

INDEX OF SHEETS

TITLE SHEET
DETAILS & NOTES
PLAN VIEW & PROFILE
EASEMENTS & WORK LIMITS

- 1
- 2
- 3
- 4

MOORE #361
DRAINAGE IMPROVEMENT PROJECT
DELAWARE COUNTY
CONCORD TOWNSHIP

PROJECT DESCRIPTION

This project will include the installation of subsurface drain pipe, the construction of surface grade-swale, the construction of a blind inlet, the installation of rock-lined channel, seeding and mulching, clearing of brush and vegetation, 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#102
The station is the top dead center of a headwall at the exit of the existing road culverts at STA 10+00.

Elevation: 912.95'
 Northing: 204861.616'
 Easting: 1786818.801'

(Coordinates are NAD1983 Ohio State Plane North)

[illegible]

MOORE #361
DRAINAGE IMPROVEMENT PROJECT

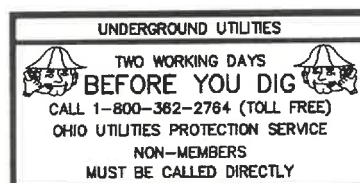
DELAWARE COUNTY ENGINEER
DELAWARE COUNTY OH

APPROVED 
DATE 6/17/20 COUNTY ENGINEER

APPROVED _____
DATE _____ COUNTY COMMISSIONER

APPROVED _____
DATE _____ COUNTY COMMISSIONER

APPROVED _____
DATE _____ COUNTY COMMISSIONER



PLAN JOINTLY PREPARED BY:
DELAWARE SOIL AND WATER
CONSERVATION DISTRICT
1610 STATE ROUTE 521
DELAWARE, OHIO 43015
PHONE: (740)368-1921

DELAWARE COUNTY ENGINEER'S OFFICE
1610 STATE ROUTE 521
DELAWARE, OHIO 43015
PHONE: (740) 833-2400

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
NONE

MOORE #361

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DETAILS & NOTES

GENERAL CONSTRUCTION NOTES

1. The construction right-of-way for this project will be 95' 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 rock-lined channel (NRCS #468) construction shall be spread per the requirements of NRCS #608, or 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 #468 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. Payment for hauling and disposal shall be considered part of payment for NRCS #326-Clearing and Snagging. Alternatively, logs may be stacked onsite at a minimum of 25 feet from the top of bank. 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. 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 to the direction of the Construction Inspector.

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 and the Ohio Department of Transportation District 6 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.

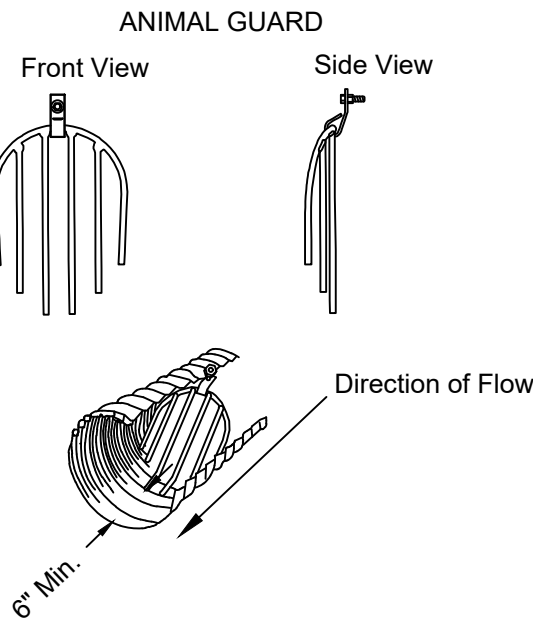
12. All trees to be saved will be marked prior to the start of construction by the construction inspector. Markings will be done in the manner requested by the contractor. Unless specifically designated as "Save" or "Do not disturb" in the plans or by the construction inspector, remove all trees and 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. Additionally, the contractor is encouraged to preserve any unmarked trees that are not deemed necessary to be cut in order to construct NRCS #468-Rock-lined Channel and NRCS #608-Surface Drain.

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.

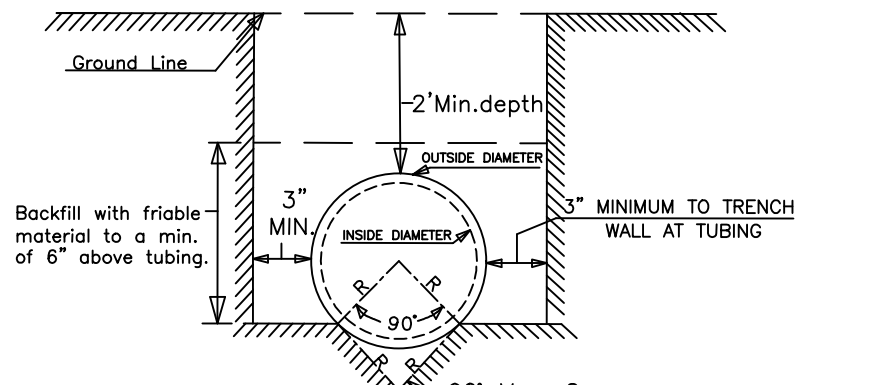
14. Excavation will be required to verify design elevations including, but not limited to, existing utility elevations. These excavations will be considered incidental to the overall construction of the project per ODOT CMS 105.02.

