

LOCATION MAP



STATE OF OHIO, DELAWARE COUNTY  
 DELAWARE COUNTY ENGINEER  
**MILLER-WILLIAMS-HOLMES #2**  
**DRAINAGE IMPROVEMENT PROJECT**  
 DELAWARE COUNTY  
 GENOA TOWNSHIP

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Miller-Williams-Holmes #2			
ESTIMATED QUANTITIES			
Miller-Williams-Holmes #2 Open Channel			
Item	Description	Quantity	Unit
NRCS 326	Logjam Removal	LUMP	
NRCS 326	Clearing & Snagging	LUMP	
NRCS 582	Open Channel Restoration	873	Lineal Feet
ODOT 609.01	Rock Channel Protection	10	Lineal Feet
ODOT 659	Seeding & Mulching, Class 1 (No Anchoring)	5,000	Square Yards

PROJECT DESCRIPTION

This project will include the improvement of surface drainage and the taking of temporary and permanent easements.

This project/improvement is being done pursuant to Ohio Revised Code Sections 6131 and 6137.

2023 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement. English units shall govern. Where noted, specifications of the USDA Natural Resources Conservation Service shall supplement the ODOT specifications.

BENCHMARK DESCRIPTION

BM# 1

Benchmark is the top of a yellow fire hydrant at the intersection of Lanetta Lane & Tussic Street Road.

Elevation: 928.24'  
 Northing: 180450.0000'  
 Easting: 1856692.6290'

(Coordinates are NAD1983 Ohio State Plane North)

**UNDERGROUND UTILITIES**

**TWO WORKING DAYS BEFORE YOU DIG**

CALL 1-800-362-2764 (TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE

NON-MEMBERS MUST BE CALLED DIRECTLY

PLAN JOINTLY PREPARED BY:

DELAWARE SOIL AND WATER  
 CONSERVATION DISTRICT  
 557A SUNBURY RD  
 DELAWARE, OHIO 43015

PHONE: (740)368-1921 EXT.4 FAX: (740)369-8321

DELAWARE COUNTY ENGINEER'S OFFICE  
 50 CHANNING STREET  
 DELAWARE, OHIO 43015  
 PHONE:(740) 833-2400 FAX: (740)833-2399

CONSTRUCTION & MATERIAL SPECIFICATIONS				SUPPLEMENTAL SPECIFICATIONS
OHIO DEPARTMENT OF TRANSPORTATION		USDA NATURAL RESOURCES CONSERVATION SERVICE		
	DELAWARE COUNTY ENGINEER	CONSTRUCTION		
202	Tile Destruction in Place	326	Clearing & Snagging	
611	Pipe Culverts, Sewers, Drains, & Drainage Structures	410	Grade Stabilization Structure	
659	Seeding & Mulching	484	Mulching	SPECIAL PROVISIONS
706	Concrete & Clay Pipe	606	Subsurface Drain	
707	Steel, Aluminum, and Plastic Pipe	608	Grassed Waterway	
		610	Surface Drain	
		620	Underground Outlet	Tile Connection

