

Chapter VIII: Implementation

Overview

This chapter provides project statements to accomplish the Recommended Treatment Alternative for the cultural landscapes within the Quincy Unit of Keweenaw National Historical Park. The order of the projects as they are presented does not imply a level of importance or suggest a sequence for implementation, unless noted in the project statements. Locations of selected implementation projects are illustrated in Figure 8-1. Locations of management recommendations related to vegetation are illustrated in Figure 8-2.

Project A: Preserve Historic Structures in the Quincy Unit

- **Project A-1:** Consider completing the List of Classified Structures and Cultural Landscapes Inventory for the Quincy Unit. Although most of these resources are not owned by the National Park Service, their conditions need to be assessed and understood to ensure that primary resources are not lost due to neglect. Entering these resources into the database, even the shadow database, will help resource managers keep track of their conditions on a regular basis. This project would include having a contractor conduct fieldwork, research, and analysis and prepare the Cultural Landscapes Inventory and List of Classified Structures for historic resources within the Quincy Unit in three categories: resources within the Historic Industrial Core, historic industrial resources outside the Historic Industrial Core, and resources related to Historic Housing Locations.
- **Project A-2:** Complete an archaeological inventory and evaluation of select resources for the Quincy Unit.
- **Project A-3:** Prepare Historic Structures Reports for significant structures within the Historic Industrial Core owned by the NPS or partners including: Captain's Office, Supply House, Oil House, No.2 Shaft-Rockhouse, Old No.2 Hoist House, Martin House and Outbuilding, No. 2 Hoist Houses, No. 5 Boiler Plant, Ruin of Diamond Drill core House, Remnant of Compressor Building, Remnant of No. 4 Boiler House, Remnant of No.4 Hoist House, Remnant of No.7 Boiler House, Quincy & Torch Lake R.R. Water Tank, Remnant of Engine House, Dryhouse Foundation, the Mine Captain's Office, buildings at the Former Miner's Residences Area, and former miner's residence in Limerick that is owned by the Quincy Mine Hoist Association.
- **Project A-4:** Prepare Historic Structures Reports for significant structures within Historic Housing Locations as determined through investigations of these areas related to preparing the List of Classified Structures (LCS) and Cultural Landscapes Inventory (CLI) for the Historic Housing Locations. This project should be undertaken only after Project A-1 has been completed.
- **Project A-5:** Prepare a combined Historic Structures Report and Cultural Landscape Report for the Quincy Smelting Works.

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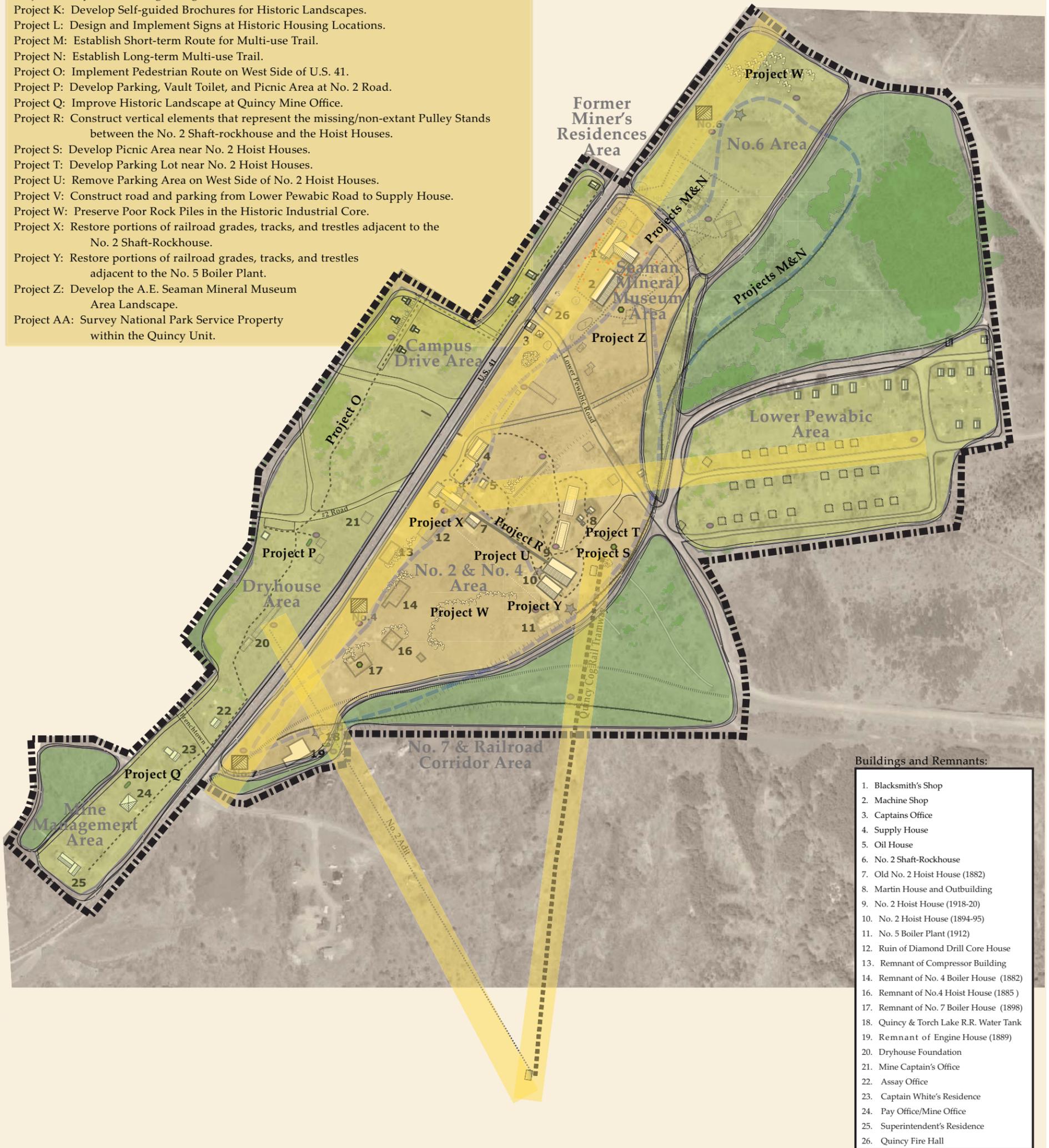
Figure 8- 1: Locations of Selected Implementation Projects

