

U.S. Army Corps  
of Engineers  
Buffalo District  
CELRB-TD-R

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# Public Notice

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Applicant: City of North  
Royalton

Published: July 13, 2015  
Expires: August 11, 2015

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Application No: 2014-00144  
Section: OH

All written comments should reference the above Application No. and be addressed to:  
**US Army Corps of Engineers, Buffalo District**  
**Regulatory Branch (Attn:) Keith C. Sendziak**  
1776 Niagara Street  
Buffalo, NY 14207

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**THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC REGARDING THE WORK DESCRIBED BELOW. NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED AT THIS TIME.**

**Application for Permit under Authority of  
Section 404 of the Clean Water Act (33 U.S.C. 1344).**

APPLICANT: City of North Royalton, 14600 State Road, North Royalton, Ohio 44133

WATERWAY & LOCATION: Federally jurisdictional wetlands and an unnamed perennial tributary of Baldwin Creek on an approximately 7-acre parcel of land located north of Cedarwood Drive and east of York Road in the city of North Royalton, Cuyahoga County, Ohio (Sheets 1-2 of 12).

LATITUDE & LONGITUDE: Latitude North: 41.34807  
Longitude West: -81.76234

**EXISTING CONDITIONS:**

Description of delineation of waters of the US, if applicable: A jurisdictional determination has yet to be issued for this project. However, the U.S. Army Corps of Engineers (Corps) has conducted a field review of the on-site waters and has determined that there are currently: four wetlands, wetland 1 (1.0 acres), wetland 2 (0.006 acres), wetland 3 (0.02 acres), and wetland 4 (0.01 acres), totaling 1.036 acres; and two streams, perennial stream 1a (516 linear feet (LF)), and ephemeral stream 1b (145 LF), totaling 661 LF (Sheet 3 of 12). The Corps has also determined that all on-site waters have a surface water connection with the downstream

navigable waterway (Rocky River).

**PROPOSED WORK:** To construct one 1.5-acre stormwater basin with 4:1 slopes and a capacity to provide 19.5-acre-feet of stormwater storage (Sheets 4-7 of 12). The basin is designed to be dry and will only fill with water during and immediately after storm events. The applicant intends to allow natural vegetation to develop within the basin. Regular mowing/maintenance of vegetation will only occur at the outlet structure. The stormwater basin is designed to be constructed in-line with stream 1a and is proposed to permanently impact 1.04 acres of wetland and 418 LF of stream channel. Proposed construction access will be via York Road utilizing an existing gravel road, which will be extended to provide access to the entire project site. Excavated material will be stockpiled within an upland area adjacent to the southern portion of the basin. Excess material will be hauled off-site and disposed of at a licensed facility. Stream 1a will temporarily be diverted during project construction (Sheet 8 of 12).

#### PROJECT PURPOSE

Basic: To construct a stormwater basin.

Overall: To construct a stormwater basin within the City of North Royalton to reduce flooding within the Cedar Estates subdivision.

Water Dependency Determination (*describe only if project affecting Special Aquatic Site*): The proposed project is not a water dependent activity. Therefore, it is presumed that practicable upland alternatives exist that are less environmentally damaging. It is the applicant's responsibility to demonstrate that there are no alternate sites that are less environmentally damaging that would allow the applicant to accomplish their project purpose.

**AVOIDANCE AND MINIMIZATION INFORMATION:** A channel with step pools will be constructed in the bottom of the basin which will provide energy dissipation, reduce flow velocity and enhance the removal of suspended solids. In addition, the applicant proposes to spread an emergent wetland seed mix and plant wetland scrub shrub and tree species within and around the basin (Sheets 9-10 of 12).

**PROPOSED MITIGATION:** The applicant proposed to purchase 2.1 mitigation credits from the Edison Woods Wetland Mitigation Bank to compensate for wetland impacts. To compensate for stream impacts the applicant proposes to preserve approximately 15,108 LF of stream channel and surrounding riparian corridor at the Wakefield Run Mitigation Site located in Hinckley Township, Median County, Ohio (Sheets 11-12 of 12).

Location and details of the above described work are shown on the attached maps and drawings.

Comments or questions pertaining to the work described in this notice should be reference the Application Number and be directed to the attention of Keith C. Sendziak, who can be contacted at the above address, by calling (716) 879-4339, or by e-mail at: keith.c.sendziak@usace.army.mil. A lack of response will be interpreted as meaning that there is no objection to the work as proposed.

The applicant has certified that the proposed activity complies with Ohio's approved Coastal Zone Management Program and will be conducted in a manner consistent with that program. Any comments on the consistency of the proposed activity with Ohio's Coastal Zone Management Program should be forwarded to:

Mr. John Kessler  
Ohio Department of Natural Resources  
Office of Real Estate  
2045 Morse Rd.  
Columbus, OH 43229-6605  
phone: 614-265-6621  
email: john.kessler@dnr.state.oh.us

The following authorization is required for this project:

Water Quality Certification (or waiver thereof) from the Ohio Environmental Protection Agency

Based on preliminary findings, there do not appear to be any properties listed in, or eligible for listing in, the National Register of Historic Places within the permit area as shown on Sheet 1 of 12. This notice constitutes initiation of consultation with the Ohio Historic Preservation Office (SHPO) per Section 106 of the National Historic Preservation Act. All currently available historic resource information pertaining to this proposed project if any has been provided to the SHPO. Additional information concerning historic properties should be submitted to the Corps before the end of the comment period of this notice. The Corps will forward that information to the SHPO for their review.

Pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the Corps of Engineers is consulting, under separate cover, with the USFWS to evaluate any potential impacts to: Indiana bat, northern long-eared bat, piping plover, rufa red knot, and Kirtland's warbler and to ensure that the proposed activity is not likely to jeopardize their continued existence or result in the destruction or adverse modification of critical habitat.

This notice is promulgated in accordance with Title 33, Code of Federal Regulations, parts 320-330. Any interested party desiring to comment on the work described herein may do so by submitting their comments, in writing, so that they are received no later than 4:30 pm on the expiration date of this notice.

Comments submitted in response to this notice will be fully considered during the public interest review for this permit application. All written comments will be made a part of the administrative record which is available to the public under the Freedom of Information Act. The Administrative Record, or portions thereof may also be posted on a Corps of Engineers internet web site. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment.

Any individual may request a public hearing by submitting their written request, stating the

specific reasons for holding a hearing, in the same manner and time period as other comments.

Public hearings for the purposes of the Corps permit program will be held when the District Commander determines he can obtain additional information, not available in written comments, that will aid him in the decision making process for this application. A Corps hearing is not a source of information for the general public, nor a forum for the resolution of issues or conflicting points of view (witnesses are not sworn and cross examination is prohibited). Hearings will not be held to obtain information on issues unrelated to the work requiring a permit, such as property ownership, neighbor disputes, or the behavior or actions of the public or applicant on upland property not regulated by the Department of the Army. Information obtained from a public hearing is given no greater weight than that obtained from written comments. Therefore, you should not fail to make timely written comments because a hearing might be held.

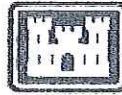
The decision to approve or deny this permit request will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

**SIGNED**

Diane C. Kozlowski  
Chief, Regulatory Branch

NOTICE TO POSTMASTER: It is requested that this notice be posted continuously and conspicuously for 30 days from the date of issuance.

