

Construction in Photos

Oxidation Ditch from April 1 , 2017

Water Resource Recovery Department

Village of Ashville

Ashville's Water Resource Recovery Facility

Part A - Job No: 60440011

Presentation Available on Line at:

www.ashvilleohio.gov



Ashville's WRRF Project



Vision Statement

Remembering our rural heritage, Ashville will be a vibrant and friendly community, offering an enhanced quality of life achieved through planning, progress and collaboration.

It will be a welcoming place where people want to live and businesses prosper.

Ashville's WRRF Project



Construction Aerial Photo

From November 2016, April, May & November 2017

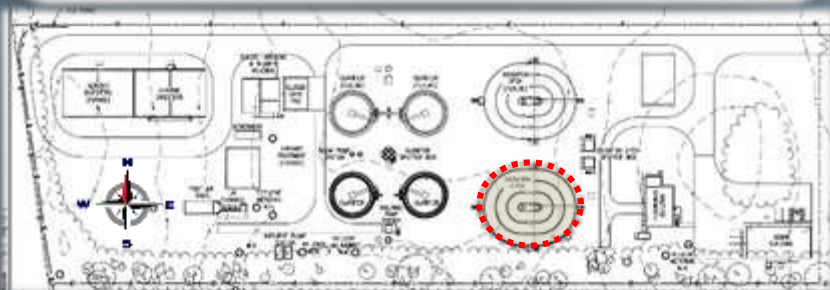


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Oxidation Ditch - Activated Sludge Treatment Process

An oxidation ditch is a modified activated sludge biological treatment process that utilizes long solids retention times (SRTs) to remove biodegradable organics. Oxidation ditches are typically complete mix systems, but they can be modified to approach plug flow conditions. (Note: as conditions approach plug flow, diffused air must be used to provide enough mixing. The system will also no longer operate as an oxidation ditch). Typical oxidation ditch treatment systems consist of a single or multichannel configuration within a ring, oval, or horseshoe-shaped basin. As a result, oxidation ditches are called "racetrack type" reactors. Horizontally or vertically mounted aerators provide circulation, oxygen transfer, and aeration in the ditch.



Oxidation Ditch

Ashville's WRRF Project



Construction in Photos



- September 11, 2017
- Crew continuing to work on the site grading and road installation at the Oxidation Ditch.

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Construction in Photos



- July 19, 2017
- Crew checking the alignment of the shafts on the Disc Aerators of the Oxidation Ditch.

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Construction in Photos



- July 18, 2017
- Crew grinding the concrete walls of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos



- July 14, 2017
- Crew grinding the concrete walls of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos



- July 3, 2017
- Crew excavating for the stair landing on the West end of the Oxidation Ditch.

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Construction in Photos



- June 23, 2017
- Crew getting ready to install the sump pump in the Oxidation Ditch RAS vault.

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Construction in Photos



- June 1, 2017
- Crew installing conduit and pulling wire at the Oxidation Ditch.

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Construction in Photos



- May 30, 2017
- Crew backfilling and compacting soil around the Oxidation Ditch RAS Vault and Splitter Box.

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Construction in Photos



- May 24, 2017
- Crew installing the 30" DI piping from the Oxidation Ditch to the Clarifier Splitter Box.

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Construction in Photos



- May 22, 2017
- Crew continuing to install the Aluminum Handrail on the Oxidation Ditch.

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Construction in Photos

- May 17, 2017
- Crew has made the connection to the 20" DI piping from the Oxidation Ditch and now installing the 30" DI piping to the Clarifier splitter box.



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Construction in Photos

- May 9, 2017
- Crew installing the conduit duct bank for the Oxidation Ditch and RAS vault from electrical MH#1.



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Construction in Photos



- May 8, 2017
- Crew installing the Aluminum Handrail on the access bridges of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos



- May 3, 2017
- Crew installing the Aluminum handrail for the Oxidation Ditch access bridges.

Ashville's WRRF Project



Construction in Photos



- April 28, 2017
- Crew grinding the exterior concrete walls of the Oxidation Ditch.

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Construction in Photos



- April 27, 2017
- Crew installing conduit and fixtures in the RAS vault of the Oxidation Ditch.

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Construction in Photos



- April 25, 2017
- Crew installing conduit and the motor disconnect for the North aerator drive assembly of the Oxidation Ditch.

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Construction in Photos



- April 21, 2017
- Crew installing the aluminum I-Beam for the 6.5 ft. Weir Gate for the effluent chamber on channel #3 of the Oxidation Ditch.

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Construction in Photos



- April 20, 2017
- Crew installing the 6.5 ft. weir gate of channel #3 on the West end of the center island section of the Oxidation Ditch.