MILLER-WILLIAMS-HOLMES #2  
 DRAINAGE IMPROVEMENT PROJECT

DELAWARE COUNTY ENGINEER  
 DELAWARE COUNTY, OH

APPROVED *[Signature]*  
 DATE 5/30/23 COUNTY ENGINEER

APPROVED \_\_\_\_\_  
 DATE \_\_\_\_\_ COUNTY COMMISSIONER

APPROVED \_\_\_\_\_  
 DATE \_\_\_\_\_ COUNTY COMMISSIONER

APPROVED \_\_\_\_\_  
 DATE \_\_\_\_\_ COUNTY COMMISSIONER

DESIGNED: DJB 04/23 CHECK: KEC  
 DRAWN: DJB 04/23 REVIEWED: \_\_\_\_\_

CONSTRUCTION PROJECT NO. \_\_\_\_\_

RAILROAD INVOLVEMENT: NONE

MILLER-WILLIAMS-HOLMES #2

1  
5

## DETAILS & NOTES

### GENERAL CONSTRUCTION NOTES

1. The construction right-of-way for this project will be 75' right and left of the project centerline unless otherwise marked by the Construction Inspector. Certain items of work may require an extended right-of-way in order to properly complete them. This work should not be done without prior consent of the construction inspector, and any consent given will be specific to a particular item of work. Additional right-of-way for construction access may be identified and approved by the construction inspector as deemed necessary for the completion of the project. All areas disturbed by the construction activities which are outside of the critical path including but not limited to area used for staging, stockpiling of materials, and access will be cleaned and returned to its pre-construction state at the sole responsibility of the contractor as per the requirements of ODOT CMS 104.04.

2. The contractor will be responsible for ensuring that all relevant OSHA regulations are met prior to beginning any construction activities.

3. Temporary easements for construction access may be identified and approved by the construction inspector as deemed necessary for the completion of the project. Any access easement not connected to the work limits of the project will be returned to its pre-construction state at the sole responsibility of the contractor.

4. All ground disturbed by excavation shall be returned to its pre-construction vegetative state and grade unless otherwise directed by the plans and/or the construction inspector.

5. Spoil from excavation of the surface drain (NRCS #608) and open channel (NRCS #582) construction shall be exported from the site at the expense of the contractor. Payment for spoil and debris disposal will be considered as included in payment for NRCS #608 and NRCS #582 items. The contractor is free to negotiate with landowners to dispose of spoil and debris materials on-site provided that any disposal site is outside of the work limits for this project. Delaware County will not be considered party to any such agreements made between the contractor and landowners.

6. Unless otherwise noted on these plans or instructed by the construction inspector, debris from clearing and snagging within the typical cross sections is to be disposed of off-site by the contractor unless permission to place brush and logs adjacent to the construction right-of-way is granted by the landowners. Payment for hauling and disposal shall be considered part of payment for NRCS #326-Clearing and Snagging. For the purposes of on-site disposal, a log will be defined as "a section of a tree bole (the main trunk of the tree) at least 8 feet long, not containing a fork, sufficiently straight and sound enough to yield at least an 8-foot board. Anything not considered a log by the above definition will be considered brush.

7. Pipe quantities listed on the Plan and Profile views represent cumulative quantities for both perforated and non-perforated pipe. The quantity table shall be the reference for the specific amounts of perforated and non-perforated pipe. The applicable specification and the instructions of the construction inspector will govern the placement of each type of pipe. All lineal quantities of pipe shall be considered to be inclusive of all necessary elbows, couplers, and other fittings unless otherwise stated by these plans and/or the bid documents.

8. All lateral tile cut by the installation of the new tile shall be reconnected to the new tile at the point where they are cut or collected with a submain (size to be determined) and outletted into the new tile at the next downstream breather as specified by the construction inspector and per the requirements of NRCS #606-Subsurface Drain. Any connections made to any tile included on the Drainage Maintenance Program after completion of the project will require the approval of the Drainage Maintenance Department.

9. Seeding and Mulching will be done as per the specifications of ODOT #659 with the following stipulations/exceptions:

- Seed mixture to be used will be Class-Type #1.
- Soil testing will not be required.
- Liming will not be required.
- Compost will not be required.
- The use of straw mulch will be acceptable for the entire project.
- Watering will not be required.
- Mulch anchoring will not be required except where specified.

10. Linear alignments of all surface and subsurface features may be modified to fit site specific conditions at the discretion of the construction inspector.

11. The contractor shall contact the Delaware County Engineer's Office a minimum of seven (7) working days prior to beginning any work within the road right-of-way. It will be the sole responsibility of the contractor to secure any permits necessary for work within the road right-of-way.

