

### STATE OF OHIO, DELAWARE COUNTY DELAWARE COUNTY ENGINEER

### CHANCEL GATE DRAINAGE IMPROVEMENT PROJECT

DELAWARE COUNTY
CONCORD TOWNSHIP

	Chancel Gate			
	ESTIMATED QUANTITIES			
	Main			
ltem	Description	Quantity	Unit	
SPECIAL	Utility Relocation	LUMP		
NRCS 326	Clearing & Snagging	LUMP		
NRCS 410	Grade Stabilization Structure - Rock Pad	1	Each	
NRCS 606	8" Pipe, Non-Perforated (ODOT 707.33)	771	Lineal Feet	
NRCS 606	10" Pipe, Non-Perforated (ODOT 707.33)	258	Lineal Feet	
NRCS 606	15" Pipe, Non-Perforated (ODOT 707.33)	156	Lineal Feet	
NRCS 606	15" Animal Guard	1	Each	
NRCS 606	Tile Inspection Well	5	Each	
NRCS 608	Surface Drain - Swale	536	Lineal Feet	
NRCS 620	Underground Outlet - Blind Inlet	1	Each	
ODOT 659	Seeding & Mulching, Class 1, no anchoring	4,200	Square Yards	
	Lateral #1			
ltem	Description	Quantity	Unit	
NRCS 326	Clearing & Snagging	LUMP		
NRCS 382	Fence Gate	2	Each	
NRCS 606	8" Pipe, perforated (ODOT 707.33)	311	Lineal Feet	
NRCS 606	Tile Inspection Well	1	Each	
ODOT 202	Fence for Removal	100	Lineal Feet	
ODOT 659	Seeding & Mulching, Class 1, no anchoring	750	Square Yards	
	Lateral #2			
ltem	Description	Quantity	Unit	
SPECIAL	Utility Relcoation	LUMP		
NRCS 326	Clearing & Snagging	LUMP		
NRCS 606	8" Pipe, perforated (ODOT 707.33)	816	Lineal Feet	
NRCS 606	Tile Inspection Well	5	Each	
ODOT 611	8" Pipe (707.33), Type B Installation, Asphalt Drive	20	Lineal Feet	
ODOT 659	Seeding & Mulching, Class 1, no anchoring	2,000	Square Yards	

### INDEX OF SHEETS

TITLE SHEET
DETAILS & NOTES
MAIN — SURFACE DRAIN
MAIN — SUBSURFACE DRAIN
LATERALS
CROSS—SECTIONS
WORK LIMITS & EASEMENTS

### PROJECT DESCRIPTION

This project will include the improvement of surface drainage, the installation of subsurface drain, the destruction of existing subsurface drain tile, 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
The station is 403+00. Benchmark is the top of a property pin.

Elevation: 931.38' Northing: 202550.5060' Easting: 1793220.6410'

(Coordinates are NAD1983 Ohio State Plane North)

### 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				SUPPLEMENTA SPECIFICATION:	
	OHIO DEPARTMENT OF TRANSPORTATION USDA NATURAL RESOURCES CONSERVATION SERVICE				
	DELAWARE COUNTY ENGINEER	CONSTRUCTION			
02	Tile Destruction in Place	326	Clearing & Snagging		
11	Pipe Culverts, Sewers, Drains, & Drainage Structures	410	Grade Stabilization Structure		
59	Seeding & Mulching	484	Mulching	SPECIAL	
)7	Steel, Aluminum, and Plastic Pipe	606	Subsurface Drain	PROVISIONS	
		608	Grassed Waterway	Tile Connection	
		610	Surface Drain		
		620	Underground Outlet		

CHANCEL G

 $\begin{pmatrix} 1 \\ 7 \end{pmatrix}$ 

### 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 specificed 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.