IMPLEMENTATION PROJECT TITLES:

- Project A: Preserve Historic Structures in the Quincy Unit.
- Project A-1: Complete LCS and CLI for the Quincy Unit.
- Project A-2: Complete an archaeological inventory and evaluation for the Quincy Unit.
- Project A-3: Prepare Historic Structures Reports for buildings in the Historic Industrial Core.
- Project A-4: Prepare Historic Structures Reports for buildings in Historic Housing Locations.
- Project A-5: Prepare combined Historic Structures and Cultural Landscape Report for the Quincy Smelting Works.
- Project A-6: In short-term stabilize and preserve significant historic structures within the Historic Industrial Core.
- Project B: Planning to Preserve Existing Significant Views by Influencing New Development.
- Project C: Establish View Corridor to Interpret the No. 2 Adit Location.
- Project D: Establish and Maintain View along the Pewabic Lode.
- Project E: Establish and Maintain View from Lower Pewabic to the No. 2 Area.
- Project F: Widen and Maintain View Corridor at Cog Tram Route.
- Project G: Removal of Woody Vegetation in the Foreground Vegetation Management Zone.
- Project H: Removal of Woody Vegetation in the Middleground Vegetation Management Zone.
- Project I: Quincy Mine Historic Landscape Blitz.
- Project J: Wayside Planning, Design, Fabrication and Installation.
- Project K: Develop Self-guided Brochures for Historic Landscapes.
- Project L: Design and Implement Signs at Historic Housing Locations.
- Project M: Establish Short-term Route for Multi-use Trail.
- Project N: Establish Long-term Multi-use Trail.
- Project O: Implement Pedestrian Route on West Side of U.S. 41.
- Project P: Develop Parking, Vault Toilet, and Picnic Area at No. 2 Road.
- Project Q: Improve Historic Landscape at Quincy Mine Office.
- Project R: Construct vertical elements that represent the missing/non-extant Pulley Stands between the No. 2 Shaft-rockhouse and the Hoist Houses.
- Project S: Develop Picnic Area near No. 2 Hoist Houses.
- Project T: Develop Parking Lot near No. 2 Hoist Houses.
- Project U: Remove Parking Area on West Side of No. 2 Hoist Houses.
- Project V: Construct road and parking from Lower Pewabic Road to Supply House.
- Project W: Preserve Poor Rock Piles in the Historic Industrial Core.
- Project X: Restore portions of railroad grades, tracks, and trestles adjacent to the No. 2 Shaft-Rockhouse.
- Project Y: Restore portions of railroad grades, tracks, and trestles adjacent to the No. 5 Boiler Plant.
- Project Z: Develop the A.E. Seaman Mineral Museum Area Landscape.
- Project AA: Survey National Park Service Property within the Quincy Unit.

Legend

	Historic Industrial Core Boundary		Conceptual Pedestrian Route
	Extant Historic Building		Historic Railroad Grade
	Remnant of Historic Building		Extant Railroad Track
	Contemporary/Modified Building		Vegetation
	Foreground Vegetation Management Zone		Rock Piles
	Middleground Vegetation Management Zone		Cog Rail Tramway
	Background Vegetation Management Zone		No. 6 Mine Shaft Location
	Selected View Vegetation Management Zone		Artifact pile
	Conceptual Route for Visitor Tram and Stops		Conceptual location for overlook or interpretive wayside



- Buildings and Remnants:**
1. Blacksmith's Shop
 2. Machine Shop
 3. Captains Office
 4. Supply House
 5. Oil House
 6. No. 2 Shaft-Rockhouse
 7. Old No. 2 Hoist House (1882)
 8. Martin House and Outbuilding
 9. No. 2 Hoist House (1918-20)
 10. No. 2 Hoist House (1894-95)
 11. No. 5 Boiler Plant (1912)
 12. Ruin of Diamond Drill Core House
 13. Remnant of Compressor Building
 14. Remnant of No. 4 Boiler House (1882)
 16. Remnant of No.4 Hoist House (1885)
 17. Remnant of No. 7 Boiler House (1898)
 18. Quincy & Torch Lake R.R. Water Tank
 19. Remnant of Engine House (1889)
 20. Dryhouse Foundation
 21. Mine Captain's Office
 22. Assay Office
 23. Captain White's Residence
 24. Pay Office/Mine Office
 25. Superintendent's Residence
 26. Quincy Fire Hall

- Base Sources:**
1. Aerial photography, prepared for Keweenaw National Historical Park by Ayres Associates, Inc., of Madison, Wisconsin, May 2002.
 2. Eric M. Hanson, "Quincy Mining Company Maps," HAER Heritage, Conservation and Recreation Service, 1978.
 3. Land ownership information provided by Keweenaw National Historical Park.
 4. Larry Mishkar, "Land Use History and Archaeological Survey, Seaman Mineral Museum Project, Quincy Mine National Historic Landmark, Houghton County, Michigan," Industrial Archaeology Laboratory, Michigan Technological University, Houghton, Michigan, 2005.
 5. Period of Change Plans, Chapter II, Landscape History, Quincy Unit Cultural Landscape Report.
 6. Smithgroup and Hitch, Inc., "A.E. Seaman Mineral Museum Master Plan Report," 20 January 2006.

