenaw NHP headquarters and the Agassiz House is rehabilitated to present an appearance that reflects the historic character of the property. Existing pedestrian entrances to the two buildings are retained. A circular forecourt is added between the two buildings, surrounded by lawn. The lawn is underlain with a root support material (such as EZ Roll Grass Pavers, Grasspave 2, or other similar product) to provide support for emergency vehicle access. A second tier of paths provides links to the parking lot, Mine Street and the pay office door at headquarters. Parking for Keweenaw NHP headquarters is provided in the lot on the north side of the property. Lawn is installed between the Keweenaw NHP parking lot and the Miscowaubik Club parking area, eliminating the drive-through connection in this area. Removable ornamental fences, similar to those present historically, are installed near headquarters and the Agassiz House. The fences are removed in the winter.



Figure V-6: EZ Roll Grass Pavers, detail (left) and overflow parking area at play field (right).
(source: http://www.ndspro.com/permeable-pavers/grass-pavers/ez-roll-grass-pavers, accessed 2/14/2012)

On the south side of Red Jacket Road, the float copper exhibit is relocated to the front of Coppertown as indicated on the plan. The parking lot is removed and replaced with mown lawn and an outline of the footprint of the non-extant Congregational Church. Use a simple paving material, such as brick or stone, to outline the footprint of the building on the ground. Prior to implementation, verify the former size and location of the building through archeological investigations. If possible, use non-invasive techniques.

The statue of Alexander Agassiz is returned to its original site in Agassiz Park and mown lawn is established in its current location. Existing vegetation in the area around the Keweenaw History Center and the parking lot is maintained. The sidewalk along Red Jacket Road is maintained. The sidewalks to the doors of the KHC are maintained. A removable ornamental fence, matching the one present historically, is installed on the north side of the Keweenaw History Center. The fence is removed during winter months. Remove cedars at the KHC that are within ten feet of the building. Sidewalks are added along Mine Street extending to the southwest. The hedge northeast of the Calumet Electronics building is retained as a visual screen. Install pedestrian crosswalks and curb-cuts at the intersection of Calumet Avenue and Red Jacket Road and the intersection of Mine Street and Red Jacket Road. Consider acquisition of a scenic easement or other purchase of the property along Calumet Avenue/U.S. 41 between Red Jacket Road and the C&H Bathhouse to protect it from inappropriate development.

Middle Landscape Treatment Zone (Alternative C):

On the north side of Red Jacket Road, the non-historic Township Hall building is removed and the Township establishes offices in a historic building. The AT&T Central Office and all of the historic buildings remain on site. Small-scale features are added to the landscape representing missing historic elements and underground shafts. Removal of one non-historic building helps to re-establish a space between the historic gear house, power station, warehouse Nos. 1 and 2 that better represents the scale and character of the landscape formerly associated with the industrial core. The large area is paved with a rough surface that represents the historic conditions. Accessible routes are provided to provide universal access through the area. Landscape features added include representative rope stands at true scale and spacing extending from the gear house to the AT&T building, then continuing to the south near the location of Hecla No.1 Shaft. Paving patterns are used to indicate the former locations of the Calumet No. 1 Shaft house foundation location, as well as the underground locations of the shafts. A simple concrete

material, twelve inches wide, is used to show the foundations of buildings in this area, while poor rock paving, approximately three feet wide, is installed to represent the locations of shafts. Also, poor rock paving about eight feet wide is utilized to indicate a line on the landscape between the Calumet and Hecla shafts. This line is a conceptual representation to help visitors to better understand the relationships between the historic buildings and features on the landscape with the underground mineral lode. Interpretive waysides in this area display an underground map of the mine operations, and historic photographs of the surface features.



Figure V-7: Example of interpretive paving pattern in Berlin. A similar approach could be used in Calumet using poor rock to illustrate the underground locations of shafts and the line between the shafts. A different paving pattern is used to indicate the footprints of non-extant historic buildings. (source: http://thejetpacker.com/wp-content/uploads/2010/01/Berlin-Wall-Path.jpg, accessed 7/14/2012)



Figure V- 8: Franklin Court paving illustrates building foundations and former landscape features. (source: https://www.google.com/search?q=Franklin+Court&hl=en&client=firefox-a&hs=lim&rls=org.mozilla:en-US:official&prmd=imvns&tbm=isch&tbo=u&source=univ&sa=X&ei=Z-E6T-KLEMOBgAeo1tmYCw&ved=0CEoQsAQ&biw=1920&bih=951, accessed 2/14/2012)



Figure V- 9: Franklin Court, Philadelphia. Paving patterns, grade changes, and skeleton structures are used to represent non-extant historic features. (source: http://www.phillyarchaeology.org/news/aia051111.htm, accessed 2/14/2012).



Figure V- 10: Interpretive paving at Franklin Court in Philadelphia. (http://www.nps.gov/inde/Franklin-Court-Gallery.htm, accessed 2/14/2012)

On the south side of Red Jacket Road, the railroad tracks on the west side of Warehouse No. 1 are restored to strengthen the historic character of the corridor between the Russell Snow Plow and the warehouse. The majority of the lot immediately adjacent to the northeast side of the warehouse is rehabilitated to enhance the historic character of the corridor and provide an outdoor classroom/interpretive space. Parking is provided along Red Jacket Road and Mine Street, maximizing the space available for visitor activities. A service drive provides access from Mine Street to the loading dock on the east side of the building. Universally accessible routes are provided from the parking to the visitor entrance at the north end of the building, and both staff entrances on the east side of the building.