TEMPORARY & PERMANENT EASEMENTS

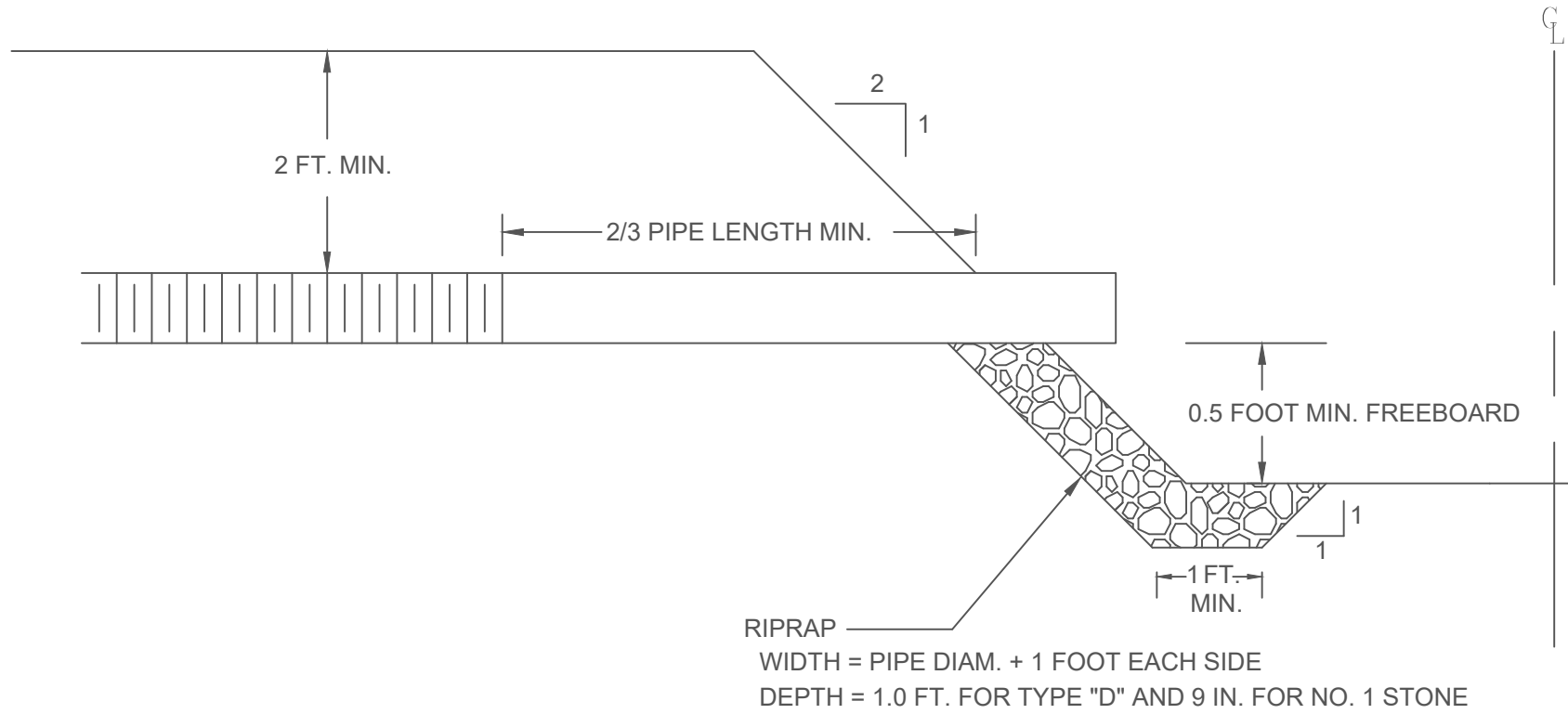
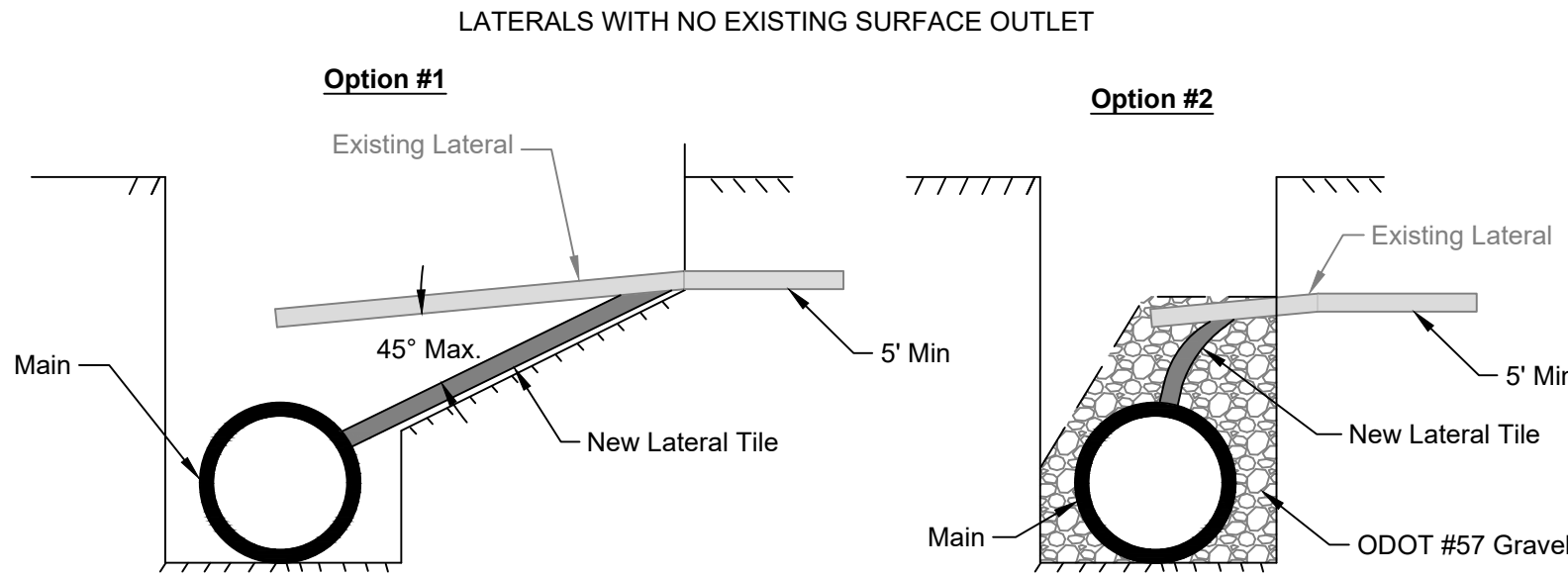
- The width of the temporary easement for construction shall be fifty feet as measured from the centerline of the surface drain.
- A permanent easement will be established for maintenance and cleaning of the constructed improvement per ORC 6137. The width of the permanent easement will be based on the type and location of improvement constructed. For open channel within a wooded area, the permanent easement will be 25 feet outside the edge of the wooded riparian corridor on the side of construction and twenty-five feet from top of bank on the opposite side of construction. For surface drain, the permanent easement will be twenty-five feet from top of bank. The permanent easement for access shall be a maximum width of thirty feet and length as necessary to connect to the improvement as shown in these drawings.