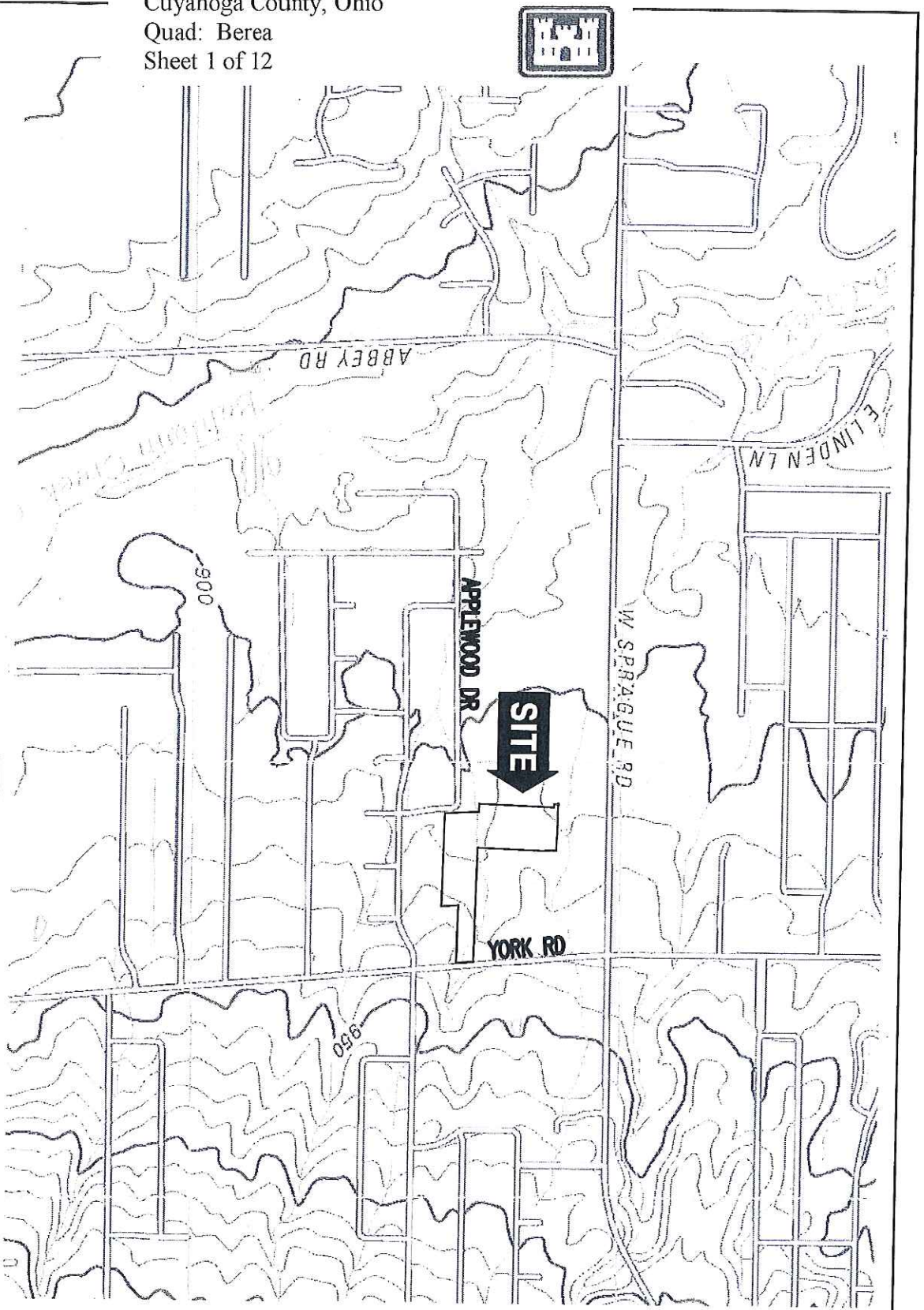


QUADRANGLE LOCATION



ADJOINING 7.5 QUADRANGLES

North Oriented	Lakewood	Cleveland South
West View	Berea	Brookline Heights
Medina Creek	Medina	West Richfield

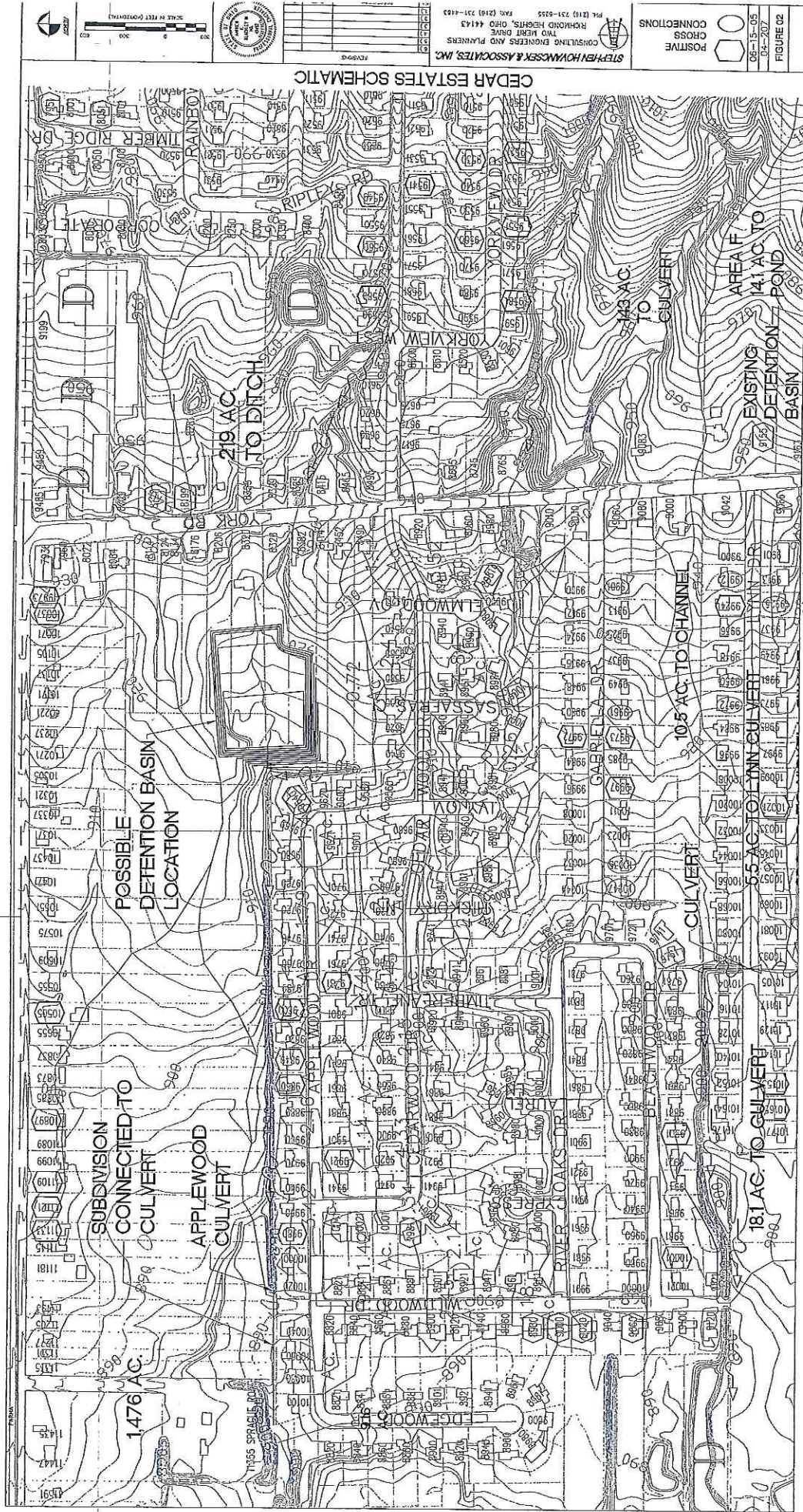


DATE: JAN 2015 SCALE: N/A

PROJECT NO.: 15092

FIGURE 1: USGS 7.5 MINUTE SERIES TOPOGRAPHIC MAP  
**CEDAR ESTATES DETENTION BASIN**  
 CITY OF NORTH ROYALTON  
 CUYAHOGA COUNTY, OHIO

**CVE** CHAGRIN VALLEY ENGINEERING, LTD.  
 Creative Engineers. Intelligent Solutions.  
 22999 Forbes Road, Suite B Cleveland, Ohio 44146-5667  
 Phone 440.439.1999 Fax 440.439.1969



STEPHEN HOWANSSER & ASSOCIATES, INC.  
 CONSULTING ENGINEERS AND PLANNERS  
 170 HERT DRIVE  
 RICHMOND HEIGHTS, OHIO 44143  
 PH (216) 731-0255 FAX (216) 731-4143