Parking for nine cars is provided on the west side of Mine Street, including two universally accessible spaces. A crosswalk extends across Mine Street, between the Keweenaw History Center, and the pedestrian area east of the warehouse. Additional parking is provided along Red Jacket Road. Eleven parallel spaces are located on the south side of Red Jacket Road, and twelve are located on the north side of the road. A pedestrian drop-off is located near the north entrance of Warehouse No. 1. Two parking spaces are provided for recreational vehicles; these are 10’ wide by 30’ long each and are located to the south of the service drive on Mine Street.

The area between Warehouse No. 1 and Mine Street is utilized as an outdoor classroom and interpretive space. The pavement in this area is dark colored concrete with exposed aggregate (similar to the paving at the entrance of the administration building). All areas indicated with this surface on the plan drawing are universally accessible, providing opportunities for multiple uses of the space. The main features in this area are restored rope line supports that are constructed of lumber, heavy timber, and steel. The structures are approximately twelve feet tall, and seven feet

wide. There are seven located in the paved pedestrian area, and another three in the rough turf located to the south of the service drive.[3] As visitors walk through the area, they will have the opportunity to observe interpretive panels mounted to some of the restored rope line supports. An additional historic feature, the fenced rough turf lot, is reintroduced in this alternative. Four-foot high wood posts are spaced six to eight feet apart around two rough turf areas that lie between the Mine Street parking and the warehouse. These reflect the historic conditions, while a paved walkway ensures universal accessibility through the center of the area.

The main visitor entrance to the building is on the north façade. An eight-foot wide landing extends from the north door to the north to meet the sidewalk. The sidewalk is level where it meets the landing, then slopes to the east and west at a grade of five-percent for approximately twenty feet to meet the main sidewalk grade. The fifty-foot area along Red Jacket where the landing and sloped walk are located have a high curb/retaining wall along the road. The curb/retaining wall will taper from a regular six-inch height to a maximum of fifteen inches (near the landing).

A separate accessible pedestrian entrance for staff is provided on the east side of the building. This entrance includes an eight-foot by ten-foot landing and a sloped walk that extends to the north at a five-percent slope for approximately thirty-one feet. A final accessible staff entrance is located adjacent to the loading dock. This entrance includes a five-foot by ten-foot landing with a sloped walk that extends to the east for approximately thirty-one feet, adjacent to the service route.

A service route is provided to the loading dock on the east side of the building; the route is ten feet wide with a thirty-three foot inside turning radius.[4] The service route is approached from Mine Street and extends to the west toward the building. The service route includes a spur to the south for three-point turns to allow trucks to turn and back toward the loading dock. Service access to the southern entry of the building is provided with a large gravel area providing an approach to the doorway. A marine forklift, telescoping lift, small crane, or other vehicle is used to transfer large materials into the building at this access door, which is approximately four-feet above the outside grade. It is recommended that Keweenaw NHP explore possibilities for renting these types of vehicles to use for installing boats and other large objects into the south entrance of the warehouse. Marine forklifts are equipped with special cradles for boats, and are weighted appropriately to handle large boats. Use of this approach to move materials into the building will eliminate the need to extensively alter the topography on the south side of the building.

On the west side of Warehouse No. 1, historic railroad tracks are restored in the gravel lot as shown on the site plan. Indications of the extension of these tracks to the north, across Red Jacket Road, are provided with contrasting paving patterns in the locations indicated on the drawing. A generator providing emergency power for the building is located along the alignment

[3] In this document, "rough turf" refers to grass that is maintained is a less manicured condition that that applied to mown lawn. Rough turf is mown on a regular basis, but at a higher height of about three to four inches, and less frequently than mown lawn. In rough turf areas herbaceous weeds that are noxious are accepted. As with other lawn areas, volunteer woody plants are not allowed to become established.

[4] Standards indicate a thirty-three foot inside turning radius will accommodate the vehicles anticipated. The larger forty foot radius is applied, at the request of the park landscape architect, to allow for a greater margin of error.

of one of the restored railroad tracks within a structure designed to look like a train car. The generator measures approximately 138”x44”x67”high and sits on a concrete pad within the simulated train car structure as indicated on the site plan. An electrical transformer is located on the west side of the warehouse. The transformer measures approximately 6’x6’x6’ and is situated to the south of the warehouse shed addition. This location is screened from views from Red Jacket Road and allows for access to the transformer from the gravel pavement at the south end of the warehouse.

The C&H Russell snowplow is located between C&H Warehouse No. 1 and the Coppertown Museum (C&H Pattern Shop). At this site, historic railroad tracks are restored as shown on the site plan (see Figure V-11). Indications of the extension of these tracks to the north, across Red Jacket Road, are provided with contrasting paving patterns in locations indicated on the drawing (see Figure V-11). Other improvements at this location include providing two barrier free parking spaces, a barrier free approach walk, ramp, and viewing platform at the snowplow, lighting, and interpretive waysides. The design for this treatment has been reviewed and approved by the Michigan State Historic Preservation Officer.

West Landscape Treatment Zone (Alternative C):
The emphasis of landscape treatment in this area is on improving pedestrian and vehicular safety and circulation, improving visual character, and strengthening links between this area and the middle and eastern portions of the Red Jacket Road corridor. Pedestrian crosswalks are added at Shop, Armory, Fourth, Fifth, and Temple Streets. Armory Street is realigned at its intersection with Red Jacket Road, and a three-way stop is indicated by stop signs at the corners of Armory Street and Red Jacket Road. Curbs, sidewalks, and parallel parking are provided on both sides of Red Jacket Road.