12. All trees to be saved will be marked prior to the start of construction by the construction inspector. Markings will be done in the manner requested by the contractor. Unless specifically designated as "Save" or "Do not disturb" in the plans or by the construction inspector, remove all trees and stumps within the cross section under the lump sum bid for NRCS Item #326-Clearing and Snagging. Trees marked to be saved shall be protected with protective cover such as filter fabric or other suitable material. Replacement of any tree damaged or removed that was otherwise marked to be saved will be the responsibility of the contractor.

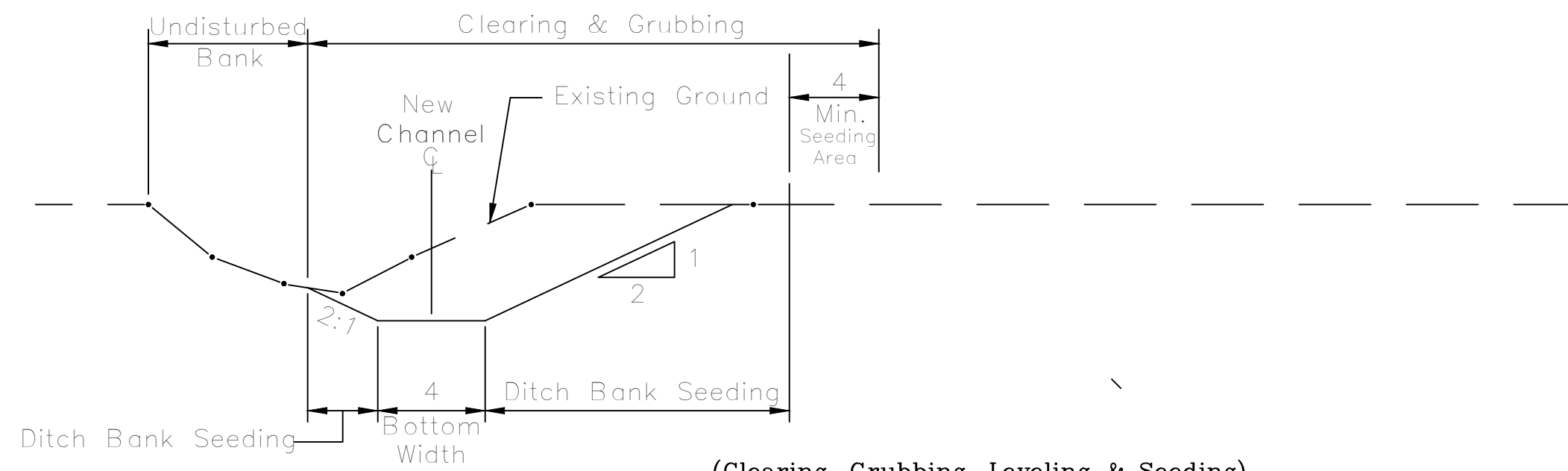
13. Scale bars as shown on the Plan Views shall be considered to be accurate for surveyed features including, but not necessarily limited to, project centerline, tile lines, and benchmark locations. Property lines, drive centerlines, building footprints, and road centerlines as shown on the Plan Views were derived from other sources and are shown for general reference only and should not be used to scale the location of any constructed feature.

14. Excavation will/may be required to verify design elevations including, but not limited to, existing subsurface drain inverts. These excavations will be considered incidental to the overall construction of the project per ODOT CMS 105.02.

## Temporary & Permanent Easements

1. The width of the temporary easement for construction shall be seventy-five feet as measured from the top of bank of the open channel, seventy-five feet as measured from the top of bank of the surface drain, and seventy-five feet as measured from the centerline of the subsurface drain where no surface drain cross-section is specified.
2. A permanent easement will be established for maintenance and cleaning of the constructed improvement per ORC 6137.12. The width of the permanent easement will be based on the type of improvement constructed. For Open Channel and Surface Drain Swales, the permanent easement will be twenty-five feet from the top of bank on both sides of the channel, measured at right angles thereto. For closed ditches (subsurface drain installation only), the permanent easement shall be a maximum of eighty feet centered on the centerline of the improvement. The permanent easement for access shall be a maximum width of thirty feet and length as necessary to connect to the improvement as shown on these drawings.

