

1984 permit

STATE OF MICHIGAN  
DEPARTMENT OF NATURAL RESOURCES

PERMIT

Permit No. 84-9-415  
Date Issued 11/29/84  
Extended \_\_\_\_\_  
Revised \_\_\_\_\_  
Expires 12/31/85

I  
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O  
L

Wolverine World Wide, Inc.  
123 North Main Street  
Rockford, MI 49341

- This permit is granted under provisions of:
- The Inland Lakes and Streams Act, 1972 P.A. 346, as amended.
  - The Great Lakes Submerged Lands Act, 1955 P.A. 247, as amended.
  - Flood Plain Regulatory Act, 1929 P.A. 245, as amended.
  - The Goemaere-Anderson Wetland Protection Act, 1979 P.A. 203.

Permitted Activity

Dredge approximately 50 cubic yards of materials around a cooling water intake as shown on the attached plans.

Water Course Affected	County	Town	Range	Sect.	Sub. and Lot Number
Rogue River	Kent	9N	11W	36	

Authority granted by this permit is subject to the following limitations:

- A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
- B. The permittee in exercising the authority granted by this permit shall not cause unlawful pollution as defined by Act No. 245 of the Public Acts of 1929, as amended.
- C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
- D. All work shall be completed in accordance with the plans and specifications submitted with the application and/or plans and specifications attached hereto.
- E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved herein.
- F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with Act 53 of the Public Acts of 1974, and comply with each of the requirements of that act.
- G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits or complying with other state statutes.
- H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
- I. Permittee shall notify the Department of Natural Resources within one week after the completion of the activity authorized by this permit, by completing and forwarding the attached, preaddressed post card to the office addressed thereon.
- J. This permit shall not be assigned or transferred without the written approval of the Department of Natural Resources.
- K. Work to be done under authority of this permit is further subject to the following special instructions and specifications.

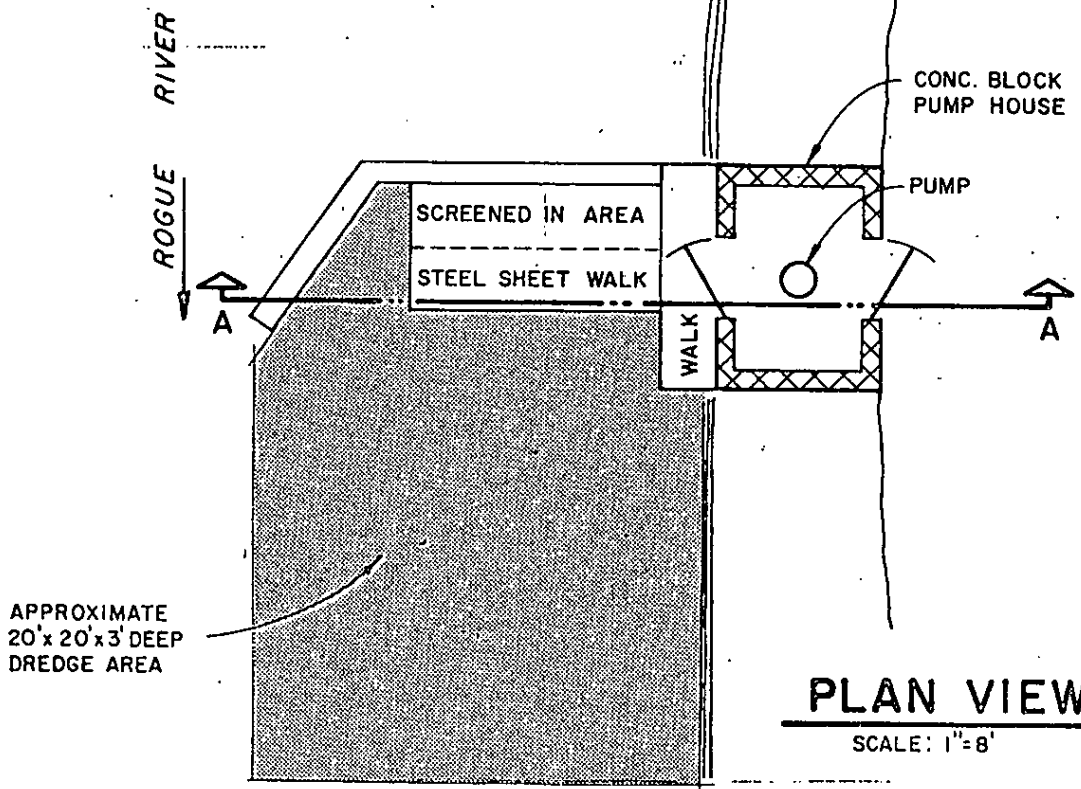
All spoils including organic and inorganic soils, vegetation and debris shall be placed above the ordinary high water mark, leveled, and stabilized with sod and/or seed, fertilizer and mulched, in such a manner as not to erode into any waterbody or wetland.

Authority granted by this permit does not waive permit requirements under the Soil Erosion and Sedimentation Control Act, 1972 Public Act 347, or the need to acquire applicable permits from the County Drain Commission.

Authority granted by this permit does not waive any jurisdiction of the U. S. Corps of Engineers or the need for a federal permit, if required.

cc: DLRP, Grand Rapids  
D-9 Law  
USCOE  
Kent CEA  
City of Rockford

RONALD O. SKOOG  
Director, Department of Natural Resources  
By Charles L. Wolverton  
Charles L. Wolverton

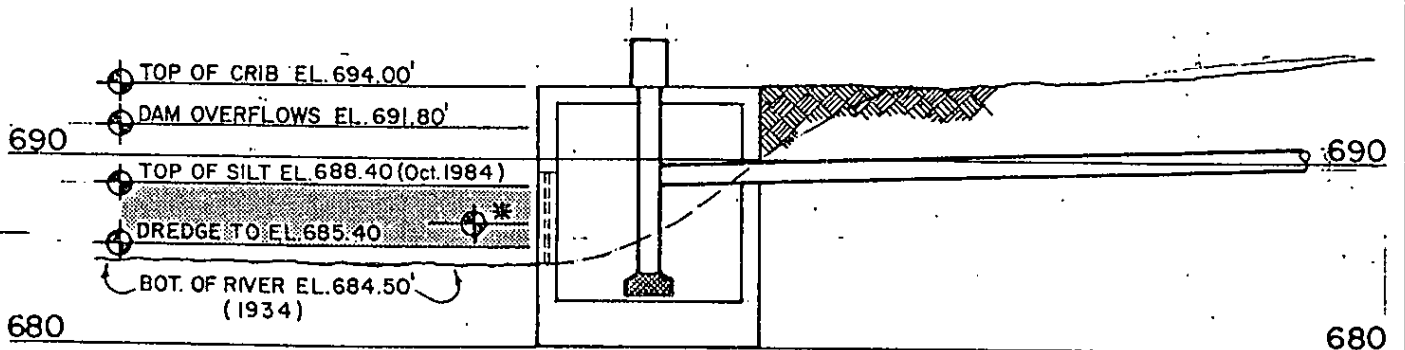


**PLAN VIEW**

SCALE: 1"=8'

700

700



690

690

680

680

**SECTION A-A**

SCALES: HORIZ. 1"= 8'  
VERT. 1"= 10'

**DETAILS**

**INTAKE DREDGING**  
WOLVERINE WORLD WIDE, INC.  
ROGUE RIVER, CITY OF ROCKFORD  
KENT COUNTY  
PROJECT NO. 84859

\* = DAM SILL EL. 686.50'

*DNR#84-9-415*

SHEET 3 OF 5  
DATE: OCT. 1984

COURTLAND TWP

KELTIS MCKITYRE  
10436 COURTLAND  
RANDY L. ROLLENHAGEN  
9738 COURTLAND  
DONALD L. WRIGHT  
9735 COURTLAND

DISPOSAL AREA

ADMINISTRATION CENTER

CENTRAL STORES FACILITY

WOLVERINE WORLD WIDE INC.  
9341 COURTLAND DR.

W.W.W. INC.

W.W.W. INC.

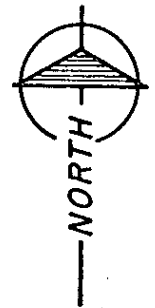
NELSON C. LAWTON  
9179 COURTLAND DR

WOLVERINE BLVD.

DR.

ELEVEN MILE RD.

ROMAN CATHOLIC CHURCH  
265 SHELDON AVE.  
GRAND RAPIDS MI.



SCALE: 1" = 200'

ELEVEN

COURTLAND

MILE

RD.

ZIP CODE 49341 USED FOR ALL ADDRESSES

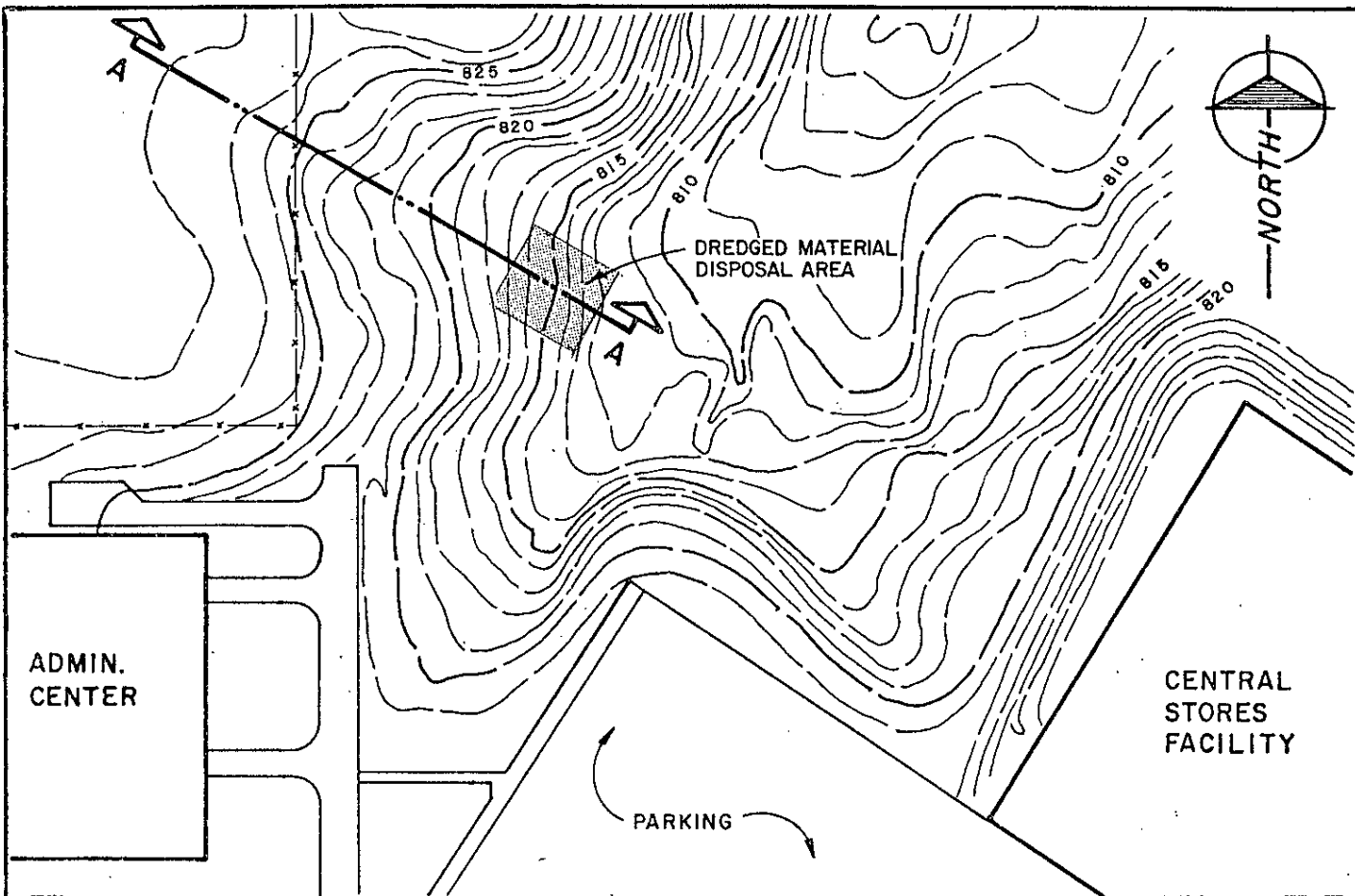
COURTLAND DR.

### DISPOSAL AREA SITE PLAN

INTAKE DREDGING  
WOLVERINE WORLD WIDE, INC.  
ROGUE RIVER, CITY OF ROCKFORD  
KENT COUNTY  
PROJECT NO. 84859

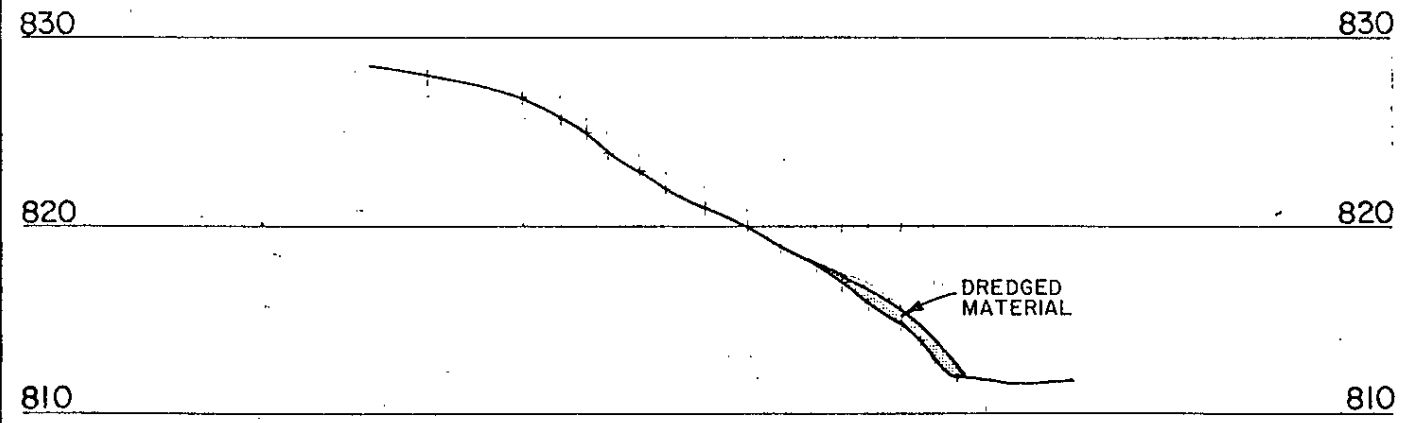
DNR#84-9-415

SHEET 4 OF 5  
DATE: OCT. 1984



**SITE PLAN**

SCALE: 1" = 100'



**SECTION A - A**

SCALES: HORIZ. 1" = 100'  
VERT. 1" = 10'

**DISPOSAL AREA**  
**INTAKE DREDGING**  
WOLVERINE WORLD WIDE, INC.  
ROGUE RIVER, CITY OF ROCKFORD  
KENT COUNTY  
PROJECT NO. 84859

DNR #84-9-415

SHEET 5 OF 5  
DATE: OCT. 1984

1990 Permit

LAND & Water Division

David Price - TUES. & Friday

PLACE  
STAMP  
HERE

Department of Natural Resources  
Land and Water Management Division  
6th Floor, State Office Building  
350 Ottawa N.W.  
Grand Rapids, MI 49503

(616) 456-5071

### NOTICE OF COMPLETION

I hereby give notice to the Michigan Department of Natural Resources that the project, which was permitted under applicable statute provisions has been completed.

PERMIT NUMBER 90-9-570	COUNTY Kent
PROJECT COMPLETION DATE	AREA CODE & TELEPHONE NUMBER
PERMITTEE'S SIGNATURE	

Non-compliance with reporting requirements may result in monetary penalty.  
Completion of this form is required under the authority of the following applicable Acts: Act 146, P.A. 1961; Act 184, P.A. 1963; Act 245, P.A. 1929 & P.A. 1970; Act 247, P.A. 1955; Act 346, P.A. 1972; Act 347, P.A. 1972; all as amended and Act 203, P.A. 1979; and Act 231, P.A. 1970.

PR 2731-1  
Rev. 10/88



STATE OF MICHIGAN  
DEPARTMENT OF NATURAL RESOURCES  
PERMIT

16

I  
S Wolverine World Wide  
S T 123 North Main Street  
U O Rockford MI 49341  
E  
D

\*-----\*  
Permit No. 90-09-0570  
Issued Nov 29 90  
Extended  
Revised  
Expires Dec 31 91  
\*-----\*

This permit is granted under the provisions of:  
The Inland Lakes and Streams Act, 1972 PA 346, as amended.

\*- Permitted Activity -----\*  
Dredge a 20 by 20 foot area to a depth of 3 feet removing 45 cubic yards of material. All work shall be completed in accordance with the attached plan.

