



# Woodward Rock Cut Campus 2013

A Practical Approach to SWPPP On A Large  
Construction Site

# Presenters

**ARC DESIGN**  
RESOURCES INC.

- Woodward site engineer
- Jeff Linkenheld, PE
- Project Manager



**Ringland-Johnson  
Construction**

- Woodward CM / GC
- Jim Nelson
- Site Superintendent



**Ringland-Johnson  
Construction**

**ARC DESIGN**  
RESOURCES INC.

# Woodward Rock Cut Facts

- 430,000 sq. ft. Aerospace Manufacturing Facility
- 1000 parking spaces
- 70 acre site
- Hundreds of construction jobs created
- 650 have gone through safety training as of 2/1/14
- Construction to be completed in 2015
- 800 permanent workers planned when complete



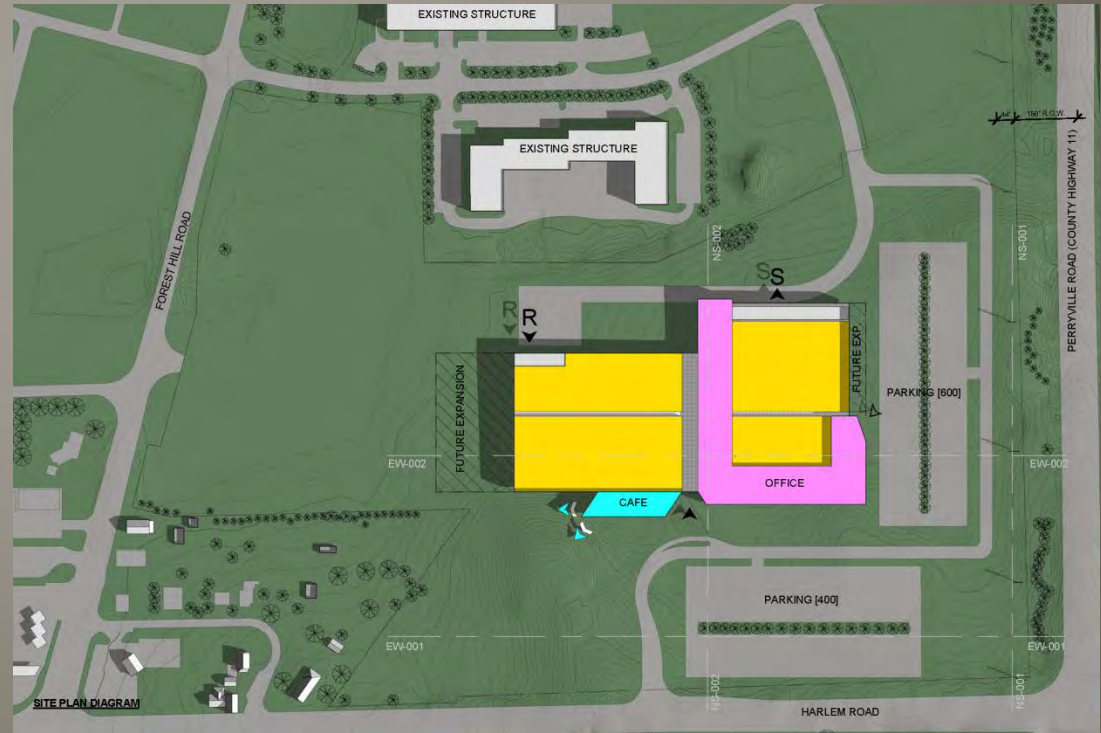
# Site Challenges

- 70 acres
- Over 40 feet of relief SE to NW
- Up to 3 - 5 feet of topsoil
- 20-30 ft of good sand below the topsoil layer
- Proximity to Willow Creek