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Project A-6: Until the Historic Structures Reports can be completed and their recommended treatment implemented, stabilize and preserve significant historic structures within the Historic Industrial Core. This includes a seasonal work crew with one skilled mason and four laborers, materials and equipment for six months. This project would need to recur each year until the end treatments recommended in the Historic Structures Reports are completed.

Project B: Planning to Preserve Existing Significant Views by Influencing New Development

- Work with property owners and local municipalities as indicated in Chapter VI to preserve the views indicated in Figure 6-2. This is a planning project that includes working with property owners and local municipalities to develop practical design and implementation guidelines to help preserve significant views. The project would involve meetings with local representatives, field inventory, development of preliminary recommendations, a project workshop to refine the recommendations and ensure that they are feasible, and preparation of the final guidelines in a narrative report format with supporting graphics.

Projects Related to Vegetation Management

Locations of management recommendations related to vegetation are illustrated in Figure 8-2.

Project C: Establish View Corridor to Interpret No. 2 Adit Location

- **Project C-1:** Within the Historic Industrial Core remove woody vegetation to establish view corridor to interpret the location of the No. 2 Adit.

- **Project C-2:** Beyond the Historic Industrial Core work with property owners to establish and maintain the view corridor to interpret the location of the No. 2 Adit.

- Establish view corridor.
 - Prior to start of project, conduct compliance addressing archaeological resources within the project area.
 - Photograph the site before and after removal of vegetation to inform/guide future maintenance activities.
 - Individual(s) with in-depth understanding of the historic views and the current conditions of the site to walk the view corridor and identify woody plants to be removed or pruned by flagging or otherwise marking these elements. Avoid removing plants in areas that may be subject to erosion.
 - Vegetation removal crew to remove marked vegetation.
 - Apply approved herbicide to cut stumps to discourage continued growth. Follow guidelines for herbicide application provided in the Weed Control Methods Handbook.
 - Remove cut vegetation.
 - If equipment and an acceptable location are available, consider shredding and composting the materials for use by the local community.
 - Alternately, if an acceptable burn pile location is nearby, stockpile materials and burn as soon as possible. If no acceptable burn pile location is nearby, remove the materials from the site to avoid creating a fire hazard.
 - Return to cut vegetation once a year.
 - If volunteer crews are used provide a training session to ensure that crew members understand approved removal techniques, safety procedures, and the importance of avoiding impacts to historic resources.

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Figure 8- 2: Treatment Alternative C: Vegetation Management Recommendations

Project G: Foreground Vegetation Management Zone:

Remove all woody vegetation throughout this zone to reveal historic landscape features, increase representation of historic landscape character, open views, and preserve historic buildings and artifacts.

Project H: Middleground Vegetation Management Zone:

Remove selected woody vegetation throughout this zone to reveal selected historic landscape features, open views, and preserve historic buildings and artifacts. Work with residents and property owners to determine an appropriate approach.

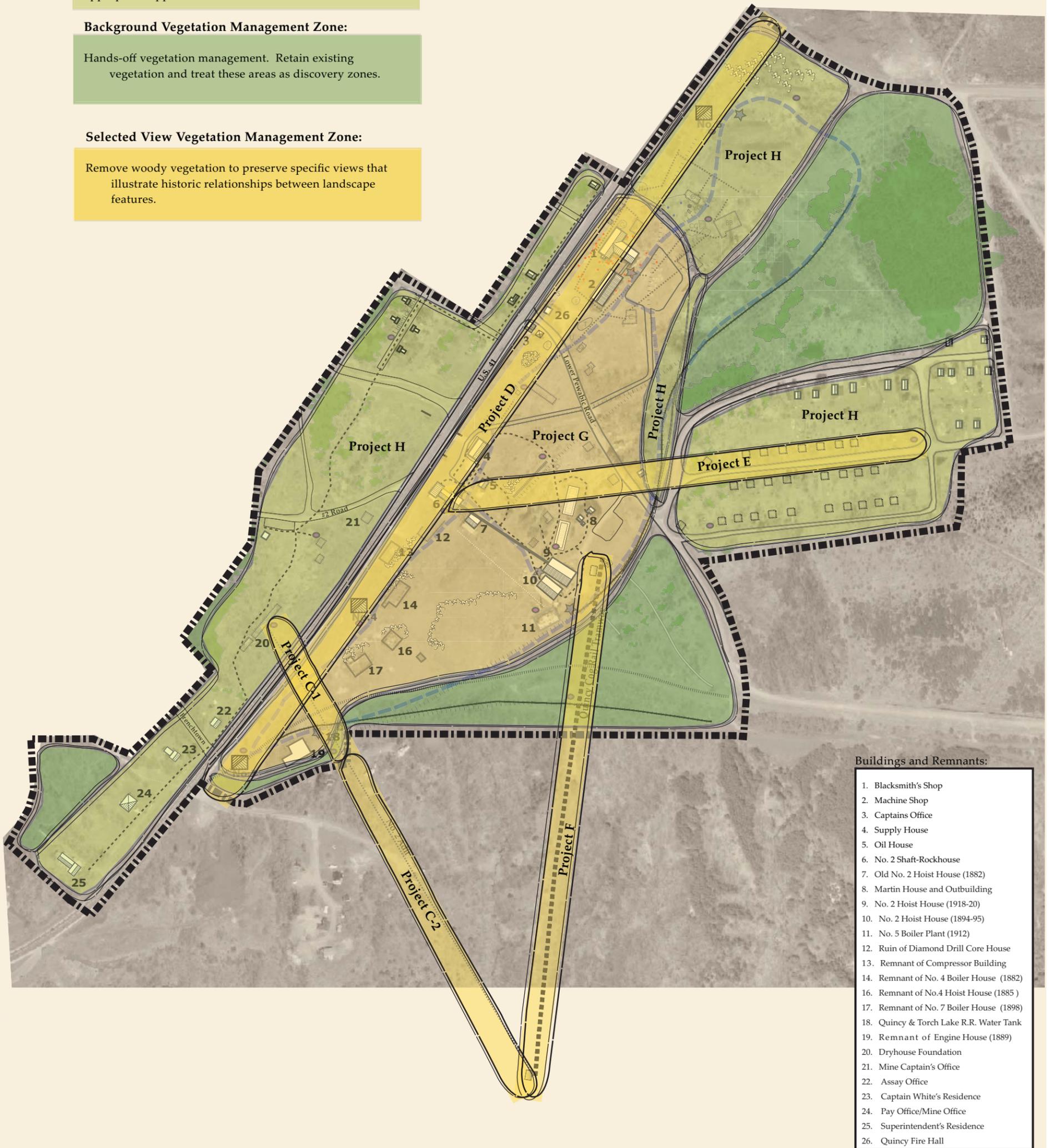
Background Vegetation Management Zone:

Hands-off vegetation management. Retain existing vegetation and treat these areas as discovery zones.

Selected View Vegetation Management Zone:

Remove woody vegetation to preserve specific views that illustrate historic relationships between landscape features.

Legend			
	Historic Industrial Core Boundary		Conceptual Pedestrian Route
	Extant Historic Building		Historic Railroad Grade
	Remnant of Historic Building		Extant Railroad Track
	Contemporary/Modified Building		Vegetation
	Foreground Vegetation Management Zone		Rock Piles
	Middleground Vegetation Management Zone		Cog Rail Tramway
	Background Vegetation Management Zone		Mine Shaft Location
	Selected View Vegetation Management Zone		Artifact pile
	Conceptual Route for Visitor Tram and Stops		Conceptual location for overlook or interpretive wayside



Base Sources:

1. Aerial photography, prepared for Keweenaw National Historical Park by Ayres Associates, Inc., of Madison, Wisconsin, May 2002.
2. Eric M. Hanson, "Quincy Mining Company Maps," HAER Heritage, Conservation and Recreation Service, 1978.
3. Land ownership information provided by Keweenaw National Historical Park.
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6. Smithgroup and Hitch, Inc., "A.E. Seaman Mineral Museum Master Plan Report," 20 January 2006.

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Project D: Establish and Maintain View along the Pewabic Lode

- Establish view corridor.
 - Prior to start of project, conduct compliance addressing archaeological resources within the project area.
 - Photograph the site before and after removal of vegetation to inform/guide future maintenance activities.
 - Individual(s) with in-depth understanding of the historic views and the current conditions of the site to walk the view corridor and identify woody plants to be removed or pruned by flagging or otherwise marking these elements. Avoid removing plants in areas that may be subject to erosion.
 - Vegetation removal crew to remove marked vegetation.
 - Apply approved herbicide to cut stumps to discourage continued growth. Follow guidelines for herbicide application provided in the Weed Control Methods Handbook.
 - Remove cut vegetation.
 - If equipment and an acceptable location are available, consider shredding and composting the materials for use by the local community.
 - Alternately, if an acceptable burn pile location is nearby, stockpile materials and burn as soon as possible. If no acceptable burn pile location is nearby, remove the materials from the site to avoid creating a fire hazard.
 - Return to cut vegetation once a year.
 - If volunteer crews are used provide a training session to ensure that crew members understand approved removal techniques, safety procedures, and the importance of avoiding impacts to historic resources.

Project E: Establish and Maintain View from Lower Pewabic to the No. 2 Area

- Establish view corridor.
 - Prior to start of project, conduct compliance addressing archaeological resources within the project area.
 - Photograph the site before and after removal of vegetation to inform/guide future maintenance activities.
 - Individual(s) with in-depth understanding of the historic views and the current conditions of the site to walk the view corridor and identify woody plants to be removed or pruned by flagging or otherwise marking these elements. Avoid removing plants in areas that may be subject to erosion.
 - Vegetation removal crew to remove marked vegetation.
 - Apply approved herbicide to cut stumps to discourage continued growth. Follow guidelines for herbicide application provided in the Weed Control Methods Handbook.¹
 - Remove cut vegetation.
 - If equipment and an acceptable location are available, consider shredding and composting the materials for use by the local community.
 - Alternately, if an acceptable burn pile location is nearby, stockpile materials and burn as soon as possible. If no acceptable burn pile location is nearby, remove the materials from the site to avoid creating a fire hazard.
 - Return to cut vegetation once a year.
 - If volunteer crews are used provide a training session to ensure that crew members understand approved removal techniques, safety procedures, and the importance of avoiding impacts to historic resources.

¹ Tu, et. al., "Weed Control Methods Handbook," The Nature Conservancy, 2001.