\*-----\*  
Water Course Affected: Rogue River  
County: Kent Town: 09N Range: 11W Sections: 36  
Subdivision: Lot:  
\*-----\*

Authority granted by this permit is subject to the following limitations:

- A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
- B. The permittee in exercising the authority granted by this permit shall not cause unlawful pollution as defined by Act 245 of the Public Acts of 1929, as amended.
- C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
- D. All work shall be completed in accordance with the plans and the specifications submitted with the application and/or plans and specifications attached hereto.
- E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved herein.
- F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with Act 53 of the Public Act of 1974 and comply with each of the requirements of that act.
- G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits or complying with other state statutes.
- H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
- I. Permittee shall notify the Department of Natural Resources within one week after the completion of the activity authorized by this permit, by completing and forwarding the attached, preaddressed post card to the office addressed thereon.
- J. This permit shall not be assigned or transferred without the written approval of the Department of Natural Resources.
- K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific State Act, Federal Act and/or Rule under which this permit is granted.
- L. Work to be done under authority of this permit is further subject to the following special instructions and specifications:

I  
S Wolverine World Wide  
S T 123 North Main Street  
U O Rockford MI 49341  
E  
D

\*-----\*  
Permit No. 90-09-0570  
Issued Nov 29 90  
Extended  
Revised  
Expires Dec 31 91  
\*-----\*

PERMIT LIMITATIONS, continued

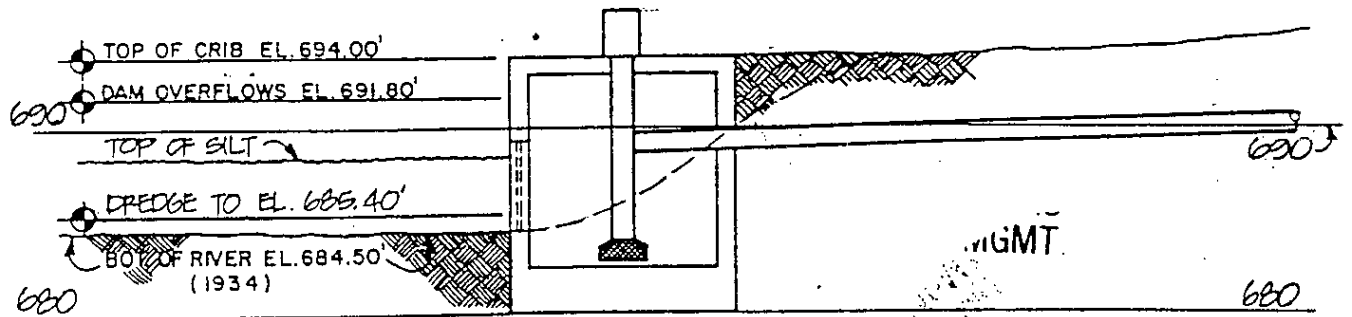
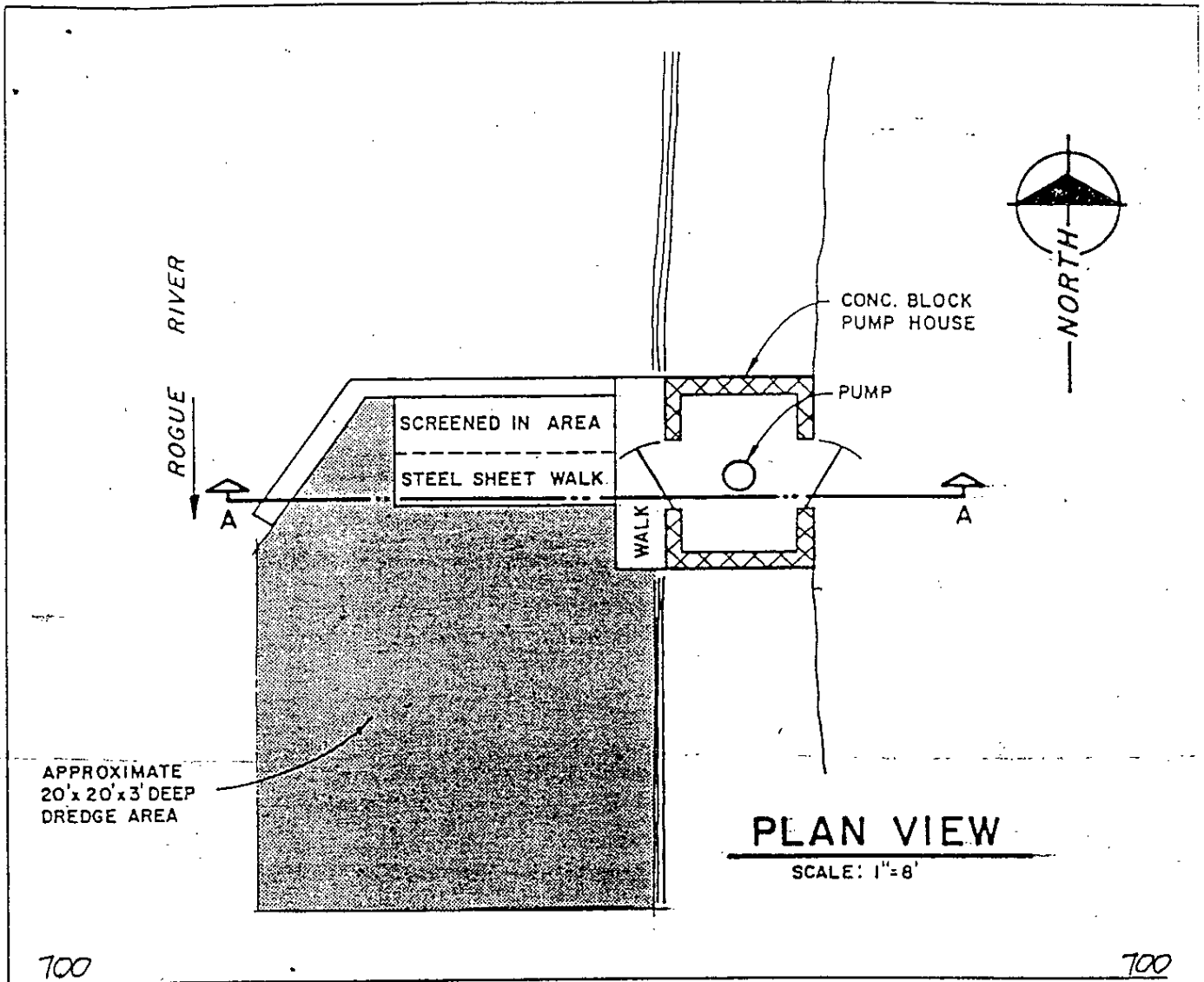
No fill or dredge material shall be placed in a wetland or in such a manner as to impede surface water flow unless authorized by the attached plan.

All dredge spoils and excavated materials, including organic and inorganic soils, vegetation and debris shall be placed above the ordinary high water mark, leveled and stabilized with sod and/or seed, fertilizer and mulched in such a manner as not to erode into any waterbody or wetland.

CC: LWMD: Lansing  
R-III  
Kent CEA  
City of Rockford  
Ross & Westra

David F. Hales  
Director, Department of Natural Resources

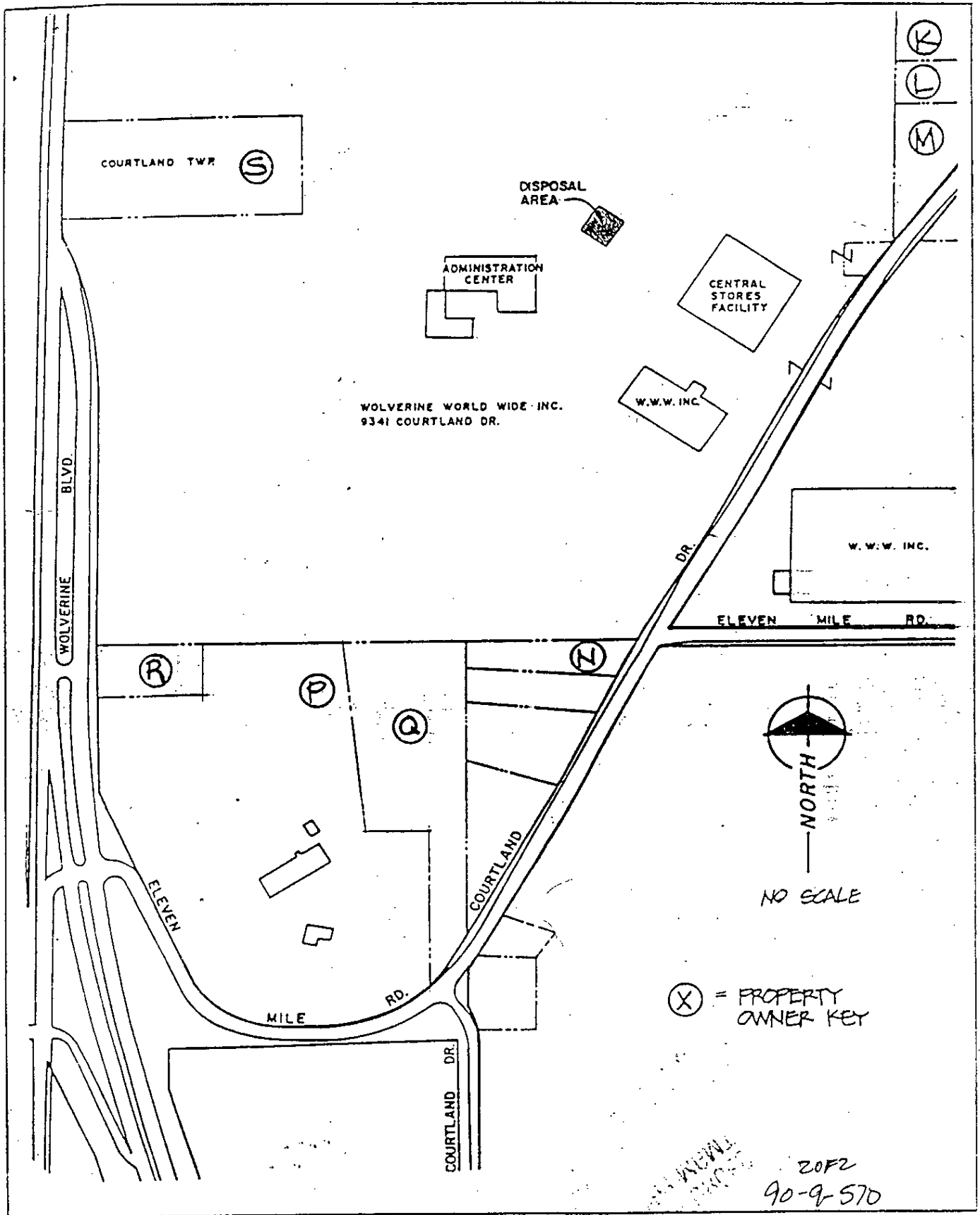
by:   
Matthew J. MacGregor  
Land and Water Management Division



**ROSE & WESTRA, INC.**  
**ENVIRONMENTAL CONSULTANTS**  
 2760 Glencairin N.W.  
 Grand Rapids, MI 49504

**WOLVERINE WORLD WIDE**  
**ROCKFORD, MI**  
 DREDGING PERMIT APPLICATION  
 DETAILS

**PAGE**  
 3 OF 5  
 8/31/90



**ROSE & WESTRA, INC.**  
**ENVIRONMENTAL CONSULTANTS**  
 2760 Glencairn N.W.  
 Grand Rapids, MI 49504

**WOLVERINE WORLD WIDE**  
**ROCKFORD, MI**  
 DREDGING PERMIT APPLICATION  
 DISPOSAL AREA-SITE PLAN

**PAGE**  
 4 OF 5  
 8/31/90

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
PERMIT

I  
S Wolverine World Wide  
S T 123 N Main St  
U O Rockford MI 49351  
E  
D

\*-----\*  
Permit No. 98-09-0494  
Issued Sep 8 98  
Extended  
Revised  
Expires Dec 31 99  
\*-----\*

This permit is granted under the provisions of the Natural Resources and Environmental Protection Act 451, P.A. 1994 and specifically:  
Part 301 Inland Lakes & Streams

\*- Permitted Activity -----\*  
Dredge approximately 267 cubic yards of sediment from a 60 feet by 30 feet area of the Rockford Dam impoundment of the Rogue River. All work shall be completed in accordance with the attached plan.

\*-----\*  
Water Course Affected: Rogue River  
County: Kent Town: 09N Range: 11W Sections: 36  
Subdivision: Lot:  
\*-----\*

- Authority granted by this permit is subject to the following limitations:
- A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
  - B. The permittee in exercising the authority granted by this permit shall not cause unlawful pollution as defined by Part 31, Water Resources Protection of Act 451, P.A. 1994.
  - C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
  - D. All work shall be completed in accordance with the plans and the specifications submitted with the application and/or plans and specifications attached hereto.
  - E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved herein.
  - F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with Act 53 of the Public Act of 1974 and comply with each of the requirements of that act.
  - G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits or complying with other state statutes.
  - H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
  - I. Permittee shall notify the Department of Environmental Quality within one week after the completion of the activity authorized by this permit, by completing and forwarding the attached, preaddressed post card to the office addressed thereon.
  - J. This permit shall not be assigned or transferred without the written approval of the Department of Environmental Quality.
  - K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific State Act, Federal Act and/or Rule under which this permit is granted.
  - L. Work to be done under authority of this permit is further subject to the following special instructions and specifications:

I  
S Wolverine World Wide  
S T 123 N Main St  
U O Rockford MI 49351  
E  
D

Permit No. 98-09-0494

Issued Sep 8 98

Extended

Revised

Expires Dec 31 99

PERMIT LIMITATIONS, continued

In issuing this permit, the Department of Environmental Quality has relied on the information and data which the permittee or their agent has provided in connection with the permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete, or inaccurate, the Department may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.

The property owner, contractor, and any agent in obtaining this permit are held responsible to ensure the project is constructed in accordance with all drawings and specifications contained in this permit.

All dredge spoils including organic and inorganic soils, vegetation, and debris shall be placed above the ordinary high water mark, levelled, and stabilized with sod and/or seed, and mulched, in such a manner as not to erode into any waterbody, wetland, or floodplain.

No fill or dredge material shall be placed in a wetland or in such a manner as to impede surface water flow unless authorized by the attached plan.

All raw areas resulting from this construction activity shall be promptly and effectively stabilized with seed-mulch and/or sod in sufficient quantity to prevent erosion and subsequent siltation to the watercourse.

If the project, or any portion, is stopped and lies uncompleted for any length of time other than that encountered in a normal work week, every precaution shall be taken to protect the uncompleted work from erosion, including the placement of temporary sandbag riprap or other acceptable temporary precaution.

No work shall be done in the river during periods of above normal flows except as necessary to prevent erosion.

Permittee covenants not to sue the State of Michigan, or any of its departments, boards, commissions, officers, employees, or agents for any claim, whether legal or equitable, arising under or in any manner related to the privileges granted in this Permit. Permittee hereby releases, waives, and discharges the State of Michigan and all of its departments, boards, commissions, officers, employees, and agents from any and all liability to permittee arising under or in any manner related to the privileges granted under this permit.