NRCS 606 PIPE
INSTALLATION DETAIL



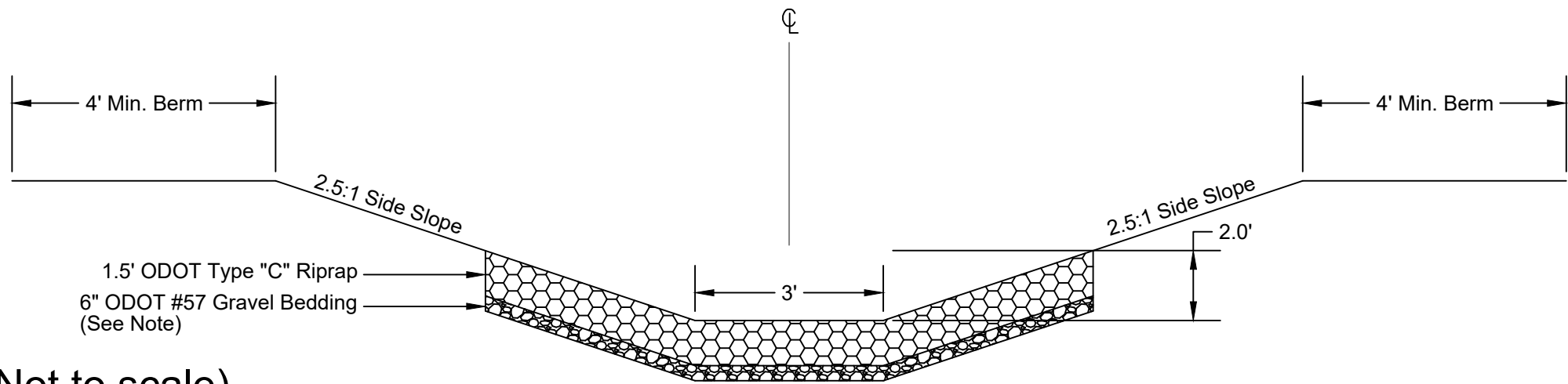
TYPICAL SUBSURFACE DRAIN LATERAL CONNECTION DETAILS (NRCS #606)
NOT TO SCALE



OUTLET PIPE DETAILS

Lined Waterway (NRCS #468)

TYPICAL ROCK LINED CHANNEL CROSS SECTION



(Not to scale)

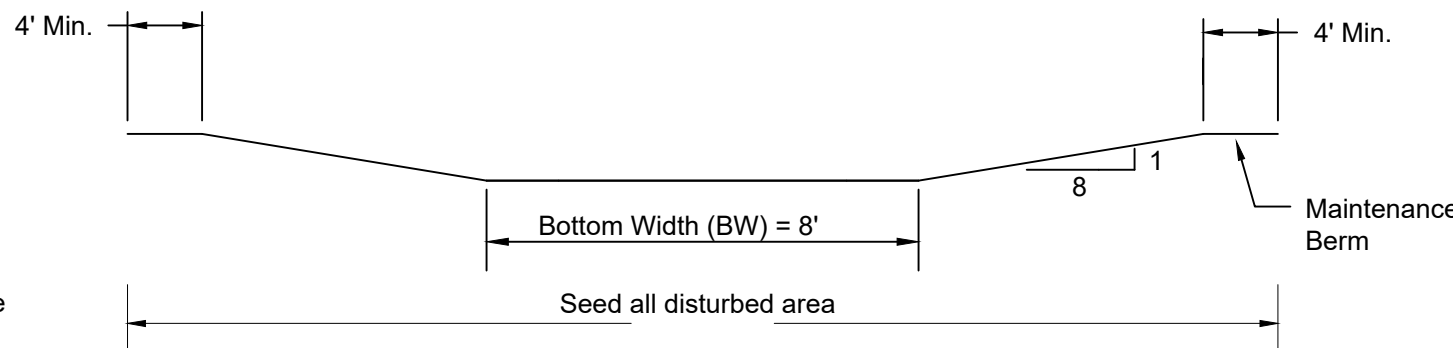
NOTES:

1. Where specified on the plans, the surface drain is to be seeded as stated in the construction notes and ODOT Specification #659. Any modifications to this seed mixture as stated in this Specification must be approved by the construction inspector prior to seed application.