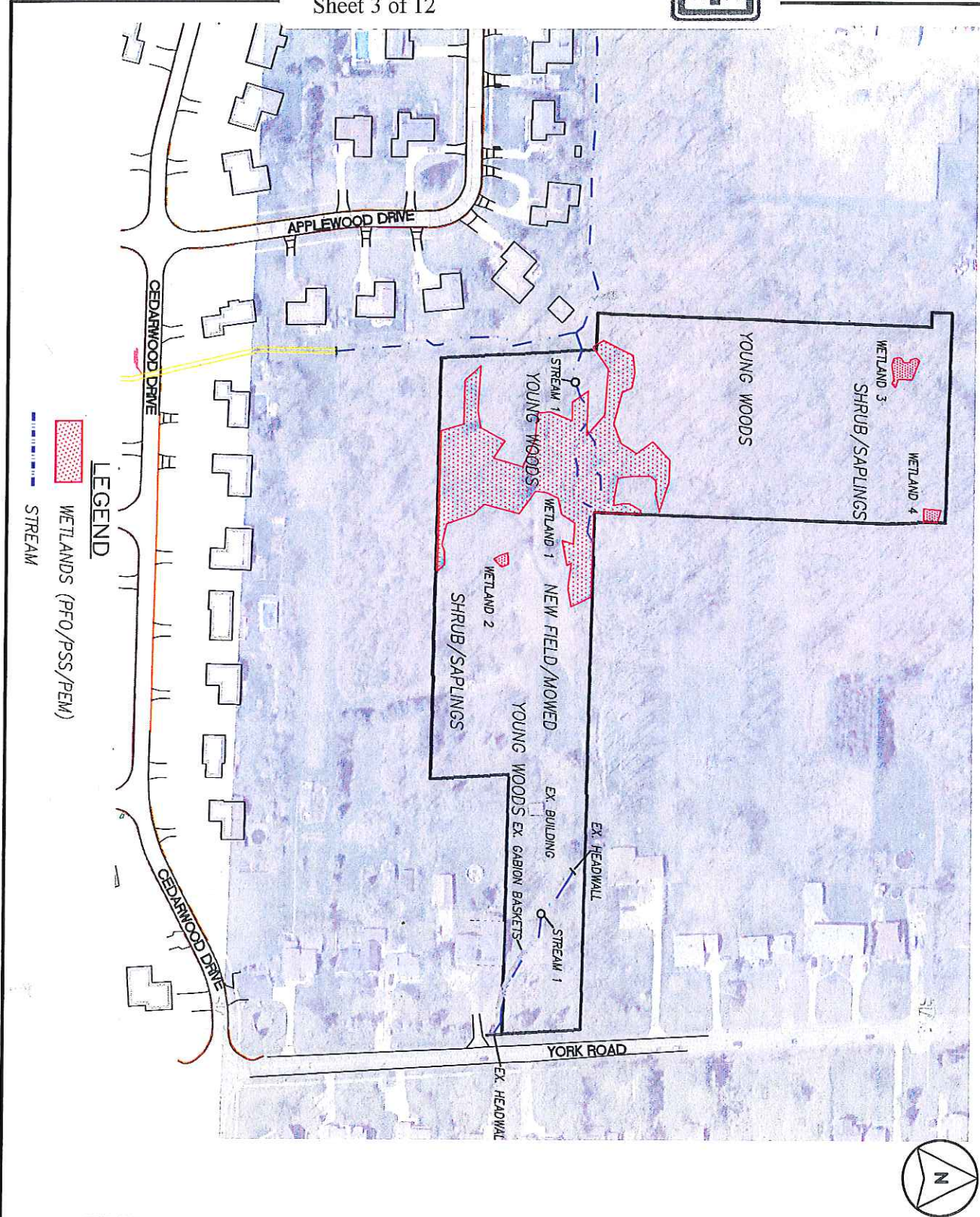
POSITIVE CONNECTIONS  
 CROSS  
 06-15-05  
 04-20-07  
 FIGURE 02

CEDAR ESTATES SCHEMATIC

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North Royalton, City of  
 D/A Processing No. 2014-00144  
 Cuyahoga County, Ohio  
 Quad: Berea  
 Sheet 2 of 12

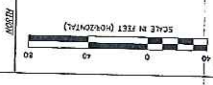




DATE: MAY 2015 SCALE: 1"=180'  
 PROJECT NO.: **15092**

**ORAM INFORMATION MAP**  
**CEDAR ESTATES BASIN**  
 CITY OF NORTH ROYALTON  
 CUYAHOGA COUNTY, OHIO

**CVE** CHAGRIN VALLEY  
 ENGINEERING, LTD.  
 Creative Engineers. Intelligent Solutions.  
 22999 Forbes Road, Suite B Cleveland, Ohio 44146-5667  
 Phone • 440.439.1999 Fax • 440.439.1969 www.cvefrimited.com

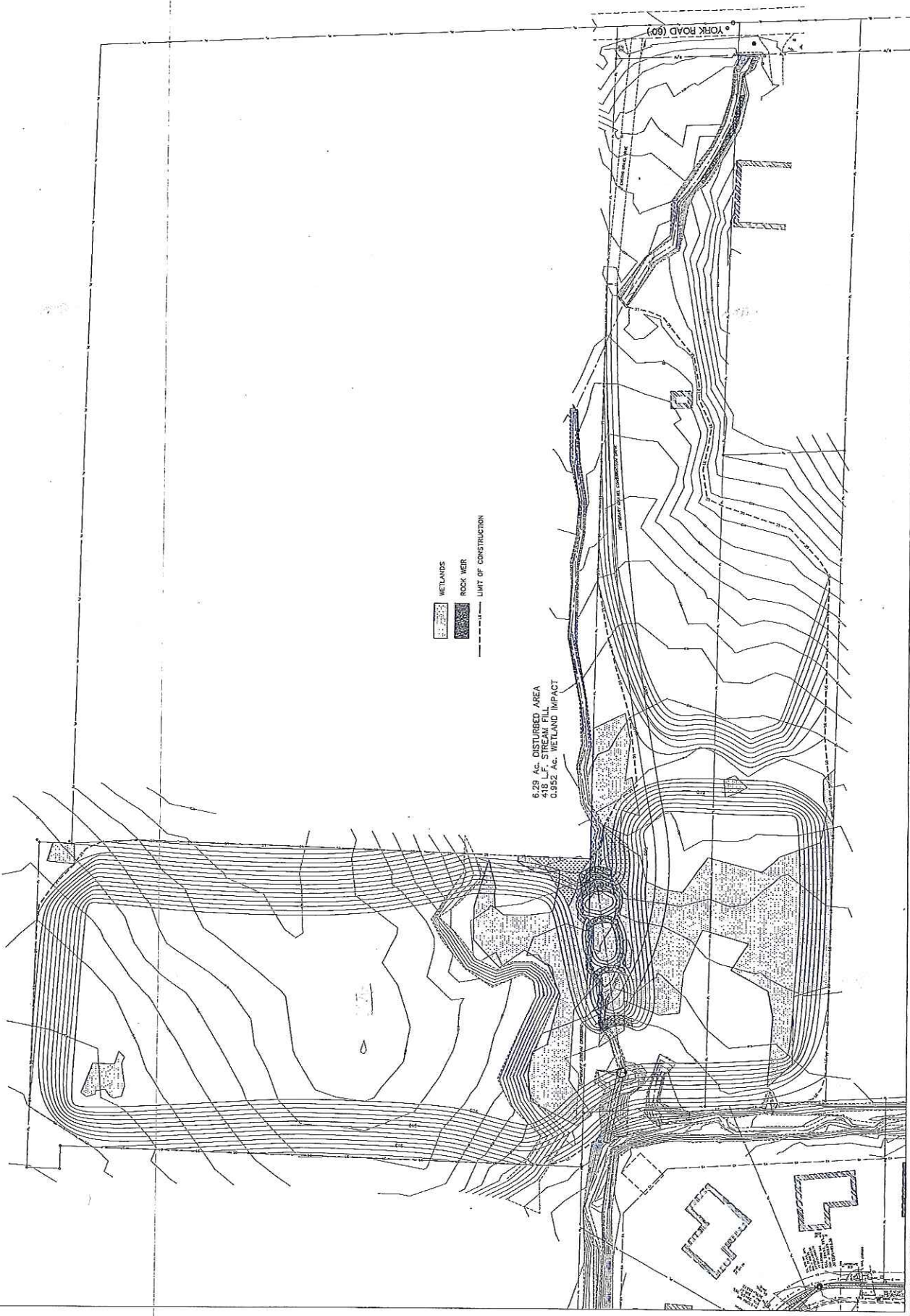


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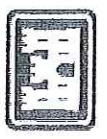
STEPHEN HOVANSEK & ASSOCIATES  
 CONSULTING ENGINEERS AND PLANNERS  
 RICHMOND HEIGHTS, OHIO 44143  
 TWO MERIT DRIVE  
 PH: (216) 731-8255 FAX: (216) 731-4463