The south end of Fourth Street near the intersection with Red Jacket Road is revised to provide parallel parking on both sides of Fourth Street, as well as two-way traffic. The parking lot between Fourth Street and the Farmers & Merchants Mutual Fire Insurance Company is revised to accommodate the street revisions and parking lots are added on either side of the building. Sidewalks are provided along the south end of Fourth Street and a pedestrian plaza enhances the entrance to the Farmers & Merchants Mutual Fire Insurance Company building. Alternately, should the private parking lot south of Scott Street and north of the visitor center become available for purchase, it would serve the NPS well to consider acquisition. This lot could better serve visitors and reduce infrastructure development costs related to parking and circulation.

Fifth Street from Temple Street to Scott is designated a one-way route headed north. A drop-off zone is provided for passenger loading and unloading on the north side of Red Jacket Road near the entrance to the Visitor Center. Universally accessible parking spaces are provided on Fifth Street in front of the Visitor Center, and on Fourth Street directly behind the Visitor Center.

Existing vegetation is preserved, and deciduous trees are added on the inside of the sidewalk as indicated in Figure V-11: Red Jacket Road Corridor Treatment Alternative C, Recommended Treatment. Parking is relocated from the area in between the Colosseum and Red Jacket Road to a parking lot between the Colosseum and C&H Warehouse No.2.

The parking lot at Coppertown is revised. The extant remnants of the foundation of the C&H Foundry are identified and the parking area is realigned to be situated within the footprint without impacting the remnants. The foundry foundation remnants are stabilized and interpretive materials are provided to explain the historic use of the building. Industrial artifacts are identified, relocated, and interpreted. The poor rock paving indicating the locations of underground shafts is continued through this area (from Hecla #1 shaft location, described in section addressing the middle portion of the Red Jacket Road corridor). Key locations include pavement identifiers that indicate the depth of the shafts. The flags, planters, and other small scale features in the landscape at Coppertown are removed or relocated and interpretative information is provided explaining the relationship of the elements to the historic activities. The tram car is retained and interpreted.

The triangular area between Armory, Fifth, and Red Jacket is graded to mostly be a flat surface with mown lawn. Level areas adjacent to the south side of Red Jacket Road and the west Side of Armory Street extend approximately twenty feet beyond the sidewalks. Existing street trees are preserved and new street trees are added as indicated on the site plan. Beyond the level areas, a transition in elevation, from the higher elevations on Red Jacket Road to the lower elevation on Fifth Street near Armory Street is necessary. This is accommodated by either a retaining wall (as illustrated on the site plan) or by sloping the grade at no more than twenty-percent grade. A level lawn area is established parallel to Fifth Street. Storm water runoff is collected in storm drains along the curbs at Red Jacket Road, Armory Street and Fifth Street. If necessary, a yard inlet is installed in the lawn area. The stormwater is moved by underground pipe to an outlet that daylights at the existing ditch on the west side of Armory Street, south of Fifth Street.

Next page:
Figure V- 11: Red Jacket Road Corridor Treatment Alternative C, Recommended Treatment

Sources for Figure V-11: Red Jacket Road Corridor Treatment Alternative C, Recommended Treatment

- Aerial photography, 2002, NPS
- Field investigations, September 2010, by Brenda Williams and Lindsey Pickornik.