2. Side slopes may be modified to fit site specific conditions at the discretion of the construction inspector.

3. All spoil from within the typical surface drain cross section shall be disposed of according to the specifications of NRCS #608 - Surface Drainage Main.

TYPICAL SURFACE DRAIN SWALE CROSS SECTION



(Not to scale)

NOTES

1. All tile shall be placed according to the Typical Subsurface Drain Installation Detail and the requirements of NRCS Specification #606.

2. Removal of residual lateral tile regardless of size and/or material shall be considered part of the payment for this item.

3. All connections shall be done using manufactured connectors.

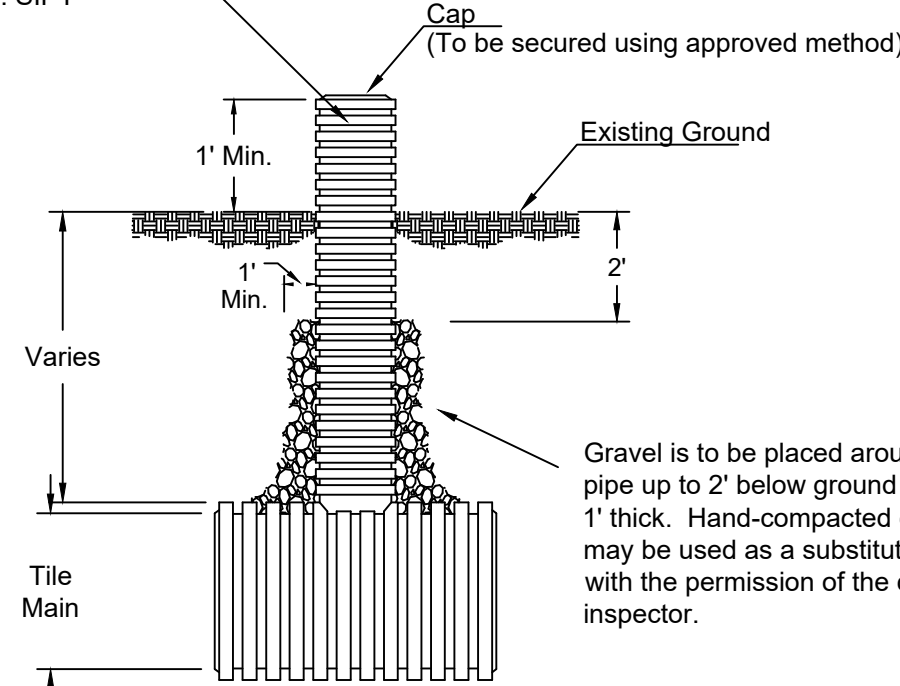
4. Any quantity of gravel used to make connections utilizing Option #2 shall be considered part of the payment for this item. Determining the quantity of gravel needed for making connections using this option shall be the sole responsibility of the contractor. Cleanup of gravel stockpile areas shall be as per the requirements of ODOT CMS 104.04.

5. The contractor shall note on a dedicated copy of the plans, as provided by the construction inspector, the station, size, material, and connection option used to make all lateral connections.

6. Lateral types regarding having or not having a surface outlet will be marked by the construction inspector.

TILE MAIN BREATHER DETAIL

Pipe Dia.: Match Main (12" I.D. Min.)
Material: SIP



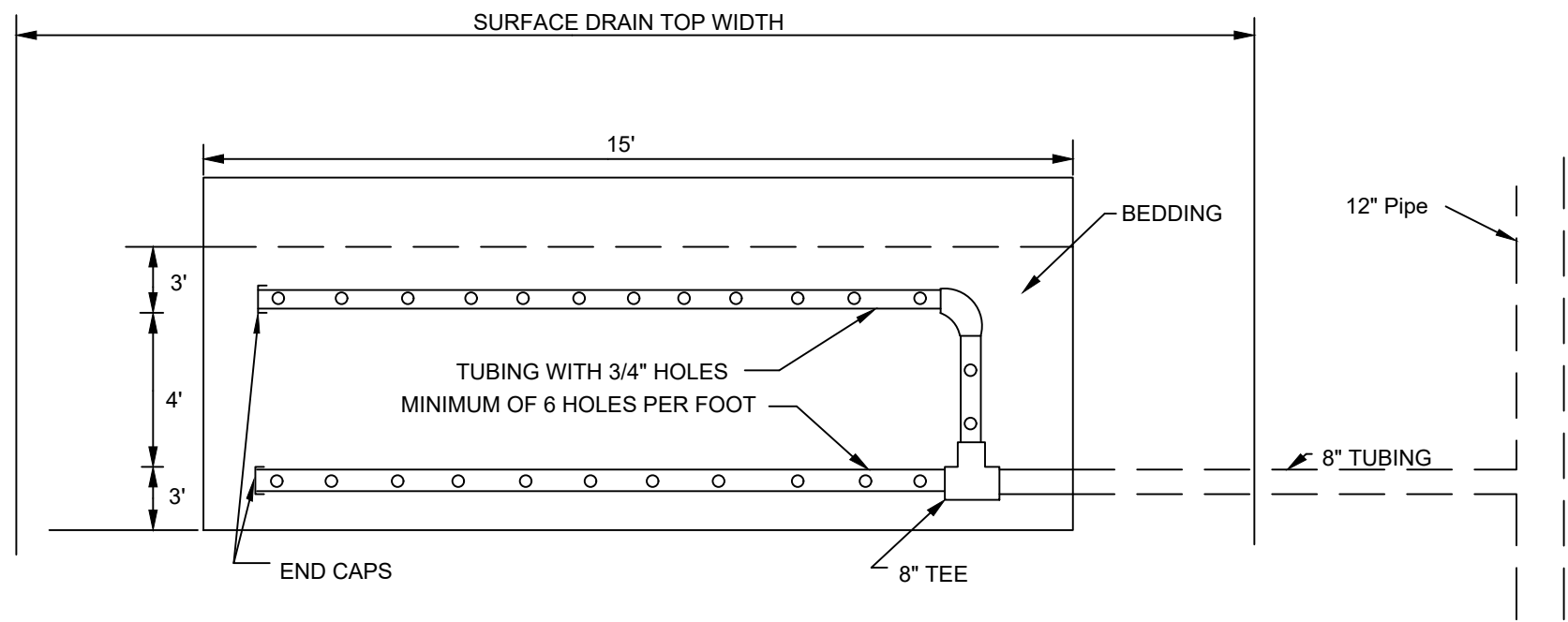
Connection to be made with a manufactured tee.

