

ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES
Manitou Manor
1433 6th Street
Manitowoc, Wisconsin

Prepared for:
City of Manitowoc
900 Quay Street
Manitowoc, Wisconsin 54220



April 29, 2016
Stantec Project No. 193702757

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- A – Asbestos Project Notification and Asbestos Occupant Protection Plan

1.0 EXECUTIVE SUMMARY

Stantec Consulting Services Inc. (Stantec) has completed this Analysis of Brownfields Cleanup Alternatives (ABCA) for the Manitou Manor property located at 1433 North 6th Street (herein referred to as the Site or Property) utilizing the outline provided in ch. NR 722 Wisconsin Administrative Code (WAC) for a Remedial Action Options Report (RAOR). This ABCA was completed utilizing brownfields revolving loan fund (RLF) grant funding provided to the City of Manitowoc by the United States Environmental Protection Agency (USEPA).

The Property is currently occupied by a 102-unit low/moderate income apartment complex operated by the Housing Authority of the City of Manitowoc as Manitou Manor (Figure 1 and Figure 2). To address significant energy efficiency and safety issues, 499 original apartment windows installed ca. 1968 by Public Facilities Associates, Inc (previous owner/developer) must be replaced. The locations of the windows are illustrated on Figures 3a and 3b. However, an asbestos inspection conducted by American Air Environmental Services, Inc. on January 6, 2016 noted the concentration of chrysotile in approximately 7,081 linear feet of non-friable caulk surrounding the windows as 8.6%. The presence of asbestos containing caulk around the windows is a significant barrier to completion of the project as the caulk and material joined to the caulk must be removed/managed/disposed of appropriately during removal.

The selected remedial approach includes:

- Removal of the window/casing/flashing as a single unit to minimize disturbance of asbestos containing caulk and dispose of debris offsite in an approved landfill.

**ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES
 MANITOU MANOR
 1433 NORTH 6TH STREET, MANITOWOC WISCONSIN
 BACKGROUND INFORMATION
 APRIL 29, 2016**

2.0 BACKGROUND INFORMATION

2.1 GENERAL SITE AND PROJECT INFORMATION

1. Project Title and Purpose	
Project Title	Manitou Manor 1433 North 6 th Street Manitowoc, Wisconsin
Purpose	Satisfy the requirements of a brownfields RLF subgrant application
2. Key Site Contact Information	
Owner:	Housing Authority of the City of Manitowoc
	1433 North 6 th Street
	Contacts: Pauline Haelfrisch
	Email: mantyhousing@att.net
	Phone: (920) 684-5865
3. Architect Information	
Name:	Bob Grapentin, AIA
Firm:	Martin-Riley
Address:	2169 Carlton Road; Oshkosh, Wisconsin 54904
Phone:	(920) 267-3600
Email:	rgrapentin@martin-riley.com
4. Site Information	
Site Name:	Manitou Manor
Address:	1433 North 6 th Street; Manitowoc, Wisconsin
Tax Parcels	05281730105000
5. Regulatory Information	
BRRTS No:	None

BRRTS = Bureau of Remediation and Redevelopment Tracking System

2.2 SITE DESCRIPTION

The general location of the Site and local topography is illustrated on Figure 1. The general location of the Site and an orthophotograph from 2013 is provided on Figure 2. The Site is approximately 5.92 acres in size.

The target property is located in Section 17 of Range 24 East in Township 19, which appears undeveloped in 1835. By 1878, Section 17 was subdivided, and the target property appears part of a larger 40 acre parcel owned by "C. Schumaker." By 1893, the target property was part of a 20.17 acre parcel owned by "C.F. Schumacher" and a building (residence?) was present west of the target property adjacent to North 8th Street. The target parcel was transferred to "G.B. Schumacher" by 1921. Historic orthophotography indicates the primary use of the target parcel in 1946 was agricultural.

Ownership of the target property between 1921 and 1968 remains largely unknown; however, a local newspaper article written in 1968 indicates the target property was owned at one time by the Green Bay Catholic Diocese. The property record indicates the parcel was taxed as "Agricultural" as late as 1968.

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BACKGROUND INFORMATION
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The current Certified Survey Map indicates the target parcel had been subdivided from the once larger 20.17 acre parcel by March 14, 1968 and the map indicates the property was owned by Public Facilities Associates, Inc. Newspaper articles indicate Public Facilities Associates, Inc. (previous owner/developer) began construction on the current building in April 1968 and completed construction later that year. To address the need for low/moderate income housing, a local newspaper article indicates the Federal Home Administration contributed \$1.3 million to cover construction costs. A letter dated October 28, 1969 from Public Facilities Associates, Inc. acknowledges per the terms established by the Contract of Sale, they were the owner-developer during construction utilizing appropriate State building codes and transferred ownership to the Housing Authority of the City of Manitowoc after construction was complete. As noted on the current deed, ownership of the target property, including the existing building was transferred from Public Facilities Associates, Inc. to the Housing Authority of the City of Manitowoc on December 4, 1968.