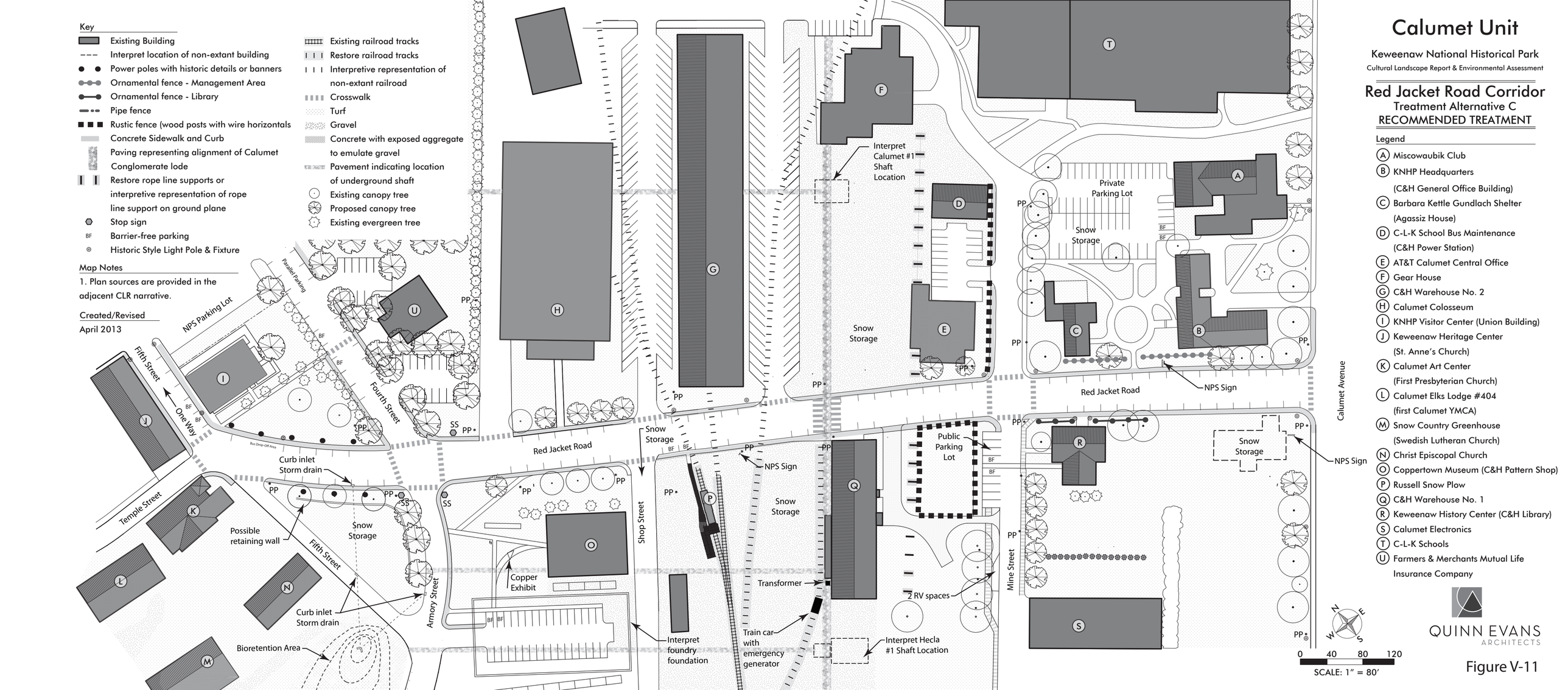

Key
Existing Building
Interpret location of non-extant building
Power poles with historic details or banners
Ornamental fence - Management Area
Ornamental fence - Library
Pipe fence
Rustic fence (wood posts with wire horizontals
Concrete Sidewalk and Curb
Paving representing alignment of Calumet Conglomerate lode
Restore rope line supports or interpretive representation of rope line support on ground plane
Stop sign
BF Barrier-free parking
Historic Style Light Pole & Fixture
Existing railroad tracks
Restore railroad tracks
Interpretive representation of non-extant railroad
Crosswalk
Turf
Gravel
Concrete with exposed aggregate to emulate gravel
Pavement indicating location of underground shaft
Existing canopy tree
Proposed canopy tree
Existing evergreen tree
Map Notes
1. Plan sources are provided in the adjacent CLR narrative.
Created/Revised
April 2013
Parallel Parking
NPS Parking Lot
Fifth Street
One Way
Fourth Street
Bus Drop-Off Area
Red Jacket Road
Curb inlet
Storm drain
Temple Street
Possible retaining wall
Snow Storage
Armory Street
Shop Street
Bioretention Area
Interpret Calumet #1 Shaft Location
Private Parking Lot
NPS Sign
Public Parking Lot
Copper Exhibit
Transformer
2 RV spaces
Train car with emergency generator
Interpret foundry foundation
Interpret Hecla #1 Shaft Location
Mine Street
Calumet Avenue
SCALE: 1" = 80'
0 40 80 120
Calumet Unit
Keweenaw National Historical Park
Cultural Landscape Report & Environmental Assessment
Red Jacket Road Corridor
Treatment Alternative C
RECOMMENDED TREATMENT
Legend
A Miscowaubik Club
B KNHP Headquarters (C&H General Office Building)
C Barbara Kettle Gundlach Shelter (Agassiz House)
D C-L-K School Bus Maintenance (C&H Power Station)
E AT&T Calumet Central Office
F Gear House
G C&H Warehouse No. 2
H Calumet Colosseum
I KNHP Visitor Center (Union Building)
J Keweenaw Heritage Center (St. Anne's Church)
K Calumet Art Center (First Presbyterian Church)
L Calumet Elks Lodge #404 (first Calumet YMCA)
M Snow Country Greenhouse (Swedish Lutheran Church)
N Christ Episcopal Church
O Coppertown Museum (C&H Pattern Shop)
P Russell Snow Plow
Q C&H Warehouse No. 1
R Keweenaw History Center (C&H Library)
S Calumet Electronics
T C-L-K Schools
U Farmers & Merchants Mutual Life Insurance Company
QUINN EVANS ARCHITECTS
Figure V-11



Figure V- 12: Middle Section Red Jacket Road Corridor facing Northeast, Treatment Alternative C (note: Sketch is for conceptual purposes only. Additional design development is necessary to address detailed issues.)



Figure V- 13: Middle Section Red Jacket Road Corridor facing Southwest, Treatment Alternative C (note: Sketch is for conceptual purposes only. Additional design development is necessary to address detailed issues.)

Agassiz Park Recommended Treatment

Vision Statement for Agassiz Park Recommended Treatment:

In the action alternatives, Agassiz Park serves as an amenity for the community, and a link between the historic downtown and the industrial core of Calumet.

Goals:

1. Improve the ability of the landscape to convey and represent its historic conditions and the design intent of Warren Manning.
2. Preserve extant historic landscape features, in particular the designed open spaces, paths and trees.
3. Restore the statue of Alexander Agassiz to its original location.
4. Improve pedestrian and visual connections between Agassiz Park and downtown Calumet as well as the school grounds and industrial core.
5. Provide expanded opportunities for use of Agassiz Park by visitors and the community.