CITY OF NORTH ROYALTON  
 CEDAR ESTATES DETENTION BASIN  
 PREFERRED ALTERNATIVE

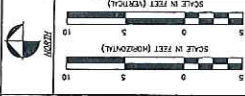
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 JOB NO.: 07-138  
 1 OF 7



North Royalton, City of  
 D/A Processing No. 2014-00144  
 Cuyahoga County, Ohio  
 Quad: Berea  
 Sheet 4 of 12

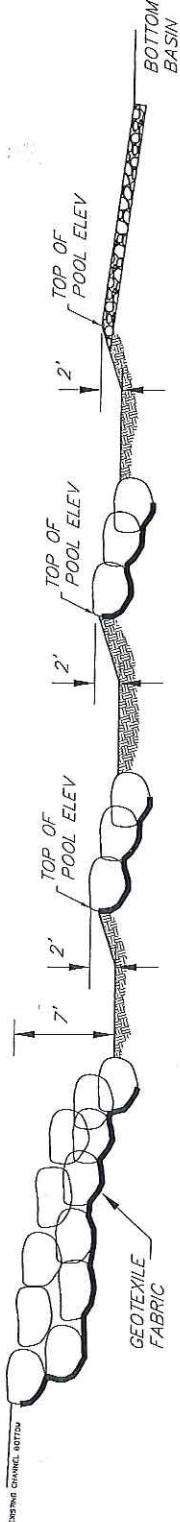




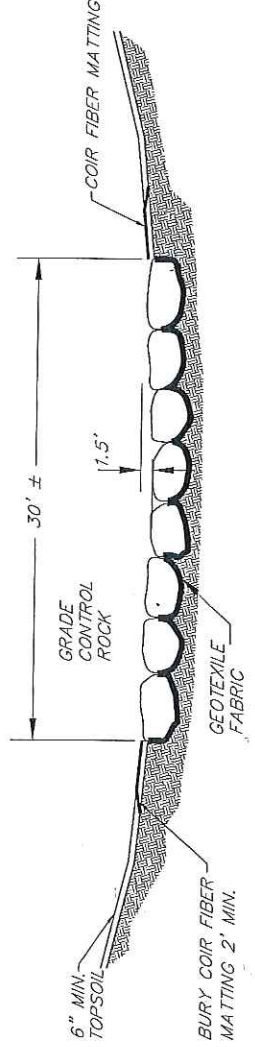


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STEPHEN HOVANCSEK & ASSOCIATES  
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TWO MERIT DRIVE  
RICHMOND HEIGHTS, OHIO 44143  
PH: (216) 731-6255 FAX: (216) 731-4483



CASCADE-POOLS-RIFFLE SECTION



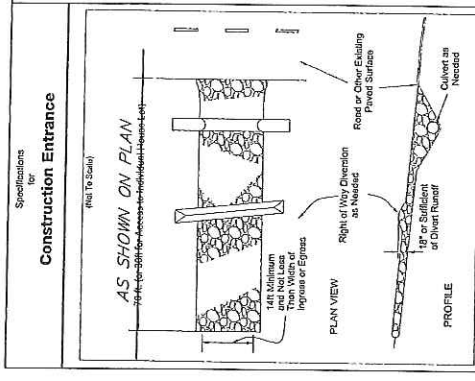
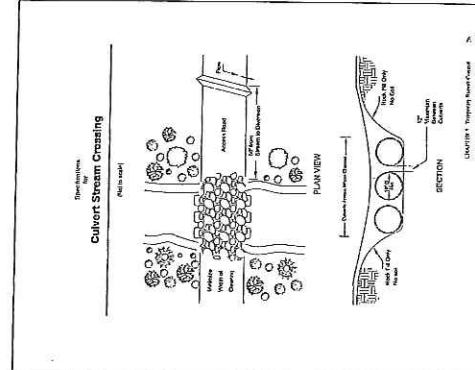
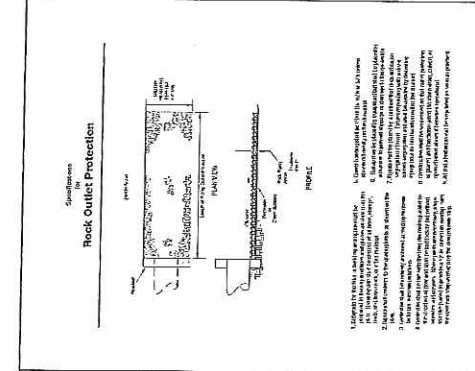
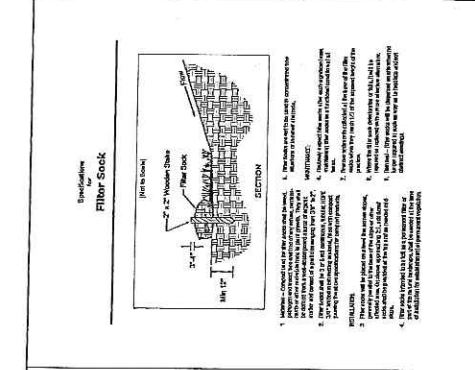
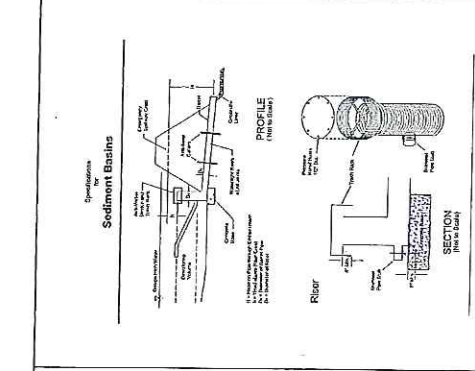
STEP POOL WEIR SECTION A-A

NOTE:  
COIR FIBER MATTING TO EXTEND 4' UP  
EMBANKMENT ON EITHER SIDE

North Royalton, City of  
D/A Processing No. 2014-00144  
Cuyahoga County, Ohio  
Quad: Berea  
Sheet 5 of 12



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**Specifications for Sediment Basins**

1. The top layer shall be composed of 2" to 4" crushed stone.
2. The middle layer shall be composed of 1/2" to 1" crushed stone.
3. The bottom layer shall be composed of 1/4" to 1/2" crushed stone.
4. The total depth of the sediment basin shall be 4 feet.
5. The sediment basin shall be constructed of concrete or masonry.
6. The sediment basin shall be installed in a trench.
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**Specifications for Sediment Traps**

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**Specifications for Rock Outlet Protection**