A certificate of occupancy was issued by the City of Manitowoc on December 1, 1969 to "Manitou Manor" to operate the Site as a multi-family low-income apartment complex.

2.3 PRIOR ENVIRONMENTAL SITE INVESTIGATIONS

As noted on the Wisconsin Department of Health Services (WDHS) Asbestos Project Notification Form (Form F-00041) prepared by the remedial contractor and provided in Attachment A, American Air Environmental Services, Inc. (AAES) conducted an asbestos inspection on January 6, 2016 and noted the concentration of chrysotile in approximately 7,081 linear feet of non-friable caulk surrounding the windows as 8.6%. No other environmental site investigations were reviewed as part of this ABCA.

2.4 NATURE AND EXTENT OF IMPACTS

As noted above, AAES (2016) noted the concentration of chrysotile in approximately 7,081 linear feet of non-friable caulk surrounding the windows as 8.6%. No additional media were sampled by AAES.

3.0 REMEDIAL ACTION OPTIONS EVALUATION

3.1 PROPOSED SITE REDEVELOPMENT

To address significant safety and energy efficiency issues, the Housing Authority of the City of Manitowoc will replace 499 windows installed in ca. 1968 in 102 low/moderate income apartments at the Manitou Manor facility. The locations of the windows are illustrated on Figure 3a and 3b. The replacement of the windows will result in a significant energy cost savings, which will allow the Manitou Manor to continue to serve the low/moderate-income community of Manitowoc. In addition, functional windows will allow for an alternative egress option during a fire.

3.2 WDNR EVALUATION CRITERIA

An evaluation of three remedial options was conducted utilizing criteria presented in ch. NR 722.07(4) WAC to address asbestos containing materials. The remedial options evaluated included the following:

1. Natural Attenuation (no action)
2. Scrape/remove asbestos containing caulk from windows using hand-tools and dispose caulk offsite
3. Remove window/casing/flushing as a single unit and dispose of unit offsite

Although the cost to implement Remedial Alternative 1 is the least of the three options, replacement of the windows cannot reasonably occur without removing the existing windows and associated asbestos containing caulk. The overall exposure risk, magnitude, mobility, and toxicity of impacts would not decrease within a reasonable timeframe. Impacts would remain in close proximity to sensitive receptors. The long-term effectiveness of encapsulating impacted building materials (a slight alternative to Remedial Alternative 1) is unreliable and depends on the integrity of encapsulating material.

Scraping and removing asbestos containing material from building materials using hand-tools (i.e. wet scraping/etc.) is a common asbestos abatement method. This abatement method has been shown to be effective in eliminating the short-term and long-term exposure risk and reducing the mobility, toxicity, and magnitude of existing impacts. However, the labor involved in implementing Remedial Alternative 2 and confirming asbestos has been properly removed from each surface to allow for recycling is cost prohibitive. In addition, Remedial Alternative 2 requires physical disturbance of the caulk, which could lead to unintentional exposure. Remedial Alternative 2 would maximize recycling of the demolition debris (mostly steel) and minimize the amount of non-recyclable waste compared to Remedial Alternative 3.

By cutting the window casing from the building wall, the casing, window, and flashing can be removed as a single unit, thereby removing the asbestos containing caulk while minimizing disturbance of the material. The window unit would be placed in a lined dumpster and transported to an approved landfill for disposal. Remedial Alternative 3 is expected to eliminate the short-term and long-term exposure risk and reduce the mobility, toxicity, and magnitude of existing impacts. Remedial Alternative 3 would generate more non-recyclable waste compared to Remedial Alternative 2.

3.3 SUSTAINABILITY EVALUATION

The remedial alternatives were evaluated per the requirements of ch. NR 722.09(2m) WAC. Remedial Alternative 1 is the least sustainable of the proposed alternatives as the remedial objective will not be reached. Remedial Alternative 2 and Remedial Alternative 3 primarily rely on utilizing construction elements needed to replace the existing windows. Demolition debris will be placed in lined roll-off dumpsters, which will be taken to the landfill only when full. Transporting fully loaded dumpsters will minimize the number of unnecessary trips to the landfill thereby lowering fuel consumption and decreasing the carbon footprint of the project. Demolition debris will be recycled to the greatest extent possible. Low sulfur diesel can be used and a no-idle policy will further reduce the carbon footprint. Both Remedial Alternative 2 and Remedial Alternative 3 will allow for continued use of existing infrastructure and will not significantly alter the building.