# Design Issues

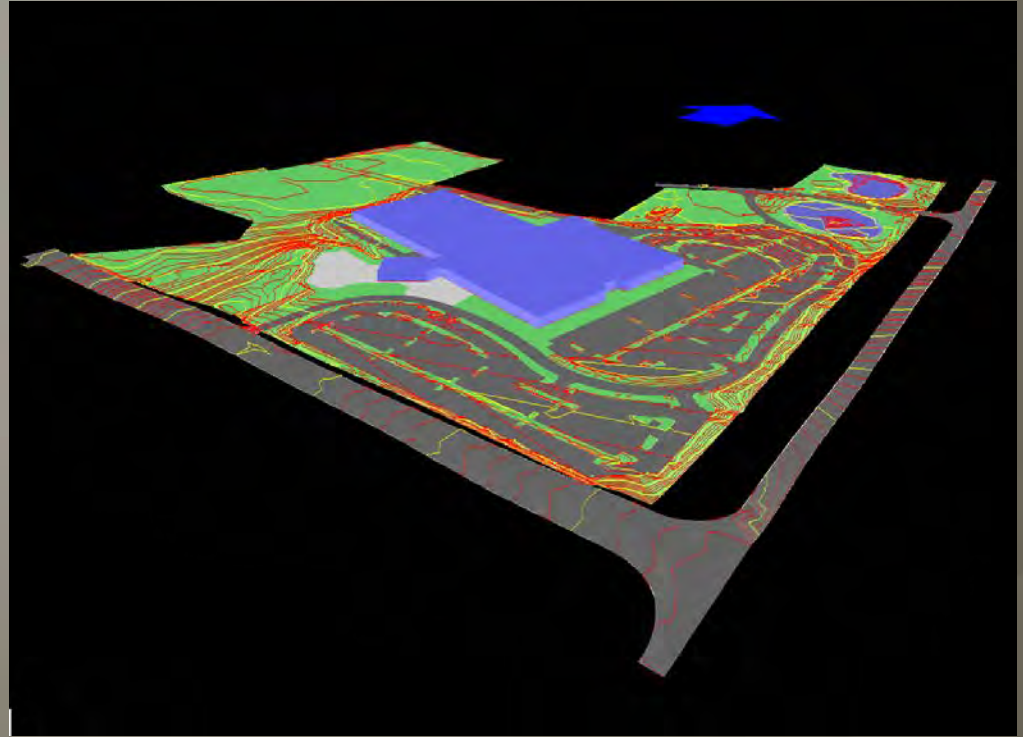
- Approved Concept Required a LOT of fill
- Sensitive areas on Perimeter of site
  - Willow Creek
  - Neighbors to N and W
- Coordination w/ City
- Client Needs
- Schedule





# Design Solutions

- Incorporate Wet Ponds and Borrow Pit to mine good fill and offset import volume
  - 270,000 cy from ponds
  - 225,000 cy import
- Split Design Packages to expedite construction
- SWPPP Plan that could adapt as project unfolded



# Woodward SWPPP Plan Needs

- Comprehensive – to cover most contingencies
- Adaptable – 1 SWPPP from tree clearing to final
- Assignable – CM needed plan to transfer responsibility to different contractors (bid docs)
- Realistic – Lots of equipment on site at one time
- Sensitive – protect Willow Creek and neighbors
- Orderly – do things right / do them once