NOT TO SCALE

BLIND INLET INSTALLATION - STA 10+00 and STA 10+20

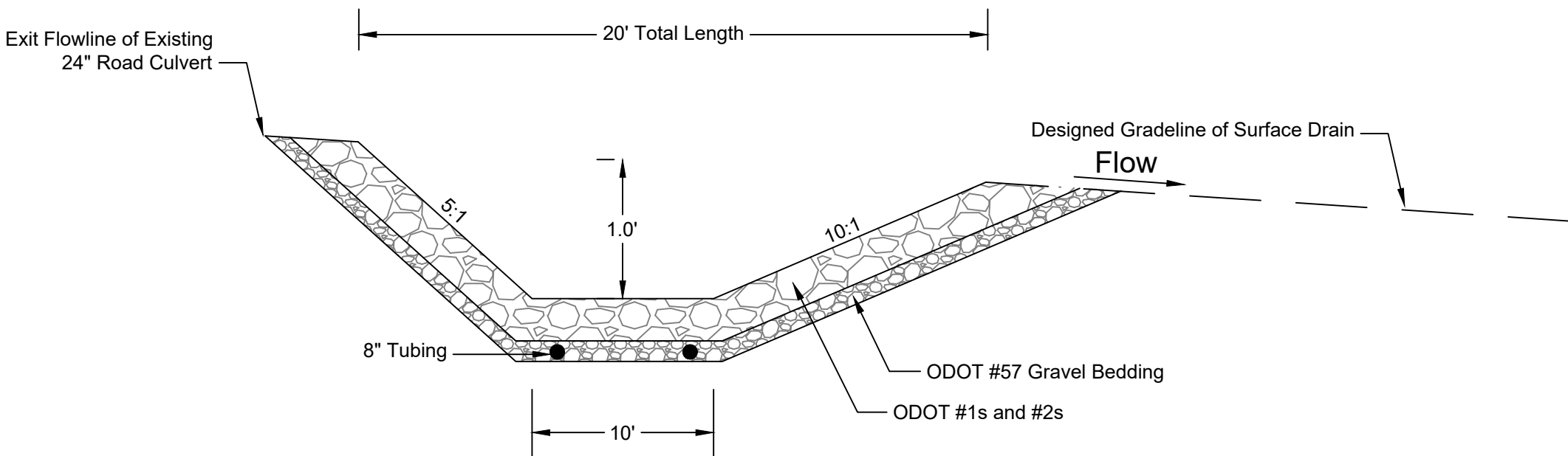
Typical Plan View

(NOT TO SCALE)