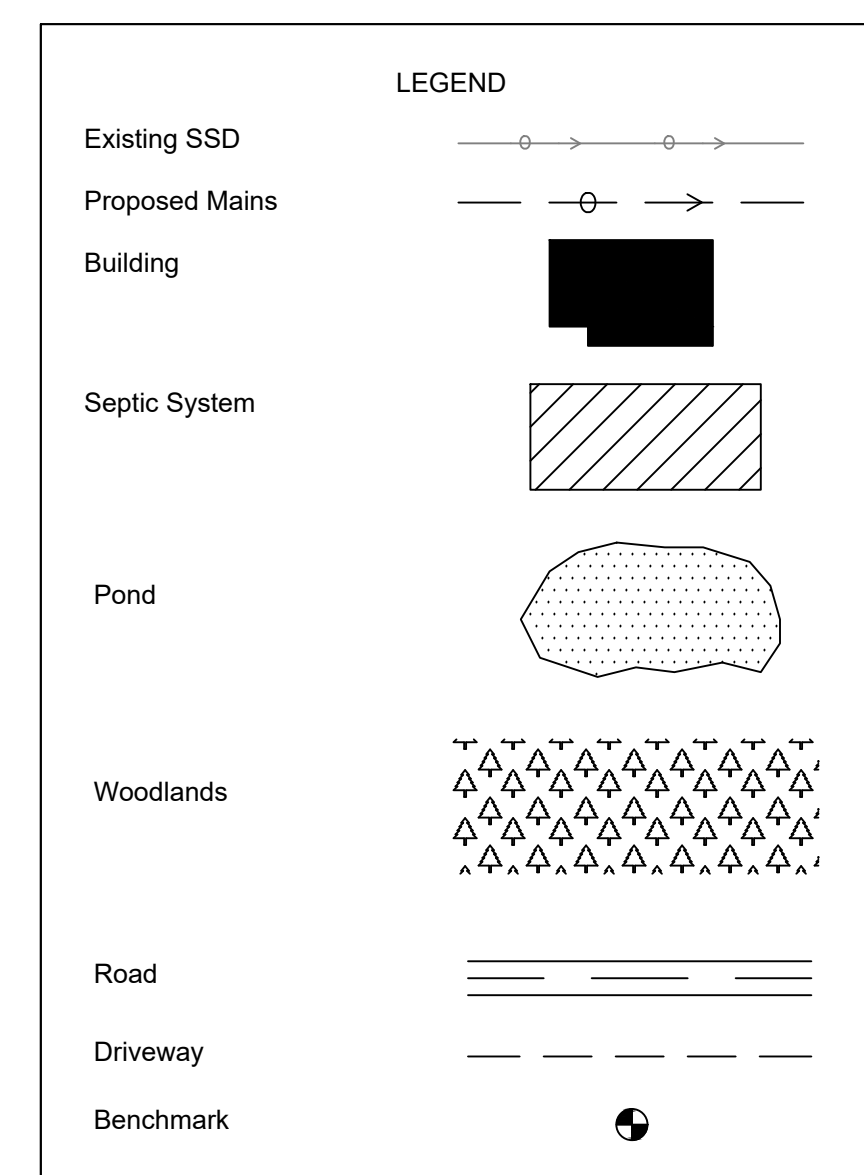
## Open Channel (NRCS #582)



Typical One-Sided Construction Cross Section (Left Bank)

Not to Scale

PLAN VIEW



**Clearing & Tree Preservation**  
 The clearing limits along NRCS #582-Open Channel shall be 25 feet from the top of the left bank as looking downstream. This area is to be cleared of brush and debris as part of NRCS #326-Clearing & Snagging. Trees to be preserved and not disturbed will be visibly marked by the Construction Supervisor prior to commencement of clearing and construction activity. Additionally, the contractor is encouraged to preserve any unmarked trees that are not deemed necessary to be cut in order to construct NRCS #582-Open Channel.