# SWPPP Documents

# ILR10R298

| Section 02370   |                  |
|---|------------------|
| EROSION AND SEDIMENTATION CONTROL (INCLUDING SWPPP)                         |                  |
| TABLE OF CONTENTS   |                  |
| General Specification – Erosion and Sedimentation Control (including SWPPP) | 1                |
| SWPPP Cover   | 5                |
| Table of Contents   | 6                |
| <b>I. SUMMARY OF PERMIT AND PROGRAM REQUIREMENTS</b>                        | 7                |
| A. General Permit Information   | 7                |
| B. Agency Information for Stormwater Pre-Construction Meeting               | 8                |
| C. Public Posting   | 9                |
| D. Retention of Records   | 9                |
| E. Contractor/Sub-Contractor List   | 9                |
| F. Inspections  | 9                |
| G. Weekly Stormwater Meeting  | 9                |
| H. SWPPP Updates and Amendments   | 9                |
| I. Discharge of Petroleum Products or Hazardous Waste                       | 9                |
| J. Notice of Termination  | 10               |
| K. General Contractors Responsibilities                                     | 10               |
| L. Agency Stormwater Inspections  | 10               |
| <b>II. GENERAL INFORMATION</b>  | 11               |
| A. Purpose  | 11               |
| B. Scope  | 11               |
| <b>III. PROJECT DESCRIPTION</b>   | 12               |
| <b>IV. SITE DESCRIPTION</b>   | 13               |
| A. Site Location  | 13               |
| B. Site Topography  | 13               |
| C. Rainfall Information   | 13               |
| D. Site Soils   | 13               |
| E. Total Site Area, Area to be Disturbed, and Runoff Coefficient            | 13               |
| F. Receiving Surface Waters   | 13               |
| G. Erosion and Sedimentation Control Plan                                   | 13               |
| H. Environmental Permits – Other than NPDES                                 | 13               |
| I. Threatened and Endangered Species  | 13               |
| J. Historic Properties  | 13               |
| <b>V. STORM WATER POLLUTION PREVENTION MEASURES AND CONTROLS</b>            | 14               |
| A. Erosion and Sediment Controls  | 14               |
| B. Other Pollutant Controls   | 16               |
| <b>VI. LOCAL PLANS</b>  | 19               |
| <b>VII. INSPECTIONS AND SYSTEM MAINTENANCE</b>                              | 19               |
| A. Construction Exit and Track Out  | 19               |
| B. Erosion Control Devices  | 19               |
| C. Sediment Control Devices   | 19               |
| D. Material Storage Area  | 20               |
| E. Vegetation   | 20               |
| F. Discharge Points   | 20               |
| <b>APPENDIX LIST</b>  | 21               |
| Woodward Rock Cut Campus Project SWPPP                                      | Issued: 03/05/13 |

02370-B

## Section 02370 EROSION AND SEDIMENTATION CONTROL (INCLUDING SWPPP)

- Permit modification:** A permit modification is required prior to land disturbing activity in non-permitted areas. The General Contractor must contact the Owner or the Engineer as soon as a need to work in non-permitted areas is identified. Work in non-permitted areas may not proceed until an update to the NOI is filed with the IEPA.

In case a permit modification is required, the contractor shall provide a permit modification letter, summarizing needed permit changes. The Owner or their Engineer will process the appropriate paperwork with the IEPA.

- Permitted Project Area:** For purposes of this SWPPP and associated storm water permit, 'permitted project area' is defined as any and all areas within the project limits of disturbance, as shown on the SWPPP site maps and identified in the Notice of Intent to the agency. ALL ground-disturbing and construction-related activities (material storage, dumpsters, parking areas, project office trailer, etc.) must be included within the permitted project area (limits of disturbance).
- Governing Agency:** The following agency or agencies have governing authority for storm water-related regulations and permits at the Woodward Rock Cut Campus and may appear at the site from time to time during construction:

Illinois Environmental Protection Agency  
Rockford Regional Office  
4302 N. Main Street  
Rockford, IL 61103

City of Loves Park  
Department of Public Works  
100 Heart Boulevard  
Loves Park, IL 61111

Winnebago County Soil and Water Conservation District  
4833 Owen Center Rd.  
Rockford, IL 61101  
(WCSWCD acts on an advisory capacity only on behalf of IEPA)

### B. Agency Information for Stormwater Pre-Construction Meeting

The General Contractor shall invite the agencies listed below to the Stormwater Pre-Construction meeting as set forth in the Special Conditions. The General Contractor must invite noted agencies to the Pre-Construction meeting at least 72 hours prior to conducting the meeting.

| Agency                | Phone Number      | Contact Person  |
|-----------------------|-------------------|-----------------|
| The Owner             | (815) 639-6305    | Mike Newkirk    |
| Arc Design Resources  | (815) 484-8300    | Jeff Linkenhead |
| Illinois EPA          | (815) 987-7760    | Nancy Sisson    |
| City of Loves Park    | (815) 654-5029    | Steve Thompson  |
| Winnebago County SWCD | (815) 965-2408 x3 | Dennis Anthony  |

Some of the agencies may decline to attend. It is the contractor's obligation only to notify the agency of the meeting, but not to guarantee attendance.

Woodward Rock Cut Campus Project SWPPP

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# SWPPP Documents

# ILR10R298

Section 02370  
EROSION AND SEDIMENTATION CONTROL (INCLUDING SWPPP)

In addition to this SWPPP, construction activities associated with this project must comply with any guidelines set forth by local regulatory agencies.