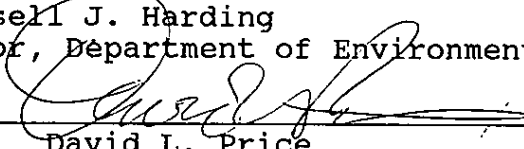
I  
S Wolverine World Wide  
S T 123 N Main St  
U O Rockford MI 49351  
E  
D

Permit No. 98-09-0494
Issued Sep 8 98
Extended
Revised
Expires Dec 31 99

PERMIT LIMITATIONS, continued

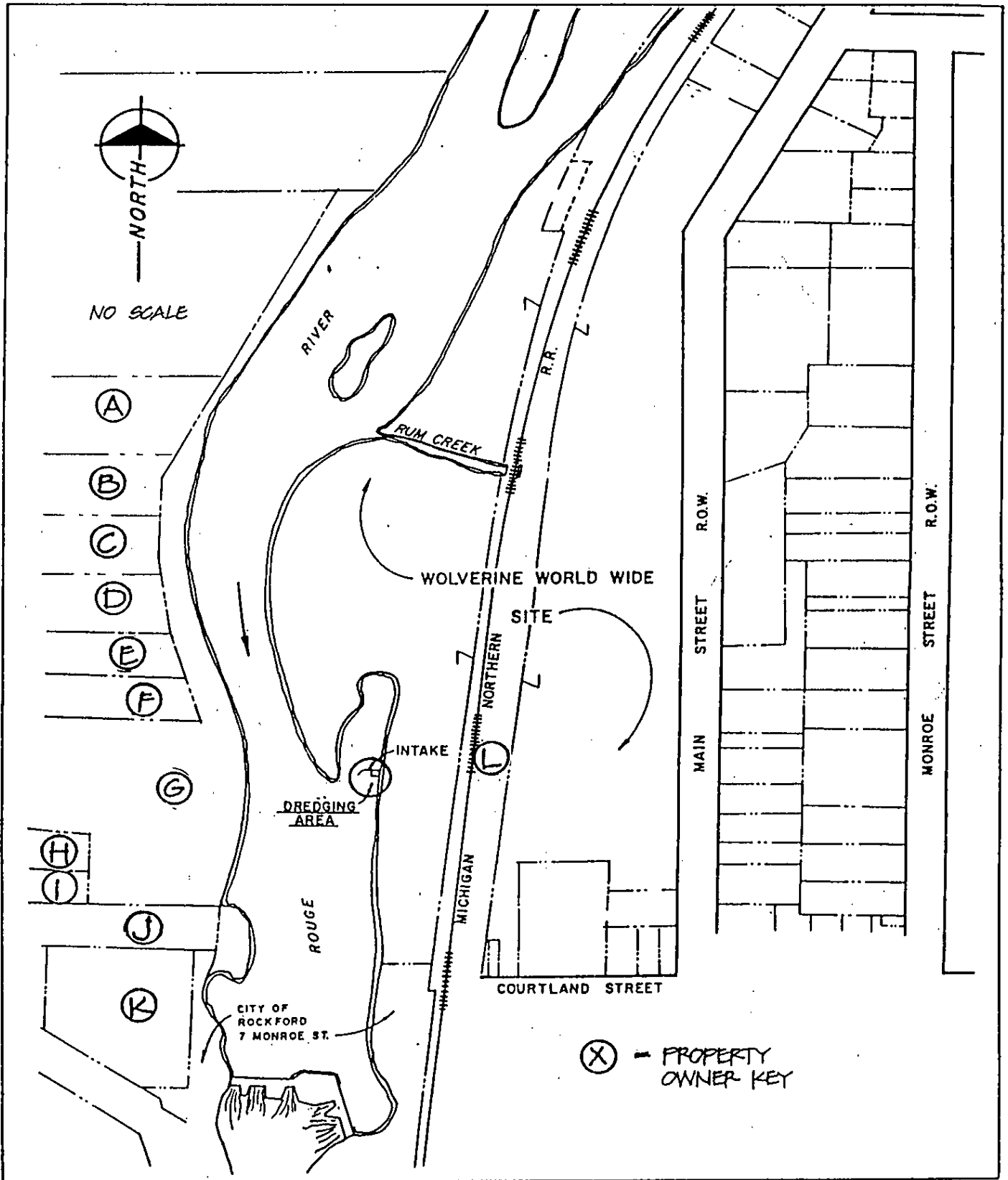
Permittee agrees to indemnify the State of Michigan and all of its departments, agencies, boards, commissions, officers, employees, and agents from any and all liability arising under or in any manner related to the issuance of the Permit or the privileges granted under this Permit.

Russell J. Harding  
Director, Department of Environmental Quality

by:   
David L. Price

Land and Water Management Division

CC: LWMD, Lansing  
City of Rockford  
Mr. Steve Sutton, DNR



DEA # 98-9-494  
 9/8/98  
 [Signature]

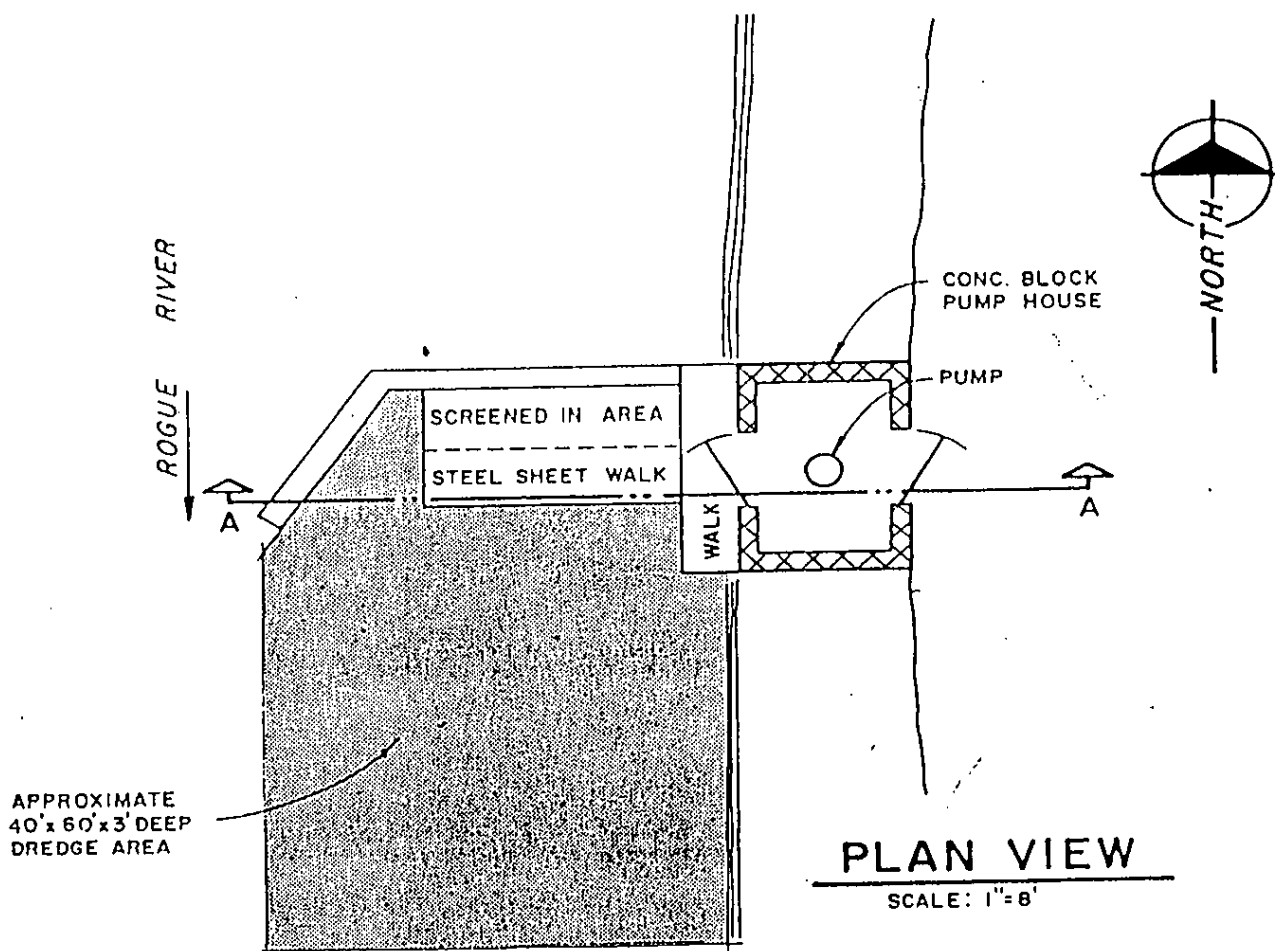
**WOLVERINE WORLD WIDE**  
**ROCKFORD, MI**  
 DREDGING PERMIT APPLICATION  
 SITE PLAN

**PAGE**  
 2 OF 5

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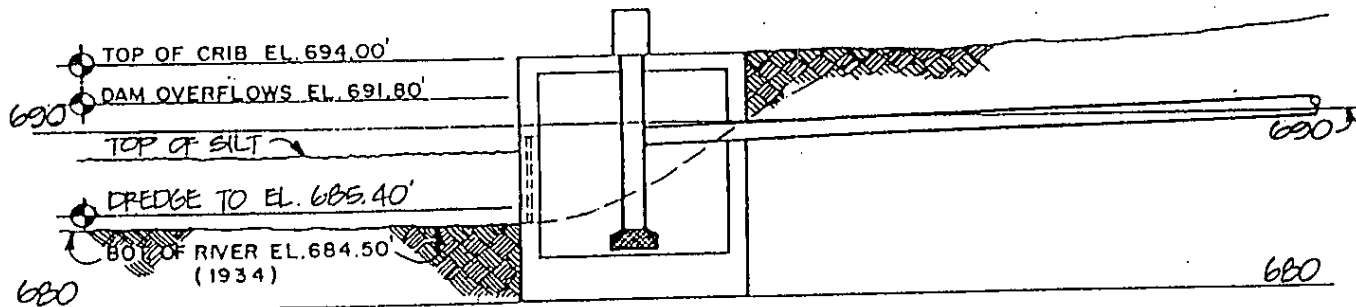
JUL 14 1998





**PLAN VIEW**  
SCALE: 1" = 8'

700 700



**SECTION A-A**  
SCALES: HORIZ. 1" = 8'  
VERT. 1" = 10'

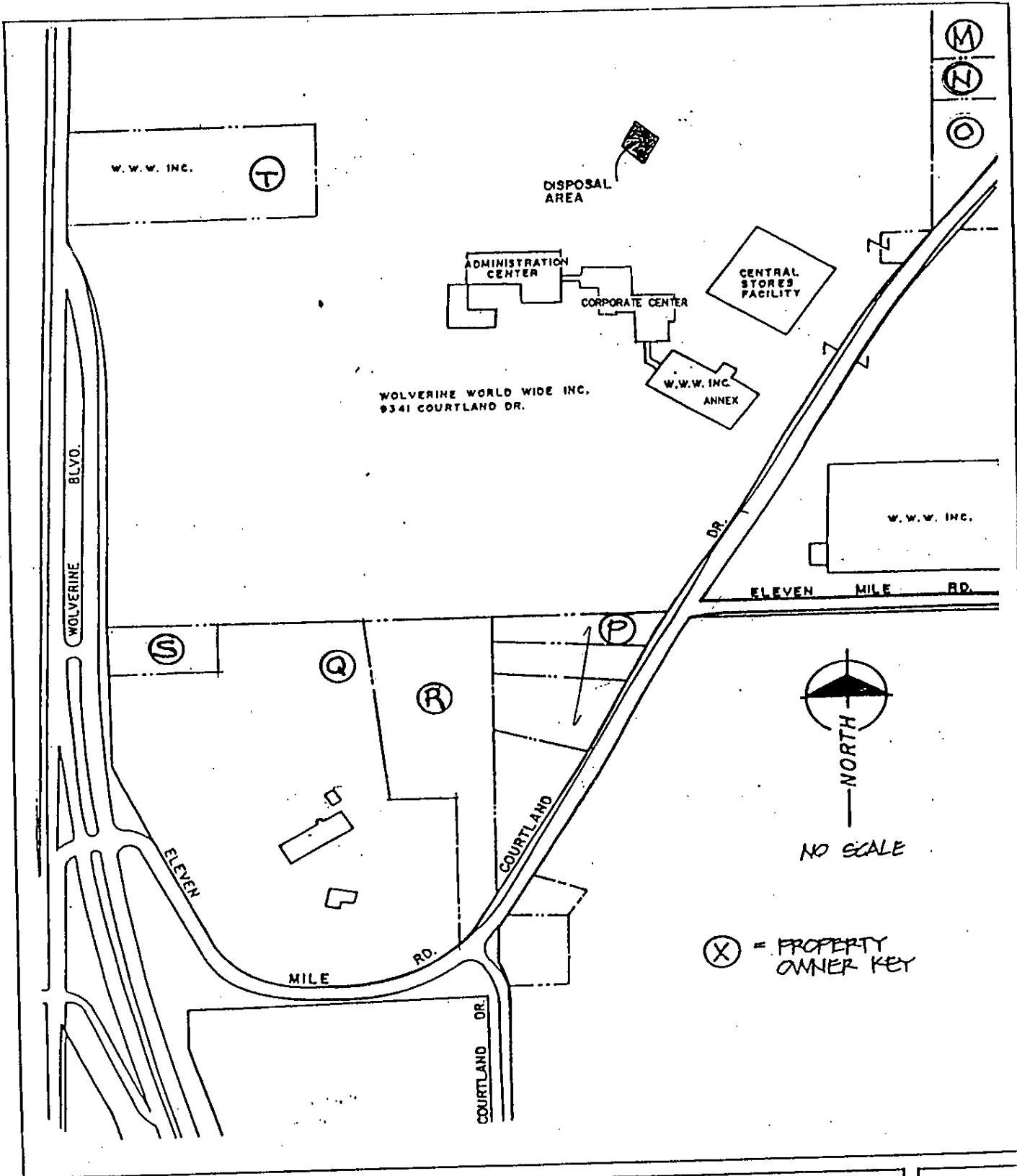
DEQ # 98-9-494  
9/8/98  
Dm

WOLVERINE WORLD WIDE  
ROCKFORD, MI  
DREDGING PERMIT APPLICATION  
DETAILS **RECEIVED**

PAGE  
3 OF 5

JUL 14 1998

ENVIRONMENTAL QUALITY  
LAND & WATER MANAGEMENT



D&R # 98-9-494  
 9/8/98  
 DWF

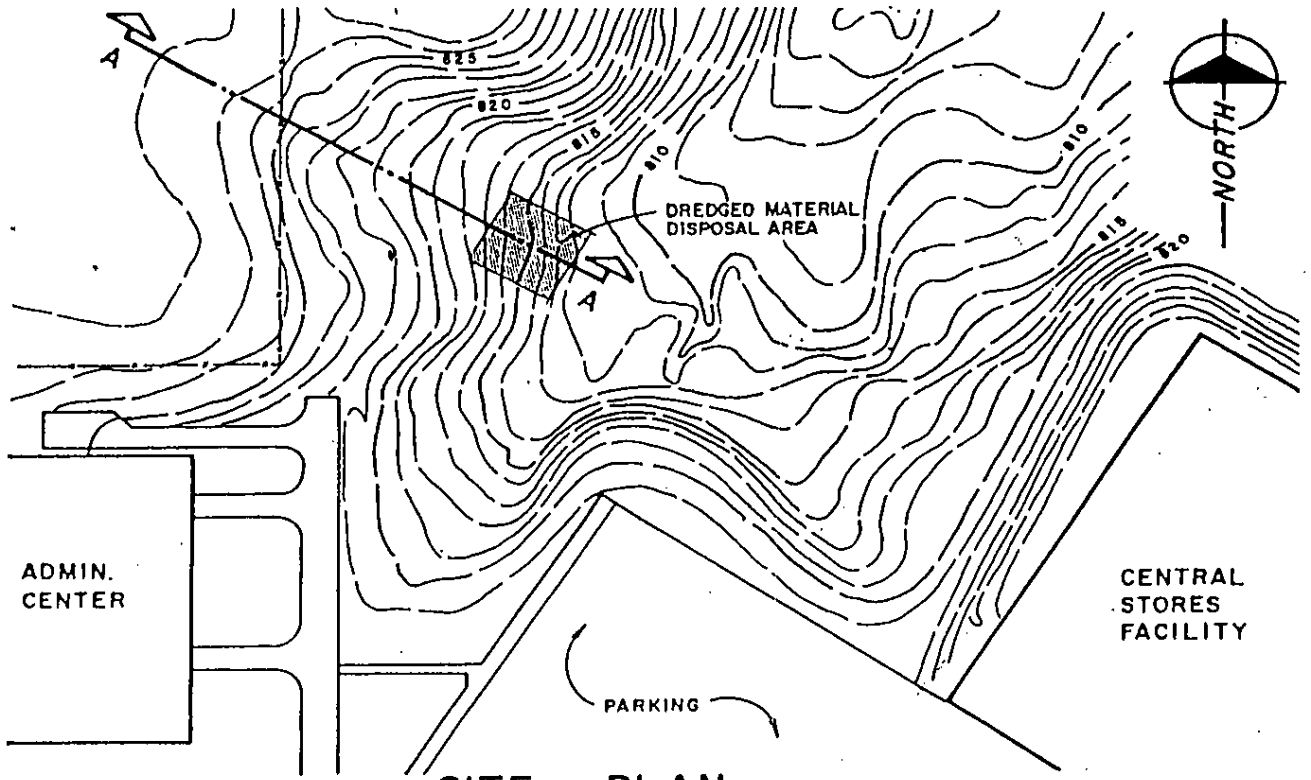
**WOLVERINE WORLD WIDE**  
**ROCKFORD, MI**  
 DREDGING PERMIT APPLICATION  
 DISPOSAL AREA-SITE PLAN