Objectives:

1. Rehabilitate the Agassiz Park historic landscape and connections to other significant landscape character areas within the Calumet Unit.
2. Provide parking for Agassiz Park and Keweenaw NHP visitors.
3. Provide overnight parking for downtown residents.
4. Provide parking for downtown merchants and customers.
5. Improve pedestrian circulation between downtown Calumet and Agassiz Park.
6. Improve the function and aesthetic appeal of Fourth Street.

Agassiz Park Treatment Alternative C (Recommended Treatment): Rehabilitation with Interpretation of Selected Areas of the Cultural Landscape

Agassiz Park is an important community resource that provides space for community activities and can serve as a strong link between downtown Calumet, C-L-K Schools, the Red Jacket Road corridor, and the new Calumet Visitor Center. The park's current conditions inhibit its appeal to the community and visitors. This alternative provides a long-term recommendation for improving the park as a vital community open space and increasing its representation of the historic conditions and Warren Manning's significant landscape design. Following the long-term recommended treatment, a short-term approach to rehabilitating the park is described. This phase one approach allows for immediate improvements to be made prior to the implementation of the entire long-term plan. The phased approach to rehabilitating the park provides for gradual improvements to be made as opportunities are available. The long-term plan includes restoration of a large portion of the historic park, as illustrated in Figure V-14 and described in the following section entitled "Agassiz Park Recommended Treatment Long-Term Plan." An initial phase addressing improvements to the extant remnants of the park is described as "Agassiz Park Recommended Treatment Phase One," and illustrated in Figure V-15.

Agassiz Park Recommended Treatment Long-Term Plan

The long-term recommended treatment approach for Agassiz Park includes recommendations that may take a decade or more to implement. The entire recommended treatment is described in this section. Prepare a Master Plan for Agassiz Park to determine appropriate active and passive recreation features for the park and determine their locations. When decisions regarding the appropriate facilities have been made, address general issues related to lighting, utilities, site furniture and physical design. Also consider preparing a Preservation Maintenance Plan (PMP) for Agassiz Park to address protecting historic character, monitoring change, controlling growth, replacing missing elements, and minimizing disturbance in the landscape to ensure that significant historic features are not lost and the character of the park is not compromised. The plan should address both routine and cyclic maintenance.[5] Include recommendations of an urban forester for improving conditions within the park to enhance the trees and recommendations for specific tree species and varieties that are well suited to the site conditions.[6] Also provide recommendations for improving the conditions of the exiting lawns and shrubs and for preparing planting medium for new plants within the park, including recommendations regarding irrigation. Include a snow removal and snow storage plan to address this important need. To enhance the overall conditions within the park, it is recommended that the National Park Service assists the Village with maintaining Agassiz Park.

The most essential element in this plan is the replacement of the statue of Alexander Agassiz in its original location within the park. The park was designed to focus on the statue, and this focal point also served as a pivotal element for circulation and views within the park. The strong association of the memorial to the history of the community can be revived with the restoration of the statue to this location. In the long-term, the rehabilitation of the northeast corner of the

[5] For information regarding the preparation of a Preservation Maintenance Plan, consult: Margaret Coffin and Regina M. Bellavia. *Guide to Developing a Preservation Maintenance Plan for a Historic Landscape, Cultural Landscape Publication No. 7* (Brookline, MA, Olmsted Center for Landscape Preservation, 1998 revised edition).

[6] Consider aerating and supplementing the soil, mulching around the trees, educating maintenance staff to reduce mower and trimmer damage of tees, watering during dry periods, installation of irrigation, pruning, and treatment or removal of hazardous or diseased trees.

park for active recreational use will improve outdoor active recreation opportunities in the community and further enhance character of this public open space.

The Park Avenue Townhouses require a high level of ongoing maintenance that is expected to increase as the buildings continue to age.[7] In addition, the residents of the townhouses are removed from the rest of the community and there is a stigma associated with living in the townhouses.[8] The construction of Park Avenue and the townhouses decimated a large part of Agassiz Park and changed the character of the area. The Village of Calumet contains many historic dwellings that are currently vacant as well as former building sites that are now vacant lots. When the Park Avenue Townhouses are in need of replacement, it is recommended that the housing use they are designed to fulfill be shifted to rehabilitated dwellings or historically sensitive in-fill developments within the Village of Calumet. This will allow for the removal of a large portion of Park Avenue, associated parking lots, and the townhouse buildings from the park, allowing for the long-term rehabilitation of the park illustrated in figure V-14. The area indicated for active recreation will include those facilities identified as appropriate in the recommended Agassiz Park Master Plan.[9] This plan encourages the redevelopment of affordable housing within existing residential neighborhoods in the village and provides an opportunity for enhancing Agassiz Park and reviving it as an appealing destination in the community.

Historic paths are restored and the associated historic trees preserved and maintained. New trees, matching the species of those specified by Warren Manning, are added to fill in gaps along the paths (see V-14). Varieties identified in the PMP as appropriate for the conditions in the park will be used. Infilling trees will result in multi-aged tree lines and mixed species. Interpretive waysides with historic information about the park are provided at the memorial plaza and at the park entrance directly across from Oak Street (see V-14).