## VII. INSPECTIONS AND SYSTEM MAINTENANCE

Between the time this SWPPP is implemented and final Notice of Termination has been submitted, all disturbed areas and pollutant controls must be inspected in accordance with the General Permit. The purpose of site inspections is to assess performance of pollutant controls.

Inspections are to occur at least once every 7 calendar days and after a rainfall of 0.5 inches or a snowfall of 6.0 inches, as measured and reported at the Chicago Rockford International Airport, or an on-site gauge station established by the contractor.

The inspections will be conducted by the General Contractor's Site Superintendent or other person that is qualified to assess the principals and practices of erosion and sediment control measures. Based on these inspections, the General Contractor will decide whether it is necessary to modify this SWPPP, add or relocate controls, or revise or implement additional Best Management Practices in order to prevent pollutants from leaving the site via storm water runoff. The General Contractor has the duty to cause pollutant control measures to be repaired, modified, supplemented, or take additional steps as necessary in order to achieve effective pollutant control. Note: If a BMP is covered by snow, mark the BMP as not applicable and document the reason the BMP can not be inspected on the daily report.

Examples of specific items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection, the inspector must evaluate overall pollutant control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances.

### A. Construction Exit and Track Out

Locations where vehicles enter and exit the site must be inspected for evidence of sediment tracking beyond the permitted project area. A stabilized construction exit shall be constructed where vehicles enter and exit. Exits shall be maintained or supplemented with additional rock as necessary to prevent the release of sediment from vehicles leaving the site. Any sediment deposited on the roadway shall be swept as necessary throughout the day or at the end of every day and disposed of in an appropriate manner. Sediment shall **NOT** be washed into storm sewer systems.

### B. Erosion Control Devices

Roller erosion control products (nets, blankets, turf reinforcement mats) and marginally vegetated areas (areas not meeting required vegetative densities for final stabilization) must be inspected weekly. Rilling, rutting and other signs of erosion indicate the erosion control device is not functioning properly and additional erosion control devices are warranted.

### C. Sediment Control Devices

Sediment barriers, traps and basins must be inspected and they must be cleaned out at such time as their original capacity has been reduced by 50 percent. All material excavated from behind sediment barriers or in traps and basins shall be incorporated into on-site soils or spread out on an upland portion of the site and stabilized. To minimize the potential for sediment releases from the project site perimeter control devices shall be inspected with consideration given to changing up-gradient conditions.

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02370-19

Section 02370  
EROSION AND SEDIMENTATION CONTROL (INCLUDING SWPPP)

## SWPPP CONTACT LIST AND CONTRACTOR ACCEPTANCE FORM

Contractor: Woodward Rock Cut Campus

Date: 3/29/2013

Owner's Primary Contacts for Storm Water Erosion Control Issues:

Mike Nevicosi  
Woodward, Inc.  
3001 North Second Street, Loves Park, IL 61111  
Phone: (815) 639-6303

Contractor Primary Contacts:

1. **Contractor's Compliance Officer:** Responsible for overseeing compliance with all applicable permits, the Clean Water Act, and the site SWPPP. The undersigned agrees that he has read the provisions of the attached SWPPP and agrees to its terms.

Printed Name: Richard Johnson

Signature: [Signature]

Company: Ringland-Johnson Construction

Phone: [Redacted]

2. **Site Superintendent/Project Manager:** Responsible for the daily supervision or completion of construction at a site and able to adequately identify and implement storm water sediment and erosion control practices and effectively instruct employees and contractors in the implementation of such practices. Has the authority to direct employees and contractors to undertake actions to comply with all applicable permits, the Clean Water Act, and the site's SWPPP. The undersigned agrees that he has read the provisions of the attached SWPPP and agrees to its terms.

Name: Jim Nelson

Signature: [Signature]

Company: Ringland-Johnson Construction

Phone (office): [Redacted]

Phone (mobile): [Redacted]

Use additional forms if more than 2 persons listed for contractor contacts.

**Note to Construction Managers:** Date this form each time contact information is added or updated. Do not erase information from this form. If information is incorrect or outdated, line through incorrect / outdated information and write in correct / new information. If contact information changes more than once create a new updated Contact List, date, and place on top of old Contact List in the SWPPP Binder.