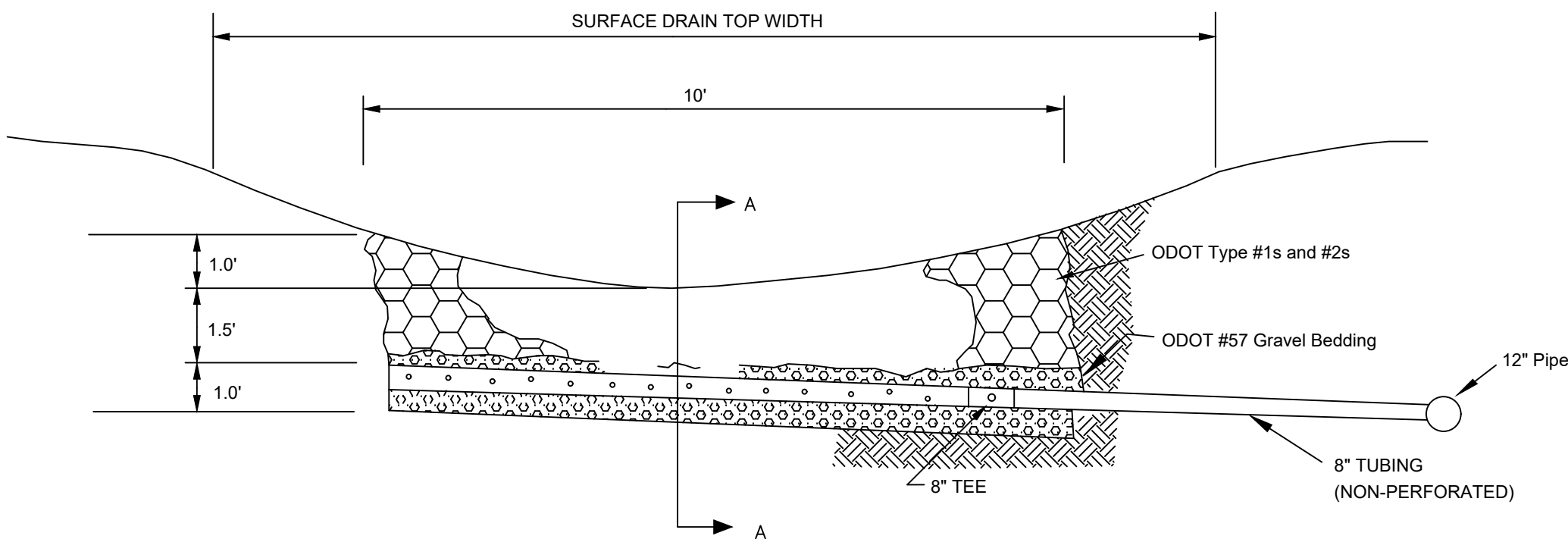
Typical Profile View

(NOT TO SCALE)



Typical Cross Section

(NOT TO SCALE)



NOTES:

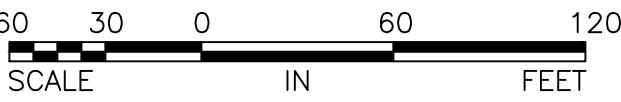
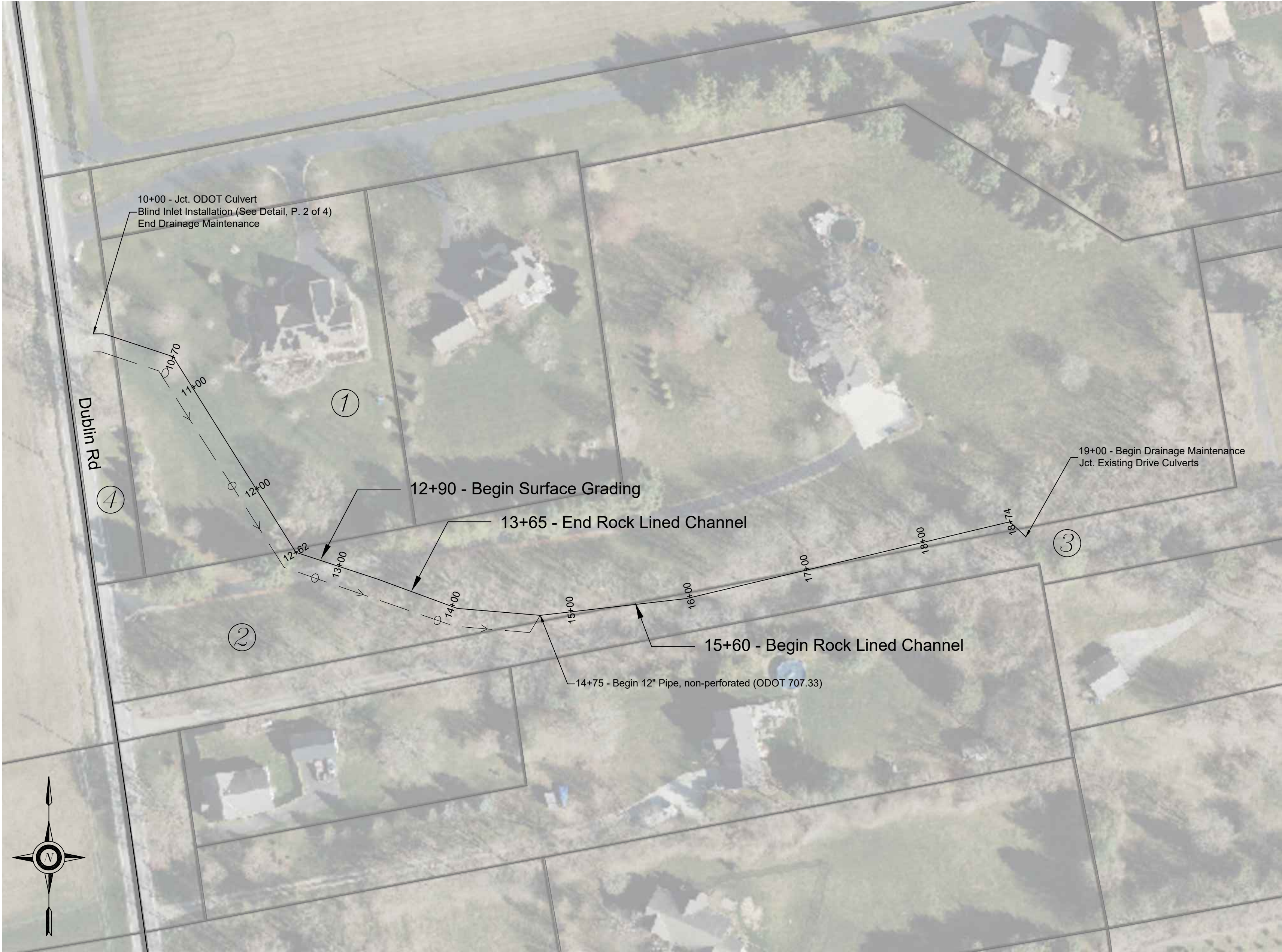
1. Side Slopes and Berms to be seeded as stated in the construction notes and ODOT Specification #659. Any modifications to this seed mixture as stated in the Specification must be approved by the construction inspector prior to seed application.