**PAGE**  
 4 OF 5

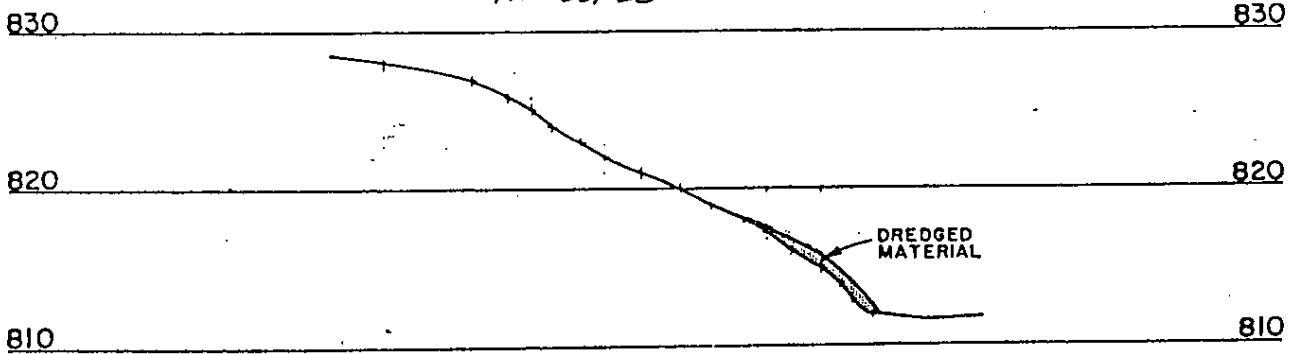
**RECEIVED**

JUL 14 1998

ENVIRONMENTAL QUALITY  
 LAND & WATER MANAGEMENT  
 WWWNyaan0210079



**SITE PLAN**  
NO SCALE



**SECTION A-A**  
NO SCALE

DEA # 98-9-494  
9/8/98  
DVF

**WOLVERINE WORLD WIDE**  
**ROCKFORD, MI**  
DREDGING PERMIT APPLICATION  
DISPOSAL AREA-ENLARGED PLAN  
**RECEIVED**

**PAGE**  
5 OF 5

JUL 14 1998

ENVIRONMENTAL QUALITY  
LAND & WATER MANAGEMENT

WWWNylan0210080

extra figures  
(originals)



**Rose & Westra, Inc.**  
**ENVIRONMENTAL CONSULTANTS**  
 GRAND RAPIDS, MICHIGAN

**LETTER OF TRANSMITTAL**

To: Ms. Cheryl Oliver Date: August 24, 2001  
 Firm: Wolverine World Wide Project No. 0003.01444.0  
123 North Main Street  
Rockford, MI 49341 Re: Dredging Permit Drawings

We are sending the following to you:

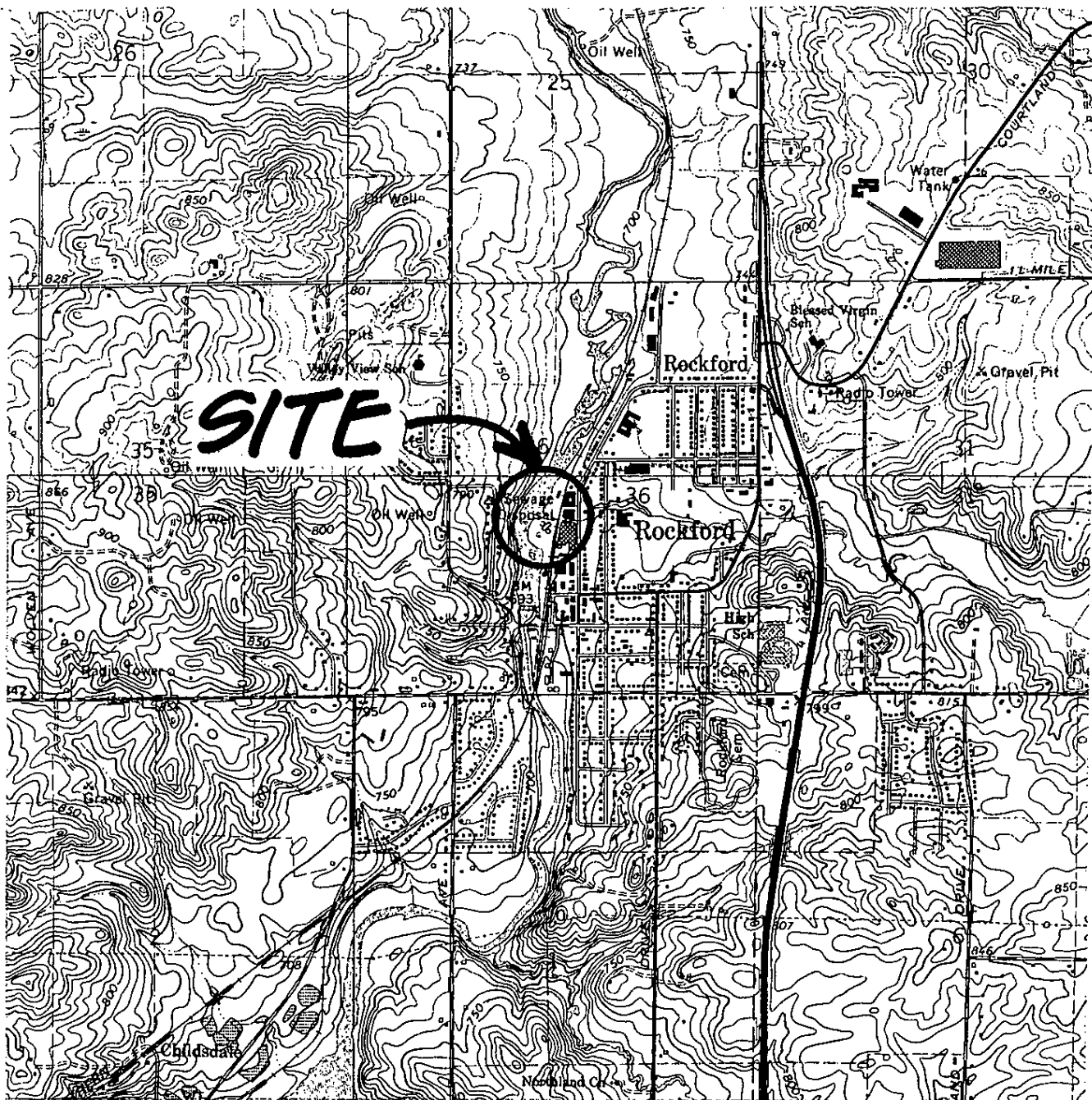
Shop Drawings  Prints  Specifications  
 Copy of Letter  Change Order  Drawings

Copies	Date	Description
1	8/23/01	Figure 1 - Site Location Map
1	8/23/01	Figure 2 - Overall Site Plan
1	8/23/01	Figure 3 - Plan View, Cross-Section & Detail

For Review  For your use  As requested  
 Reviewed, no exceptions taken  Reviewed w/corrections noted  Revise and resubmit  
 Reject  Samples  Other

Comments: As promised in our August 24, 2001 fax, here are the hard copies of the drawings to be used with Figures 4 & 5  
from the prior Dredging Permit to be mailed with your current permit application. If you have any questions,  
please call.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

cc: \_\_\_\_\_ Signed: Bryan L. Rose, P.E.



ROCKFORD, MICH.



SCALE : 1" = 2000'

**PROPOSED DREDGING PROJECT**

APPLICANT : WOLVERINE WORLD WIDE, INC.  
 WATERWAY : ROGUE RIVER  
 CITY : ROCKFORD  
 COUNTY : KENT COUNTY, MICHIGAN  
 NUMBER OF SHEETS : 1 of 3  
 DATE : 8/23/01

**SITE LOCATION MAP**

PROJECT NO.  
0003.01444.0



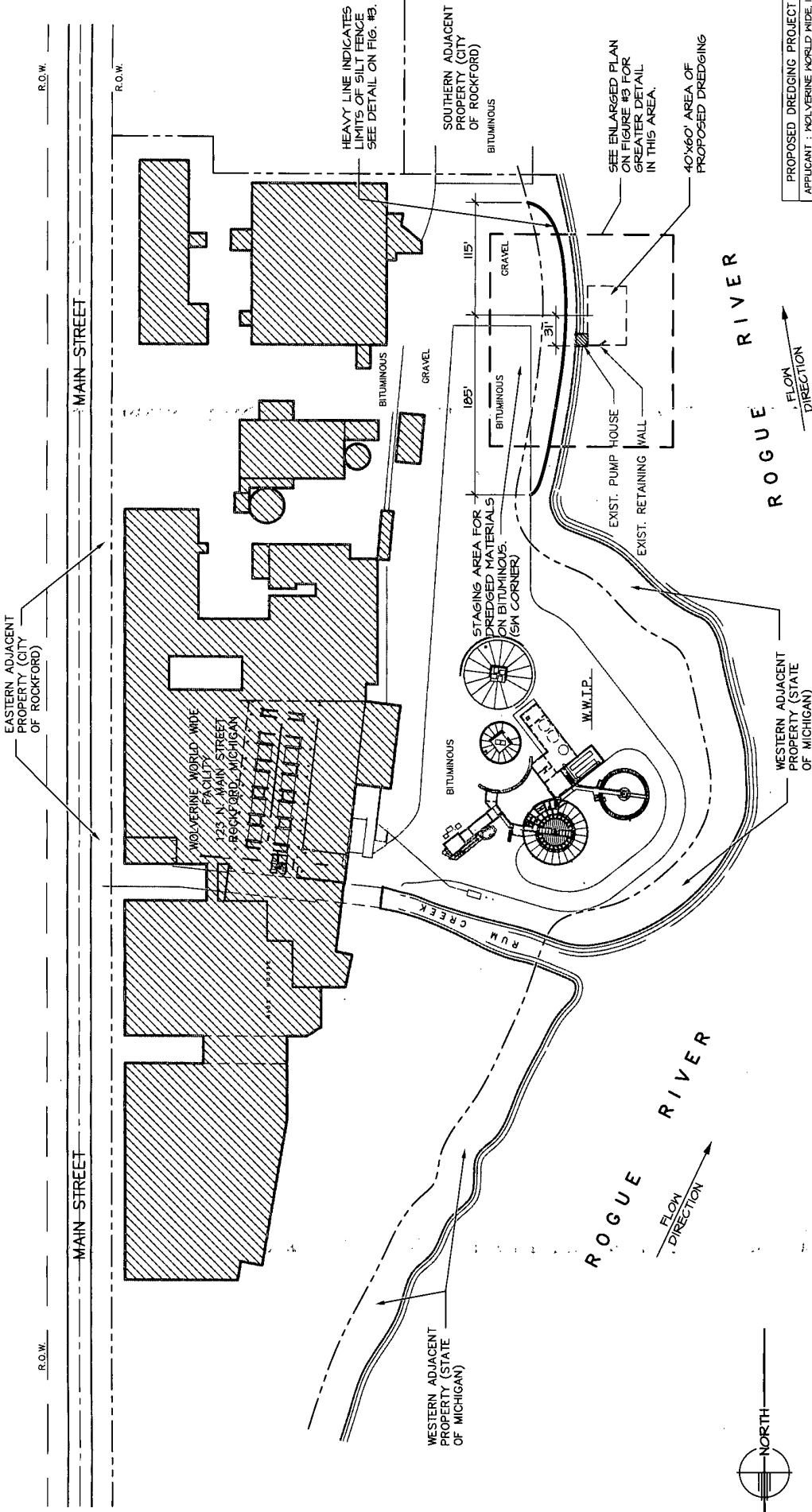
FIGURE NO.

**1**

DRAWN BY: KJB  
 FILE NO.: 01444101  
 APPROVED BY: BLR  
 DATE: 8/23/01

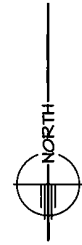
**ROSE & WESTRA, INC.**  
 ENVIRONMENTAL CONSULTANTS  
 Grand Rapids, Michigan

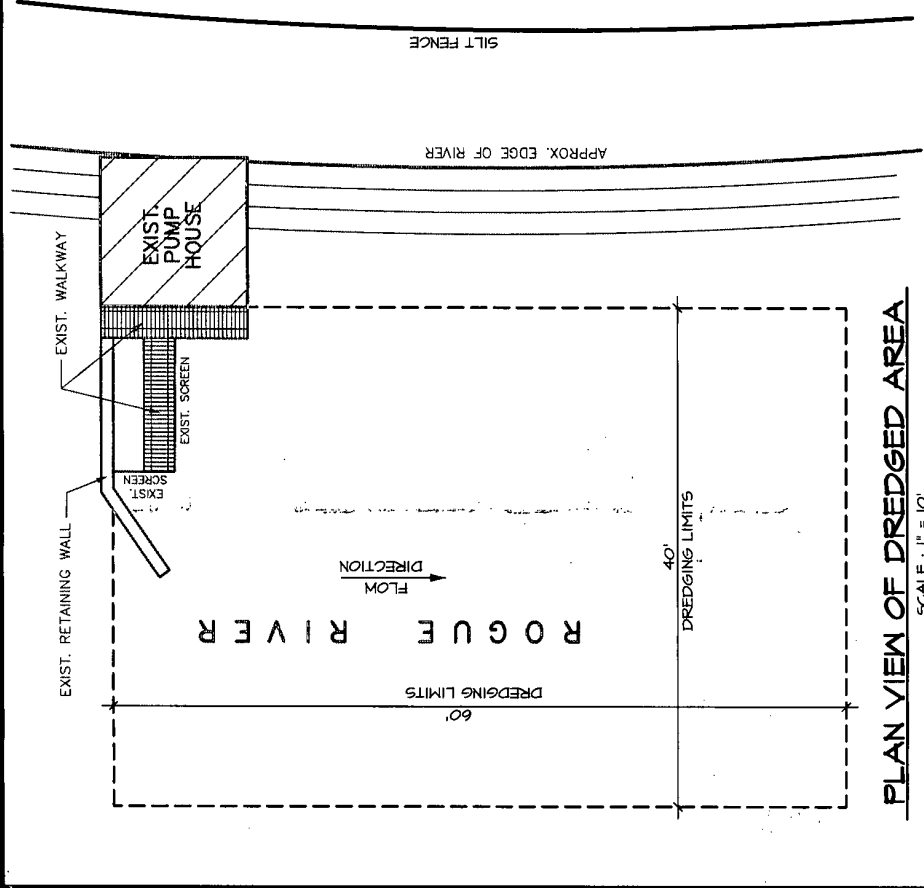
**WOLVERINE WORLD WIDE, INC.**  
 123 MAIN STREET, ROCKFORD, MICHIGAN  
 DREDGING PERMIT APPLICATION



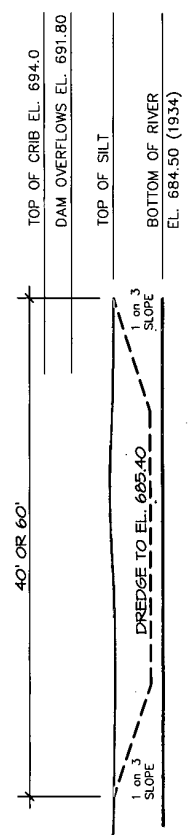
PROPOSED DREDGING PROJECT  
 APPLICANT : WOLVERINE WORLD WIDE, INC.  
 PROJECT : WOLVERINE WORLD WIDE FACILITY  
 CITY/TOWN : ROCKFORD, MICHIGAN  
 COUNTY : KENT COUNTY, MICHIGAN  
 NUMBER OF SHEETS : 2 of 3  
 DATE : 9/23/01

PROJECT NO. 000304440	
FIGURE NO. <b>2</b>	
<b>WOLVERINE WORLD WIDE, INC.</b> 123 MAIN STREET, ROCKFORD, MICHIGAN DREDGING PERMIT APPLICATION	
<b>ROSE &amp; WESTRA, INC.</b> ENVIRONMENTAL CONSULTANTS Grand Rapids, Michigan	
DRAWN BY: K.B. FILE NO.: 0444102 APPROVED DATE: 8/23/01 BY: BLR	SCALE: 1" = 100' WESTERN ADJACENT PROPERTY (STATE OF MICHIGAN)

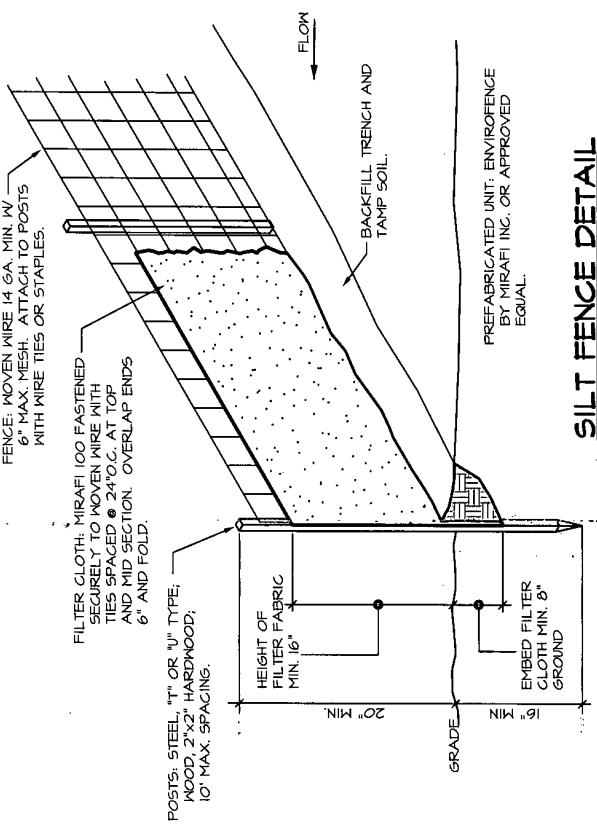




**PLAN VIEW OF DREDGED AREA**  
SCALE: 1" = 10'



**SECTION THRU DREDGED AREA**  
SCALE: 1" = 30'



**SILT FENCE DETAIL**  
NO SCALE

- SOIL EROSION CONTROL**
1. DO NOT DISTURB VEGETATION ALONG RIVER BANK.
  2. ADD SILT FENCE BEFORE ANY EARTH IS DISTURBED ON SITE. SEE DETAIL THIS SHEET.