Woodward Rock Cut Campus Project SWPPP

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02370-23

# SWPPP Documents

# ILR10R298

Section 02370  
EROSION AND SEDIMENTATION CONTROL (INCLUDING SWPPP)

**SWPPP CONTACT LIST  
AND CONTRACTOR ACCEPTANCE FORM**

Contractor Name: Woodward Rock Cut Campus Project  
Date: 4-8-13 **NTRAK**  
Owner's Primary Contacts for Storm Water Erosion Control Issues  
Mike Nevicki  
Woodward, Inc.  
5001 North Second Street, Loves Park, IL 61111  
Phone: (815) 630-6303

Contractor Primary Contacts: **Subcontractor**  
1. Contractor's Compliance Officer: Responsible for overseeing compliance with the Clean Water Act, and the site SWPPP. The undersigned agrees that he has read the provisions of the attached SWPPP and agrees to its terms.  
Printed Name: **Danielle Schlichting**  
Signature: **Danielle Schlichting**  
Company: **N-TRAK Group, LLC**  
Phone: **[REDACTED]**  
2. Site Superintendent/Project Manager: Responsible for the daily supervision and completion of construction at a site and able to adequately identify and implement storm water sediment and erosion control practices and effectively instruct employees and contractors in the implementation of such practices. Has the authority to direct employees and contractors to undertake actions to comply with all applicable permits, the Clean Water Act, and the site's SWPPP. The undersigned agrees that he has read the provisions of the attached SWPPP and agrees to its terms.  
Name: **Ryan Hetherway**  
Signature: **[REDACTED]**  
Company: **N-TRAK Group, LLC**  
Phone (office): **[REDACTED]**  
Phone (mobile): **[REDACTED]**  
Use additional forms if more than 2 persons listed for contractor contacts.  
Note to General Contractors: Date this form each time contact information is added or updated. Do not erase information from this form. If information is incorrect or outdated, line through and write in correct / new information. If contact information changes more than once create a new updated Contact List, date, and place on top of old Contact List in the SWPPP binder.

Woodward Rock Cut Campus Project SWPPP

02370-23

Section 02370  
EROSION AND SEDIMENTATION CONTROL (INCLUDING SWPPP)

**SWPPP CONTACT LIST  
AND CONTRACTOR ACCEPTANCE FORM**

Contractor Name: Woodward Rock Cut Campus Project  
Date: 4/11/13 **HOMER TREE**  
Owner's Primary Contacts for Storm Water Erosion Control Issues  
Mike Nevicki  
Woodward, Inc.  
5001 North Second Street, Loves Park, IL 61111  
Phone: (815) 630-6303

Contractor Primary Contacts: **Subcontractor**  
1. Contractor's Compliance Officer: Responsible for overseeing compliance with all applicable permits, the Clean Water Act, and the site SWPPP. The undersigned agrees that he has read the provisions of the attached SWPPP and agrees to its terms.  
Printed Name: **Donald Light**  
Signature: **Donald Light**  
Company: **HOMER TREE SERVICE, INC.**  
Phone: **[REDACTED]**  
2. Site Superintendent/Project Manager: Responsible for the daily supervision and completion of construction at a site and able to adequately identify and implement storm water sediment and erosion control practices and effectively instruct employees and contractors in the implementation of such practices. Has the authority to direct employees and contractors to undertake actions to comply with all applicable permits, the Clean Water Act, and the site's SWPPP. The undersigned agrees that he has read the provisions of the attached SWPPP and agrees to its terms.  
Name: **Corey Grubbs**  
Signature: **Corey Grubbs**  
Company: **HOMER TREE SERVICE, INC.**  
Phone (office): **[REDACTED]**  
Phone (mobile): **[REDACTED]**  
Use additional forms if more than 2 persons listed for contractor contacts.  
Note to General Contractors: Date this form each time contact information is added or updated. Do not erase information from this form. If information is incorrect or outdated, line through incorrect / outdated information and write in correct / new information. If contact information changes more than once create a new updated Contact List, date, and place on top of old Contact List in the SWPPP binder.