Pedestrian links between Agassiz Park and downtown Calumet are improved by providing improved sidewalk connections and crosswalks at Portland and Oak Streets and by improving the conditions along Fourth Street. The western side of Agassiz Park becomes more welcoming with a tree-lined sidewalk, rather than parking lots. The appearance of Fourth Street is improved by realigning the street, parking, sidewalks, and adding more trees. In the blocks between Elm Street and Portland Street, a row of canopy trees and sidewalk along the eastern edge of the road (at the western edge of the Agassiz Park) are added. One lane of north-bound traffic is edged on the west by a median with canopy trees. One lane of south-bound traffic is located on the other side of the median, and south-facing angled parking is adjacent to a sidewalk and canopy trees along the western edge of the corridor. Curb cuts are provided for access to parking, back entrances, and service areas at the backs of the Fifth Street buildings.

[7] Discussions with the Calumet Housing Authority indicated that the townhouse buildings are in constant need of repair and take a disproportionate amount of time and expense from the overall property's maintenance activities.
[8] This was mentioned frequently by participants in stakeholder and public meetings.
[9] Note that the plan does not show basketball courts, horseshoe pits, and other elements as it is recommended that a park master plan be prepared to determine the active recreational features that are most appropriate for the park, and their locations within the active recreation area.

The southern portion of Agassiz Park continues to house affordable elderly housing administered by the Calumet Housing Authority. Parking for the facility is reorganized and sidewalks, ornamental plants, and paved plazas are added to provide more outdoor activity areas for residents. Resident gardens are maintained, and more are added if interest is shown.

The south end of Fourth Street near the intersection with Red Jacket Road is revised to provide parallel parking on both sides of Fourth Street, as well as two-way traffic. The parking lot between Fourth Street and the Farmers & Merchants Mutual Fire Insurance Company is revised to accommodate the street revisions and parking lots are added on either side of the building. Sidewalks are provided along the south end of Fourth Street and a pedestrian plaza enhances the entrance to the Farmers & Merchants Mutual Fire Insurance Company building. Alternately, should the private parking lot south of Scott Street and north of the visitor center become available for purchase, it would serve the NPS well to consider acquisition. This lot could better serve visitors and reduce infrastructure development costs related to parking and circulation.

Next page:
Figure V- 14: Agassiz Park Recommended Treatment, Long-Term Plan (Alternative C)

Sources for Figure V-14: Agassiz Park Recommended Treatment, Long-Term Plan (Alternative C)

- Aerial photography, 2002, NPS
- Field investigations, September 2010, by Brenda Williams and Lindsey Pickornik.

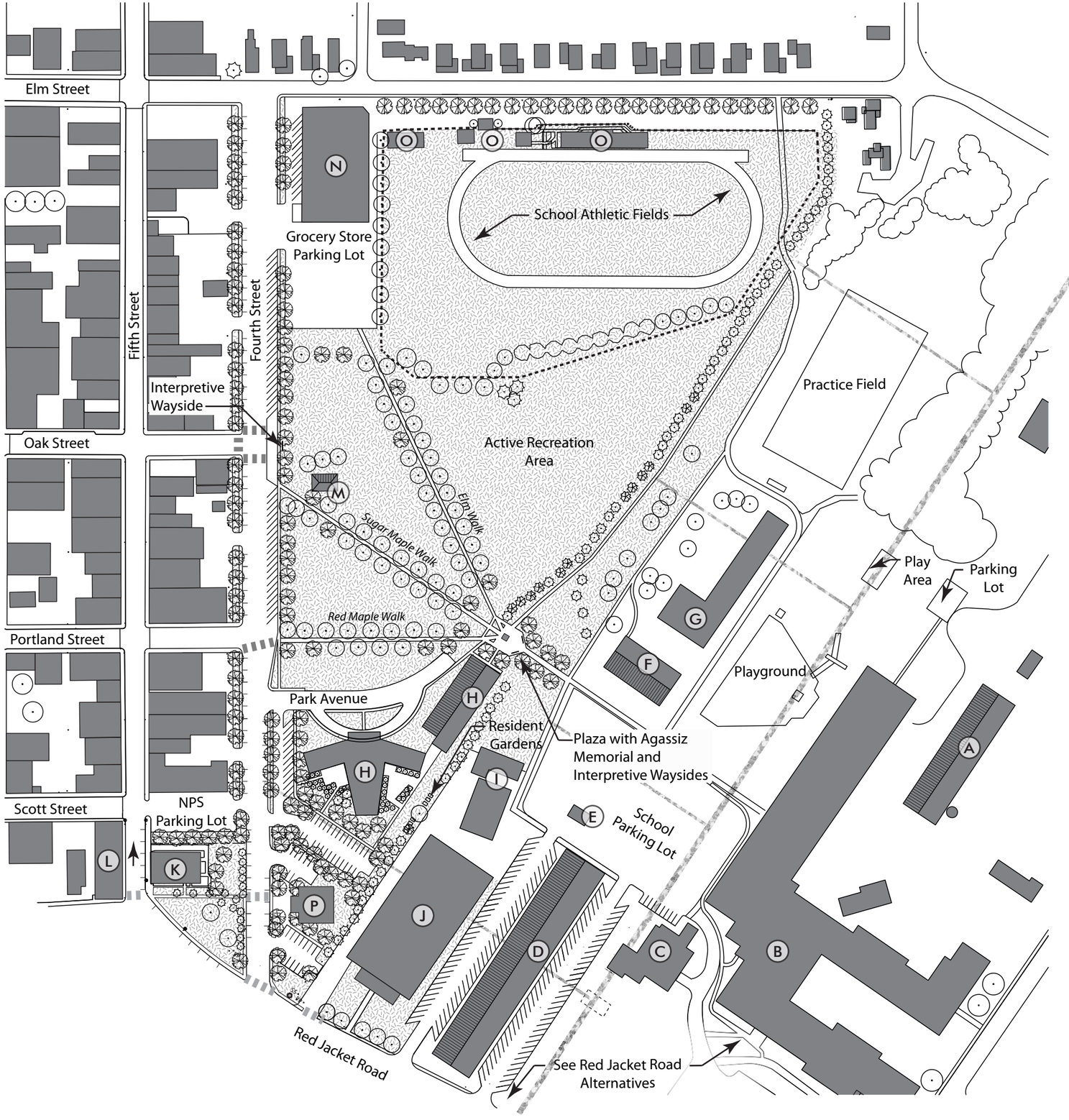
Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Agassiz Park Recommended Treatment Long-Term Plan (Alternative C)