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Construction in Photos



- April 19, 2017
- Crew installing the Hoods for the Aerator Disc on the South half of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos



- April 19, 2017
- Crew installing the Aerator Drive assemblies on the aerator shafts of the South half of the Oxidation Ditch.

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Construction in Photos

- April 18, 2017
- Crew installing the 4 ft. x 4 ft. sluice gates for the transfer ports of channels 1 & 2 of the Oxidation Ditch.



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Construction in Photos

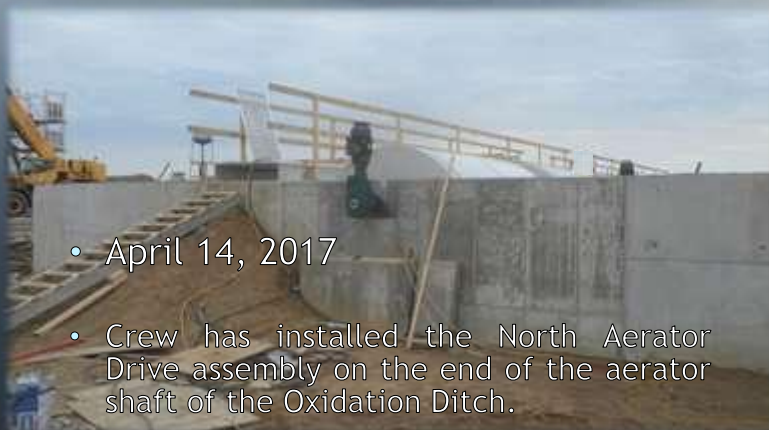


- April 17, 2017
- Crew installing the Aerator Disc on the aerator shafts over the South channels of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos



- April 14, 2017
- Crew has installed the North Aerator Drive assembly on the end of the aerator shaft of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos



- April 13, 2017
- Crew installing the Aerator Disc Hoods on the North half of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos



- April 12, 2017
- Crew has installed the bearings and shafts over the South half of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos



- April 12, 2017
- Crew has installed the bearings and shafts over the South half of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos



- April 12, 2017
- Crew continues to install the Aerator Discs on the aerator shafts of the North half of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos



- April 11, 2017
- Crew installing the bearing support/adjusting plates for the Aerator shafts on the South half of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos



- April 10, 2017
- Crew installing the Aluminum I-Beams for the South Access Bridge of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos

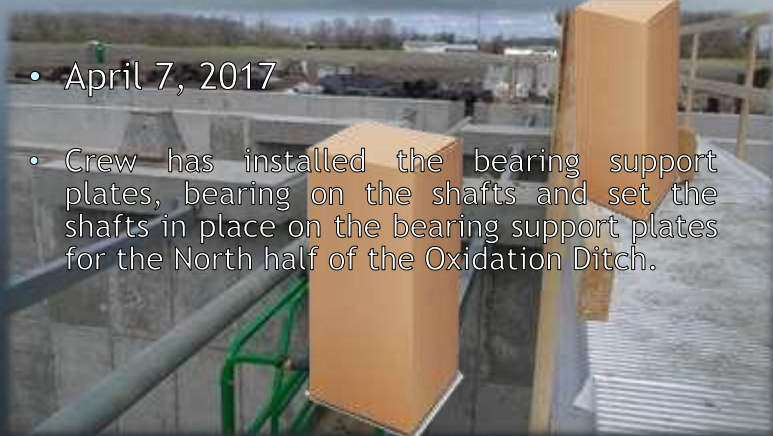


- April 10, 2017
- Crew installing the Aerator Disc on the North aerator shafts of the Oxidation Ditch.

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Construction in Photos



- April 7, 2017
- Crew has installed the bearing support plates, bearing on the shafts and set the shafts in place on the bearing support plates for the North half of the Oxidation Ditch.

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Construction in Photos

- April 5, 2017
- Building the rebar to be installed in the concrete forms for the South bearing and bridge walk pads of the Oxidation Ditch.