3.4 CLIMATE CHANGE CONSIDERATIONS

The property is located in the City of Manitowoc and is not located within the 100 year floodplain.

Authoritative Resources. The WDNR Surface Water Data Viewer and National Flood Insurance Rate Maps from the National Flood Insurance Program were consulted for the project area. The United States Environmental Protection Agency (U.S. EPA) website for Climate Impacts for the Midwest was consulted (U.S.EPA website: <http://www.epa.gov/climatechange/>). The website noted that the summers in the Midwest are hot and humid, and winters are cold, since the region is far from the temperature-moderating effect of the oceans. Therefore variations in climate will tend to be expressed without moderation in the project area.

Site Specific Risk Factors. Based on the physiographic location of the Site, some major climatic risk factors do not apply to the project area. For instance, since Manitowoc is in a municipal area, wildfires or forest fires are not a risk factor. The primary climatic risk factors are the following:

- Changing dates for ground thaw/freezing – decreases in average temperatures long term will shorten the already narrow window of the Wisconsin growing season. Increases in average temperature will increase the length of the Wisconsin growing season. These factors could affect infiltration at the Site.
- Changing the environmental/ecological zones – Will depend on the decrease or increase in average temperatures and future variations in precipitation. These factors are interrelated with the changing dates for ground thaw/freezing. Variations in the growing season will result in changes in bird nesting and migration ranges and dates and be expressed in changes in the ecological diversity.
- Changing the air quality index - decreases in average temperature long term will result in less heat index days, while increases in average temperature long term will result in more heat index days, causing increased ozone formation in urban areas. This will make it more challenging to meet air quality standards and will increase the risks of health effects in these areas.

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REMEDIAL ACTION OPTIONS EVALUATION
APRIL 29, 2016**

Accommodation of Identified Climate Risk Factors. The evaluated remediation alternatives are expected to have no effect on climate risk factors. Based on the information above, climate change is not anticipated to significantly affect the effectiveness of the alternatives evaluated.

4.0 SELECTED REMEDIAL ACTION OPTION

4.1 SELECTED REMEDIAL ACTION OPTION

Remedial Alternative 3 is the selected remedial alternative based on its short-term and long-term effectiveness, implementability, restoration time frame, economic feasibility, and sustainability. Where possible, demolition debris will be recycled to the greatest extent practical. The selected remedial action option includes elements described below:

Remedial Alternative 3 - Remove window/casing/flashing as a single unit and dispose of unit offsite. The window casing will be cut from the building and the window, casing, and flashing will be removed as a single unit thereby removing the asbestos containing caulk from the building while minimizing disturbance of the material. The demolition material will be placed in a lined dumpster and transported to a licensed landfill for proper disposal.

To minimize safety concerns and protect the community from exposure to the caulk during removal of the ACM, the windows will be removed in such a manner as to minimize disturbance of the caulk by state licensed asbestos removal contractor personnel. Proper engineering controls, institutional controls (signs/etc.), and isolation/sealing methods will be used to isolate the living spaces from the demolition work. The WDHS Asbestos Occupant Protection Plan (Form F-44016) prepared by the remedial contractor and provided in Attachment A of this ABCA notes a poly barrier will be placed on the ground at the exterior of the building and on the floor of the interior of the apartment during active work to collect dust. A poly barrier will be placed over the window opening and red hazard tape will be used to delineate the work area. Asbestos signs will be used to restrict access during active work. The windows will be removed using wet removal methods and demolition debris wrapped in poly before being placed in a lined dumpster for transport/disposal at a licensed landfill. Following removal, the demolition area will be cleaned with a high-efficiency particulate air. (HEPA) vacuum (as needed) and the area around the window casing wet wiped to remove latent dust. Poly barriers will be wetted and placed in a lined dumpster for transport/disposal at a licensed landfill. Furthermore, residences will be temporarily relocated during construction and air monitoring will be conducted to confirm the integrity of the controls.

The following outlines the permits/approvals likely to be required to implement Remedial Alternative 3:

- WDNR Form 4500-113 or use of the Asbestos Renovation and Demolition Notification System and
- Landfill disposal approval

4.2 SCHEDULE

The bid spec for the project was developed by Martin-Riley (Oshkosh, Wisconsin) and issued on December 15, 2015. The project was advertised on The Daily Reporter (Milwaukee); F.W. Dodge; and CMD Group. Plan holders for the project included: Fox Valley Builder's Exchange; Blue Print Services; AGC/Milwaukee Builders Exchange; Hamann Construction; Lueck's Home Improvement, Inc.; Sawfish General Construction; Delsman Construction Services; Silvercrest Construction Group; Pella Window & Doors of Wisconsin; and Graham Architectural Products. The pre-bid meeting held on January 5, 2016 was attended by Silvercrest Construction Group; Lueck's Inc.; Delsman Construction Services; and Hamann Construction Corp. Lueck's was selected as the abatement contractor for the project.

**ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES
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1433 NORTH 6TH STREET, MANITOWOC WISCONSIN
SELECTED REMEDIAL ACTION OPTION
APRIL 29, 2016**

The housing authority began work in early April 2016 and anticipates completing work by Fall 2017. Proper engineering and institutional controls are required to protect residences from potential exposure to asbestos containing material during construction. As such, each apartment unit will be isolated and residences displaced during work. To minimize interruption and accommodate displaced residences, the windows will be replaced at a rate of one unit per day; therefore, the project schedule may extend over two construction seasons.

4.3 ESTIMATED COST

A preliminary estimate of the cost for implementation of Remedial Alternative 3 is presented on the table below.

Cost Estimate for Remedial Alternative 3

Task	RLF Subgrant Budget
Removal of Asbestos	\$28,800
Disposal of Asbestos	\$7,100
Air Monitoring	\$400
TOTAL COST	\$36,300

The \$445,175 in construction cost for the windows will be covered by U.S. Department of Housing and Urban Development (HUD) Capital Funds, which are renewed on an annual basis and have been secured for the project. The Housing Authority of the City of Manitowoc will provide \$3,600 in in-kind services related to project administration.

Although not a major funding stream, costs will be offset by Focus on Energy rebates/credits. Where aluminum can be salvaged from the project without disturbing the asbestos containing materials, materials will be recycled offsite and proceeds used to supplement funding sources.

4.4 RESTORATION TIME FRAME

As described in Section 4.2, removal of the asbestos containing caulk will occur concurrently with window replacement, which is anticipated to be complete by Fall 2017.

4.5 PERFORMANCE MEASURES

Confirmation samples will not be collected. Air monitoring samples will be collected to confirm the controls are appropriate for the project.

4.6 TREATMENT RESIDUALS

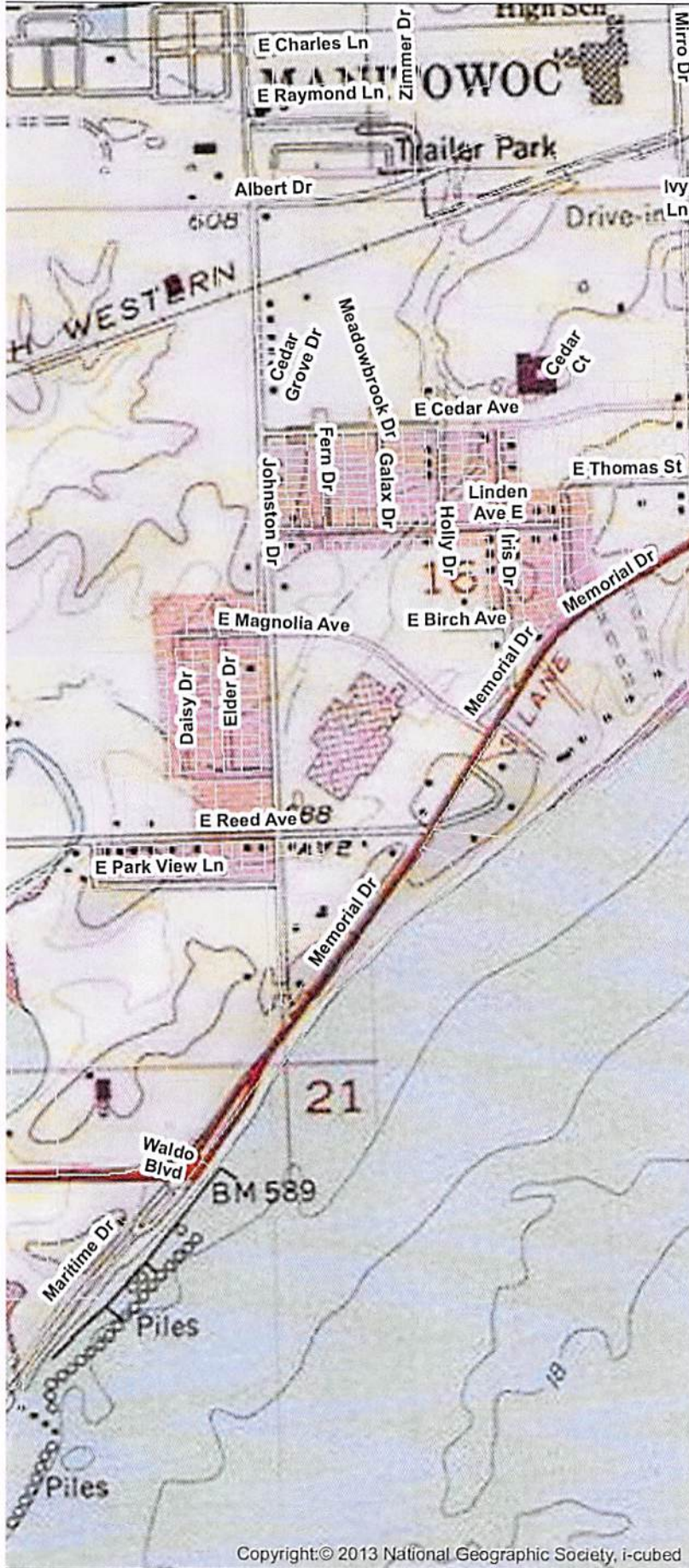
Demolition debris will be characterized and disposed of at an approved disposal facility.