Project F: Widen and maintain view corridor at cog tram route

- This corridor is already maintained for the cog tram route. Work with the QMHA to widen the cleared corridor to expand views for pedestrians within the Historic Industrial Core.
 - Prior to start of project, conduct compliance addressing archaeological resources within the project area.
 - If volunteer crews are used provide a training session to ensure that crew members understand approved removal techniques, safety procedures, and the importance of avoiding impacts to historic resources.

Project G: Removal of Woody Vegetation in the Foreground Vegetation Management Zone of the Historic Industrial Core

- Prior to start of project, conduct compliance addressing archaeological resources within the project area.
- Photograph the site before and after removal of vegetation to inform/ guide future maintenance activities.
- Individual(s) with in-depth understanding of the historic views and the current conditions of the site to walk the Foreground Vegetation Management Zone and identify woody plants to be removed or pruned by flagging or otherwise marking these elements. Avoid removing plants in areas that may be subject to erosion.
- Vegetation removal crew to remove marked vegetation.
- Apply approved herbicide to cut stumps to discourage continued growth. Follow guidelines for herbicide application provided the Weed Control Methods Handbook.²
- Remove cut vegetation.
 - If equipment and an acceptable location are available, consider shredding and composting the materials for use by the local community.
 - Alternately, if an acceptable burn pile location is nearby, stockpile materials and burn as soon as possible. If no acceptable burn pile location is nearby, remove the materials from the site to avoid creating a fire hazard.
- Return to cut vegetation once a year.
- If volunteer crews are used provide a training session to ensure that crew members understand approved removal techniques, safety procedures, and the importance of avoiding impacts to historic resources.

² Ibid.

Project H: Removal of Woody Vegetation in the Middleground Vegetation Management Zone of the Historic Industrial Core

- Prior to start of project, conduct compliance addressing archaeological resources within the project area.
- Photograph the site before and after removal of vegetation to inform/guide future maintenance activities.
- Individual(s) with in-depth understanding of the historic views and the current conditions of the site to walk the Middleground Vegetation Management Zone and identify woody plants to be removed or pruned by flagging or otherwise marking these elements. Avoid removing plants in areas that may be subject to erosion.
- Vegetation removal crew to remove marked vegetation.
- Apply approved herbicide to cut stumps to discourage continued growth. Follow guidelines for herbicide application provided the Weed Control Methods Handbook.³
- Remove cut vegetation.
 - If equipment and an acceptable location are available, consider shredding and composting the materials for use by the local community.
 - Alternately, if an acceptable burn pile location is nearby, stockpile materials and burn as soon as possible. If no acceptable burn pile location is nearby, remove the materials from the site to avoid creating a fire hazard.
- Return to cut vegetation once a year.
- If volunteer crews are used provide a training session to ensure that crew members understand approved removal techniques, safety procedures, and the importance of avoiding impacts to historic resources.

³ Ibid.

Project I: Quincy Mine Historic Landscape Blitz

- Prepare a program and plan based on the Ellsworth Rock Gardens Blitz model to engage professional volunteers in hands-on landscape preservation activities on an annual basis. The Ellsworth Rock Gardens are located within the boundaries of Voyageurs National Park in Northern Minnesota. The project model requires one individual to plan and organize the session and a group of professional volunteers to accomplish the hands-on work. This includes identifying projects to be accomplished, identifying people with skills to accomplish the tasks, ensuring that necessary site preparations are made before the crew arrives, arranging for necessary equipment, tools, and supplies, and coordinating schedules so that projects can be accomplished in a condensed time period.
- The Quincy Unit is in a location that is much easier to access than Ellsworth Rock Garden, and there are many people in the local community that might be tapped to participate in this type of activity. In addition to addressing historic landscape projects, this approach could help to build a strong constituency in the area for advocating for the historic resources. This approach could help to establish long-term volunteer crews at a minimum cost.
- Hire a professional to organize and set up the program for the first season, with ten volunteers for one week.
- If volunteer crews are used, provide a training session to ensure that crew members understand approved removal techniques, safety procedures, and the importance of avoiding impacts to historic resources.

Projects Related to Interpretation of the Historic Landscape

Project J: Wayside Planning, Design, Fabrication and Installation

- The Preferred treatment includes locations and suggestions for content for seventeen wayside exhibits within the Historic Industrial Core. Eight additional waysides will be designed and located based on the wayside plan. A total of twenty-five waysides are included in this estimate.
- Park Chief of Interpretation and Education to work with Harpers Ferry Design Center and park landscape architect to develop a system of waysides to be installed along the proposed accessible trail.
- Fabricate the waysides.
- Install the waysides.

Project K: Develop Self-guided Brochures for Historic Landscapes

- Park Interpretation and Education staff to work with consultants to develop self-guided brochures for historic landscapes with the following possible topics:
 - Historic Housing Locations
 - West side of U.S. 41
 - No. 2 and No. 4 Area
 - Overall Historic Industrial Core
 - Geology of Quincy Mining Company Property
 - Overview of Quincy Mining Company Cultural Landscape
 - Poor Rock Piles
 - Quincy Smelting Works

These topics may be combined into one or more brochures, as determined appropriate by the park's Interpretation and Education staff.

Project L: Design and Implement signs at Historic Housing Locations

- Design professional, simple, small scale signs to identify the mine locations (see Figure 8-3) and to identify the Historic Housing Locations (one sign at each of the eleven locations).
- Coordinate with residents and land owners regarding the signs.
- Fabricate the signs.
- Install the signs.



Figure 8- 3: Example of simple sign design – the signs at historic housing locations should be improved versions of this example.