Woodward Rock Cut Campus Project SWPPP

02370-24

Section 02370  
EROSION AND SEDIMENTATION CONTROL (INCLUDING SWPPP)

**SWPPP CONTACT LIST  
AND CONTRACTOR ACCEPTANCE FORM**

Contractor Name: Woodward Rock Cut Campus Project  
Date: 5/16/13 **WILLIAM CHARLES**  
Owner's Primary Contacts for Storm Water Erosion Control Issues  
Mike Nevicki  
Woodward, Inc.  
5001 North Second Street, Loves Park, IL 61111  
Phone: (815) 630-6303

Contractor Primary Contacts:  
1. Contractor's Compliance Officer: Responsible for overseeing compliance with all applicable permits, the Clean Water Act, and the site SWPPP. The undersigned agrees that he has read the provisions of the attached SWPPP and agrees to its terms.  
Printed Name: **Joseph Francis**  
Signature: **Joseph Francis**  
Company: **WCC**  
Phone: **[REDACTED]**  
2. Site Superintendent/Project Manager: Responsible for the daily supervision or completion of construction at a site and able to adequately identify and implement storm water sediment and erosion control practices and effectively instruct employees and contractors in the implementation of such practices. Has the authority to direct employees and contractors to undertake actions to comply with all applicable permits, the Clean Water Act, and the site's SWPPP. The undersigned agrees that he has read the provisions of the attached SWPPP and agrees to its terms.  
Name: **Ty Lighty**  
Signature: **Ty Lighty**  
Company: **WCC**  
Phone (office): **[REDACTED]**  
Phone (mobile): **[REDACTED]**  
Use additional forms if more than 2 persons listed for contractor contacts.  
Note to General Contractors: Date this form each time contact information is added or updated. Do not erase information from this form. If information is incorrect or outdated, line through incorrect / outdated information and write in correct / new information. If contact information changes more than once create a new updated Contact List, date, and place on top of old Contact List in the SWPPP binder.

Woodward Rock Cut Campus Project SWPPP

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EROSION AND SEDIMENTATION CONTROL (INCLUDING SWPPP)

**SWPPP CONTACT LIST  
AND CONTRACTOR ACCEPTANCE FORM**

Contractor Name: Woodward Rock Cut Campus Project  
Date: 11/14/13 **NISC**  
Owner's Primary Contacts for Storm Water Erosion Control Issues  
Mike Nevicki  
Woodward, Inc.  
5001 North Second Street, Loves Park, IL 61111  
Phone: (815) 630-6303

Contractor Primary Contacts:  
1. Contractor's Compliance Officer: Responsible for overseeing compliance with all applicable permits, the Clean Water Act, and the site SWPPP. The undersigned agrees that he has read the provisions of the attached SWPPP and agrees to its terms.  
Printed Name: **Will Hoff**  
Signature: **Will Hoff**  
Company: **NISC**  
Phone: **[REDACTED]**  
2. Site Superintendent/Project Manager: Responsible for the daily supervision or completion of construction at a site and able to adequately identify and implement storm water sediment and erosion control practices and effectively instruct employees and contractors in the implementation of such practices. Has the authority to direct employees and contractors to undertake actions to comply with all applicable permits, the Clean Water Act, and the site's SWPPP. The undersigned agrees that he has read the provisions of the attached SWPPP and agrees to its terms.  
Name: **[REDACTED]**  
Signature: **[REDACTED]**  
Company: **[REDACTED]**  
Phone (office): **[REDACTED]**  
Phone (mobile): **[REDACTED]**  
Use additional forms if more than 2 persons listed for contractor contacts.  
Note to General Contractors: Date this form each time contact information is added or updated. Do not erase information from this form. If information is incorrect or outdated, line through incorrect / outdated information and write in correct / new information. If contact information changes more than once create a new updated Contact List, date, and place on top of old Contact List in the SWPPP binder.