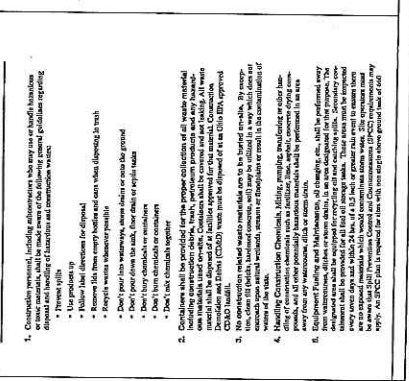
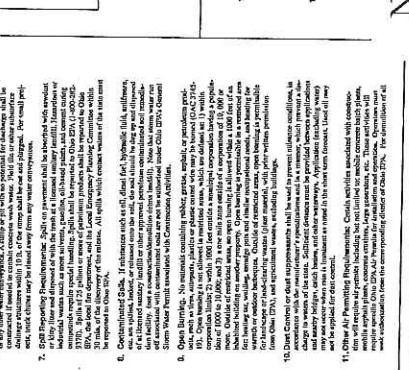
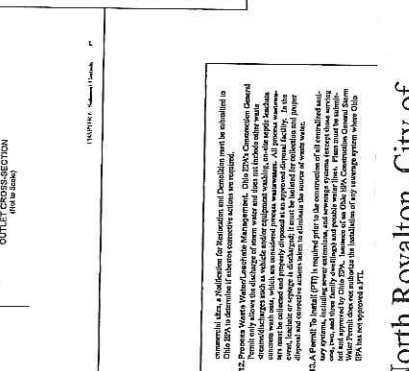
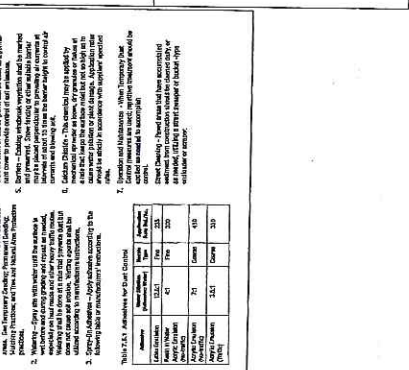
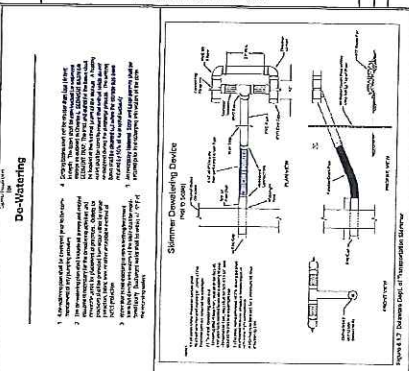
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**Specifications for Construction Entrance**

1. The construction entrance shall be installed in a trench.
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**Specifications for Construction Entrance**

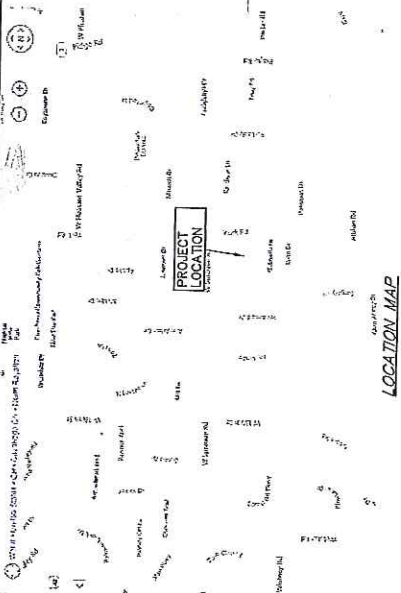
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**Additional Construction Site Pollution Controls**

1. Construction equipment, including sediments, shall not be stored in any area of the site.
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**Table 3.1: Additional Site Pollution Controls**

Category	Item	Quantity
Sediment Control	1. Sediment Control	100
	2. Sediment Control	100
Dust Control	3. Dust Control	100
	4. Dust Control	100
Erosion Control	5. Erosion Control	100
	6. Erosion Control	100



**LOCATION MAP**

**PROJECT LOCATION**

**CEAR ESTATES DETENTION BASIN**

**CUYAHOGA COUNTY**

**OHIO**

**BALDWIN CREEK**

**PROJECT DESCRIPTION**

CEAR ESTATES DETENTION BASIN

POST-DEVELOPMENT RUNOFF COEFFICIENT: 0.79

PRE-DEVELOPED IMPERVIOUSNESS = 0.0 ACRES (0%)

POST-DEVELOPED IMPERVIOUSNESS = 0.0 ACRES (0%)

**SITE AREA:** THE SITE IS APPROXIMATELY 7.41 ACRES, OF WHICH APPROXIMATELY 6.29 ACRES WILL BE DISTURBED BY CONSTRUCTION ACTIVITIES.

**RUNOFF COEFFICIENT:** PRE-DEVELOPMENT RUNOFF COEFFICIENT: 0.79

**SITE IMPERVIOUSNESS:** PRE-DEVELOPED IMPERVIOUSNESS = 0.0 ACRES (0%)

**SITE AREA:** THE SITE IS APPROXIMATELY 7.41 ACRES, OF WHICH APPROXIMATELY 6.29 ACRES WILL BE DISTURBED BY CONSTRUCTION ACTIVITIES.

**POST-DEVELOPED IMPERVIOUSNESS = 0.0 ACRES (0%)**

**POST-DEVELOPED IMPERVIOUSNESS = 0.0 ACRES (0%)**

**SEQUENCE OF MAJOR ACTIVITIES (ORDER WILL BE AS FOLLOWS):**

1. INSTALL TEMPORARY CONSTRUCTION DRIVE
2. CLEAR AND GRUB
3. EXCAVATION AND EMBANKMENT WORK IN CONJUNCTION WITH SEDIMENT TRAP POND
4. CONSTRUCT STEP POOLS AND WEIRS
5. FINAL GRADING
6. PERMANENT SEEDING
7. NAME OF RECEIVING WATERS:

THE SITE DRAINS INTO A TRIBUTARY OF BALDWIN CREEK.

**ADDITIONAL STORAGE WATER POLLUTION PREVENTION NOTES:**

1. SUITABLE EXCAVATED SOIL INCLUDING TOPSOIL SHOULD BE USED ON SITE TO THE EXTENT POSSIBLE. EXCESS MATERIAL MUST BE DISPOSED OF IN A PERMITTED FACILITY.
2. MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE OHIO ADMINISTRATION CODE (OAC) 3746-60).
3. ALL CONTAMINATED SOILS MUST BE TREATED AND/OR DISPOSED IN OHIO EPA PERMITTED WASTE MANAGEMENT FACILITIES OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES (TSDF).
4. PETROLEUM BASED AND CONCRETE CURING COMPOUNDS MUST HAVE SPECIAL HANDLING PROCEDURES.
5. IN THE EVENT OF A LARGE PETROLEUM RELEASE (25 OR MORE GALLONS) YOU MUST CONTACT OHIO EPA (AT 1-800-282-8378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WITHIN 30 MINUTES OF A SPILL OF 25 OR MORE GALLONS.
6. DUST CONTROL: USED OIL MAY NOT BE USED AS A DUST SUPPRESSANT.

**GENERAL NOTES FOR NON-SEDIMENT POLLUTANT CONTROLS**

1. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. THE INDIVIDUAL WHO MANAGES THE MATERIALS SHALL BE RESPONSIBLE FOR ENSURING ALL FORMS OF WASTE ARE PROPERLY DISPOSED OF.
2. CONTAMINATED SOILS FROM REVEGETATION SITES SHALL BE DISPOSED OF PROPERLY PERMITS SHALL BE OBTAINED FOR DEVELOPMENT PROJECTS ON SOLID WASTE LANDFILL SITES OR REDEVELOPMENT SITES.
3. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT WITH NO POTENTIAL FILL TIE OFF SHALL BE CONSTRUCTED TO CONTAIN CONCRETE WASH WATER. SHALL BE OBTAINED FOR DEVELOPMENT PROJECTS ON SOLID WASTE LANDFILL SITES OR REDEVELOPMENT SITES.
4. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF. ANY AND ALL WASTE MATERIALS (SOLID, LIQUID, OR GASEOUS) GENERATED BY THE PROJECT, INCLUDING SANITARY, TOXIC, CONTAMINATED SOILS, ETC.) GENERATED BY THE PROJECT, SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL RULES/REGULATIONS. ON-SITE STORAGE CONTAINERS SHALL BE COVERED AND INTO THE STORM SEWERS ANY SOLIDS, BATTERIES, OR OTHER HAZARDOUS MATERIALS OR TOXIC OR HAZARDOUS MATERIALS OR WASTES.
5. HANDLING CONSTRUCTION CHEMICALS, MIXING, PUMPING, TRANSFERRING OR OTHER HANDLING OF CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT CONCRETE CURING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH OR STORM DRAIN.
6. EQUIPMENT FUELING AND MAINTENANCE OIL CHANGING, ETC., SHALL BE PERFORMED IN AREAS DESIGNATED FOR THIS PURPOSE. OILS OR SPILLS IN AN AREA DESIGNATED FOR THIS PURPOSE SHALL BE IMMEDIATELY CLEANED UP AND THE VOLUME OF ALL CONTAINERS IN A STORAGE AREA SHALL BE PROVIDED FOR ALL FUEL/OIL STORAGE TANKS AND DRUMS.
7. ALL SANITARY WASTE SHALL BE COLLECTED FROM PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR, AS REQUIRED BY LOCAL REGULATION.
8. THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT:

- A. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
- B. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- C. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE MANUFACTURER'S LABELS WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- D. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- E. THE MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- F. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS STORED ON SITE.