Projects Related to the Historic Industrial Core

Project M: Establish short-term route for multi-use trail

- Establish trail route on site.
 - Prior to start of project, conduct compliance addressing archaeological resources within the project area.
 - Photograph the site before and after removal of vegetation to inform/guide future maintenance activities.
 - Individual(s) with in-depth understanding of the historic landscape to walk the trail route and flag the route, locations of hubs and key links, areas that require grading or alterations to surface material to provide a rough walking trail in the short-term, and vegetation to be pruned or removed.
 - Vegetation removal crew to remove marked vegetation.
 - Apply approved herbicide to cut stumps to discourage continued growth. Follow guidelines for herbicide application provided the Weed Control Methods Handbook.
 - Remove cut vegetation.
 - If equipment and an acceptable location are available, consider shredding and composting the materials for use by the local community.
 - Alternately, if an acceptable burn pile location is nearby, stockpile materials and burn as soon as possible. If no acceptable burn pile location is nearby, remove the materials from the site to avoid creating a fire hazard.
 - Construct short-term pedestrian route (the trail route is approximately 4,400' long and 8' wide)
 - Clear and grade trail route.
 - Install 3" gravel base course along trail route.
 - Install 4" crushed fines of stone along trail route.
 - Reinforce trail edge in areas where terrain slopes (maximum 800 linear feet)

Project N: Establish long-term multi-use trail over short-term base

- Establish universally accessible multi-use route on site (the trail route is approximately 4,400' long and 8' wide).
- Harden the route surface utilizing concrete with exposed aggregate surface. Utilize aggregate that matches the site rock material in color. Apply a retardant to the surface of the aggregate and finish concrete to emulate a gravel appearance.

Project O: Implement pedestrian route on west side of U.S. 41

- Prior to start of project, conduct compliance addressing archaeological resources within the project area.
- Consultant to work with local authorities and property owners to obtain necessary permission and/or permits for project.
- The majority of the route will be identified as a route along the existing grade.
- Flag the route for the trail (approximately 2,200 linear feet).
- Alter grades where necessary to avoid erosion problems.
- Develop interpretive brochure for self-guided exploration of the area on the west side of U.S. 41 (part of Project K).
- Work with MDOT to develop an acceptable method to mark the former streetcar route.
- Selectively prune vegetation along the alignment of the former streetcar route.

Project P: Develop Parking, Vault Toilet, and Picnic Area at No. 2 Road

- Establish accessible parking, vault toilet, picnic area and trail on site.
 - Prior to start of project, conduct compliance addressing archaeological resources within the project area.
 - Individual(s) with in-depth understanding of the historic landscape to flag the locations of site elements and areas that require grading to provide an accessible route.
 - Vegetation removal crew to remove marked vegetation.
 - Apply approved herbicide to cut stumps to discourage continued growth. Follow guidelines for herbicide application provided the Weed Control Methods Handbook.
 - Remove cut vegetation.
 - If equipment and an acceptable location are available, consider shredding and composting the materials for use by the local community.
 - Alternately, if an acceptable burn pile location is nearby, stockpile materials and burn as soon as possible. If no acceptable burn pile location is nearby, remove the materials from the site to avoid creating a fire hazard.
 - Grade and pave a universally accessible trail from the parking area to the vault toilet, picnic area and Dryhouse foundation using exposed aggregate concrete (approximately 200' x 5' = 1,000s.f.).
 - Clear and grade trail route.
 - Apply 6" gravel base course along trail route.
 - Install concrete with exposed aggregate surface. Utilize aggregate that matches the site rock material in color. Apply a retardant to the surface of the aggregate and finish concrete to emulate a gravel appearance.
 - Implement asphalt parking area for eight cars (approximately 1,280 square feet)
 - Construct a vault toilet building that is compatible with the historic character of the area. See Figure 8.4.
 - Develop a small picnic area including:
 - 3 picnic tables

- 1 Trash receptacle
- Views of No.2 and No.4 Area (included in projects C, D, G, and H)
- Wayside with interpretive and directional information (included in wayside Project J)



Figure 8- 4: Example of building style for Vault Toilet building.

Project Q: Improve Historic Landscape at Quincy Mine Office

- Prior to start of project, conduct compliance addressing archaeological resources within the project area.
- Provide barrier free access in consultation with the HSR being developed.
- Improve foundation drainage.
- Remove non-historic features, restore lawn, reconstruct front fence and side yard fences, restore stone curb/wall, reconstruct front walk, resurface historic road trace, and manage vegetation.

Project R: Construct vertical elements that represent the missing/non-extant Pulley Stands between the No. 2 Shaft-rockhouse and the Hoist Houses

- Prior to start of project, conduct compliance addressing archaeological resources within the project area.
- Individual(s) with in-depth understanding of the historic landscape to flag the locations of site elements and areas that require grading to provide an accessible route.
- Prepare site including miscellaneous demolition.
- Construct reinforced concrete footings.
- Construct five towers of structural steel.
- Paint steel towers.

