



WALTON MARSH RAILROAD TIES

A PROJECT SURVEY BY COLIN FRYE

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The Walton Marsh Railroad Tie project involved the survey and study of six railroad ties discovered in and on the shoreline of Walton Marsh, located in Walton, Michigan.

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FIGURE LIST AND ACKNOWLEDGMENTS

Cover photo – Colin Frye

Figure 1 – Colin Frye

Figure 2 – Google Maps

Figure 3 – Google Maps

Figure 4 – Topozon.com

Figure 5 – Google Maps

Figure 6 – Google Maps

Figure 7 – Colin Frye

Figure 8 – Mark Worall collection

Figure 9 – JMW Jones

Figure 10 – Dr. Mark Holley

Figure 11 – Dr. Mark Holley

Figure 12 – Colin Frye

Figure 13 – Colin Frye

Figure 14 – Dr. Mark Holley

Figure 15 – Colin Frye

Figure 16 – Colin Frye

Figure 17 – Colin Frye

Figure 18 – Colin Frye

Figure 19 – Dale Berry

Figure 20 - Colin Frye

Figure 21- Colin Frye

Figure 22- Colin Frye

Figure 23- Wikipedia.com

Figure 24- Colin Frye

Figure 25- Colin Frye

Figure 26- Colin Frye

INTRODUCTION

This project was completed in accordance with NAS Part II under the instruction of Dr. Mark Holley of Northwestern Michigan College. The Walton Marsh Railroad Tie project involved the survey and study of seven railroad ties discovered in and on the shoreline of Walton Marsh, located in Walton, Michigan.

The reason this particular project was chosen was because of the author's interest in railroads and the logging industry, combined with the location's close proximity to his residence.

The project's participants included the author, Colin Frye; assistant, Keith Reinhardt; and Northwestern Michigan College instructor, Dr. Mark Holley.

This project was completed specifically for the NAS Part II course as a requirement to fulfill standards for class research.

The primary goals of this project were to 1) perform a site assessment survey; 2) position fix all railroad ties located at the site; 3) research and collect information on the railroad and marsh; and 4) identify the railroad ties and other surrounding artifacts.

The driving research question behind this project seeks to determine why there are currently several railroad ties lying at the foreshore of Walton Marsh, in Walton, MI.

LOCATION OF THE PROJECT

The location of Walton Marsh is approximately 8 miles north of Manton, Michigan and 6 miles southwest of Fife Lake, MI off of highway US131. The coordinates for this site are, 44.52066,-85.401774.

The site is located near Walton Junction, which was once a very busy railroad crossing. Further research indicates this was the junction of Grand Rapids & Indiana's Mackinaw and Traverse City branch. The Manistee and Northeastern railroads crossed the Grand Rapids and Indiana at this location as well. The site

MARSH PROJECT BEGINS

Through survey, research and study of the project site, the team attempted to determine the age and origin of the railroad ties, what they were used for, why they were at this location, and how they arrived there.



Figure 1: Railroad tie discovered several feet from shoreline.

revealed additional historical information about Walton Junction and the railroads of the past.

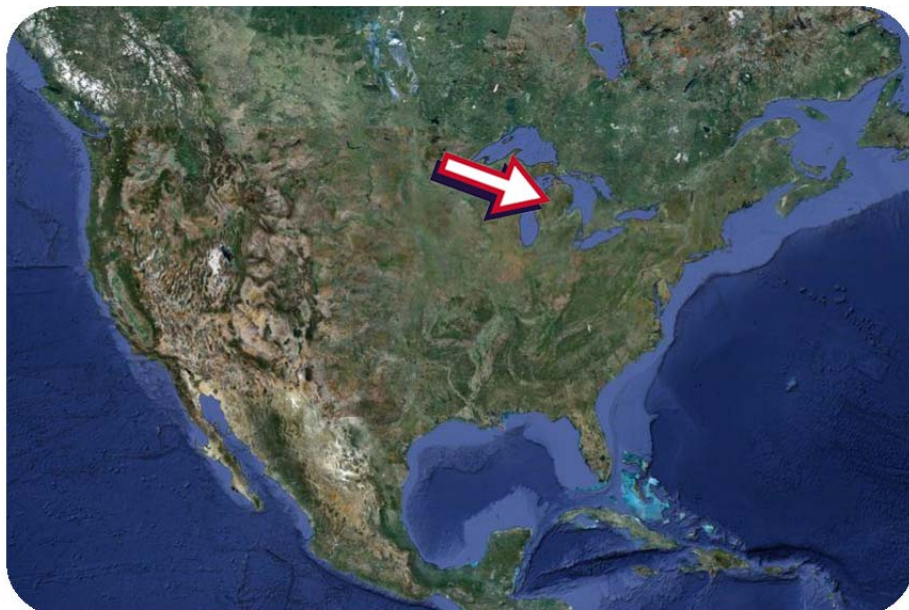


Figure 2: North America with arrow on location

SATELLITE VIEWS

Aerial views of Walton Junction are displayed at left. Google Maps satellite views provided the images shown displaying North America, and a closer view showing Michigan.