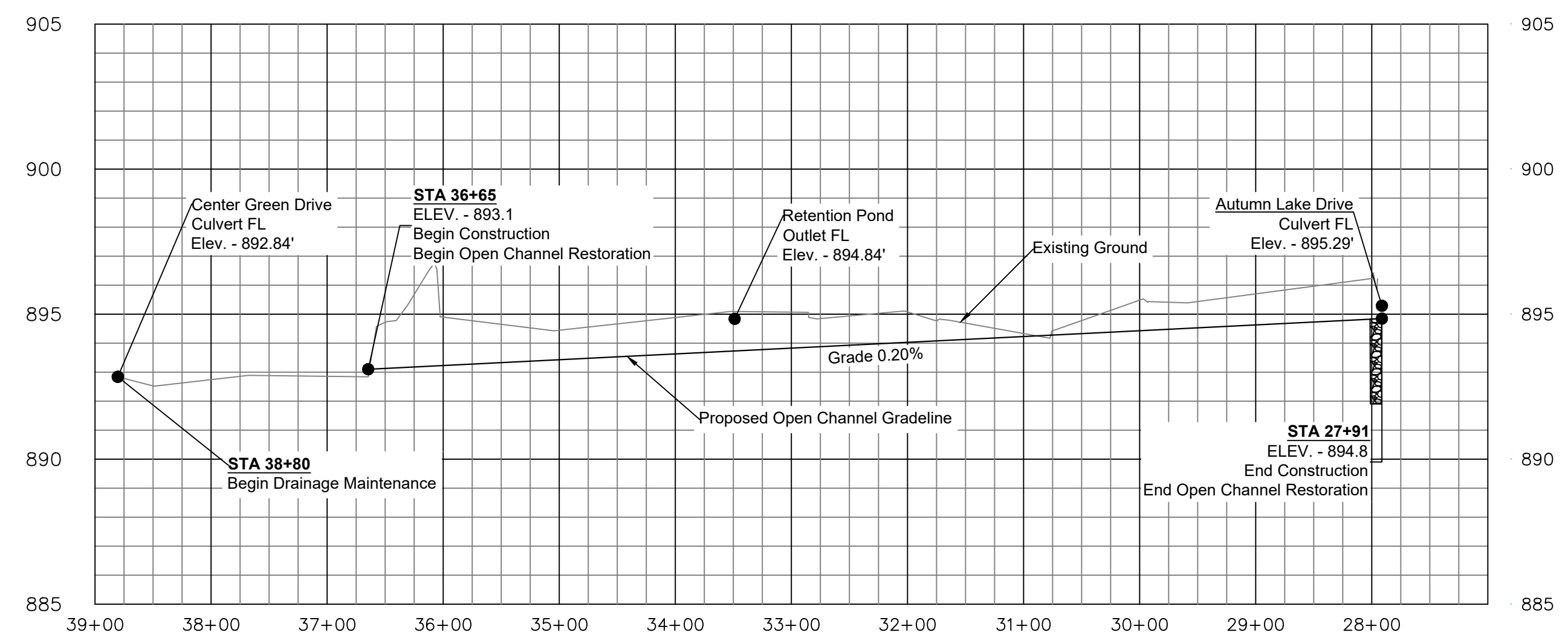
A 25 feet wide access lane is to be cleared at STA 38+49 and STA 29+00. All access to the open channel will be through these two created access lanes. The contractor shall be permitted to utilize the existing drainage easement outside of the existing edge of trees/brush to facilitate the export of spoil and debris off the site.