PROPOSED DREDGING PROJECT  
 APPLICANT: MOLLERNE WORLD WIDE, INC.  
 PROJECT: GARDNER  
 CITY: ROCKFORD  
 COUNTY: KENT COUNTY, MICHIGAN  
 NUMBER OF SHEETS: 3 of 3  
 DATE: 8/23/01

PROJECT NO. 000304440  
 FIGURE NO. 3

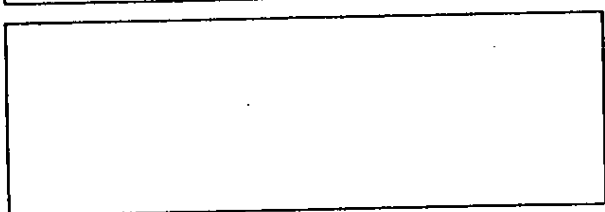
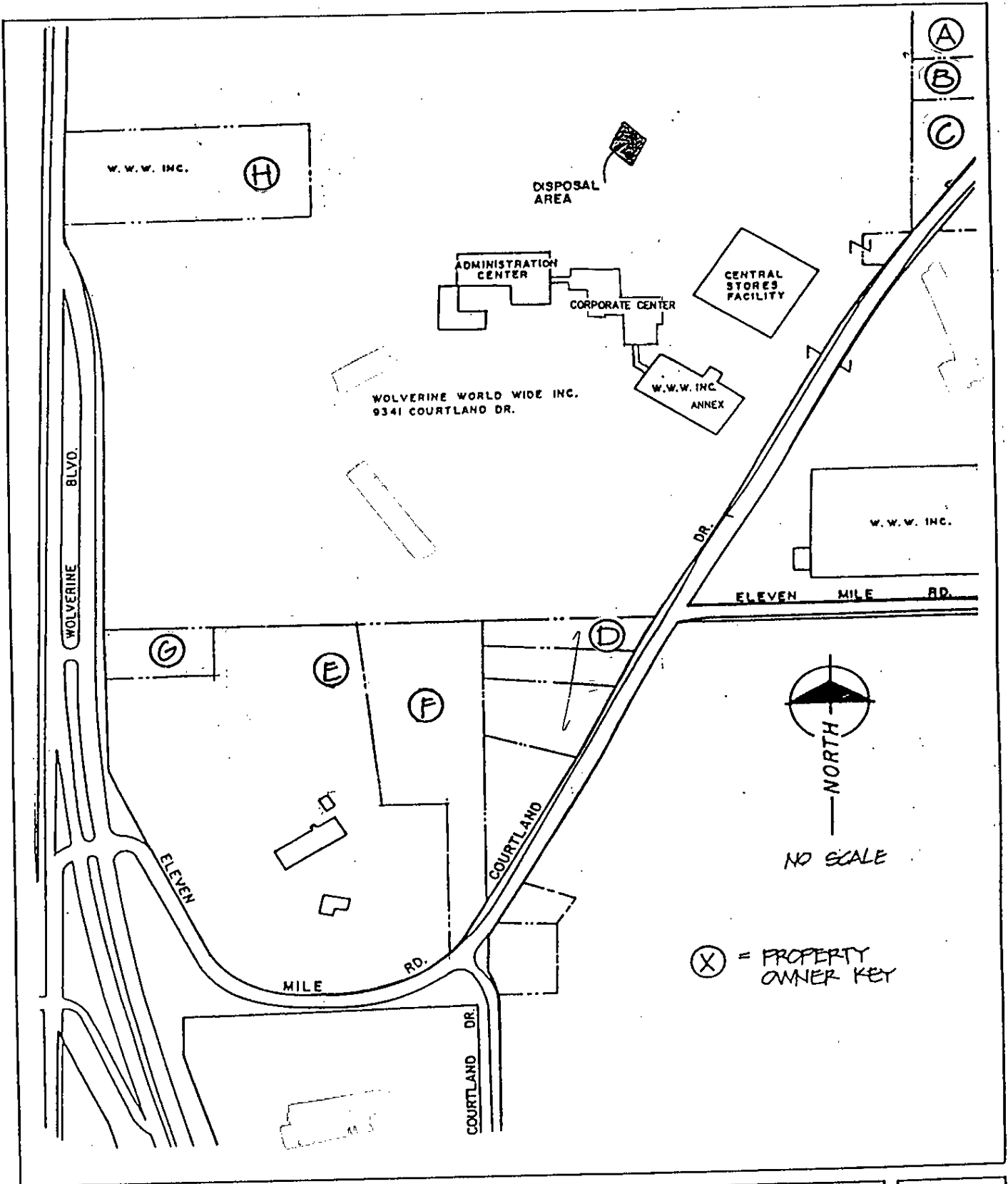
PLAN VIEW, CROSS-SECTION & DETAIL

**ROSE & WESTRA, INC.**  
 ENVIRONMENTAL CONSULTANTS  
 Grand Rapids, Michigan

FILE NO.: 044403  
 BY: K.P.  
 APPROVED DATE: 8/23/01

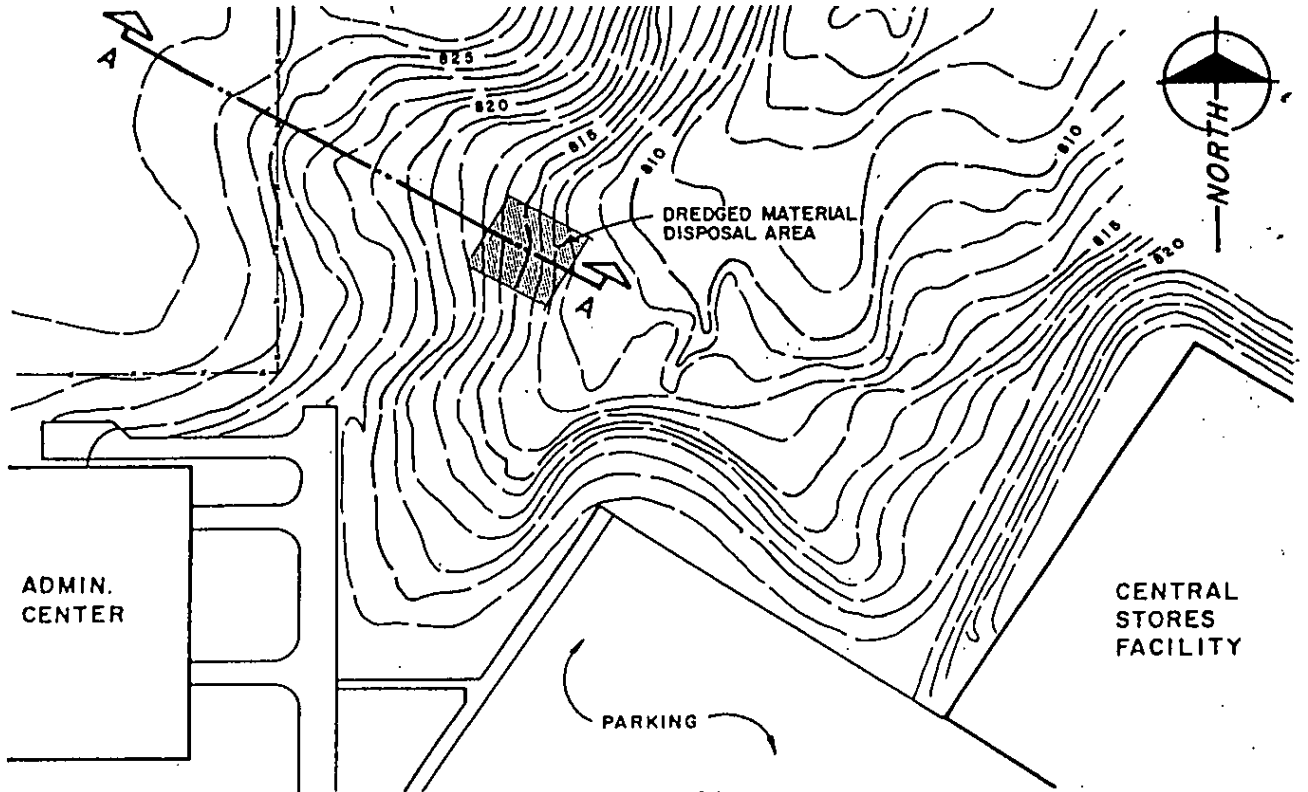
**MOLLERNE WORLD WIDE, INC.**  
 123 MAIN STREET, ROCKFORD, MICHIGAN  
 DREDGING PERMIT APPLICATION



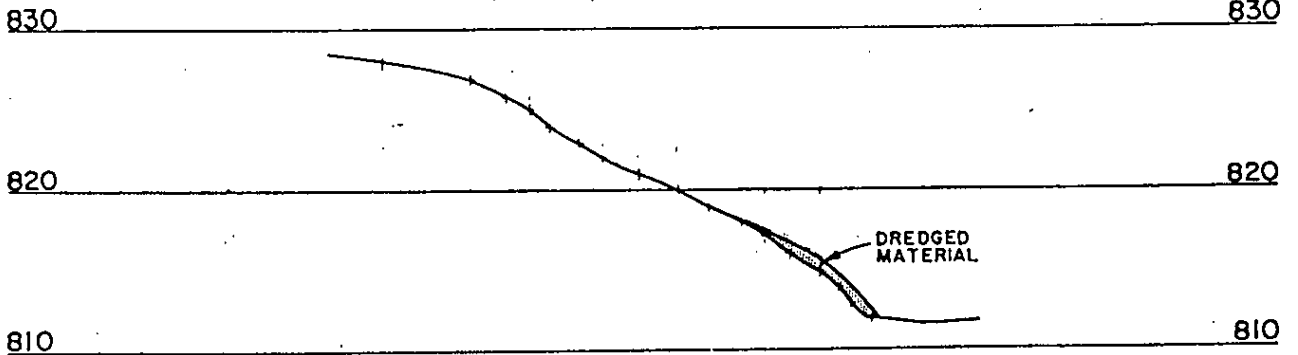


WOLVERINE WORLD WIDE  
 ROCKFORD, MI  
 DREDGING PERMIT APPLICATION  
 DISPOSAL AREA-SITE PLAN

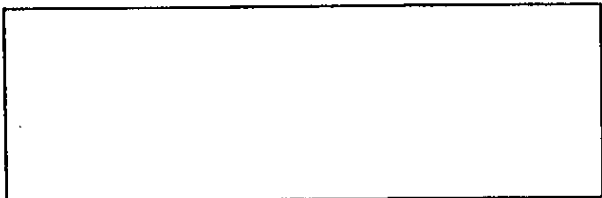
PAGE  
 4 OF 5



**SITE PLAN**  
NO SCALE



**SECTION A-A**  
NO SCALE



WOLVERINE WORLD WIDE  
ROCKFORD, MI  
 DREDGING PERMIT APPLICATION  
 DISPOSAL AREA-ENLARGED PLAN

PAGE  
 5 OF 5

**WOLVERINE WORLD WIDE, INC.**  
**PROPERTY OWNER LISTING**  
**AUGUST 2001**  
**PAGE 1 OF 1**

<u>KEY</u>	<u>PARCEL NUMBER</u>	<u>OWNER &amp; MAILING ADDRESS</u>
A	41-07-30-400-019 (9495 Courtland Dr.)	David Koschara 9495 Courtland Drive Rockford, MI 49341
B	41-07-30-400-018 (9455 Courtland Dr.)	Gregory M. Crowe 9455 Courtland Drive Rockford, MI 49341
C	41-07-30-400-017 (9445 Courtland Dr.)	Royce Washburn 9445 Courtland Drive Rockford, MI 49341
D	41-07-30-126-006 (9179 Courtland Dr.)	Robert O'Neal 9179 Courtland Drive Rockford, MI 49341
E	41-07-31-101-009 (4865 11 Mile Road)	Our Lady of Consultation Roman Catholic Church 4865 11 Mile Road, NE Rockford, MI 49341
F	41-07-31-101-006 (5001 11 Mile Road)	Richter Place Apartments 430 W. Allegan Street Lansing, MI 48922
G	41-07-31-101-007 (9102 Northland)	North Kent Service Center P.O. Box 477 Rockford, MI 49431
H	41-07-30-300-010 (9385 Courtland Dr.)	Wolverine World Wide, Inc. 9341 Courtland Drive Rockford, MI 49431

# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY PERMIT

Wolverine World Wide Inc  
123 N Main St  
Rockford, MI 49341

Permit No. 01-41-0164-P  
Issued September 21, 2001  
Extended  
Revised  
Expires December 31, 2002

Under the provisions of the Natural Resources and Environmental Protection Act 451, PA 1994 and specifically:

- Part 301 Inland Lakes and Streams.
- Part 325 Great Lakes Submerged Lands
- Part 303 Wetland Protection
- Part 31 Floodplain/Water Resources Protection.
- Part 315 Dam Safety.

Permission is hereby granted, based on permittee assurance of adherence to State requirements and permit conditions to:

Permitted Activity: Hydraulic dredge approximately 175 cubic yards of material from an approximately 40' x 60' area of the Rouge River to an approximate 4' water depth per attached drawings

Rogue

Water Course Affected: Rouge River

Property Location: Kent County, City of Rockford, Section 36  
Subdivision, Lot      Town/Range 9N, 11W

Authority granted by this permit is subject to the following limitations:

- A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
- B. The permittee in exercising the authority granted by this permit shall not cause unlawful pollution as defined by Act 245 of the Public Acts of 1929, as amended.
- C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
- D. All work shall be completed in accordance with the plans and specifications attached hereto and on file.
- E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved herein.
- F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with Act 53 of the Public Act of 1974 and comply with each of the requirements of that act.
- G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits or complying with other state statutes.
- H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
- I. Permittee shall notify the Department of Environmental Quality within one week after the completion of the activity authorized by this permit, by completing and forwarding the attached, preaddressed post card to the office addressed thereon.
- J. This permit shall not be assigned or transferred without the written approval of the Department of Environmental Quality.
- K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific State Act, Federal Act and/or Rule under which this permit is granted.
- L. Work to be done under authority of this permit is further subject to the following special instructions and specifications:

Authority granted by this permit does not waive permit requirements under Part 91, Soil Erosion and Sedimentation Control, Public Act 451 of 1994, or the need to acquire applicable permits from the County Drain Commission. Contact the Kent County Road Commission, 1500 Scribner, NW, Grand Rapids, MI 49504, for further information regarding Part 91.

This stream is designated as a natural stream pursuant to Part 305, Natural Rivers, of PA 451 of 1994, as amended. This permit does not waive requirements under Part 305. For additional information please contact Mr. Steve Sutton at 517-241-9049.

All dredge spoils and excavated materials, including organic and inorganic soils, vegetation and debris shall be placed above the ordinary high water mark on an upland location, leveled and stabilized with sod and/or seed, fertilizer and mulched in such a manner as not to erode into any waterbody, wetland, or 100-year floodplain.

Entire dredged area shall be enclosed with a filter fabric barrier (dredge curtain) to prevent excessive offsite siltation. Barrier shall be installed prior to commencement of dredging and shall be maintained for duration of project. Barrier shall be left in place after completion of dredging until all disturbed sediments have settled.

In issuing this permit, the Department of Environmental Quality has relied upon the information and data which permittee has provided in connection with the permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete, or inaccurate, the Department may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.

The property owner, contractor, and any agent in obtaining this permit are held responsible to ensure the project is constructed in accordance with all drawings and specifications contained in this permit.

The permittee hereby acknowledges and accepts sole liability for any injury to persons or property which may result from the activities authorized by issuance of the permit.

Permittee agrees to indemnify the State of Michigan and all of its departments, agencies, boards, commissions, officers, employees, and agents from any and all liability arising under or in any manner related to the issuance of the permit or the privileges granted under this permit.