Woodward Rock Cut Campus Project SWPPP

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# SWPPP At Work





# SWPPP At Work



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# Pre-Project Advance Work

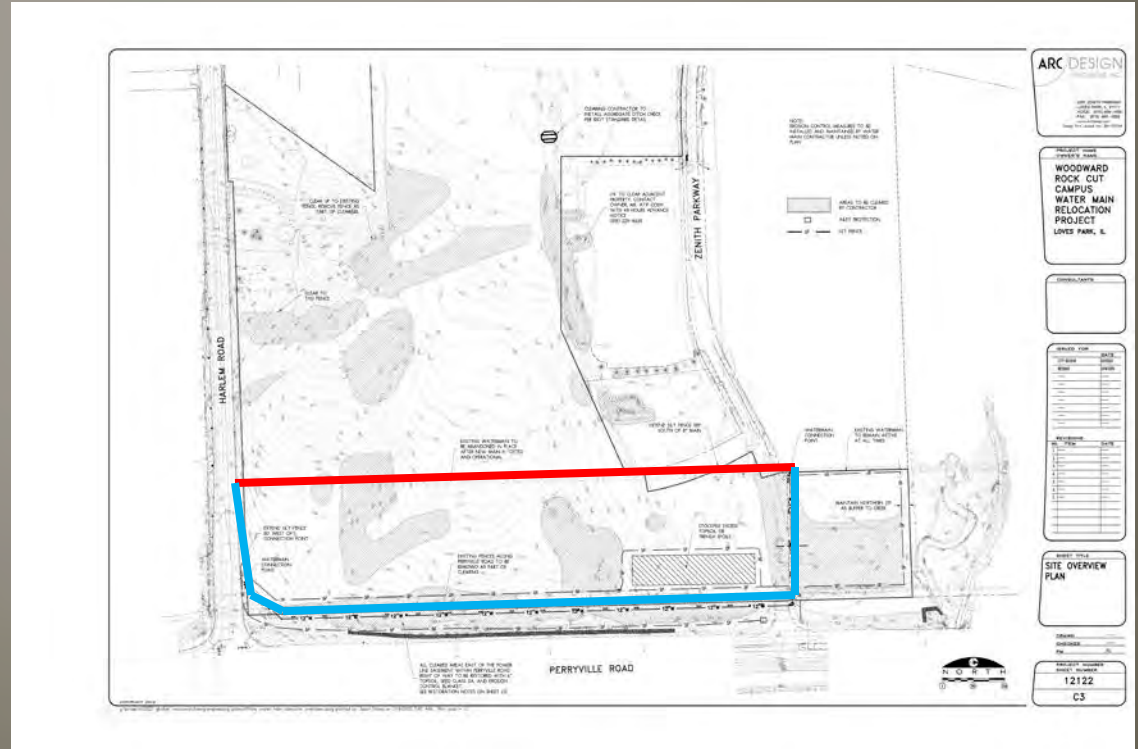
- Demolition
- Independent SWPPP plan
- Single project would be complete quickly
- NOI filed April 8
- NOT filed October 14





# Pre-Project Advance Work

- Water Main Relocation
- Tree Clearing



- Construction Access
- Staging Area



**Woodward  
Construction  
Access**  
LOVES PARK, IL

#### CONCLUSÃO

[illegible]

CONSTRUCTION  
ACCESS AND  
TRAILER PAD PLAN

12122  
C1

# Pre-Project Advance Work





# Pre-Project Advance Work



- Most Sensitive Timeframe
- Over 50 acres exposed
- Upstream Drainage
- Perimeter Controls
- Sediment Traps
- Pond Construction





# Mass Grading



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# Mass Grading





# Mass Grading

- Scope of construction traffic on site
- Intermediate slope controls will be in the way
- Sediment trap was the best solution



# Mass Grading



# Mass Grading (Ponds)

- Using the borrow pits as sediment traps became the most useful (and most interesting) BMP used on the site
- Controlled almost all water on site due to size