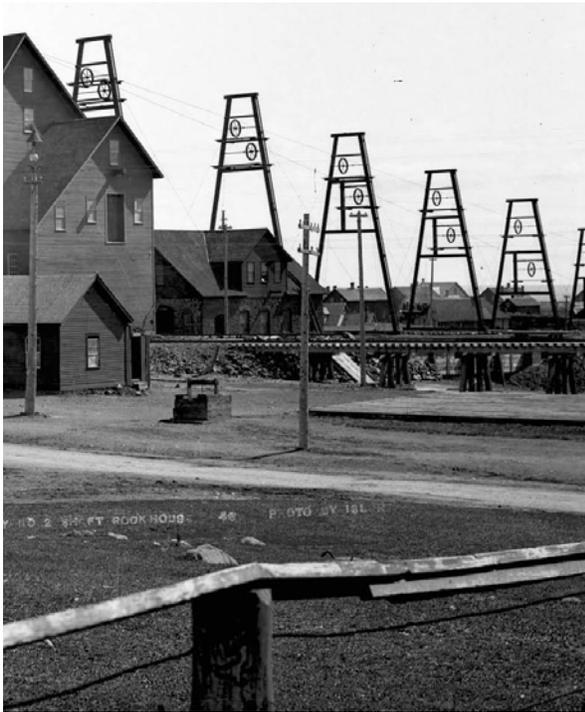


Figure 8- 5: Example of an in-tact line of pulley stands –restoration of the pulley stands at the No. 2 site would help visitors visualize the scale of the historic operations. Image is of the Quincy No. 2 rockhouse in 1894. (source: photo courtesy of the MTU Archives)

Project S: Develop Picnic Area near No. 2 Hoist Houses

- Establish a picnic area near the No. 2 Hoist Houses.
 - Prior to start of project, conduct compliance addressing archaeological resources within the project area.
 - Individual(s) with in-depth understanding of the historic landscape to flag the locations of site elements and areas that require grading to provide an accessible route.
 - Vegetation removal crew to remove marked vegetation.
 - Apply approved herbicide to cut stumps to discourage continued growth. Follow guidelines for herbicide application provided the Weed Control Methods Handbook.
 - Remove cut vegetation.
 - If equipment and an acceptable location are available, consider shredding and composting the materials for use by the local community.
 - Alternately, if an acceptable burn pile location is nearby, stockpile materials and burn as soon as possible. If no acceptable burn pile location is nearby, remove the materials from the site to avoid creating a fire hazard.
- Grade and pave a universally accessible trail from the parking area to the picnic area using exposed aggregate concrete (approximately 25' x 5' =125 s.f.). Also grade and pave an accessible portion of the picnic area (approximately 25' x 25' = 625 s.f.)
 - Clear and grade trail route and accessible picnic area.
 - Apply 6" gravel base course along trail route and accessible picnic area.
 - Install concrete with exposed aggregate surface. Utilize aggregate that matches the site rock material in color. Apply a retardant to the surface of the aggregate to emulate a gravel appearance.
- Develop a small picnic area including:
 - 6 picnic tables
 - 2 Trash receptacle
 - Views of No.2 and No.4 Area (included in projects C, D, G, and H)

Project T: Develop Parking Lot near No. 2 Hoist Houses

- Prior to start of project, conduct compliance addressing archaeological resources within the project area.
- Individual(s) with in-depth understanding of the historic landscape to flag the approximate locations of the edges of the parking lot and vegetation to be removed.
- Vegetation removal crew to remove marked vegetation.
- Apply approved herbicide to cut stumps to discourage continued growth. Follow guidelines for herbicide application provided the Weed Control Methods Handbook.
- Remove cut vegetation.
 - If equipment and an acceptable location are available, consider shredding and composting the materials for use by the local community.
 - Alternately, if an acceptable burn pile location is nearby, stockpile materials and burn as soon as possible. If no acceptable burn pile location is nearby, remove the materials from the site to avoid creating a fire hazard.
- Grade and pave the parking lot.
 - Clear and grade trail route and accessible picnic area.
 - Apply gravel base course along trail route and accessible picnic area.
 - Install concrete with exposed aggregate surface. Utilize aggregate that matches the site rock material in color. Apply a retardant to the surface of the aggregate to emulate a gravel appearance.

Project U: Remove parking area on west side of No. 2 Hoist Houses

- Adjust grades to discourage vehicles from using this route.

Project V: Construct road and parking from Lower Pewabic Road to Supply House

- Prior to start of project, conduct compliance addressing archaeological resources within the project area.
- Individual(s) with in-depth understanding of the historic landscape to flag the approximate locations of the edges of the parking lot and vegetation to be removed.
- Remove existing gravel road connecting to U.S. 41 by grading area to discourage vehicles from using this route. Remove curb cut (add curb, approximately 50 linear feet) and paved access drive (remove approximately 400 s.f. pavement).
- Vegetation removal crew to remove marked vegetation.
- Apply approved herbicide to cut stumps to discourage continued growth. Follow guidelines for herbicide application provided the Weed Control Methods Handbook.
- Remove cut vegetation.
 - If equipment and an acceptable location are available, consider shredding and composting the materials for use by the local community.
 - Alternately, if an acceptable burn pile location is nearby, stockpile materials and burn as soon as possible. If no acceptable burn pile location is nearby, remove the materials from the site to avoid creating a fire hazard.
- Grade and pave road with gravel matching that present on the site. Approximately 300' x 16' = 4,800 s.f. surface, 6" base and 4" surface course.
- No extra pavement needed at parking lot.

Project W: Preserve Poor Rock Piles in the Historic Industrial Core

- Remove woody vegetation to open views to poor rock piles (included in vegetation management project).
- Patrol rock piles to discourage mining.
- Post signs to discourage collection of artifacts and specimens.
- Design professional, simple, small scale signs to identify the mine locations (see Figure 8-3).
- Coordinate with residents and land owners regarding the signs.
- Fabricate the signs.
- Install the signs.



Figure 8- 6: Poor Rock Piles viewed in a Keweenaw County Postcard (source: photo courtesy of the MTU Archives, acquired from Scott See, 187).

Project X: Restore portions of railroad grades, tracks, and trestles adjacent to the No. 2 Shaft-Rockhouse

- Conduct research to determine details of historic features in this area.
- Develop design documents to ensure appropriate installation.
- Conduct review with SHPO and MWAC.
- Implement the design.