2. Side slopes above rock may be modified to fit site specific conditions at the discretion of the construction inspector.

3. Placement of Geotextile fabric may be used as a substitute for the ODOT #57 gravel bedding at the discretion of the contractor. If Geotextile fabric is used, it must comply with the specifications of ODOT #712.09 Type B..

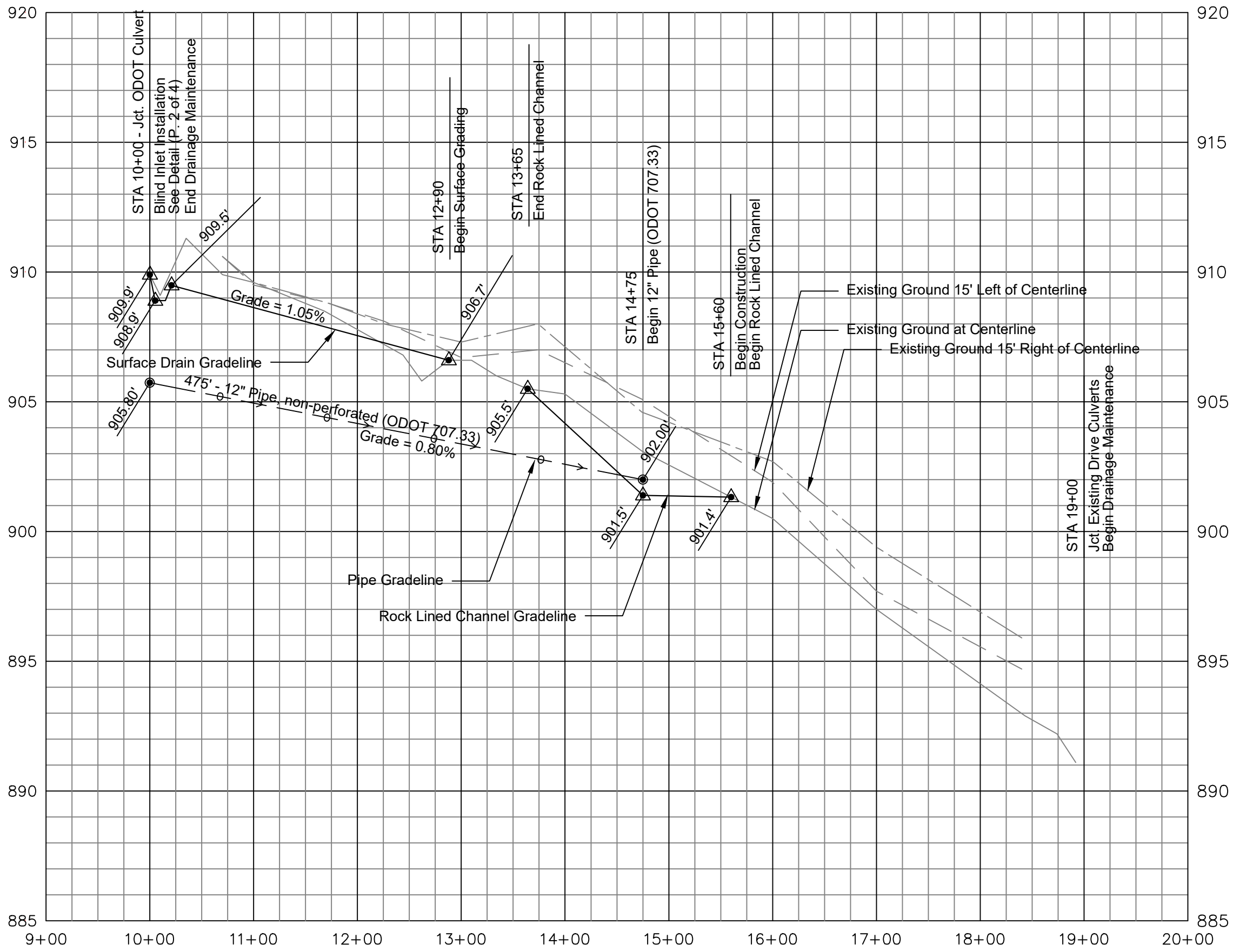
4. Excavation necessary above the upper limit of rock placement to blend the 2.5:1 side slope to existing ground will be considered part of the per lineal foot payment for this item.