Rehabilitation with Interpretation of Selected Areas of the Cultural Landscape



Legend

- (A) Superior Boiler House
- (B) CLK Schools
- (C) C & H Gear House
- (D) C & H Warehouse #2
- (E) C & H Powder House
- (F) C & H Dry House
- (G) C & H Drill Shop
- (H) Calumet Housing Commission Park Avenue Apartments
- (I) Garage and Shed
- (J) The Colosseum
- (K) KNHP Visitor Center (Union Building)
- (L) Keweenaw Heritage Center (St. Anne's)
- (M) Restrooms
- (N) Grocery Store
- (O) CLK Schools Stadium and Outbuildings
- (P) Farmers & Mutual Insurance

Key

- Buildings
- Existing Canopy Tree
- Existing Evergreen Tree
- Fence
- Turf
- Crosswalk
- Proposed Canopy Tree
- Pavement indicating locations of underground shafts
- Existing Shrub
- Proposed Shrub

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SCALE: 1" = 200'

Map Notes

1. Plan sources are provided in the adjacent CLR narrative.

Created/Revised

November 2012

QUINN EVANS ARCHITECTS

Figure V-14

Agassiz Park Recommended Treatment Phase One Plan:
Enhance Agassiz Park and Retain Existing Uses

The Phase One recommended treatment plan for Agassiz Park provides direction for implementing immediate improvements in the park, while allowing for future development of the long-term treatment. The phase one treatment is illustrated in Figure V-15. This treatment closely resembles Treatment Alternative B, described in Appendix A.

This plan includes the restoration of the statue of Alexander Agassiz to its historic location in the park. The parking lot would be removed and a temporary small paved area would be established on the southeast side of Park Avenue for the statue and an interpretive wayside providing information about the historic evolution of the park. The wayside could also include information about future plans for rehabilitating the park. A service drive would be maintained for the Park Avenue Apartments. Crosswalks would be provided connecting the historic paths in Agassiz Park to the plaza with the statue.

Historic park paths would be restored and the associated historic trees will be preserved and maintained. New trees, matching the species identified by Warren Manning would be added to fill gaps along the paths. This would result in multi-aged tree lines. Pedestrian links between the park and downtown Calumet would be improved by providing crosswalks at Portland and Oak Streets. A temporary interpretive wayside would be added near the park restroom building. The wayside would provide information about the historic use of the park property and could provide information about future plans to rehabilitate the park.

The appearance of Fourth Street would be improved by adding a sidewalk and canopy trees along the western side of the street and adding shrubs in the median on the eastern side of the street. Pedestrian circulation between the park and the school grounds and industrial core would be improved by providing a small pedestrian plaza at the site of the Agassiz statue, and pedestrian sidewalks with links between the plaza and the school grounds, as well as the Red Jacket Road Corridor.

As soon as possible, Prepare a Master Plan for Agassiz Park to address the organization of active and passive recreation features. Also consider preparing a Preservation Maintenance Plan (PMP) for Agassiz Park to address protecting historic character, monitoring change, controlling growth, replacing missing elements, and minimizing disturbance in the landscape to ensure that significant historic features are not lost and the character of the park is not compromised. The plan should address both routine and cyclic maintenance.[10] Include recommendations of an urban forester for improving conditions within the park to enhance the trees and recommendations for specific tree species and varieties that are well suited to the site conditions.[11] Also provide recommendations for improving the conditions of the exiting lawns and shrubs and for preparing planting medium for new plants within the park, including

[10] For information regarding the preparation of a Preservation Maintenance Plan, consult: Margaret Coffin and Regina M. Bellavia. *Guide to Developing a Preservation Maintenance Plan for a Historic Landscape, Cultural Landscape Publication No. 7* (Brookline, MA, Olmsted Center for Landscape Preservation, 1998 revised edition).
[11] Consider aerating and supplementing the soil, mulching around the trees, educating maintenance staff to reduce mower and trimmer damage of tees, watering during dry periods, installation of irrigation, pruning, and treatment or removal of hazardous or diseased trees.

recommendations regarding irrigation. To enhance the overall conditions within the park, it is recommended that the National Park Service assists the Village with maintaining Agassiz Park.

Next page:
Figure V- 15: Agassiz Park Rehabilitation, Recommended Phase One Treatment

Sources for Figure V-15: Agassiz Park Rehabilitation, Recommended Phase One Treatment

- Aerial photography, 2002, NPS
- Field investigations, September 2010, by Brenda Williams and Lindsey Pickornik.