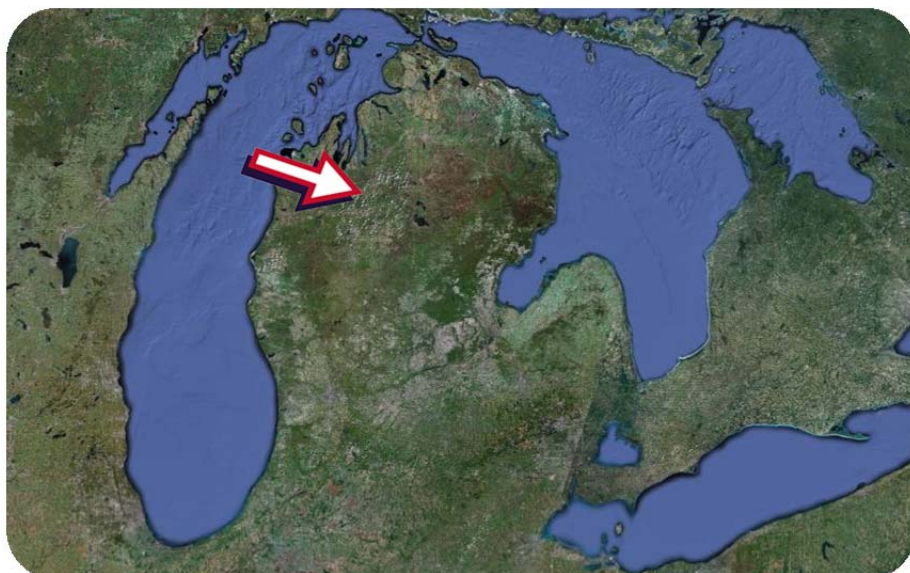


Figure 3: Michigan with arrow on location



Figure 4: Topographic map showing railways at location

CLOSER VIEWS

Figure 5 shows an aerial view of the site with Grand Traverse Bay situated at the upper left. Figure 6 shows a closer view of the site (far left) with visible roads and existing railroad track near center.



Figure 5: Grand Traverse Bay with arrow on location



Figure 6: Aerial photo of site location



Figure 7: Portion of project site by the water

HISTORY OF SITE

The town of Walton in Northern Michigan started out as one of the major timber logging areas in 1872. The Stornach Lumber Company opened a boarding house there and a general store to accommodate the busy lumberjacks. By 1880, the town of Walton had three hotels with saloons and ten additional saloons to provide food, drink and entertainment for the weary lumberjacks. The following year, the Grand Rapids and Indiana Rail Road selected Walton as their construction headquarters, with a branch line to Traverse City.



Figure 8: 1914 photo of trains at Walton, MI.

By the end of the 19th century, the railroad's main profits were derived from hauling lumber from northern Michigan to southern regions. Shipping and forest production continued to supply business for the railroad for the next decade. With sparse forests in the 1880s, the railroad began to depend on the tourist business.

In 1886 the Grand Rapids and Indiana Rail Road merged with the Michigan Central Railroad to form the Mackinac Island Hotel Company. In 1910, Walton acquired a third rail way crossing, the Manistee and Northeastern, which ran through to Grayling.

RAILWAYS OF YESTERYEAR

In 1914, Walton Junction was an active hub for the logging industry. Several hotels and saloons provided loggers a pit stop between Cadillac and Traverse City.

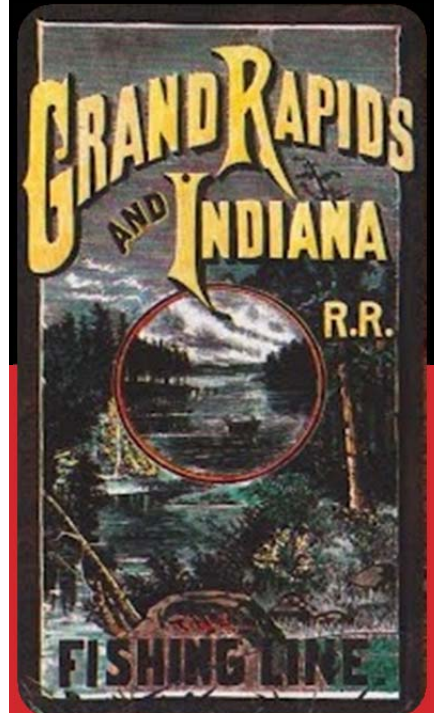


Figure 9: Poster promoting tourism after declining forest production

The railroad began to see a steep decline in revenue and was bought by the Pennsylvania Railroad in 1918. In 1975, the Michigan Department of Transportation bought the railroad, with a portion of track from Cadillac north to Petoskey being operated today by the Great Lakes Central Railroad.