PLAN VIEW

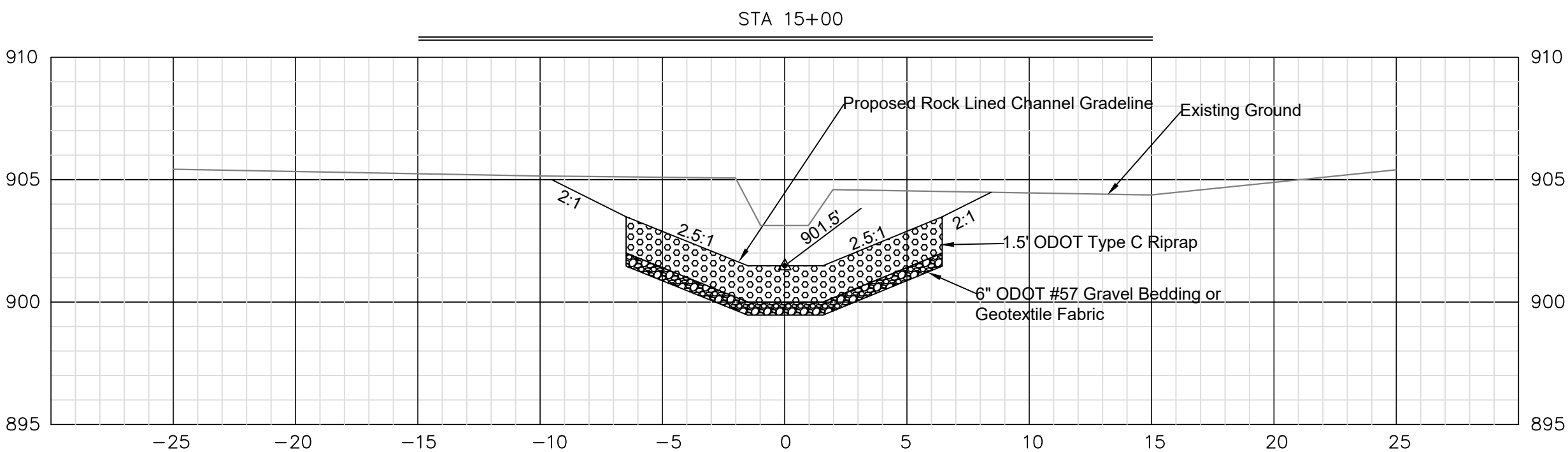
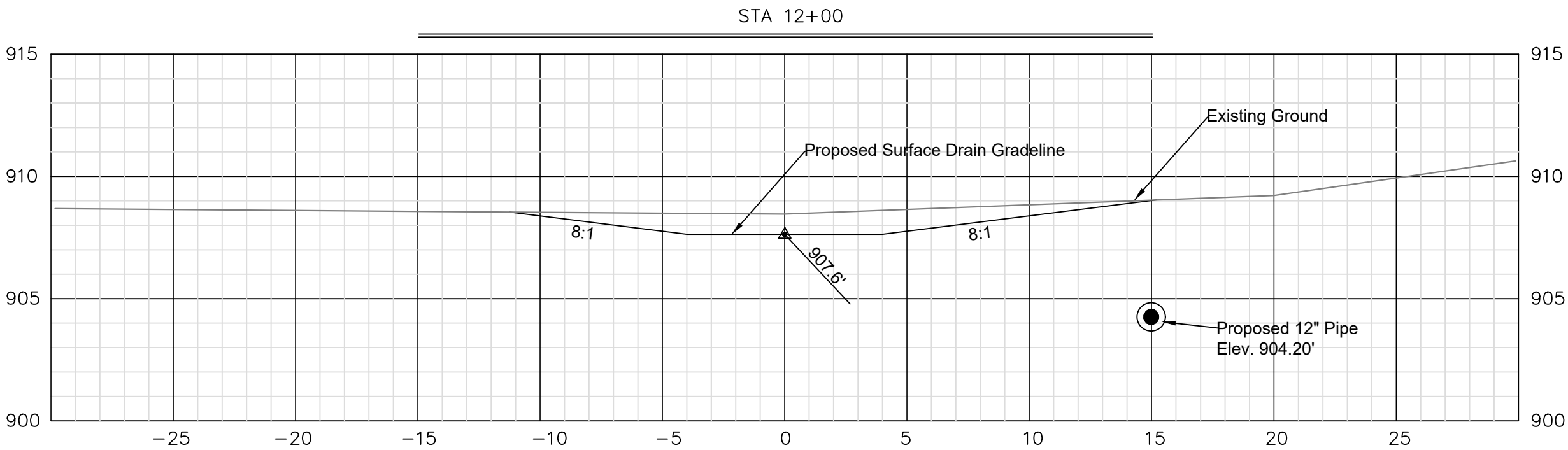


PARCEL OWNER INFORMATION TABLE			
ID #	Owner	Address	Auditor PIN
1	Ranero Anesa L Stevenor & Jose E	5921 Dublin Rd	50034001055000
2	Shreve Derrick P & Rachel Ann	5969 Dublin Rd	50034001053000
3	Welch Craig J	5981 Dublin Rd	50034001050000
4	ODOT	State Route R-O-W	

MAIN PROFILE



CROSS SECTIONS





PERMANENT EASEMENT DESCRIPTION

A to B
25 feet right of top of bank
25 feet left of top of bank

B to C
Right to the property line
25 feet left of top of bank

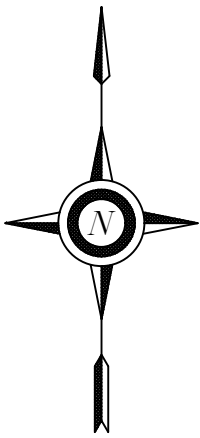
ACCESS EASEMENT DESCRIPTION

A1: 30 feet east of the property line
A2: 30 feet south of the property line
A3: 30 feet north of the property line

CONSTRUCTION EASEMENT DESCRIPTION

50 feet right of surface drain centerline limited by the
property line
50 feet left of surface drain centerline

NOTE: Final permanent easement will be recorded upon
final acceptance of the contract work. Actual location of the
final easement may be modified based on the constructed
location of project features.



60 30 0 60 120
SCALE IN FEET

PARCEL OWNER INFORMATION TABLE			
ID #	Owner	Address	Auditor PIN
1	Ranero Anesa L Stevenor & Jose E	5921 Dublin Rd	50034001055000
2	Shreve Derrick P & Rachel Ann	5969 Dublin Rd	50034001053000
3	Welch Craig J	5981 Dublin Rd	50034001050000
4	ODOT	State Route R-O-W	