Ashville's WRRF Project



Construction in Photos

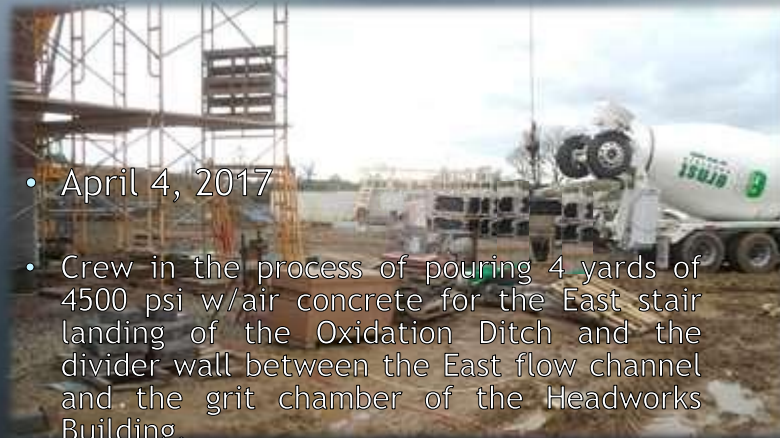
- April 5, 2017
- Crew finishing the 3 yards of 4500 psi w/air concrete for the South bearing and bridge walks pads of the Oxidation Ditch.



Ashville's WRRF Project



Construction in Photos

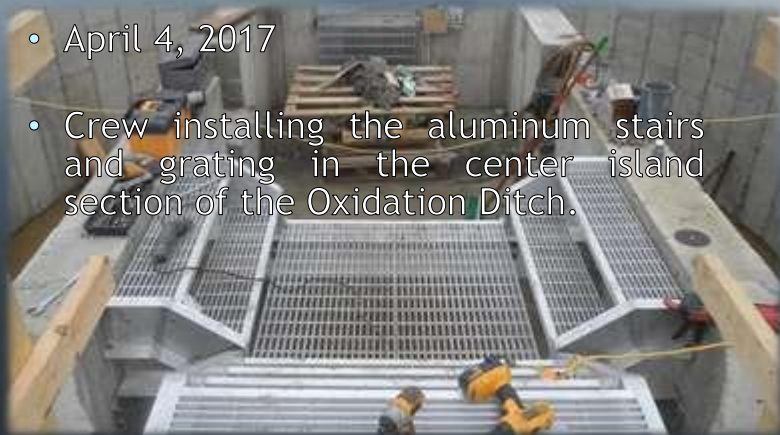


- April 4, 2017
- Crew in the process of pouring 4 yards of 4500 psi w/air concrete for the East stair landing of the Oxidation Ditch and the divider wall between the East flow channel and the grit chamber of the Headworks Building.

Ashville's WRRF Project



Construction in Photos



- April 4, 2017
- Crew installing the aluminum stairs and grating in the center island section of the Oxidation Ditch.

Ashville's WRRF Project



Construction in Photos

- April 3, 2017
- Crew installing the concrete forms and #57 gravel for the East stair landing of the Oxidation Ditch.



Ashville's Water Resource Recover Facility Project Planning Timeline 2015 - 2017



3½ Year or 42 Months

WRRF Plan Implementation

- a. 9 months submit detailed design plan (s) and a complete and approvable Permit to Install (PTI) application for the new WWTP, an application for an NPDES permit, and an anti-degradation addendum
 - Correct any deficiencies within 30 days of notification by letter from Ohio EPA
- b. 16 months commence construction of the new WWTP in accordance with the approved PTI
 - Within 7 days of commencing construction notify the CDO
- c. 40 months of the effective date of these Orders, Respondent shall complete construction of the new WWTP in accordance with the approved PTI;
 - Within 7 days of completing construction notify the CDO
- b. 60 days of completion of construction of the new WWTP, the WWTP shall attain operational level and shall meet the final effluent limitations in Respondent's NPDES permit;
 - Within 7 days of attain operational level and meet final effluent limitations notify the CDO

Timeline Begins June 16, 2014

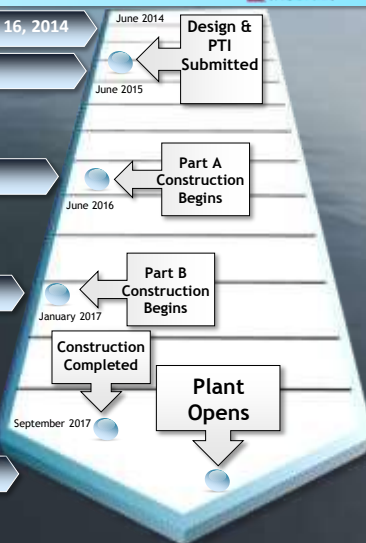
March 4, 2015

March 21, 2016

January 2, 2017

September 16, 2017

November 15, 2017



hio
Ohio Environmental Protection Agency
DEFA Loan

Water Resource Recovery Facility Project
AECOM

Ashville Community Development Authority

Ohio Water Development Authority

Village of Ashville Sanitary Sewer Improvements Parts A & B
Total Project Cost \$43,098,605.00

ASHVILLE
Vision Statement