This permit shall become effective on the date of signature by Department of Environmental Quality representative. Upon signing by the permittee named herein, this permit must be returned to the Land and Water Management Division, Department of Environmental Quality, for final execution.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

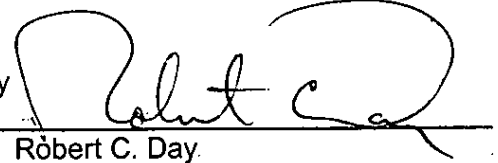
Cheryl L Olier for Wolverine World Wide      Sept 25, 2001  
Permittee      Date

Wolverine World Wide Inc  
123 N. Main St  
Rockford, MI 49341

Permit No. 01-41-0164-P

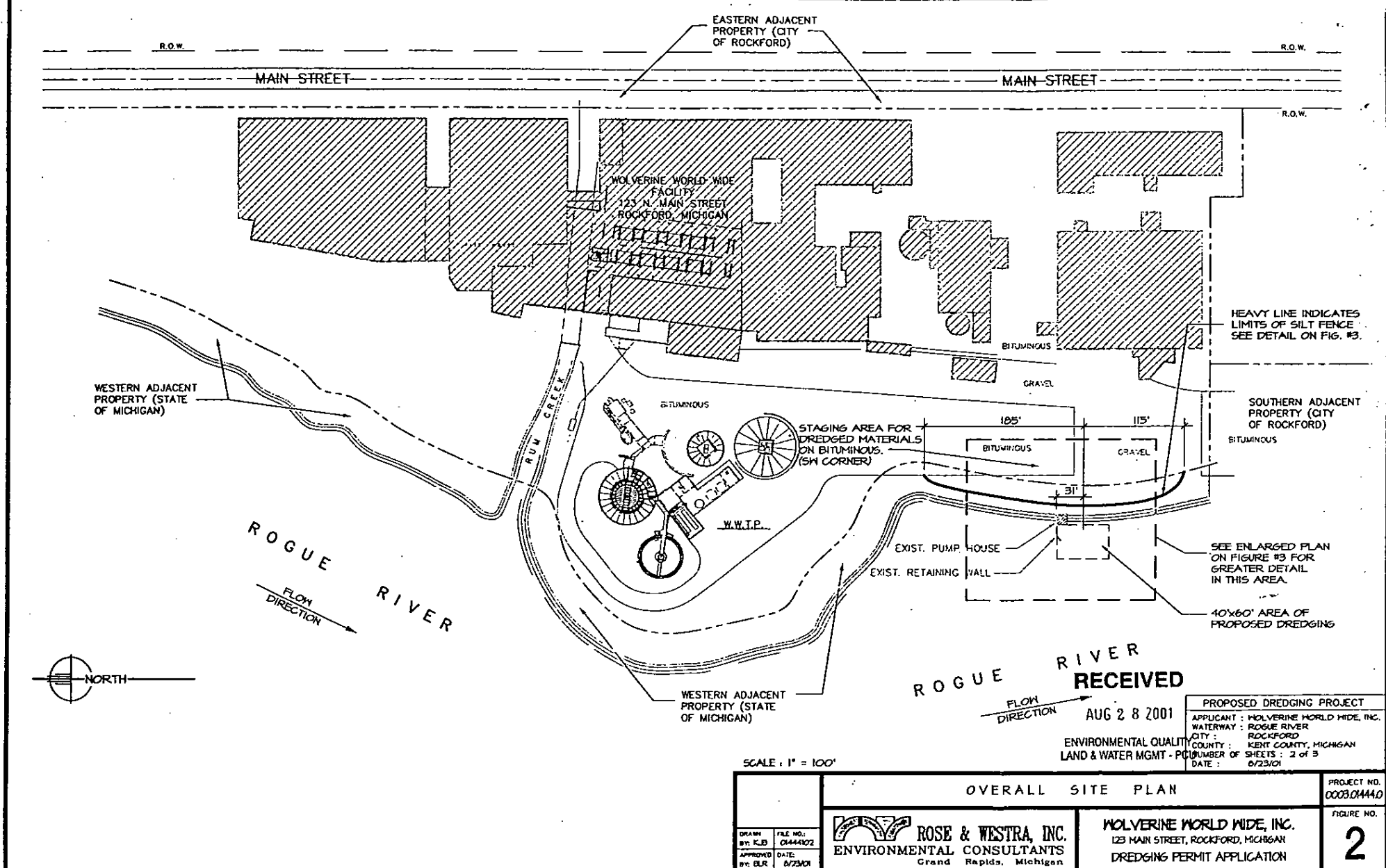
Russell J. Harding, Director  
Department of Environmental Quality

By



Robert C. Day  
District Representative  
Land and Water Management Division

cc: DEQ, LWMD, PCU  
Kent CEA  
City of Rockford



DEQ-LWMD  
 FILE # 01-41-0169  
 APPROVED PLANS  
 PAGE 1 OF 2  
*[Signature]*

KENT COUNTY ROAD COMMISSION  
1500 SCRIBNER AVE. N.W.  
GRAND RAPIDS, MICHIGAN 49504  
(616) 242-6910

**SOIL EROSION AND SEDIMENTATION CONTROL  
PERMIT**

Pursuant to Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, approval of the Soil Erosion and Sedimentation Control Plan and Application is hereby granted to:

Name WOLVERINE WORLD WIDE INC ATTEN: CHERYL OLIVER Permit Number: 01 / 381

Address 123 N MAIN ST Date Issued: 10/2/01 Open

City ROCKFORD State MI Zip 49351 Expiration Date: 1/1/02 Closed

Telephone 863-3997 Fax 866-0992 E-mail Address \_\_\_\_\_

The project location is described as: 123 N MAIN ST Responsible on-site person GUST CONSTRUCTION - 696-0210

In Kent County, City, or Township of- ROCKFORD Section 36 T9N R11W

Surface water involved: ROGUE RIVER Unnamed Wetland

Project description: RIVER DREDGING

**\*\*This permit does not preclude the need for approvals or permits from other Federal, State, County, or, Municipal authorities, as may be required by law.\*\***

No permanent or temporary fill or excess soil or other material shall be placed in any floodplain, wetland, or surface water area not specifically authorized by the Michigan Department of Environmental Quality.

Earth change activities to be in accordance with approved plans dated \_\_\_\_\_; Part 91 of 1994 PA 451, as amended, Part 91 administrative rules; and any general or specific conditions indicated below:

**Additional Controls Required:**

- The Kent County Road Commission is to be notified of start of work at least 48 hours in advance. (616) 242-6910
- Install controls as specified on the SESC plan: INCLUDING DREDGE CURTAIN IN RIVER.
- Silt fence installed between earth change and surface water or wetland area. \_\_\_\_\_
- Maintain minimum 15 foot vegetated buffer between earth change and surface water or wetland area. \_\_\_\_\_
- Install catch basin controls i.e. sediment bag, etc. \_\_\_\_\_
- Establish growth on all disturbed area's by 1 / 1 / 2002
- Keep road clean of sediment during construction. \_\_\_\_\_
- Install mulch blankets on slopes. \_\_\_\_\_
- Install mulch blankets or geotextile fabric on areas of concentrated flow. \_\_\_\_\_
- Other controls required: AS NEEDED
- Performance Deposit:** A performance deposit is required as a condition for the issuance of the permit if earth change is greater than (1) one acre.  
The form of deposit is CHECK #218780 and the amount for this earth change project is \$500.00
- The Kent County Road Commission is to be notified within 48 hours of completion and/or stabilization of the project. (616) 242-6910

PLAN APPROVED BY: JIM MCALLISTER DATE 9 / 25 / 2001

THIS PERMIT MUST BE AT PROJECT SITE AND AVAILABLE FOR INSPECTION  
PERMITTEE'S COPY  INSPECTOR'S COPY  LOCAL GOVERNMENT DIVISION  OFFICE COPY





**DOMESTIC OPERATIONS GROUP**

**Wolverine World Wide, Inc. 123 North Main Street, Rockford, MI 49351**

November 30, 2006

MDEQ  
LWMD-PCU  
P.O. Box 30204  
Lansing, MI 48909-7704

RE: Wolverine Leathers, Division of Wolverine World Wide, Inc.  
City of Rockford, Kent County

To Whom It May Concern:

Enclosed is a completed joint permit application for the extension of the Wolverine Leathers existing Intake Structure. The Executive Summary with attachments provides the details of the proposed work. We have enclosed an application fee of \$500 made out to the State of Michigan and have included the hydraulic computations for the water intake extension and debris screen. The permit application with plans, cross sections, alternatives considered, and details of the scope of work are attached for your review.

Should you have any questions, feel free to contact me at 616-863-3997.


Sincerely,



Cheryl Oliver  
Environmental Manager  
Wolverine World Wide, Inc.

Encls.

THIS DOCUMENT IS PRINTED IN TWO COLORS. DO NOT ACCEPT UNLESS BLUE AND BROWN ARE PRESENT.


**HARRIS CENTRAL NA** 414187  
 ROSELLE ILLINOIS

ROCKFORD, MICHIGAN  
 DUNS: NO: 6015069

DATE: 11/30/2006  
 CHECK NO: 414187  
 VENDOR NO: 102620

**AMOUNT**  
**\$500.00**  
 IN U.S. DOLLARS

PAY FIVE HUNDRED DOLLARS AND 00/100

TO THE ORDER OF THE STATE OF MICHIGAN - IMDEO

*[Handwritten Signature]*

⑈414187⑈ ⑆071915580⑆ 04⑈451⑈710⑈8⑈

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## **TABLE OF CONTENTS**

**Permit Application**

**Executive Summary**

**Description of Proposed Project and Associated Activities and the  
Construction Sequence and Methods**

**Proposed Project Purpose, Intended Use, and Alternatives Considered**

**Wetland Impacts**

**Other Attachments**

- **11" by 17" Reduced Drawings with Overall Site Location Map, Soil Erosion Plan, Plan and Profile Drawings and Details**
- **Hydraulic Calculations for Pipe and Trash Screen Losses**
- **Permit Application Fee**



<b>AGENCY USE</b>	Previous USACE Permit or File Number	Date Received	Land and Water Management Division, MDEQ File Number	<b>AGENCY USE</b>
	USACE File Number		Marina Operating Permit Number	
			Fee received \$	

• Complete all items in Sections 1 through 9 and those items in Sections 10 through 21 that apply to the project. Clear drawings and cross sections must be provided.

**1 PROJECT LOCATION INFORMATION**

• Refer to your property's legal description for the Township, Range, and Section information, and your property tax bill for your Property Tax Identification Number(s).

Address <b>123 North Street</b>		Township Name(s) <b>Algoma</b>	Township(s) <b>9N</b>	Range(s) <b>11 W</b>	Section(s) <b>36</b>
City/Village <b>Rockford</b>	County(ies) <b>Kent</b>	Property Tax Identification Number(s) <b>410636328002, 410636328003, 410636202001</b>			
Name of Waterbody <b>Rogue River</b>	Project Name or Job Number	Subdivision/Plat	Lot Number	Private Claim	
Project types (check all that apply)		<input type="checkbox"/> private	<input type="checkbox"/> public/government	<input checked="" type="checkbox"/> industrial	<input type="checkbox"/> commercial
		<input type="checkbox"/> building addition	<input type="checkbox"/> new building or structure	<input type="checkbox"/> building renovation or restoration	<input type="checkbox"/> river restoration
		<input type="checkbox"/> other (explain)		<input type="checkbox"/> multi-family	<input type="checkbox"/> single-family
The proposed project is on, within, or involves (check all that apply)					
<input type="checkbox"/> a stream	<input type="checkbox"/> a pond (less than 5 acres)	<input type="checkbox"/> a legally established County Drain (date established) (M/D/Y) / /	<input type="checkbox"/> a Great Lake or Section 10 Waters	<input type="checkbox"/> a natural river	<input type="checkbox"/> a new marina
<input checked="" type="checkbox"/> a river	<input type="checkbox"/> a channel/canal	<input type="checkbox"/> a designated high risk erosion area	<input type="checkbox"/> a dam	<input type="checkbox"/> a structure removal	
<input type="checkbox"/> a ditch or drain	<input type="checkbox"/> an inland lake (5 acres or more)	<input type="checkbox"/> a designated critical dune area	<input type="checkbox"/> a wetland	<input type="checkbox"/> a utility crossing	
<input type="checkbox"/> a floodway area	<input checked="" type="checkbox"/> a 100-year floodplain	<input type="checkbox"/> a designated environmental area	<input checked="" type="checkbox"/> 500 feet of an existing waterbody		

**2 DESCRIBE PROPOSED PROJECT AND ASSOCIATED ACTIVITIES, AND THE CONSTRUCTION SEQUENCE AND METHODS**

• Attach separate sheets, as needed, including necessary drawings, sketches, photographs, aerials, or plans.

**See Attached**

**3 APPLICANT, AGENT/CONTRACTOR, AND PROPERTY OWNER INFORMATION**

• The applicant can be either the property owner or the person or company that proposes to undertake the activity.

• If the applicant is a corporation, both the corporation and its owner must provide a written document authorizing the agent/contractor to act on their behalf.

Applicant (individual or corporate name) <b>Wolverine Leathers, Division of Wolverine World Wide, Inc., Cheryl Oliver</b>		Agent/Contractor (firm name and contact person) <b>Spicer Group, Inc., Shawn Middleton</b>	
Mailing Address <b>123 North Street</b>		Address <b>1400 Zeeb Drive</b>	
City <b>Rockford</b>	State <b>MI</b> Zip Code <b>49351</b>	City <b>St. Johns</b>	State <b>MI</b> Zip Code <b>48879</b>
Daytime Phone Number with Area Code <b>616-863-3997</b>	Cell Phone Number <b>616-293-3221</b>	Daytime Phone Number with Area Code <b>989-224-2355</b>	Cell Phone Number <b>989-928-8027</b>
Fax <b>616-866-0992</b>	E-mail <b>oliverch@wwwinc.com</b>	Fax <b>989-224-2357</b>	E-mail <b>shawnm@spicergroup.com</b>
Is the applicant the sole owner of all property on which this project is to be constructed and all property involved or impacted by this project? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If No, provide a letter signed by the property owner authorizing the agent/contractor to act on his or her behalf or a copy of easements or right-of-ways. If multiple owners, attach all property owners' names, mailing addresses, and telephone numbers. Disclose any DEQ conservation easements or other easements, deed restrictions, leases, or any other encumbrance upon the property in the project area. A copy of the land restriction must be provided.			
Property Owner's Name (If different from applicant) <b>Same as above</b>		Mailing Address	
Daytime Phone Number with Area Code	Cell Phone Number	City	State Zip Code
-	-	-	-



**4 PROPOSED PROJECT PURPOSE, INTENDED USE, AND ALTERNATIVES CONSIDERED** (Attach additional sheets if necessary)

- The purpose must include any new development or expansion of an existing land use.
- Include a description of alternatives considered to avoid or minimize resource impacts. Include factors such as, but not limited to, alternative construction technologies; alternative project layout and design; alternative locations; local land use regulations and infrastructure; and pertinent environmental and resource issues.
- For utility crossings, include both alternative routes and alternative construction methods.

See Attached

**5 LOCATING YOUR PROJECT SITE**

- Provide the requested information listed below to help staff locate your project site.
- Attach a copy of a map, such as a plat, county, or USGS topographic map, clearly showing the site location and include an arrow indicating the north direction.
- Project area must be staked at the time of application submittal.

Is there an access road to the project?  No  Yes (If Yes, type of road, check all that apply)  private  public  improved  unimproved

Name of roads at closest main intersection *Main Street* and *Courtland Street*

Directions from main intersection *North of intersection*

Style of house or other building on site  ranch  2-story  cape cod  bi-level  cottage/cabin  pole barn  none  other (describe) *Industrial manufacturing facility*

Color *Brown* Color of adjacent property house and/or buildings *Tan*

House number Address is visible on  house  garage  mailbox  sign  other (describe)

Street name Fire lane number Lot number

How can your site be identified if there is no visible address? *Wolverine Leathers - Tannery*

Provide directions to the project site, with distances from the best and nearest visible landmark and waterbody *See attached location map and site plan*

Does project cross boundaries of two or more political jurisdictions? (City/Township, Township/Township, County/County, etc.)

No  Yes (If Yes, list jurisdiction names.)