9. IN ADDITION TO PREVIOUS NOTES, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEAN-UP:

- A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN-UP WILL BE POSTED AT THE SITE RESPONSIBLE AREA OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEAN-UP SUPPLIES.
- B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEAN-UP WILL BE KEPT IN THE AREA OF THE SITE EQUIPMENT AND MATERIALS WILL INCLUDE, BUT NOT BE LIMITED TO, BROOMS, DUSTPANS, TRASH BAGS, LITTER BOXES, SAND, SAND/DIRT, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY DESIGNED FOR THIS PURPOSE.
- C. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
- D. THE SPILL AREA WILL BE KEPT WELL-VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.
- E. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF IT DOES OCCUR. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
- F. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY OPERATIONS WILL PERSONALLY PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR A PART OF THE CLEANUP. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PART OF THE CLEANUP AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ON SITE.

**GENERAL NOTES FOR SEDIMENT POLLUTANT CONTROLS**

1. PERMETER SEDIMENT CONTROLS (E.G. SEDIMENT TRAPS, SILT FENCE, COMPOST SOCKS, COMPOST BERMS, ETC.) SHALL BE INSTALLED PRIOR TO THE START OF GRADING AND FUNCTION UNTIL UPSCLOPE AREAS DRAINING TO THEM ARE PERMANENTLY STABILIZED, OR AS DIRECTED BY THE ENGINEER, OR HIS DESIGNATED REPRESENTATIVE.
2. NO EROSION AND SEDIMENT CONTROL BMPs SHALL BE REMOVED FROM THE SITE PRIOR TO ADEQUATE PERMANENT STABILIZATION OF THE ASSOCIATED UPLAND DRAINAGE BASINS. REPRESENTATIVE SHALL OBTAIN AUTHORIZATION FROM THE ENGINEER, OR HIS DESIGNATED REPRESENTATIVE, PRIOR TO REMOVAL. ITS REMOVAL IS SPECIFICALLY PROVIDED FOR WITHIN THE SITE'S APPROVED PLAN.
3. THERE SHALL BE NO SEDIMENT-LADEN OR TURBID DISCHARGES TO WATER RESOURCES. ANY DISCHARGES TO WATER RESOURCES SHALL BE TREATED TO REMOVE ALL SEDIMENT. EFFECTIVE SEDIMENT CONTROL DEVICES, PRIOR TO BEING DISCHARGED BY SETTING IN PLACE ALTERNATELY, SEDIMENT MAY BE REMOVED BY SETTING IN PLACE WATER REMOVING WHICH DOES NOT FILTER PAD OR COMPARABLE PRACTICE. GROUND WATER DEVIATION SHALL BE MONITORED TO ENSURE THAT IT DOES NOT BECOME POLLUTANT-LADEN BY TRAVELING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.
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5. WHEN PRACTICES FAIL TO CONTROL THEIR INTENDED FUNCTION, IF AN INTERVAL INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AS DETAILED IN THE SHEET AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE MUST BE INSTALLED WITHIN TEN (10) DAYS OF THE INSPECTION.
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City of North Royalton  
**CEAR ESTATES DETENTION BASIN**  
**PREFERRED ALTERNATIVE**  
**PREVENTION PLAN NOTES**

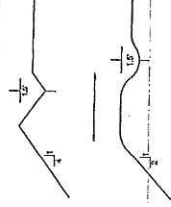
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4 OF 7  
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 8215-064-PC-C61 SWPPP 06/01/2015

North Royalton, City of  
 D/A Processing No. 2014-00144  
 Cuyahoga County, Ohio  
 Quad: Berea  
 Sheet 7 of 12

Specifications for  
Temporary Diversion

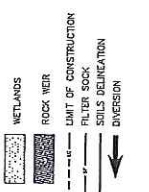
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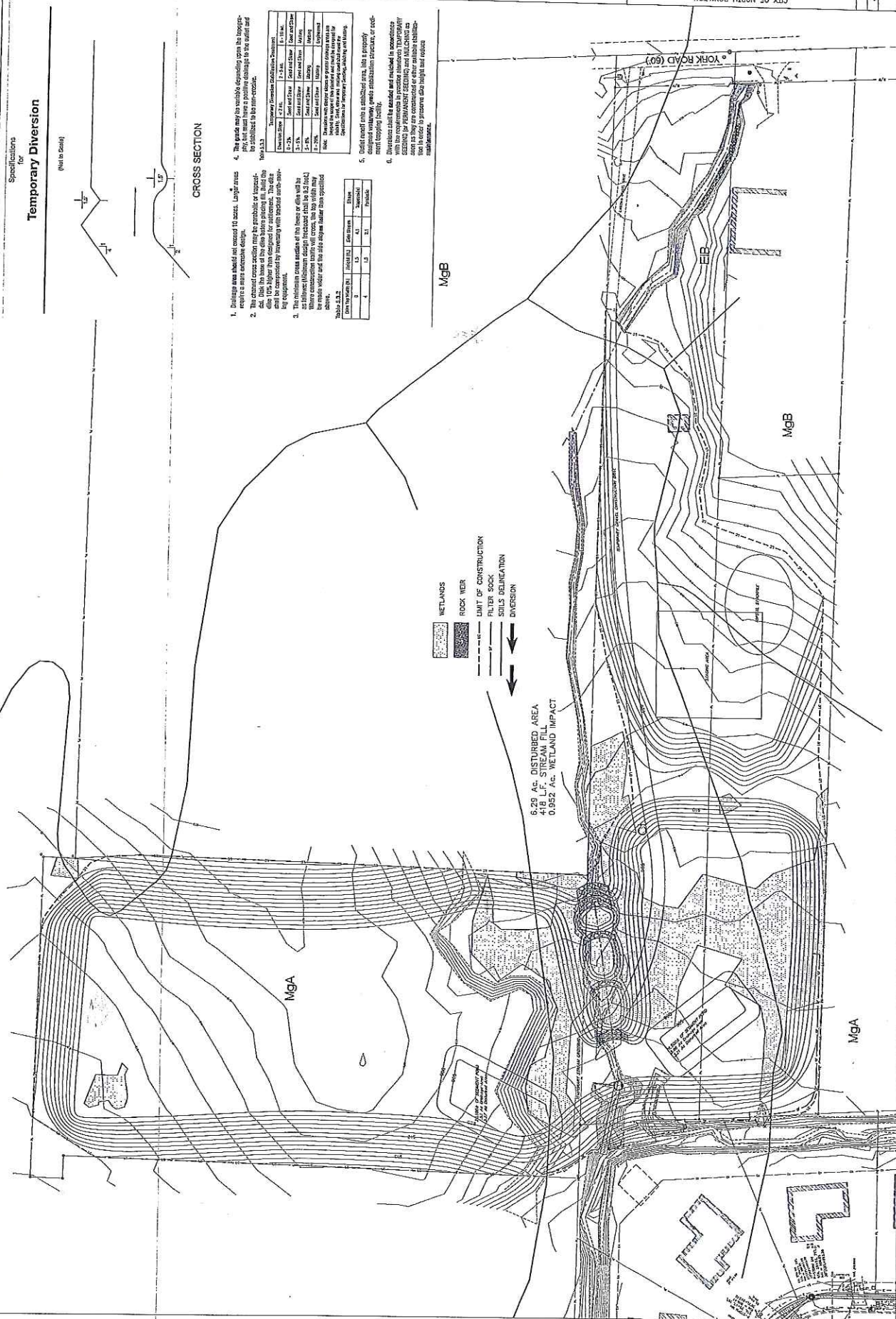
CROSS SECTION