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REFERENCES
APRIL 29, 2016

5.0 REFERENCES

American Air Environmental Services, Inc., 2016, Asbestos Inspection Report, 1433 North 6th Street, Manitowoc, Wisconsin.

FIGURES



Copyright © 2013 National Geographic Society, i-cubed

Figure No.

1

Title

Figure 1. Basemap 1433 N 6th Street

Client/Project

City of Manitowoc
USEPA Brownfield Assessment Grant
Petroleum Substances

1937003931

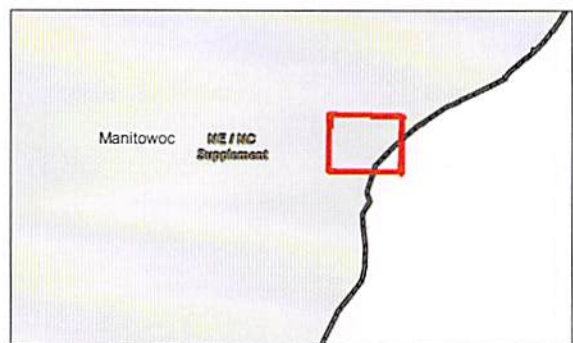
Prepared by HLB on 10-28-15

0 1,100 2,200
Feet



Legend

- Target Property
(PIN 05281730105000)
- Parcels



Notes

1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803
2. Feet
3. Data Sources Include:
Orthophotography: 2015 City of Manitowoc





Figure No.

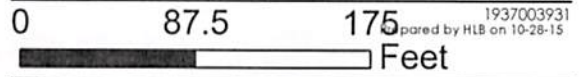
2

Title

**Figure 2. Basemap
1433 N 6th Street**

Client/Project

City of Manitowoc
USEPA Brownfield Assessment Grant
Petroleum Substances

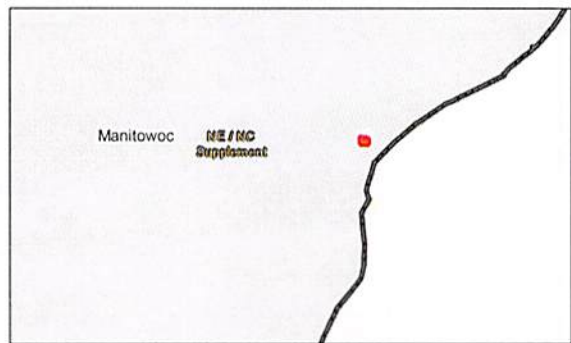


Legend



 Target Property
(PIN 05281730105000)

 Parcels



Notes

1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803
2. Feet
3. Data Sources Include:
Orthophotography: 2015 City of Manitowoc



NO WORK AT THIS LOCATION



Notes

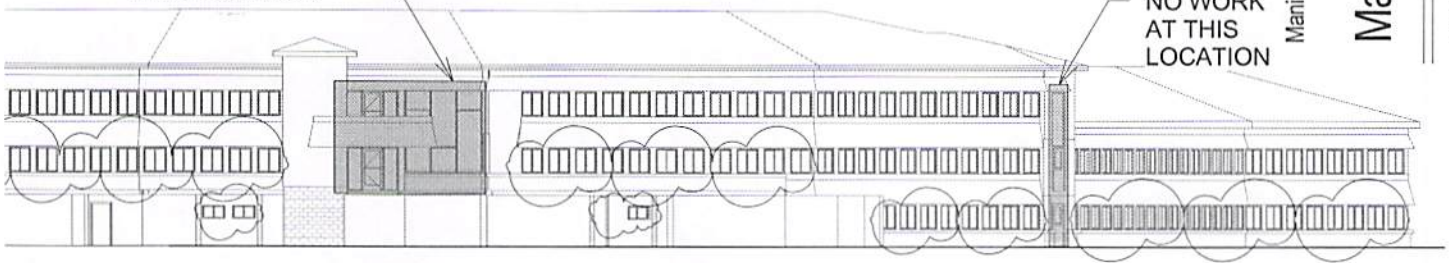
REMOVE CURTAINS IN THEIR ENTIRETY, REMOVE SILL CASINGS & HEAD/JAMB COVERS, REMOVE SILL CASINGS, SILL CASINGS & FOREIGN MATTER. REMOVE WINDOW. INSTALL ALL NECESSARY WINDOW GLAZING & HORIZONTAL SLIDER.