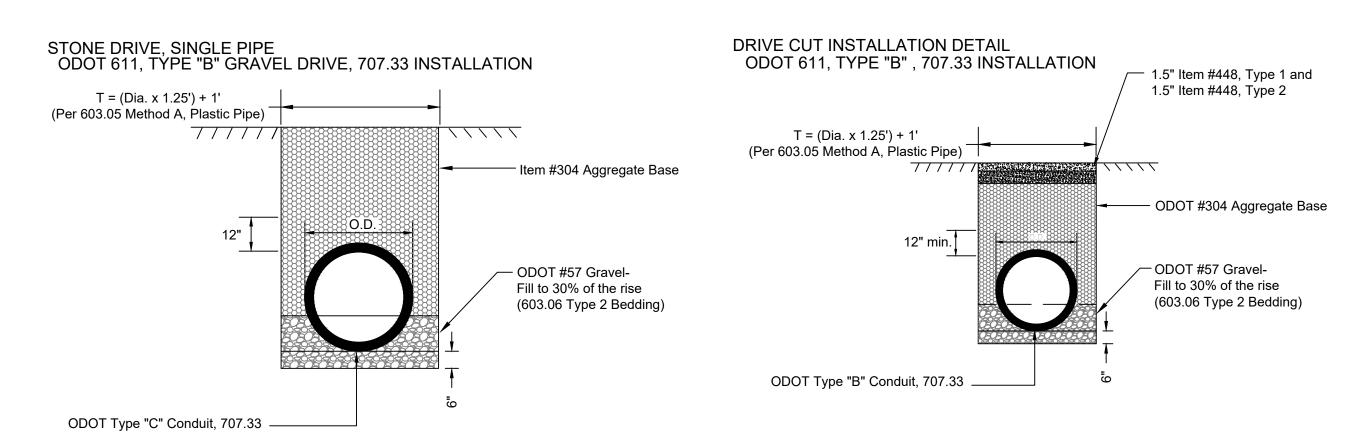
12. All trees to be saved will be marked prior to the start of construction by the construction inspector. Markings will be done in the manner requested by the contractor. Unless specifically designated as "Save" or "Do not disturb" in the plans or by the construction inspector, remove all trees and 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.

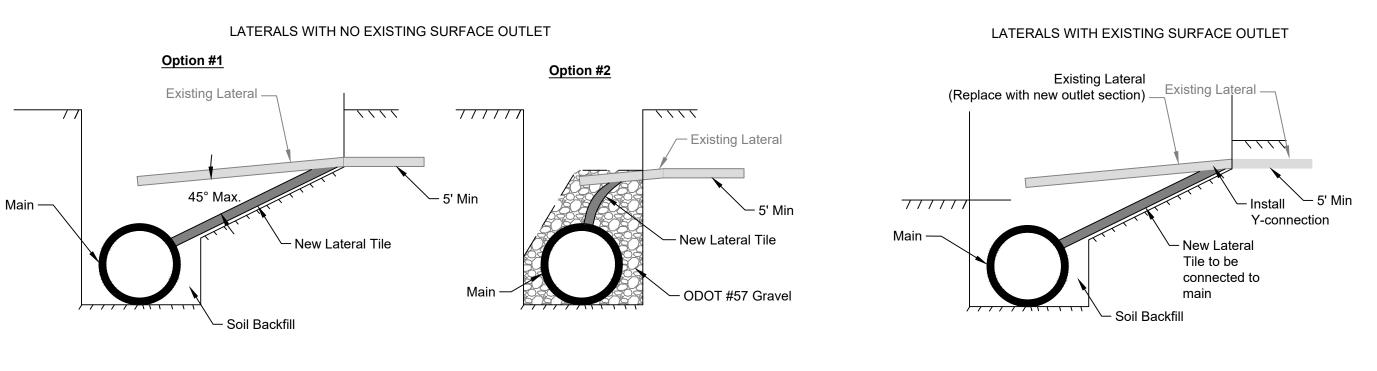
14. Excavation will/may be required to verify design elevations including, but not limited to, existing subsurface drain inverts. These excavations will be considered incidental to the overall construction of the project per ODOT CMS 105.02.