**6 List all other federal, interstate, state, or local agency authorizations required for the proposed activity, including all approvals or denials received.**

Agency	Type approval	Identification number	Date applied	Date approved / denied	If denied, reason for denial
<i>Kent County</i>	<i>SESC</i>		<i>Will apply</i>		
<i>Road Commission</i>			<i>upon issuance of MDEQ permit</i>		

**7** If a permit is issued, date activity will commence (M/D/Y) *3/1/07*

Proposed completion date (M/D/Y) / /

Has any construction activity commenced or been completed in a regulated area?  No  Yes

If Yes, identify the portion(s) underway or completed on drawings or

attach project specifications and give completion date(s) (M/D/Y) / /

Were the regulated activities conducted under a MDEQ permit?  No  Yes

If Yes, list the MDEQ permit number

Are you aware of any unresolved violations of environmental law or litigation involving the property?  No  Yes (If Yes, explain)

**8 PUBLIC NOTIFICATION** (Attach additional sheets if necessary)

- Complete information for all adjacent and impacted property owners and the lake association or established lake board, including the contact person's name.
- If you own the adjacent lot, provide the requested information for the first adjacent parcel beyond your property line.

Property Owner's Name	Mailing Address	City	State	Zip Code
<i>City of Rockford</i>	<i>7 South Monroe Street</i>	<i>Rockford</i>	<i>MI</i>	<i>49341</i>
<i>Penn Central Corporation</i>	<i>Dept. of Transportation</i>	<i>Lansing</i>	<i>MI</i>	
<i>DNR</i>	<i>P.O. Box 30735</i>	<i>Lansing</i>	<i>MI</i>	<i>48909-8235</i>
<i>Thomas Stehouwer</i>	<i>895 Rogers St. NW</i>	<i>Grand Rapids</i>	<i>MI</i>	<i>49544</i>

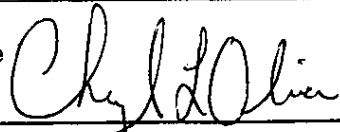
Name of  Established Lake Board  or Lake Association and the Contact Person's name, phone number, and mailing address

**9 APPLICANT'S CERTIFICATION READ CAREFULLY BEFORE SIGNING**

I am applying for a permit(s) to authorize the activities described herein. I certify that I am familiar with the information contained in this application, that it is true and accurate, and, to the best of my knowledge, is in compliance with the State Coastal Zone Management Program and the National Flood Insurance Program. I understand that there are penalties for submitting false information and that any permit issued pursuant to this application may be revoked if information on this application is untrue. I certify that I have the authority to undertake the activities proposed in this application. By signing this application, I agree to allow representatives of the MDEQ, USACE, and/or their agents or contractors to enter upon said property in order to inspect the proposed activity site and the completed project. I understand that I must obtain all other necessary local, county, state, or federal permits and that the granting of other permits by local, county, state, or federal agencies does not release me from the requirements of obtaining the permit requested herein before commencing the activity. I understand that the payment of the application fee does not guarantee the issuance of a permit.



- All applicants must complete all of the items in Sections 1 through 9 on pages 1 and 2 of this application.
- Complete those items in Sections 10 through 21 that apply to the project. Submit only those pages where you have provided information.
- Your application will not be processed if the application form is not completely filled out.
- List here the application page numbers being submitted and a brief description of other attachments included with your application. *Pgs. 4-7*
- 
- Submit 8.5" by 11," 8.5" by 14" or 11" by 17" size drawings with 4 copies. The USACE requires one set of drawings on 8.5" x 11" paper, with all notations clearly legible. Larger copies may be submitted in addition to the standard size copies.
- A letter of authorization from the owner must be included if not signed below by the owner.

<input checked="" type="checkbox"/> Property Owner <input type="checkbox"/> Agent/Contractor <input type="checkbox"/> Corporation - Title	Printed Name <i>Cheryl Oliver, Wolverine World Wide, Inc.</i>	Signature 	Date (M/D/Y) <i>11, 30, 06</i>
---	--	---	-----------------------------------

<b>10 PROJECTS IMPACTING WETLANDS OR FLOODPLAINS OR LOCATED ON AN INLAND LAKE OR STREAM OR A GREAT LAKE</b>			
<ul style="list-style-type: none"> <li>• Check boxes A through N that may be applicable to your project and provide the requested information.</li> <li>• If your project may affect wetlands, also complete Section 12. If your project may impact regulated floodplains, also complete Section 13.</li> <li>• Provide an overall site plan showing existing lakes, streams, wetlands, and other water features; existing structures; and the location of all proposed structures, land change activities and soil erosion and sedimentation control measures. Review sample drawings for guidance in completing site-specific drawings for your project.</li> <li>• Some projects on the Great Lakes require an application for conveyance prior to Joint Permit Application completeness.</li> <li>• On a Great Lake use IGLD 85 <input type="checkbox"/> surveyed <input type="checkbox"/> converted from observed still water elevation. On inland waters, <input type="checkbox"/> NGVD 29 <input type="checkbox"/> local datum <input checked="" type="checkbox"/> other <b>NAVD88</b></li> <li>• Observed water elevation (ft) <b>691.32</b>, date of observation (MDY) <b>7/17/06</b></li> </ul>			
<b>A. PROJECTS REQUIRING FILL (See All Sample Drawings)</b>			
<ul style="list-style-type: none"> <li>• To calculate volume in cubic yards (cu yd), multiply the average length in feet (ft) times the average width (ft) times the average depth (ft) and divide by 27.</li> <li>• Attach both plan and cross-section views to scale showing maximum and average fill dimensions.</li> </ul>			
(Check all that apply) <input type="checkbox"/> floodplain fill <input type="checkbox"/> wetland fill <input type="checkbox"/> riprap <input type="checkbox"/> seawall, bulkhead, or revetment <input type="checkbox"/> bridge or culvert			
<input type="checkbox"/> boat launch <input type="checkbox"/> off-shore swim area <input type="checkbox"/> beach sanding <input type="checkbox"/> boatwell <input type="checkbox"/> crib dock <input type="checkbox"/> other			
Fill dimensions (ft)		Total fill volume (cu yd)	Maximum water depth in fill area (ft)
Length	width	maximum depth	
Type of clean fill <input type="checkbox"/> pea stone <input type="checkbox"/> sand <input type="checkbox"/> gravel		Will filter fabric be used under proposed fill?	
<input type="checkbox"/> wood chips <input type="checkbox"/> other		<input type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, type)	
Source of clean fill <input type="checkbox"/> on-site, If on-site, show location on site plan <input type="checkbox"/> commercial <input type="checkbox"/> other, If other, attach description of location			
Fill will extend		feet into the water from the shoreline and upland	feet out of the water.
		Fill volume below OHWM (cu yd)	
<b>B. PROJECTS REQUIRING DREDGING OR EXCAVATION (For dredging projects see Sample Drawing 7, for excavation see other applicable Sample Drawings)</b>			
<ul style="list-style-type: none"> <li>• To calculate volume in cubic yards (cu yd), multiply the average length in feet (ft) times the average width (ft) times the average depth (ft) and divide by 27.</li> <li>• Attach both plan and cross-section views to scale showing maximum and average dredge or excavation dimensions.</li> <li>• The applicant will be notified if sediment sampling is required.</li> </ul>			
(Check all that apply) <input type="checkbox"/> floodplain excavation <input type="checkbox"/> wetland dredge or draining <input type="checkbox"/> seawall, bulkhead, or revetment			
<input type="checkbox"/> navigation <input type="checkbox"/> boat well <input type="checkbox"/> boat launch <input type="checkbox"/> other			
Total dredge/excavation volume (cu yd)	Dimensions length width depth		Dredge/excavation volume below OHWM (cu yd)
Method and equipment for dredging			
Has proposed dredge material been tested for contaminants? <input type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, attach testing results)		Will dredged or excavated spoils be placed <input type="checkbox"/> on-site <input type="checkbox"/> off-site. Attach a detailed disposal area site plan, location map. If dispose off site, provide address and letter of authorization.	
Has this same area been previously dredged? <input type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, provide date and permit number, if available)		/ / /	
If Yes, are you proposing to enlarge the previously dredged area <input type="checkbox"/> No <input type="checkbox"/> Yes			
Is long-term maintenance dredging planned? <input type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, when and how much?)			
<b>C. PROJECTS REQUIRING RIPRAP (See Sample Drawings 2, 3, 8, 12, 14, 17, 22, and 23. Others may apply)</b>			
Riprap waterward of the <input type="checkbox"/> shoreline OR <input type="checkbox"/> ordinary high water mark	Dimensions (ft) length width depth		Volume (cu yd)
Riprap landward of the <input type="checkbox"/> shoreline OR <input type="checkbox"/> ordinary high water mark	Dimensions length width depth		Volume (cu yd)
Type of riprap <input type="checkbox"/> field stone <input type="checkbox"/> angular rock <input type="checkbox"/> other		Will filter fabric be used under proposed riprap? <input type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, type)	
<b>D. SHORE PROTECTION PROJECTS (See Sample Drawings 2, 3, and 17)</b>			
(check all that apply) <input type="checkbox"/> riprap - length (ft) <input type="checkbox"/> seawall/bulkhead - length (ft) <input type="checkbox"/> revetment - length (ft)			Distances of project from both property lines (ft)
<b>E. DOCK - PIER - MOORING PILING (See Sample Drawing 10)</b>			
Type <input type="checkbox"/> open pile <input type="checkbox"/> filled <input type="checkbox"/> crib		Seasonal structure? <input type="checkbox"/> No <input type="checkbox"/> Yes	
Proposed structure dimensions (ft) length width		Dimensions of nearest adjacent structures (ft) length width	
<b>F. BOAT WELL (No Sample Drawing available)</b>			
Type of bank stabilization <input type="checkbox"/> wood <input type="checkbox"/> steel <input type="checkbox"/> concrete <input type="checkbox"/> vinyl <input type="checkbox"/> riprap <input type="checkbox"/> other			
Boat well dimensions (ft) length width depth		Number of boats	
Volume of backfill behind sidewall stabilization (cu yd)		Distances of boat well from adjacent property lines (ft)	
<b>G. BOAT LAUNCH (No Sample Drawing available) (check all that apply) <input type="checkbox"/> new <input type="checkbox"/> existing <input type="checkbox"/> public <input type="checkbox"/> private <input type="checkbox"/> commercial <input type="checkbox"/> replacement</b>			
Proposed overall boat launch dimensions (ft) length width depth		Type of material <input type="checkbox"/> concrete <input type="checkbox"/> wood <input type="checkbox"/> stone <input type="checkbox"/> other	
Existing overall boat launch dimensions (ft) length width depth		Boat launch dimensions (ft) below ordinary high water mark length width depth	
Distances of launch from both property lines (ft)		Number of skid piers	Skid pier dimensions (ft) width length
<b>H. BOAT HOIST (No Sample Drawing available)</b>			
(Check all that apply) <input type="checkbox"/> seasonal <input type="checkbox"/> permanent <input type="checkbox"/> cradle <input type="checkbox"/> side lifter <input type="checkbox"/> other			located on <input type="checkbox"/> seawall <input type="checkbox"/> dock <input type="checkbox"/> bottomlands
<b>I. BOARDWALKS AND DECKS IN <input type="checkbox"/> WETLANDS - OR - <input type="checkbox"/> FLOODPLAINS (See Sample Drawings 5 and 6. Provide table if necessary)</b>			
(Check all that apply) <input type="checkbox"/> boardwalk <input type="checkbox"/> deck		Boardwalk or deck is on <input type="checkbox"/> fill <input type="checkbox"/> piling	Dimensions (ft) length width



<b>10</b> Continued - PROJECTS IMPACTING WETLANDS OR FLOODPLAINS OR LOCATED ON AN INLAND LAKE OR STREAM OR A GREAT LAKE					
<input checked="" type="checkbox"/> <b>J. INTAKE PIPES</b> (See Sample Drawing 16) <input type="checkbox"/> <b>OUTLET PIPES</b> (See Sample Drawing 22)					
Type <input type="checkbox"/> headwall <input type="checkbox"/> end section		If outlet pipe, discharge is to <input type="checkbox"/> wetland <input type="checkbox"/> inland lake			
<input checked="" type="checkbox"/> pipe <input checked="" type="checkbox"/> other <i>Water intake pipe ext. with trash screen</i>		<input type="checkbox"/> stream, drain, or river <input type="checkbox"/> Great Lake <input type="checkbox"/> other		Number of pipes	
Dimensions of headwall OR end section (ft) length		width		depth	
				1	
				Pipe diameters and invert elevations	
<input type="checkbox"/> <b>K. MOORING AND NAVIGATION BUOYS</b> (No Sample Drawing available)					
<ul style="list-style-type: none"> <li>Provide an overall site plan showing the distances between each buoy, distances from the shore to each buoy, and depth of water at each buoy in feet.</li> <li>Provide cross-section drawing(s) showing anchoring system(s) and dimensions.</li> </ul>					
Number of buoys		Type of anchor system		Purpose of buoy <input type="checkbox"/> mooring <input type="checkbox"/> navigation <input type="checkbox"/> swimming	
Dimensions of buoys (ft) width		height		Do you own the property along the shoreline? <input type="checkbox"/> No <input type="checkbox"/> Yes	
				If No, you must provide an authorization letter from the property owner(s)	
<input type="checkbox"/> <b>L. GROINS</b> (No Sample Drawing available)					
<ul style="list-style-type: none"> <li>Provide an overall site plan showing the distances (ft) of the outermost <i>groins</i> from the property lines, distances between <i>groins</i>, length and width of each <i>groin</i>, and the distance from the existing toe of the bluff to the lakeward end of the <i>groins</i>.</li> <li>If existing <i>groins</i> are located on adjacent properties, provide distances (ft) from closest neighboring <i>groin</i> to your property lines on the site plan. Provide <i>cross-section</i> views showing the length and height of each <i>groin</i> and the height of <i>groin</i> ends above the observed water level (date and time). If step down type, show the height of each section above the observed water level.</li> </ul>					
Number of <i>groins</i>		Type of <i>groin</i> <input type="checkbox"/> steel <input type="checkbox"/> wood <input type="checkbox"/> other		Will <i>groin</i> be placed on a foundation? <input type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, dimensions of foundation (ft)) length	
				width	
				height	
<input type="checkbox"/> <b>M. FENCES IN WETLANDS, STREAMS, OR FLOODPLAINS</b> (No Sample Drawing available)					
<ul style="list-style-type: none"> <li>Provide an overall site plan showing the proposed fencing through wetlands, streams, or <i>floodplains</i>.</li> <li>Provide drawing of fence profile showing the design, dimension, post spacing, board spacing, and distance from ground to bottom of fence (if in a <i>floodplain</i>).</li> </ul>					
(check all that apply) <input type="checkbox"/> wetlands <input type="checkbox"/> streams <input type="checkbox"/> floodplains		Total length (ft) of fence through wetlands streams floodplains		Fence height (ft)	
				Fence type and material	
<input type="checkbox"/> <b>N. OTHER</b> - e.g., structure removal, marine railway, low sand trap wall, breakwater, and structural foundations in wetlands or floodplains					
<b>11</b> EXPANSION OF AN EXISTING OR CONSTRUCTION OF A NEW LAKE OR POND (See Sample Drawings 4 and 15)					
Which best describes your proposed waterbody use (check all that apply)					
<input type="checkbox"/> wildlife <input type="checkbox"/> stormwater retention basin <input type="checkbox"/> stormwater detention basin <input type="checkbox"/> recreation <input type="checkbox"/> wastewater basin <input type="checkbox"/> other					
Water source for lake/pond					
<input type="checkbox"/> groundwater <input type="checkbox"/> natural springs <input type="checkbox"/> Inland Lake or Stream <input type="checkbox"/> stormwater runoff <input type="checkbox"/> pump <input type="checkbox"/> sewage <input type="checkbox"/> other					
Location Of the lake/basin/pond <input type="checkbox"/> floodplain <input type="checkbox"/> wetland <input type="checkbox"/> upland					
Will project involve construction of a dam, dike, outlet control structure, or spillway? <input type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, complete Section 17)					
<b>12</b> ACTIVITIES THAT MAY IMPACT WETLANDS (See Sample Drawings 8 & 9)					
For information on the MDEQ's Wetland Assessment Program, visit the LWMD website or call 517-373-1170.					
(check all that apply) <input type="checkbox"/> fill (Section 10A) <input type="checkbox"/> dredge or excavation (Section 10B) <input type="checkbox"/> boardwalk or deck (Section 10I) <input type="checkbox"/> dewatering <input type="checkbox"/> fences (Section 10M) <input type="checkbox"/> bridges and culverts (Section 14) <input type="checkbox"/> draining surface water <input checked="" type="checkbox"/> other <i>Temporary disturbance for valve installation</i>					
Has a professional wetland delineation been conducted for this parcel? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, provide a copy; if federal method was used, supply data sheets)				Applicant purchased property <input checked="" type="checkbox"/> before OR <input type="checkbox"/> after October 1, 1980.	
Is there a recorded DEQ easement on the property? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, provide the number)					
Has the MDEQ conducted a wetland assessment for this parcel? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, provide a copy)					
Describe the wetland impacts, proposed use or development, and efforts to avoid/minimize impacts. Describe the wetland alternatives and provide the type and amount of mitigation proposed if more than 1/3 acre is to be impacted. <i>See Attached</i>					
Is any grading or mechanized land clearing proposed? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, show locations on site plan)				Has any of the proposed grading or mechanized land clearing been completed? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, label and show locations on site plan)	
<ul style="list-style-type: none"> <li>Complete the wetland dredge and wetland fill dimension information for each impacted wetland area.</li> <li>Attach additional sheets if necessary and label the impacted wetland areas on a site plan drawn to scale. Attach at least one typical cross-section for each wetland dredge and/or fill area. Also complete Section 10A for fill and Section 10B for dredge or excavation activities.</li> <li>If dredge material will be disposed of on site, show the location on site plan in an upland area and include soil erosion and sedimentation control measures.</li> </ul>					
Wetland dredge dimensions		maximum length (ft)		dredge area	
		14'		<input checked="" type="checkbox"/> acres <input type="checkbox"/> sq ft .001	
		8'		average depth (ft)	
				8'	
				dredge volume (cu yd)	
				0 CYDS-Net	
Wetland fill dimensions		maximum length (ft)		fill area	
N/A				<input type="checkbox"/> acres <input type="checkbox"/> sq ft	
				average depth (ft)	
				fill volume (cu yd)	
Total wetland dredge area				Total wetland dredge volume (cu yd)	
<input checked="" type="checkbox"/> acres <input type="checkbox"/> sq ft .001				0 CYDS-Net	
Total wetland fill area				Total wetland fill volume (cu yd)	
<input type="checkbox"/> acres <input type="checkbox"/> sq ft					
The proposed project will be serviced by <input type="checkbox"/> public sewer <input type="checkbox"/> private septic system (If septic system, show existing and new or expanded system on plans)				If septic system, has application been made to the County Health Department for a permit? <input type="checkbox"/> No <input type="checkbox"/> Yes	
				If Yes, has permit been issued? <input type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, provide a copy)	





**13 FLOODPLAIN ACTIVITIES** (See Sample Drawing 5. Others may apply.)

• Attach additional sheets with the requested information when multiple floodplain activities are included in this application.