Work Description Notes

2 WINDOWS TO BE REPLACED IN TWO PHASES FOR THE PROJECT: PHASE 1 WINDOWS ARE TO BE INSTALLED DURING THE SPRING/SUMMER OF 2016. PHASE 2 WINDOWS WILL BE INSTALLED SPRING/SUMMER OF 2017.

NO WORK AT THIS LOCATION



NO WORK AT THIS LOCATION

Manitowoc Housing Authority, Pauline Haelfrisch - Executive Director

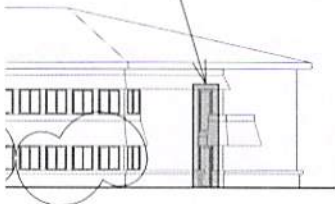
Manitou Manor Window Replacement

1433 North 6th Street
Manitowoc, WI 54220

GENERAL NOTES

- 1 ALL GLASS IN ALUMINUM FRAMES SHALL BE RECYCLED. SEE GENERAL REQUIREMENTS ARTICLE 37, CONSTRUCTION WASTE MANAGEMENT
- 2 ALL ALUMINUM FRAMES & ALUMINUM COMPONENTS REMOVED IN DEMOLITION SHALL BE RECYCLED. SEE GENERAL REQUIREMENTS ARTICLE 37, CONSTRUCTION WASTE MANAGEMENT
- 3 EXISTING WINDOW GLAZING COMPOUND, CAULKING, MASTICS AND SEALANTS ARE ASSUMED TO CONTAIN ASBESTOS. DISTURBANCE OF ASBESTOS CONTAINING MATERIAL SHALL BE COMPLETED BY WISCONSIN DEPARTMENT OF HEALTH AND FAMILY SERVICES (DHFS) CERTIFIED ASBESTOS SUPERVISORS AND WORKERS PURSUANT TO DHS 159. SEE GENERAL REQUIREMENTS, #4, HAZARDOUS SUBSTANCES FOR TESTING RESULTS AND CONTRACTOR'S RESPONSIBILITY REGARDING ACM.
- 4 REMOVE CURTAINS & STORE IN ROOM. PROTECT FROM DUST & DEBRIS AND REINSTALL UPON COMPLETION OF PROJECT
- 5 PROTECT ALL EXISTING SURFACES INCLUDING FLOORING FROM CONSTRUCTION RELATED DERBIS DAMAGE & WEAR THROUGHOUT COURSE OF PROJECT
- 6 FIELD VERIFY ALL DIMENSIONS
- 7 DISPOSE OF ALL NON-RECYCLED CONSTRUCTION WASTE LEGALLY OFF SITE

NO WORK AT THIS LOCATION



MARTIN RILEY
architects-engineers

2169 Carlton Road
Oshkosh, Wisconsin 54904

www.martin-riley.com
pho 920.267.3600

DRAWN BY: EWT REVIEWED BY: RG

DATE: 12/15/15

COMMISSION NUMBER: O15077

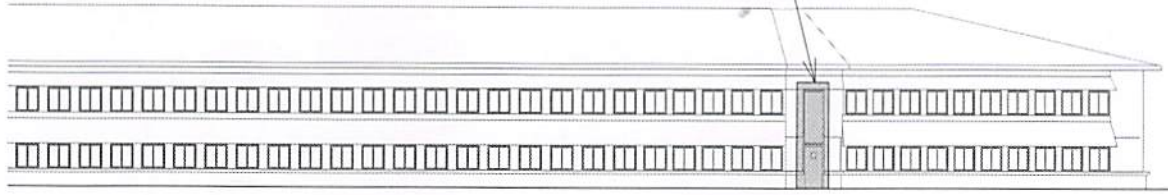
REVISION: DATE:

A201

FRONT ELEVATIONS

LOCATION
NOTATION

NO WORK AT
THIS LOCATION



Notes

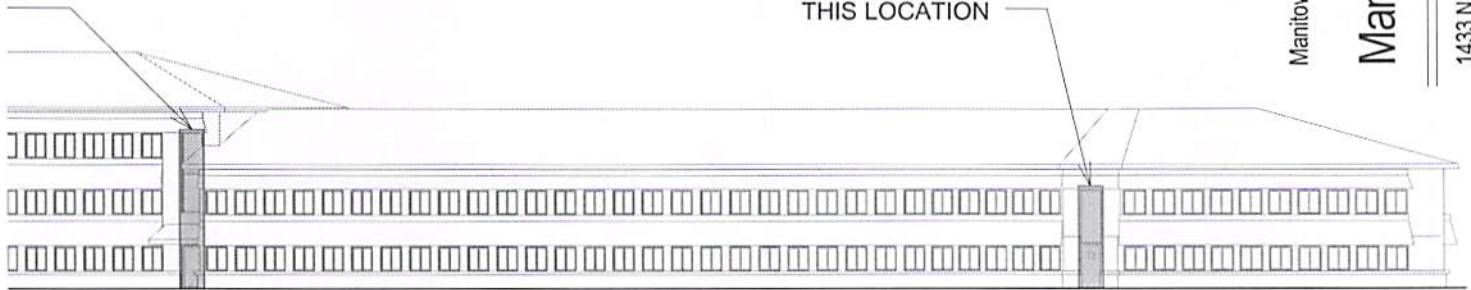
REMOVE GLASS IN THEIR ENTIRETY, REMOVE CASINGS & HEAD/JAMB COVERS, SEALANTS & FOREIGN MATTER. REMOVE WINDOW. INSTALL ALL NECESSARY HORIZONTAL SLIDER.



Work Description Notes

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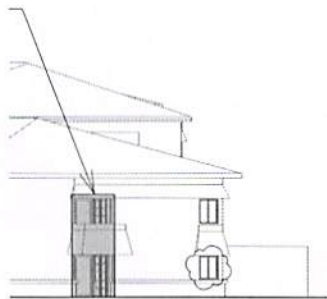
NO WORK AT
THIS LOCATION



1 TYP

GENERAL NOTES

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- 2 ALL ALUMINUM FRAMES & ALUMINUM COMPONENTS REMOVED IN DEMOLITION SHALL BE RECYCLED. SEE GENERAL REQUIREMENTS ARTICLE 37, CONSTRUCTION WASTE MANAGEMENT
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- 7 DISPOSE OF ALL NON-RECYCLED CONSTRUCTION WASTE LEGALLY OFF SITE



Manitowoc Housing Authority, Pauline Haelfrisch - Executive Director

Manitou Manor Window Replacement

1433 North 6th Street
Manitowoc, WI 54220



2169 Carlton Road
Oshkosh, Wisconsin 54904
www.martin-riley.com
pho 920.267.3600

DRAWN BY: EWT REVIEWED BY: RG

DATE: 12/15/15

COMMISSION NUMBER: O15077

REVISION: DATE:

A202

REAR ELEVATIONS

ATTACHMENT A
ASBESTOS PROJECT NOTIFICATION and
ASBESTOS OCCUPANT PROTECTION PLAN

ASBESTOS PROJECT NOTIFICATION

Completion of this form is mandatory for regulated asbestos projects under ch. DHS 159, Wis. Adm. Code. This form may not be used to meet the notification requirements for the Department of Natural Resources, chs. NR 406, 410, and 447. Refer to page 2 and the instructions for help completing and submitting notification. Shaded areas are for Department use only.

Company project No. 015077 Submitted _____ DHS No. _____

PROPERTY INFORMATION

Property type (check most accurate response) Commercial/Industrial/Business Public (church, library, etc.) K-12 School
 Government University Residential/No. Units 01 Owner-occupied Rental Other:

Facility/building name, if applicable Manitou Manor

Property contact person Pauline Haelefrisch Telephone No. 920-684-5865

Name of owner Manitowoc Housing Authority Telephone No. (920) - 684-5865

Street or fire code address 1433 N. 6th St. City WI Manitowoc Zip 54220

Location of project on premises Windows on East, West, South, North elevations

ASBESTOS PROJECT TYPE Check all that apply

Removal Enclosure Encapsulation Repair Other (describe): CAULK removal during window replacement

Structure will be: Occupied Vacant (If occupied, complete and post an Asbestos Occupant Protection Plan, Form F-44016)

NOTICE TYPE

Original Cancellation Revision, No. _____ Revising: Schedule Type/amount of ACM Other:

Planned renovation project Start date (mm/dd/yy): 4-4-16 End date: 9-1-16 Sub-project No: _____

PROJECT SCHEDULE Start date includes project set-up

Abatement dates (mm/dd/yy) Start date: 4-4-16 End date: 9-1-16 Work hrs: 7:30 a.m. p.m. to 3 a.m. p.m.