1. Retention area shall not exceed 15 acres. Larger areas require a more extensive design.
2. The standard cross section may be modified to meet site conditions. The base of the slope shall be protected with riprap. The slope shall be protected by temporary retaining structures and/or by equipment.
3. The minimum cross section of this basin or ditch will be 10 feet wide and 4 feet deep. The minimum cross section of a ditch will be 4 feet wide and 2 feet deep. The slope shall be 1:1.5 for a maximum depth of 4 feet and 1:2 for a maximum depth of 6 feet. The slope shall be 1:1 for a maximum depth of 8 feet. The slope shall be 1:1.5 for a maximum depth of 10 feet. The slope shall be 1:2 for a maximum depth of 12 feet. The slope shall be 1:3 for a maximum depth of 15 feet. The slope shall be 1:4 for a maximum depth of 20 feet. The slope shall be 1:5 for a maximum depth of 25 feet. The slope shall be 1:6 for a maximum depth of 30 feet. The slope shall be 1:7 for a maximum depth of 35 feet. The slope shall be 1:8 for a maximum depth of 40 feet. The slope shall be 1:9 for a maximum depth of 45 feet. The slope shall be 1:10 for a maximum depth of 50 feet. The slope shall be 1:11 for a maximum depth of 55 feet. The slope shall be 1:12 for a maximum depth of 60 feet. The slope shall be 1:13 for a maximum depth of 65 feet. The slope shall be 1:14 for a maximum depth of 70 feet. The slope shall be 1:15 for a maximum depth of 75 feet. The slope shall be 1:16 for a maximum depth of 80 feet. The slope shall be 1:17 for a maximum depth of 85 feet. The slope shall be 1:18 for a maximum depth of 90 feet. The slope shall be 1:19 for a maximum depth of 95 feet. The slope shall be 1:20 for a maximum depth of 100 feet.
4. The grade may be variable depending upon the topographic conditions. The grade shall be established by the utility and shall be published in the final plan.
5. Outlet channel shall be established area. This is generally a 10-foot wide channel with a 1:1.5 slope. The outlet channel shall be established by the utility and shall be published in the final plan.
6. Discharges shall be made at intervals in accordance with the requirements to prevent erosion. Temporary structures shall be removed as soon as they are no longer needed. The outlet channel shall be established by the utility and shall be published in the final plan.

Disturbance Area	Setback	Setback	Setback
0	1.5	3.1	6.2
1	1.5	3.1	6.2
2	1.5	3.1	6.2
3	1.5	3.1	6.2
4	1.5	3.1	6.2



6.29 AC. DISTURBED AREA  
416 L.F. STREAM FILL  
0.852 AC. WETLAND IMPACT



SCALE IN FEET (HORIZONTAL)

0 10 20

STEPHEN HOVANCSEK & ASSOCIATES, INC.

CONSULTING ENGINEERS AND PLANNERS

TWO HEIGHTS, OHIO 44143

PH: (216) 731-6295 FAX: (216) 731-4483

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
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6		
7		
8		
9		
10		

CITY OF NORTH ROYALTON

CEAR ESTATES DETENTION BASIN

PREFERRED ALTERNATIVE

DATE: 03/15

JOB NO.: 07-126

3 of 7

North Royalton, City of  
D/A Processing No. 2014-00144  
Cuyahoga County, Ohio  
Quad: Berea  
Sheet 8 of 12



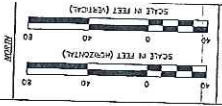
North Royalton, City of  
 D/A Processing No. 2014-00144  
 Cuyahoga County, Ohio  
 Quad: Berea  
 Sheet 9 of 12



CITY OF NORTH ROYALTON  
**CEDAR ESTATES DETENTION BASIN**  
 1  
**PREFERRED ALTERNATIVE**

STEPHEN HOVANCSEK & ASSOCIATES  
 CONSULTING ENGINEERS AND PLANNERS  
 TWO HERIT DRIVE  
 RICHMOND HEIGHTS, OHIO 44143  
 PH: (216) 731-8295 FAX: (216) 731-4433

NO.	DESCRIPTION	DATE	BY
1			
2			
3			
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5			
6			
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8			
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- ROCK WEIR
- OPEN WATER WETLAND PLANTINGS
- EMERGENT WETLAND PLANTINGS
- REPAIRAN FOREST PLANTINGS
- NATIVE GRASS PLANTINGS
- WETLANDS
- LIMIT OF CONSTRUCTION

6.29 AC. DISTURBED AREA  
 418 L.F. STREAM FILL  
 0.992 AC. WETLAND IMPACT

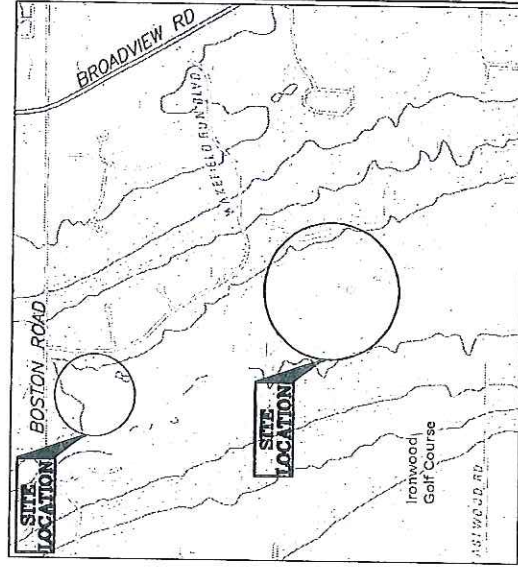
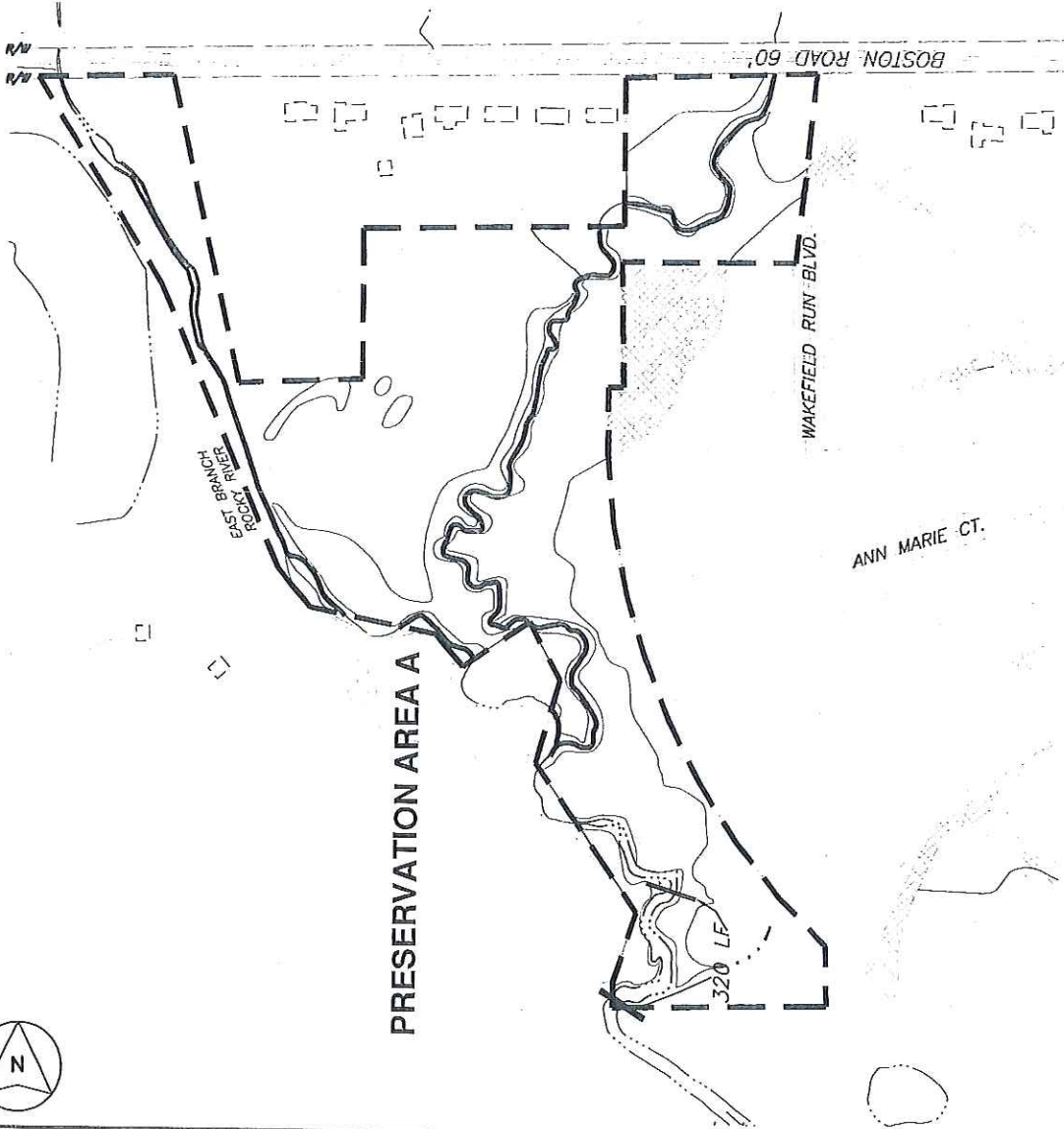