Figure 8-7: Example of location where a portion of the railroad and associated structures could be partially restored to interpret the movement of materials through the landscape. (source: photo courtesy of the MTU Archives)

Project Y: Restore portions of railroad grades, tracks, and trestles adjacent to the No. 5 Boiler Plant

- Conduct research to determine details of historic features in this area.
- Develop design documents to ensure appropriate installation.
- Conduct review with SHPO and MWAC.
- Implement the design.



Figure 8- 8: Remnants of railroad trestle at No. 5 Boiler Plant, 2008 (source: QE | A)

Project Z: Develop the A.E. Seaman Mineral Museum Area Landscape

- A.E. Seaman Mineral Museum to develop a parking area based on their Master Plan for the site.
- Picnic Area:
 - Grade and pave a universally accessible trail from the parking area to the picnic area (approximately 25' x 5' =125 s.f.).
 - Develop a group picnic area including:
 - 6 picnic tables
 - 2 Trash receptacles

Project AA: Survey National Park Service Property within the Quincy Unit

- Survey to include land parcels in the Quincy Unit consisting of approximately 370 acres. The boundary survey will include deed research for the Quincy land parcels and the adjoining parcels and right of way research for U.S. 41 and the County Roads that establish parcel boundaries.
- Field Survey will locate and tie in reference section corners and establish existing roadway alignments.
- Parcel corners will be calculated based on section corner and reference monuments, roads and road rights of way and the existing Quincy parcel and adjoining parcel deeds.
- Eighty capped rebar monuments will be set to mark the corners of the Quincy land parcels.
- CADD files will be prepared for the boundary surveys of the Quincy Unit land parcels. The CADD drawings will range in scale from 1"=50' to 1" = 200' depending on the size of the parcels and the detail needed. One set of electronic survey files and four hard bound copies of the surveys will be provided.

Project BB: Provide Vertical Elements at Historic Shaft Locations

- Erect poles at each shaft location to provide vertical cues to help visitors visualize the historic scale of the mining operations on the landscape.

Project CC: Provide Assistance and Guidance to Landowners to encourage compatible development

- Work with property owners and local municipalities to discourage development that would be incompatible with the historic character of the Quincy Unit. Encourage compatible development where appropriate. This is a planning project that includes working with property owners and local municipalities to develop practical design and implementation guidelines to help preserve historic landscape characteristics. The project would involve meetings with local representatives, field inventory, development of preliminary recommendations, a project workshop to refine the recommendations and ensure that they are feasible, and preparation of the final guidelines in a narrative report format with supporting graphics.

Project DD: Work with MDOT to improve the Portage Lake Overlook

- Work with MDOT to improve the Portage Lake Overlook by collaborating on a design that improves signage, circulation, views, and site features.
- Evaluate the need for public restrooms and determine the feasibility of providing this service at the overlook.

Project EE: Develop an Archaeological Research and Education Program

- Park staff to work with the Midwest Archaeological Research Center to develop a program focused on archaeological research and education. This is a planning project.

Project FF: Provide a Picnic Table at the No.4 Area for Visitor Use

- Determine an appropriate location for an individual picnic table in the No. 4 Area.
- Prepare the surface under and around the location where the picnic table will be located.
- Purchase or fabricate and install the table.

Project GG: No.7 and RR Corridor

- Quincy Mine Hoist Association plans to restore the exterior of the Roundhouse/Enginehouse, service pits, track, wood floor, and install rolling stock exhibits.
- Coordinate planning at this site with the Quincy Mine Hoist Association.
- Prior to start of project, conduct compliance addressing archaeological resources within the project area.
- Individual(s) with in-depth understanding of the historic landscape to flag the locations for extending railroad tracks from the building and connecting to other tracks and the water tank. Also indicate areas where historic grades may be revealed and connections may be restored to the No. 2 and No. 4 area. Also indicate areas for vegetation removal to improve views between the No. 7 area and Quincy Hill along the alignment of the No. 2 Adit (included in Projects C-1 and C-2).
- Vegetation removal crew to remove marked vegetation.
- Apply approved herbicide to cut stumps to discourage continued growth. Follow guidelines for herbicide application provided the Weed Control Methods Handbook.
- Remove cut vegetation.
 - If equipment and an acceptable location are available, consider shredding and composting the materials for use by the local community.
 - Alternately, if an acceptable burn pile location is nearby, stockpile materials and burn as soon as possible. If no acceptable burn pile location is nearby, remove the materials from the site to avoid creating a fire hazard.
- Conduct light grading to prepare for implementation.
- Install tracks.
- Rehabilitate the water tank.
- Provide interpretive waysides at the Roundhouse/Enginehouse and at the No. 7 Shaft location (included in Project J).
- Develop interpretive brochures about this area (included in Project K).

Project HH: Interpret Underground Network of Drifts and Stopes

- Individual(s) with in-depth understanding of the historic landscape and the underground network to determine an appropriate approach to determine surface locations of underground features.
- Design, construct, and install small signs with key to underground features (consider including drift number and depth).
- Develop interpretive information about this area (included in Project K).

Project II: Interpret the View of Quincy Hill from the Waterfront in Houghton

- Work with Houghton representatives to determine an appropriate location for an interpretive wayside.
- Wayside design and construction included in Project J.

Project JJ: Develop a design palette for site amenities in the Quincy Unit.

- Park staff to work with consultants to develop a palette of site amenities including signs, picnic tables, trash receptacles, and other features that are compatible with the historic industrial character of the Quincy Unit.