All debris created from clearing and snagging activity is to be transported from the site. Mowing, mulching, and/or grinding onsite, within the clearing limits, of small brush and trees (<6" diameter) will be permitted. Residual mulch and other material shall be uniformly spread according the direction of the Construction Supervisor.

- CONSTRUCTION NOTES**
1. All General Construction Notes on P. 2 of 19 shall apply.
  2. Details to be referenced on p. 2 of 5:  
One Sided Open Channel Construction
  3. All spoil is to be exported from the site per General Construction Note #5. Payment for spoil export shall be considered as incidental to payment for NRCS Items #582 and #608.
  4. Culvert Rock Protection at STA 10+00 will be 30" of ODOT Type B Riprap installed in a pad 10' x 10'.

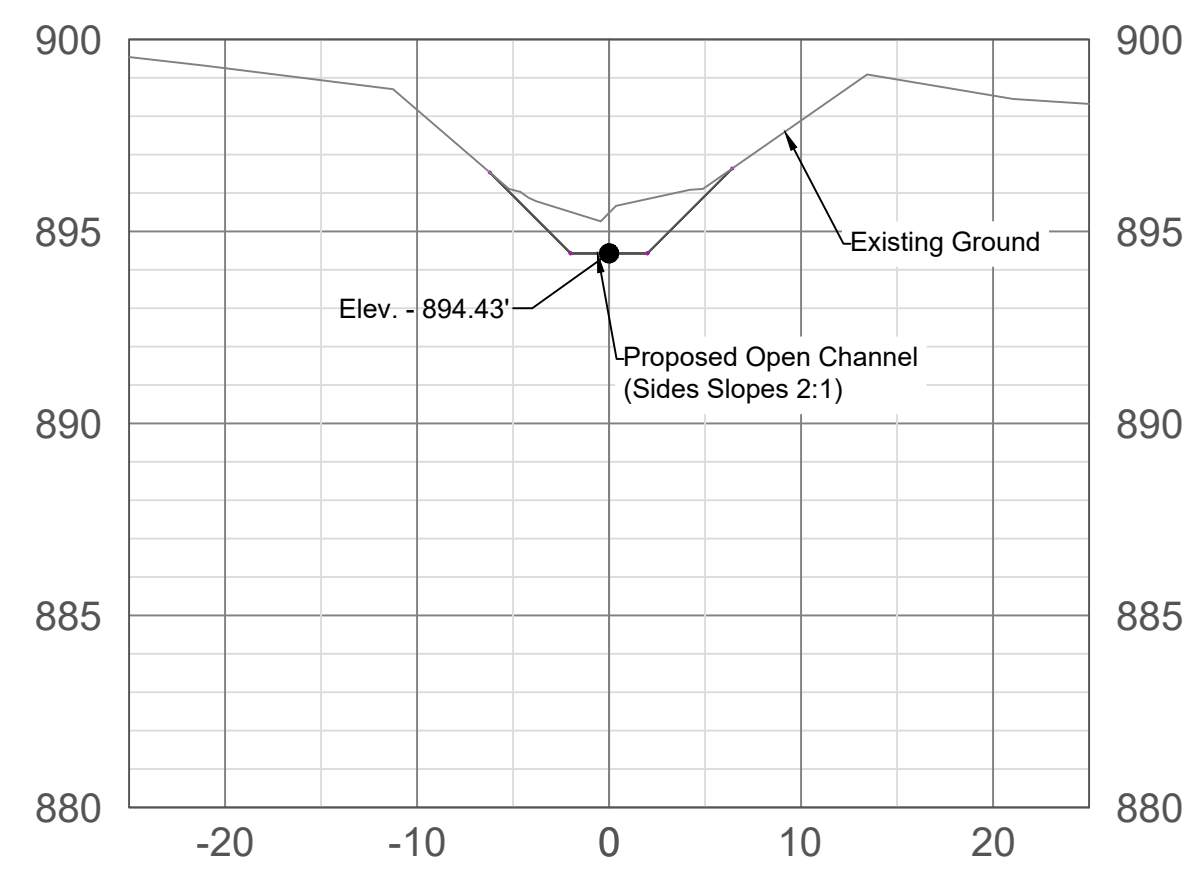
Village at Harvest Wind			
ESTIMATED QUANTITIES			
Miller-Williams-Holmes #2 Open Channel			
Item	Description	Quantity	Unit
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PROFILE