North Royalton, City of  
 D/A Processing No. 2014-00144  
 Cuyahoga County, Ohio  
 Quad: Berea  
 Sheet 11 of 12



- LEGEND**
- PRESERVATION AREA
  - STREAM/RIVER
  - ▭ FEDERAL WETLANDS

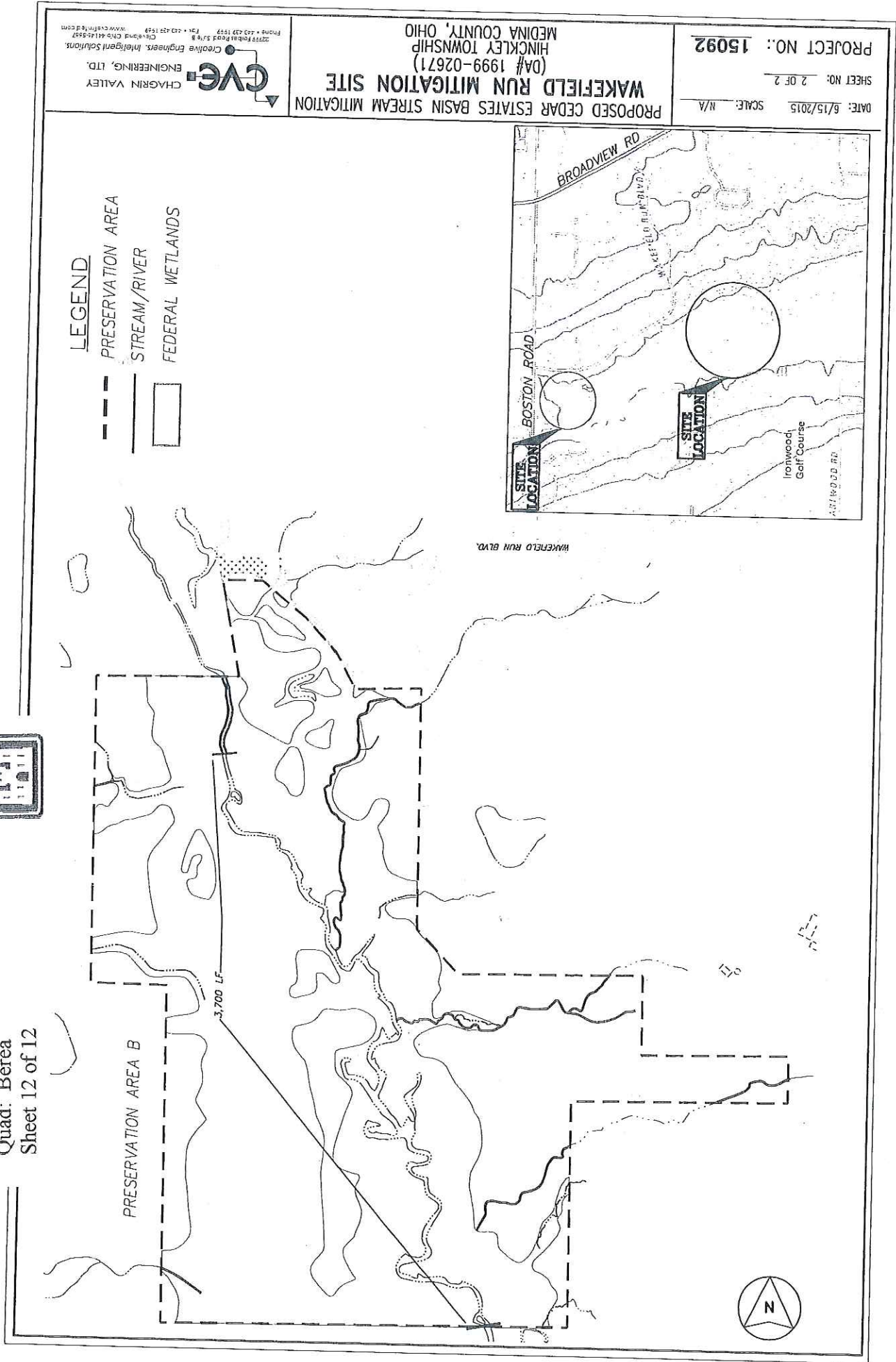


PROPOSED CEDAR ESTATES BASIN STREAM MITIGATION  
**WAKEFIELD RUN MITIGATION SITE**  
 (DA# 1999-02671)  
 HINCKLEY TOWNSHIP  
 MEDINA COUNTY, OHIO

**CVE**  
 CHAGRIN VALLEY  
 ENGINEERING, LTD.  
 Creative Engineers, Intelligent Solutions  
 22977 Federal Road Suite B  
 Chagrin Falls, Ohio 44130-4527  
 Phone: 440.432.1929 Fax: 440.432.1928  
 www.cveinc.com

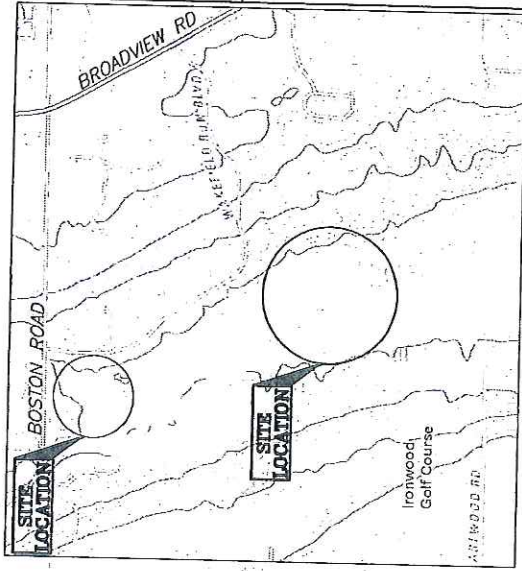
DATE: 6/15/2015 SCALE: N/A  
 SHEET NO.: 1 OF 2  
 PROJECT NO.: 15092

North Royalton, City of  
 D/A Processing No. 2014-00144  
 Cuyahoga County, Ohio  
 Quad: Berea  
 Sheet 12 of 12



**LEGEND**

- PRESERVATION AREA
- STREAM/RIVER
- ▭ FEDERAL WETLANDS



**CVE**  
 CHAGRIN VALLEY  
 ENGINEERING, LTD.  
 Creative Engineers, Intelligent Solutions  
 20250 Park Road S.W. # 2  
 Cleveland, Ohio 44130  
 Phone: 440.292.1559 Fax: 440.292.1549  
 www.cveinc.com

**PROPOSED CEDAR ESTATES BASIN STREAM MITIGATION**  
**WAKEFIELD RUN MITIGATION SITE**  
 (D/A# 1999-02671)  
 HINCKLEY TOWNSHIP  
 MEDINA COUNTY, OHIO

DATE: 6/15/2015  
 SCALE: N/A  
 SHEET NO.: 2 OF 2  
 PROJECT NO.: 15092