# Mass Grading (Ponds)



# Mass Grading (Ponds)





# Mass Grading (Ponds)



# Mass Grading (Ponds)





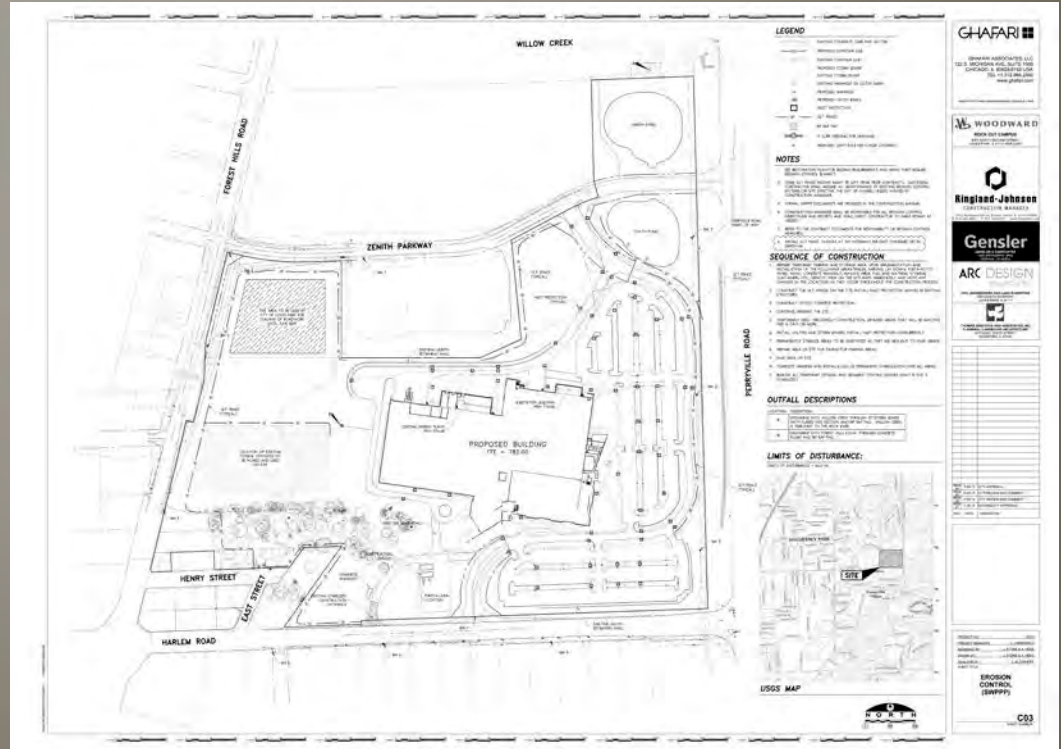
# Mass Grading (Ponds)





# Final Grading and Site work

- Starting to pull the site back together
- Aggregate Base
- Remainder of Storm
- Binder
- Temp Restoration



# Final Grading and Site work





# Final Grading and Site work





# Dealing With Mother Nature



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
CONSTRUCTION SITE STORM WATER DISCHARGE  
INCIDENT OF NON-COMPLIANCE (ION)

Report must be typed or printed legibly and signed

Facility Name: Woodward Inc / Mike Naisie PHONE: (815) 637-6303  
Address: 3001 North Second St  
City: Lans Park State: IL Zip: 61111  
Construction Site Name: Woodward Park Out Campus County: Winnebago  
Latitude: 42.340672 Longitude: -89.011378 Zone: 28 45N 2E  
(Easting) (Northing) (Zone) (Datum) (Units) Section Township Range  
NPDES Permit Number: LR106298 E-mail: Mike.Naisie@woodward.com

Details of Non-Compliance:  
An unusual rain event occurred around 9:30am on 6/26/13. The heavy flow ran through the vegetative buffer and affected the integrity of the silt fence (BMP#5). Approximately 1/2" rain fell in 10mins. Actions Taken to Prevent Any Further Non-Compliance (Close to a 25 year event) Replace approximately 100LF of silt fence along BMP#5.

Environmental Impact Resulting From the Non-Compliance:  
An unknown amount of silt discharged into parking lot adjacent property.

Actions Taken to Reduce the Environmental Impact Resulting From the Non-Compliance:  
We cleared + swept the parking lot.

SIGNATURE: Mike Naisie Woodward Date: 6/27/2013  
Title: Superintendent

For Closure Use Only  
Log: \_\_\_\_\_  
Permit No. ILND \_\_\_\_\_  
Date: \_\_\_\_\_

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
Form 1-01-01 (Rev. 11-08)



# Dealing With Mother Nature



# Common BMP's Used On Site

Woodward Rock Cut Campus





# Perimeter Silt Fence



# Dust Control and Inlet Protection





# Temp Seeding and Blanket





# Concrete Washouts



# Other





# Coming Attractions (2014)





# Discussion



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