Work days (Check all that apply) Mon. Tues. Wed. Thurs. Fri. Sat. Sun.

INSPECTION DATE AND INSPECTOR INFORMATION

Inspection date(s) (mm/dd/yy) 1-5-16 Inspector name Matthew Wiedenhoft Inspector DHS certification No. A11-197110

CONTACT INFORMATION

Company name _____ Inc. DHS Certification No. & Expiration Date CAP-34660
 Address _____ So. Main Street Contact person name Jeff Lueck Office Telephone No. (920) 235-0106
 City Manitowish State WI Zip 54902 Cellular Telephone No. (920) 430-1651

TYPE AND AMOUNT OF ASBESTOS See page 2 for guidance Location: Interior Exterior Total Amount of Asbestos

Friable - Submit notification for: < 260 linear feet < 160 square feet < 35 cubic feet
 Any amount of asbestos in residential buildings with fewer than 5 units
 Type: Pipes/ducts Surfacing Other friable ACM:
 Non-Friable - Submit notification for asbestos projects involving:
 Flooring: Any amount, intact manual methods, or, <160 square feet, mechanical chipping
 Roofing: Any amount, intact manual methods, or, <5,580 square feet, power-sawing
 Siding: Any amount, intact methods only
 Other non-friable ACM: window caulking

7081' Linear Feet
 120 Square Feet
 Cubic Feet

See Page 2 for payment methods, See Instructions Page 2 for more on fees No fee required Fee Received
 Original notice, 2 or more working days Sub-project Revision, less than 2 working days \$50
 Original notice, less than 2 working days Planned renovation project notice \$100

PROJECT NOTIFICATION AFFIDAVIT - I am an authorized representative of the abatement company named above. I certify that the information provided on this form is correct to the best of my knowledge and that this project complies with Ch. DHS 159, Wis. Adm. Code.

_____ ACS-130831 3-22-16
 Signature - Authorized Representative DHS certification number Date Signed

ASBESTOS OCCUPANT PROTECTION PLAN

This occupant protection plan shall remain posted for the duration of the asbestos project.
Only certified persons using appropriate personal protection may enter regulated areas.

Contractor - Describe the actions taken to ensure the health and safety of building occupants during this project in space below. If handwritten, write clearly and legibly. Post this plan in plain view outside the regulated area for the project.

Occupants - Asbestos is a hazardous substance. The actions described below are meant to protect you and others nearby during this asbestos removal project. It is important to stay out of work areas while work is in progress and until permission is given to re-enter upon completion. The contractor will do daily clean-up, but the regulated work area may still contain dangerous levels of asbestos until final cleaning is completed.

ASBESTOS COMPANY INFORMATION

Company Name	LUECK'S INC.		DHS company No.	CAP-24660			
Address	706 S. MAIN ST.	City	Oshkosh	State	WI	Zip Code	54902
Company Contact Person	JEFF Lueck		Telephone No.	(920) 235-0106			

ASBESTOS PROJECT INFORMATION

Property Type or Property Name	Manitou Manor Housing Authority				
Address	1433 N. 6th st.		City	Manitowoc	
Property Contact Person	N/A		Telephone No.	N/A	
Project start date (mm/dd/yy)	Project end date (mm/dd/yy)	Project work shifts			
4-4-16	9/1/16	<input checked="" type="checkbox"/> am 8 <input checked="" type="checkbox"/> pm 5 <input type="checkbox"/> night			

PROJECT DESCRIPTION (Type of project, including type and amount of asbestos-containing material)

Window replacement including Non-Friable window caulk removal

PROTECTIVE MEASURES (Describe below actions taken to ensure occupant safety - attach additional sheet, if needed)

Containment or barrier system (including negative air system, glovebag, full containment, mini-containment, etc.)

Poly barrier on ground at exterior, and on floor of interior.

Poly barrier over window opening.

Red hazard tape around work area

Asbestos signs at entrances to each room.

Ventilation system shutdown

N/A

Work practices (such as wet methods, debris-lowering system, waste handling)

Wet methods

Place debris in Poly, wrapping and disposal in lined dumpster.

Poly boom lift to transport construction debris to ground.

Final cleaning and clearance description (such as air scrubbing, HEPA vacuuming, wet cleaning, encapsulant, air sampling)

Hepa VAC AREA AS NEEDED

Visual Clearance

Wet wipe Area around window

DEPARTMENT OF HEALTH SERVICES - ASBESTOS PROGRAM CONTACT

Asbestos and Lead Section (608) 261-6876