(check all that apply)  fill  excavation  other **Water intake pipe extension**

Site is \_\_\_\_\_ feet above  ordinary high water mark (OHWM) OR  observed water level. Date of observation (M/D/Y) **7/17/06**

Fill volume below the 100-year floodplain elevation (cu yd) 0 Compensating cut volume below the 100-year floodplain elevation (cu yd)

**14 BRIDGES AND CULVERTS** (Including Foot and Cart Bridges)

- Provide detailed site-specific drawings of existing and proposed *Plan View* (Sample Drawing 14A), *Elevation View* (Sample Drawing 14B), *Stream and Floodplain Cross-Section* (Sample Drawing 14C), *Stream Profile* (Sample Drawing 14D) and *Floodplain Fill* (Sample Drawing 5) at a scale adequate for detailed review.
- Provide the requested information that applies to your project. If there is not an existing structure, leave the "Existing" column blank.
- If you choose to have a Licensed Professional Engineer "certify" that your project will not cause a "harmful interference" for a range of flood discharges up to and including the 100-year flood discharge, then you must use the "Required Certification Language." You may request a copy by phone, email, or mail. A hydraulic report supporting this certification may also be required.
- Attach additional sheets with the requested information when multiple crossings are included in this application.

	Existing	Proposed		Existing	Proposed
Culvert type (box, circular, arch) and material (corrugated metal, timber, concrete, etc.)			Bridge span (length perpendicular to stream) OR culvert <input type="checkbox"/> width <input type="checkbox"/> diameter (ft)		
Bridge type (concrete box beam, timber, concrete I-beam, etc.)			Bridge width (parallel to stream) OR culvert length (ft)		
Entrance design (projecting, mitered, wingwalls, etc.)			Bridge rise (from bottom of beam to streambed) OR Culvert rise (from top of culvert to streambed) (ft)		
Total structure waterway opening above streambed (sq ft)					
<input type="checkbox"/> elevation of culvert crown	Upstream		Higher elevation of <input type="checkbox"/> culvert invert OR <input type="checkbox"/> streambed within culvert (ft)	Upstream	
	Downstream			Downstream	
<input type="checkbox"/> bottom of bridge beam (ft)					
Elevation of road grade at structure (ft)			Distance from low point of road to mid-point of bridge crossing (ft)		
Elevation of low point in road (ft)					
Cross-sectional area of primary channel (sq ft) (See Sample Drawing 14C)			Average stream width at OHWM outside the influence of the structure (ft)	Upstream	Downstream
Reference datum used (show on plans with description) <input type="checkbox"/> NGVD 29 <input type="checkbox"/> IGLD 85 (Great Lakes coastal areas) <input type="checkbox"/> local					
High water elevation – describe reference point and highest known water level above or below reference point and date of observation.					

**15 STREAM, RIVER, OR DRAIN CONSTRUCTION ACTIVITIES** (No sample drawing available)

- Complete Section 10A for fill, Section 10B for dredge or excavation, and Section 10C for riprap activities.
- If side casting or other proposed activities will impact wetlands or floodplains, complete Sections 12 and 13, respectively.
- Provide an overall site plan showing existing lakes, streams, wetlands, and other water features; existing structures; and the location of all proposed structures and land change activities. Provide cross-section (elevation) drawings necessary to clearly show existing and proposed conditions. Be sure to indicate drawing scales.
- For activities on legally established county drains, provide original design and proposed dimensions and elevations.

(check all that apply)  maintenance  improvement  relocation  enclosure  new drain  wetlands  other **Water intake pipe extension**

Dimensions (ft) of existing stream/drain channel to be worked on. length width depth

Dimensions (ft) of new, relocated, or enclosed stream/drain channel. length width depth Volume of Dredge/excavation (cu yds)

Existing channel average water depth in a normal year (ft) Proposed side slopes (vertical / horizontal)

How will slopes and bottom be stabilized?

Will old/enclosed stream channel be backfilled to top of bank grade?  No  Yes Length of channel to be abandoned (ft) Volume of fill (cu yds)

If an enclosed structure is proposed, check type  concrete  corrugated metal  plastic  other Dimensions of the structure size length volume of fill

Will spoils be disposed of on site?  No  Yes (If Yes, show location of spoils on site plan in an upland area.)

Reference datum used (show on plans with description)  NGVD 29  IGLD 85 (Great Lakes coastal areas)  local

**16 DRAWDOWN OF AN IMPOUNDMENT**  
 • If wetlands will be impacted, also complete Section 12.

Type of drawdown  over winter  temporary  one-time event  annual event  permanent (dam removal)  other

Reason for drawdown

Has there been a previous drawdown?  No  Yes (If Yes, provide date (M/D/Y) / / Previous MDEQ permit number, if known

Does waterbody have established legal lake level?  No  Yes  Not Sure Dam ID Number, if known

Extent of vertical drawdown (ft)	Impoundment design head (ft)	Number of adjacent or impacted property owners
Date drawdown would start (M/D/Y) / /	Date drawdown would stop (M/D/Y) / /	Rate of drawdown (ft/day)
Date refilling would start (M/D/Y) / /	Date refill would end (M/D/Y) / /	Rate of refill (ft/day)
Type of outlet discharge structure to be used <input type="checkbox"/> surface <input type="checkbox"/> bottom <input type="checkbox"/> mid-depth	Impoundment area at normal water level (acres)	Sediment depth behind impoundment discharge structure (ft)

**17 DAM, EMBANKMENT, DIKE, SPILLWAY, OR CONTROL STRUCTURE ACTIVITIES** (See Sample Drawing 15)

- If wetlands will be impacted, also complete Section 12.
- Attach site-specific conceptual plans for construction of a new dam, reconstruction of a failed dam, or enlargement of an existing dam for resource impact review. Detailed engineering plans are required once the activity has been determined to be permissible from an environmental standpoint.
- Attach detailed engineering plans for a dam repair, dam alteration, dam abandonment, or dam removal.

Which one best describes your project?  new dam construction  reconstruction of a failed dam  enlargement of an existing dam  
 dam repair  dam alteration  dam abandonment  dam removal  other

Dam ID Number If known	Type of outlet discharge structure <input type="checkbox"/> surface <input type="checkbox"/> bottom <input type="checkbox"/> mid depth	Will proposed activities require a drawdown of the waterbody to complete the work? <input type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, also complete Section 16)	
Riprap Volume (cu yd)	Dredging/excavation Volume (cu yd)	Fill volume (cu yd)	Does structure allow complete drainage of waterbody? <input type="checkbox"/> No <input type="checkbox"/> Yes
Benchmark elevation (ft)	Datum used <input type="checkbox"/> Local <input type="checkbox"/> NGVD 29 <input type="checkbox"/> other	Describe benchmark and show on plans	

Have you engaged the services of a Licensed Professional Engineer?  No  Yes (If Yes, name, registration number, and mailing address)

Will a water diversion during construction be required?  No  Yes (If Yes, describe how the stream flow will be controlled through the dam construction area during the proposed project activities)

• The following additional information is required for a new dam, reconstruction of a failed dam, or enlargement of an existing dam.  
 Describe the type of dam and how you will design the dam and embankment to control seepage through and underneath the dam.

Embankment top elevation (ft)	Streambed elevation at downstream embankment toe (ft)	Structural height (difference between embankment top elevation and streambed elevation at downstream embankment toe) (ft)	
Embankment length (ft)	Embankment top width (ft)	Embankment bottom width (ft)	Embankment slopes Upstream (vertical / horizontal) Downstream
Proposed normal pool elevation (ft)	Impoundment flood elevation (ft)	Maximum vertical drawdown capability (ft) (Attach operational procedure of the proposed structure, if available)	
Have soil borings been taken at dam location? <input type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, submit results with permit application)	Will a cold water underspill be provided? <input type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, invert elevation (ft.))	Do you have flowage rights to all proposed flooded property at the design flood elevation? <input type="checkbox"/> No <input type="checkbox"/> Yes	

**18 UTILITY CROSSINGS** (See Sample Drawings 12 and 13)

- If side casting is required, complete Subsections 10A and 10B. If spoils will be placed in wetlands or wetlands may be impacted, complete Section 12.
- Attach additional sheets with the requested information as needed for multiple crossings.

What method will be used to construct the crossings?  
 flume  plow  open trench  jack and bore  directional drilling

Crossing of  Inland Lake or Stream  floodplain  
 international waters  wetlands (also complete Section 12)

Type	Number of wetland crossings	Number of inland lake or stream crossings	Pipe diameter (in.)	Pipe length per crossing (ft.)	Distance below streambed or wetland (in.)	Trench width (ft.)
<input type="checkbox"/> sanitary sewer						
<input type="checkbox"/> storm sewer						
<input checked="" type="checkbox"/> watermain	0	1	12"	200 Ft. (Approx.)	6 ft. (average)	N/A
<input type="checkbox"/> cable						
<input type="checkbox"/> oil/gas pipeline						

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## **Executive Summary**

Wolverine Leathers has experienced recent problems with obtaining process water from the existing intake structure located on the east bank of the Rogue River approximately ¼ mile upstream of the Rockford Dam (See attached drawings for location). This structure is located on the inside bend and downstream of an existing spit on the Rogue River. Due to the location of this structure, sedimentation build-up at the intake has been an on going problem resulting in the inability to draw critical water for Wolverine Leathers' manufacturing (leather tanning) process.

Historically, Wolverine Leathers has obtained permits to dredge the area located immediately in front of the intake structure. The following is a list of these previously obtained permits:

- Permit # 84-9-415 issued on November 29, 1984 for removal of approximately 50 cubic yards of material
- Permit # 90-09-0570 issued on November 29, 1990 for removal of approximately 45 cubic yards of material
- Permit # 98-09-0494 issued on September 8, 1998 for removal of approximately 267 cubic yards of material
- Permit # 01-41-0164-P issued on September 21, 2001 for removal of approximately 175 cubic yards of material

At this time, the sediment levels are high enough that during times of lower water levels on the Rogue River the facility is unable to draw process water. Due to the location of the intake structure, sedimentation will continue to be a problem and required dredging of the river will become more and more frequent.

## **Description of Proposed Project and Associated Activities and the Construction Sequence and Methods**

In lieu of dredging the river, Wolverine Leathers is proposing to extend their existing process water intake into the center of the Rogue River. This extension will eliminate dredging related environmental impacts to the Rogue River and will reduce costs associated with recurring dredging operations.

Wolverine Leathers is proposing to use directional drilling methods to extend the existing process water intake. A bore pit/staging area would be established on the east side of the existing fence and rails-to-trails within an existing parking area. (See attached drawings for location) Silt fence or other soil erosion control measures would be installed to insure sediments do not leave the staging area.

After directional drilling, the lead cable out to the center of the river, polyethylene pipe (DR11 HDPE) with welded joints will be pulled back toward the existing water intake pump station located on the east bank of the river. Once the pipe has been pulled closed

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to its final positions a debris screen/ trash rack with an underwater marker buoy will be connected to the end of the pipe using mechanical fittings and restrained joints. The pipe will then be pulled to its final position as shown on the attached drawings.

At the existing pump station, conventional excavation will be used to expose the HDPE pipe. The existing pump station and exposed pipe will be coffer dammed and pumped to make the required connections between the pump station and the HDPE Pipe. See Drawings for connection details to the existing intake structure.

### **Proposed Project Purpose, Intended Use, and Alternatives Considered**

As stated in the Executive Summary the purpose of this project is to extend an existing water intake for process water used at their facility. This water is currently drawn as part of their leather tanning process. Water from this process is pretreated at an on site wastewater treatment facility and then discharged to the City of Grand Rapids Wastewater system where it is ultimately discharged to the Grand River after being treated.

Wolverine annual water usage is typically less than 100 Million Gallons (MG) with a peak month usage of 10 MG resulting in average daily usage of less than 350,000 Gallons. For the sizing of the intake pipe extension we have assumed a maximum daily use of 500, 000 Gallons or 347 Gallons per Minute (GPM). For our analysis we have assumed a maximum daily use of 500 GPM.

The pumps at the intake structure have a maximum rating of 2000 GPM at 16 Feet of head. These pumps discharge into a 10 inch line which conveys the water to the Wolverine facility where a smaller pump is used to pump into storage tanks to be used for the tanning process. Though the exact pumping rate is unknown it is believed to be significantly less than the pump capacity at the water intake structure. Based on the reduced pump capacity at the wolverine facility and combined static and dynamic losses likely exceeding 16 feet we have assumed the maximum pump rate to be approximately 1,000 GPM.

Additionally, Wolverine Leather is looking into recycling process water in the future. This will further reduce the quantity of water being drawn from the river.

We have calculated the total dynamic head loss for the proposed intake extension. We have assumed 500 GPM based on maximum daily water usage and 1,000 GPM based on an estimated maximum hydraulic capacity at the Wolverine facility. This is likely the highest water intake rate that can occur based on the hydraulic losses and internal pumping rates at the plant. A spreadsheet summarizing the calculated total dynamic head loss of the proposed extension is attached.

In lieu of dredging the river, Wolverine leather is proposing to extend their existing process water intake into the center of the Rogue River. This extension will eliminate

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dredging related environmental impacts to the Rogue River and will reduce costs associated with recurring dredging operations.

Other Alternatives Considered by Wolverine Leather Include:

1. Do Nothing – This alternative is not an option due to the necessity of providing process water to the Wolverine facility.
2. Continue to Dredge the Water Intake Outlet on a Recurring Basis  
This option has been the approach used to maintain the function of the existing water intake structure when sediment levels are too high. Though likely cheaper than the proposed alternative, this option will have a much greater land and river bed disturbance resulting in greater impacts on the Rogue River. Over time the costs of dredging on a recurring basis will exceed the capital costs of the proposed water intake extension.
3. Use Municipal Water from the City of Rockford  
This option has been looked into by Wolverine and is currently a backup when water levels in the Rogue River are too low to be able to pump at the intake structure. Chemicals used for municipal water treatment require changes in the treatment of the water at the Wolverine facility prior to being used for the tanning process. The purchase of this water from the city also puts an additional financial burden on the factory.
4. Another option was drawing water from directly behind the Rockford dam located approximately ¼ mile downstream of the Wolverine facility. Since existing infrastructure is not completely available the cost of installing the necessary piping and intake works would not be practical from a cost standpoint. Additionally, easements would be required and maintenance for a longer run of pipe would be necessary.

It is our opinion; the proposed water intake extension will provide an improved condition for water intake at the Wolverine facility while reducing future environmental impacts on the Rogue River resulting from recurring dredging activities at the inlet to the existing pump station.

### **Wetland Impacts**

A wetland delineation has not been performed. Conservatively assuming a 20' wide band along the edge of the Rogue River the proposed project will disturb a maximum of 400 square feet (0.01 Acres) of existing wetland during construction. The grades in the area will be restored to their existing condition and all disturbed areas will be seeded and mulched.