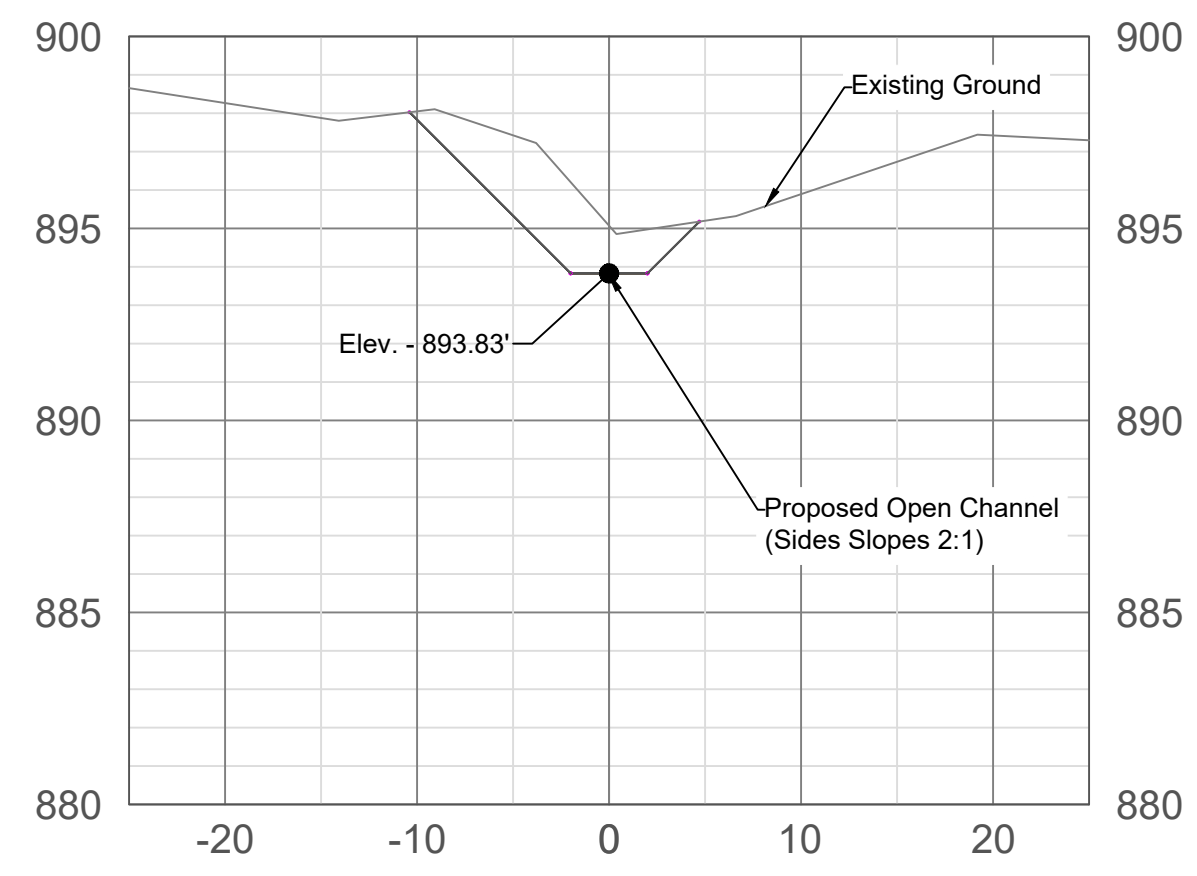


*CROSS-SECTIONS*

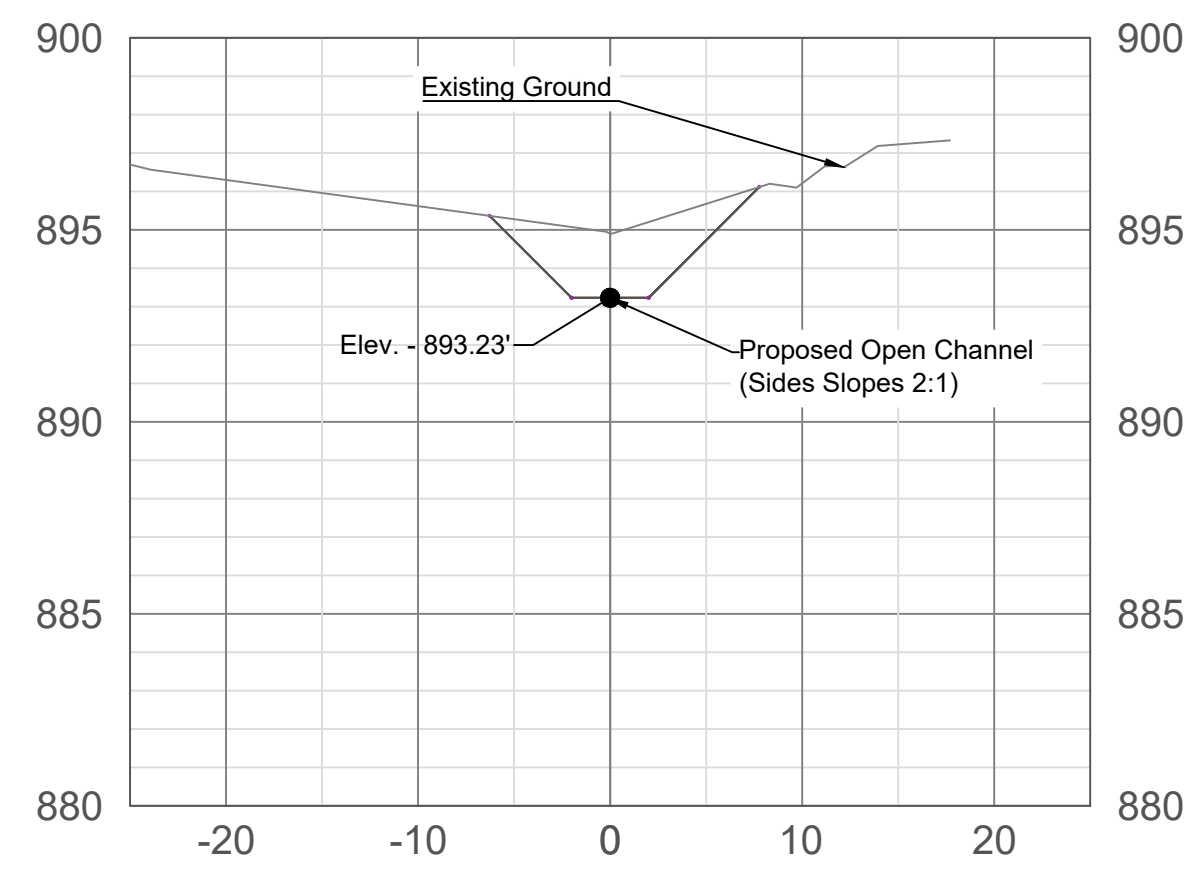
**STA 30+00 - Miller-Williams-Holmes #2**



**STA 33+00 - Miller-Williams-Holmes #2**



**STA 36+00 - Miller-Williams-Holmes #2**



*EASEMENTS & WORK LIMITS*