The history of Walton and the railroads which ran through the town are significant to this project, as it relates to the railroad ties discovered at the site. Because the railroad ties were discovered at the shoreline, it had been apparent that the water level had decreased and exposed existing railway artifacts. As history also notes, a former dam which was constructed at the south side of Walton Marsh for a cranberry bog, may have also impacted the site location. Over the years, the man-made dam had eroded, which contributed to the lower water level.

SURVEY DIARY AND METHODOLOGY

1st visit - The initial visit of the site consisted of examining the Walton Marsh, the shoreline and surrounding areas, before taking digital photos of the proposed area.

2nd visit- Upon examining the area the second time, initial sketch drawings were made, measurements were made from control points to detail points on railroad ties, including length of individual ties. The outlying area was examined in more depth for



Figure 10: The tripod of a total station at site location

SURVEYING THE SITE

The total station was used to measure various areas at the Walton Marsh site.



Figure 11: Using a theodolite to measure a detail point

new discoveries.

3rd visit- The third visit to the site included assistance from Dr. Mark Holley, who brought a USD Total Station for accurate measuring of the area and artifacts. Additional photos were taken of the site, noting that several bushes and trees made it somewhat difficult to site in a few points.

Because there was no underwater diving or necessity to wade into the marsh site, no health and safety issues were evident.

PRODUCTS DEVELOPED/SITE ANALYSIS

The project site location detailed an area of approximately 150 feet of semi-soft, marsh and wooded land. The conditions were good with no visible dangers at the time of survey. The documented locations of railroad ties were within 20 feet from each other at the east end of the marsh. The railroad ties measure in length from 8.24 – 9.9 feet.



Figure 12: View of marsh from the east side.

SITE PLAN

The Walton Marsh project involved assessing the area, sketching artifacts and taking photos.



Figure 13: A meter scale is shown lying on the railroad tie in the marsh, 4 Ft. scale.

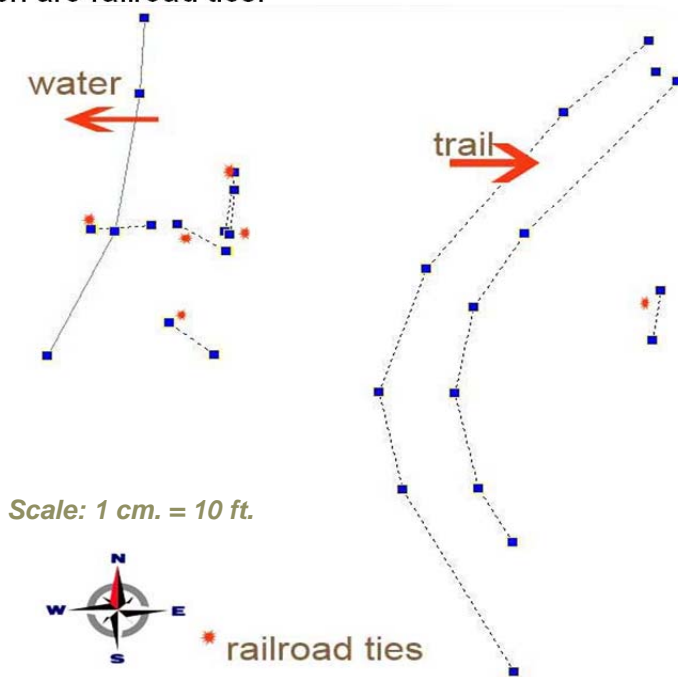
At the site the railroad ties were discovered to be fairly similar in length and width. The railroad ties near the shoreline appeared to be in substantially better condition than others. It was speculated that the shoreline ties were once covered with water from the



Figure 14: Examining a railroad tie at the shoreline

marsh which contributed to their excellent preservation.

The site plan below details the positioning of the railroad ties, shoreline, and a nearby trail. It contains 29 detail points, twelve of which are railroad ties.



TOTAL STATION

Using a total station allowed the team to easily position fix the artifacts displaying their exact coordinates.



Figure 15: Dr. Holley prepares equipment for survey



**Figure 16: Examining a railroad tie at the shoreline
4 Ft. scale**



**Figure 17: The location of this railroad tie was
discovered in the woods nearby
4 Ft. scale.**

PROJECT CONDITIONS

The area at the Walton Marsh project has been overgrown by bushes and foliage. The marsh area contained moist soil with thick weeds.