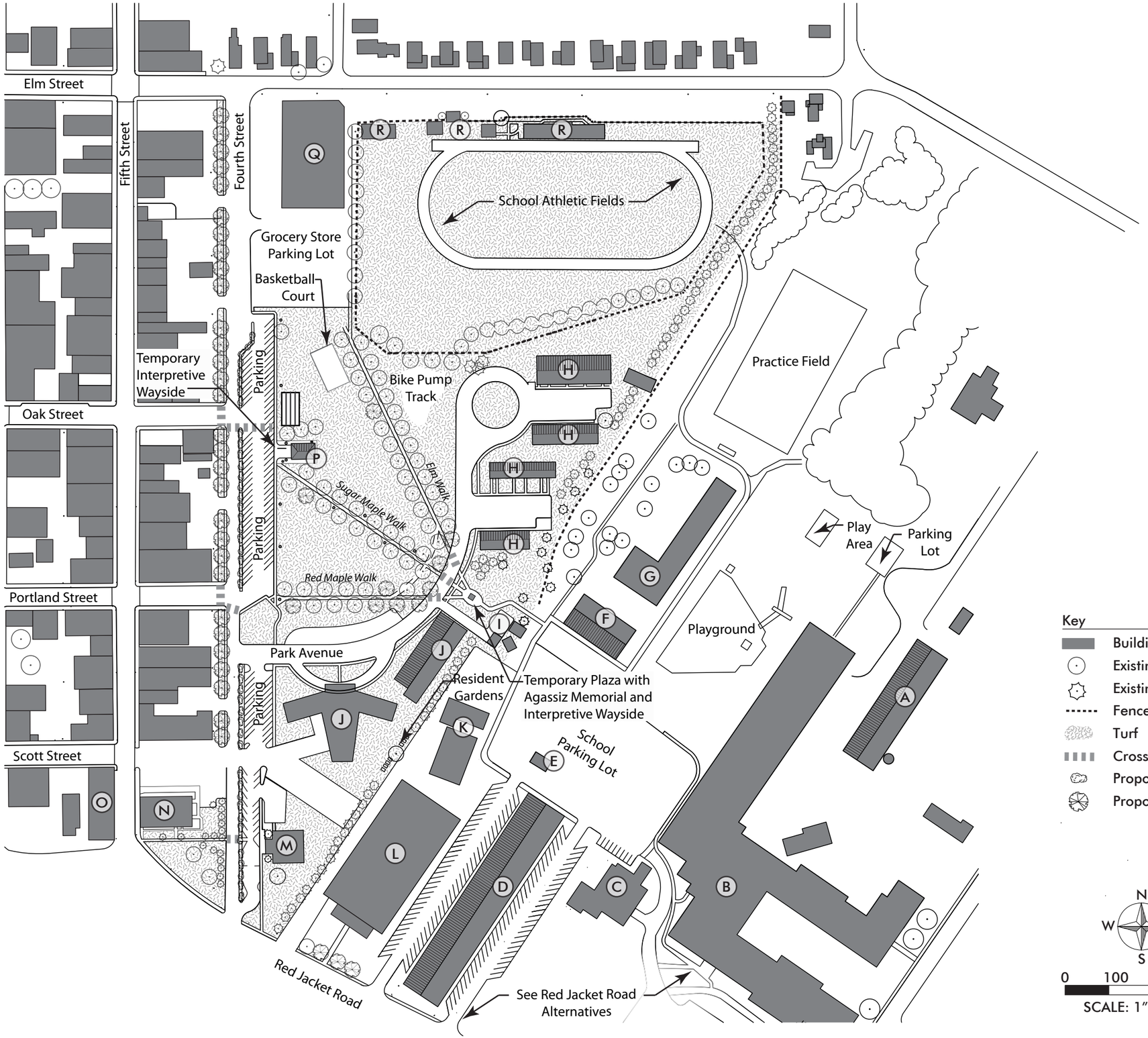
Calumet Unit

Keweenaw National Historical Park

Cultural Landscape Report & Environmental Assessment

Agassiz Park Rehabilitation Recommended Phase One Treatment

Enhance Agassiz Park and Retain Existing Uses



Legend

- (A) Superior Boiler House
- (B) C-L-K Schools
- (C) C & H Gear House
- (D) C & H Warehouse #2
- (E) C & H Powder House
- (F) C & H Dry House
- (G) C & H Drill Shop
- (H) Park Avenue Townhouses
- (I) Sheds (Housing Commission)
- (J) Calumet Housing Commission Park Avenue Apartments
- (K) C-L-K School Sheds
- (L) The Colosseum
- (M) Farmers and Merchants Mutual Fire Insurance Company
- (N) KNHP Visitor Center (Union Building)
- (O) Keweenaw Heritage Center (St. Anne's)
- (P) Restrooms
- (Q) Grocery Store
- (R) C-L-K Schools Stadium and Outbuildings

Key

- Buildings
- Existing Canopy Tree
- Existing Evergreen Tree
- Fence
- Turf
- Crosswalk
- Proposed Small Shrub
- Proposed Canopy Tree

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SCALE: 1" = 200'

Created/Revised

September 2012

QUINN EVANS ARCHITECTS

Figure V-15

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APPENDIX A:
TREATMENT ALTERNATIVES

Note: Appendix A is provided in digital format on the enclosed compact disk.

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APPENDIX B:
IMPACTS FROM TREATMENT ALTERNATIVES / ENVIRONMENTAL CONSEQUENCES

Note: Appendix B is provided in digital format on the enclosed compact disk.

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APPENDIX C:
CONSULTATION & COORDINATION

Note: Appendix C is provided in digital format on the enclosed compact disk.

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