**Figure 18: Aerial view
of project survey site
at Walton Marsh**

CONCLUSIONS AND RECOMMENDATIONS

The Walton Marsh Railroad Ties project represents a portion of a much larger part of the history of Walton Junction in Walton, Michigan. The railroad ties discovered at the site were remnants of a great railway system of its time. It has not been established as to how the railroad ties found their way from the train track junction down to the ravine to rest along the marsh shoreline. Whether the railroad ties were moved by men, equipment or by



Figure 19: A view looking south at the existing railway line in Walton

nature, can only be determined with further research and evaluation.

FUTURE OF RESEARCH

Looking towards future investigations regarding this project, further information may be discovered regarding the nearby dam, which was made to create a cranberry bog. Contact with more local historians may also be able to explain the location of the railroad ties and what was once located along the shoreline. Exploring beyond the initial project radius may also help to discover further artifacts, based on their location and proximity to the existing railroad ties.

PROJECT FOLLOW-UP

While the Walton Marsh project has concluded, follow-up monitoring will continue on a routine basis.



Figure 20: Trail view of project survey site at Walton Marsh



Figure 21: View of the Walton Mash looking towards man-made dam

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Figure 22: The surface of Walton Marsh at the swamp

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Figure 23: GR & I Advertising Poster with map and schedule

APPENDIX

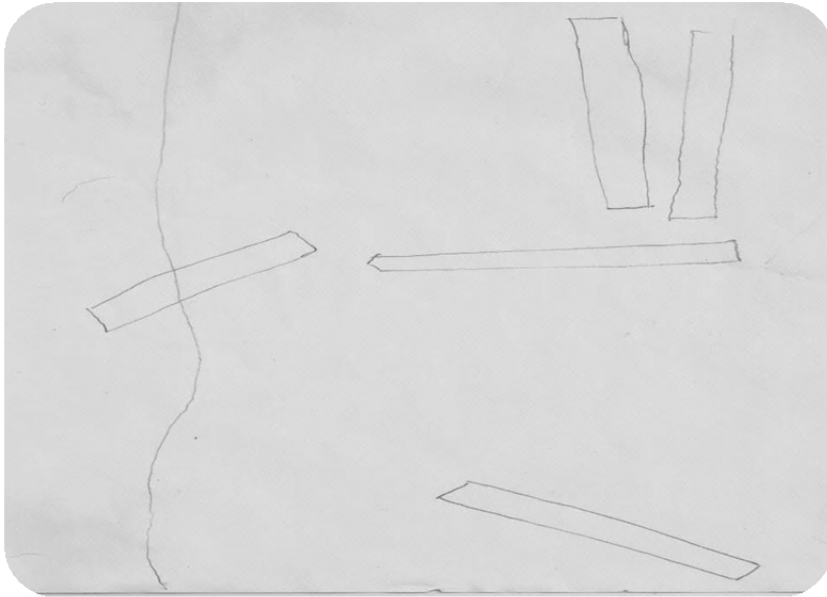



Figure 24: Initial sketch of proposed site



 Nau Arch Soc

Name: _____ Site: _____ Date: _____

Direct Survey Measurement				Depth	
From	To	Distance (m)	Length	Control Point	Depth (m) w/ht
3	4	8.54		roads	0.8
5	6	8.59		traces	0.7
7	8	8.59		lake	1.7
9	10	8.24		ground	0.78
11	12	9.9		long	0.7
13	14	9.4		crack	0.6

Figure 26: measurements of railroad ties

Walton Survey 8/27/2012

Colin

1	1000	1000	1000	Primary Control
2	1045.467	1038.15	1007.58	Secondary Control
3	1045.011	994.718	1009.865	
4	1046.253	1002.722	1009.124	
5	977.045	997.629	1002.913	
6	983.332	992.4	1004.129	
7	974.514	1013.293	1002.02	
8	966.118	1012.633	1001.471	
9	978.246	1013.431	1002.122	
10	985.108	1009.193	1003.124	
11	984.78	1012.251	1003.108	
12	986.157	1021.992	1002.814	
13	985.49	1011.787	1003.12	
14	986.223	1019.191	1002.668	
15	959.823	992.226	1001.846	
16	969.363	1012.363	1001.271	
17	972.829	1034.676	1001.385	
18	973.487	1046.709	1001.265	
19	1025.589	941.423	1009.765	
20	1009.87	970.852	1007.53	
21	1006.559	986.386	1006.624	
22	1013.23	1006.247	1005.504	
23	1032.583	1031.691	1006.576	
24	1044.564	1043.149	1007.334	
25	1048.486	1036.664	1008.021	
26	1027.032	1011.891	1005.89	
27	1019.904	1000.137	1005.728	
28	1017.217	986.347	1006.447	
29	1020.45	970.933	1007.602	
30	1025.298	962.267	1008.309	

Figure 25: Measurements of points with Total Station