15. Marked utilities will be potholed prior to construction to verify elevations and locations to avoid conflict with designed improvements.

### SUBSURFACE DRAIN (NRCS #606)



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

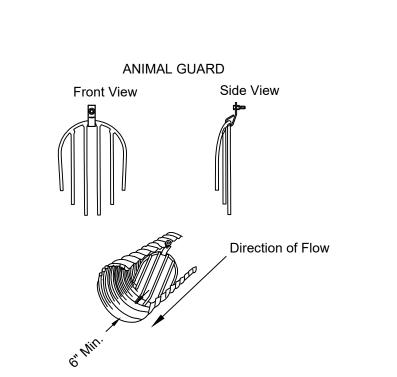


# Pipe Diameter: Match Main or 12", whichever is larger Material: SIPT Cap (To be secured using approved method) Existing Ground Varies Gravel is to be placed around the riser pipe up to 2' below ground surface and 1' thick. Hand-compacted earth backfill may be used as a substitute for gravel with the permission of the construction inspector. Connection to be made with a manufactured tee.

NOT TO SCALE

Blind Inlet (NRCS #620) - STA 100+20

CHANCEL GATE
DRAINAGE IMPROVEMENT PROJECT
ENGINEERING DRAWINGS



### 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.

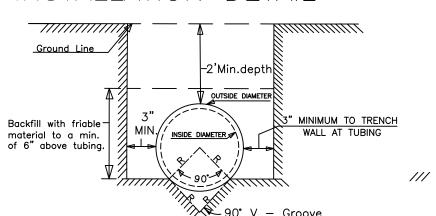
3. All connections shall be done using manufactured connectors.

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.

### NRCS 606 PIPE INSTALLATION DETAIL



Note: Use trapezoidal or semi-circular groove for tubing greater than 8" diameter. Trenching shall comply with OSHA Std.1926 Subpart P

### Grade Stabilization Structure (NRCS 410) - STA 112+00 - STA 111+87

## ROCK PAD INSTALLATION Equipment Placed Riprap Elev. - 911.20 FLOW FLOW From Mark (See Profile) Top Width (See Profile) Top Width (See Profile) Type D Riprap Typical Cross Section (NOT TO SCALE)

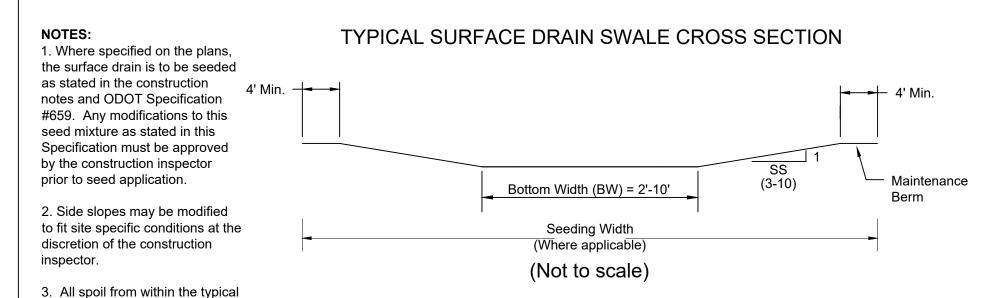
# Typical Plan View (NOT TO SCALE) SURFACE DRAIN TOP WIDTH 15' BEDDING 8" SIPT TUBING WITH 3/4" HOLES MINIMUM OF 6 HOLES PER FOOT WITH A SURFACE DRAIN TOP WIDTH 8" SIPT 4" TUBING WITH 3/4" TUBING

### 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.

### Surface Drain (NRCS 608)

surface drain cross section shall be disposed of according to the specifications of NRCS #608 -Surface Drainage Main.



Typical Profile View

(NOT TO SCALE)

(NOT TO SCALE)

Surface Drain Top WiDth

Designed Gradeline of Surface Drain

Flow

10'

ODOT Type #1s and #2s

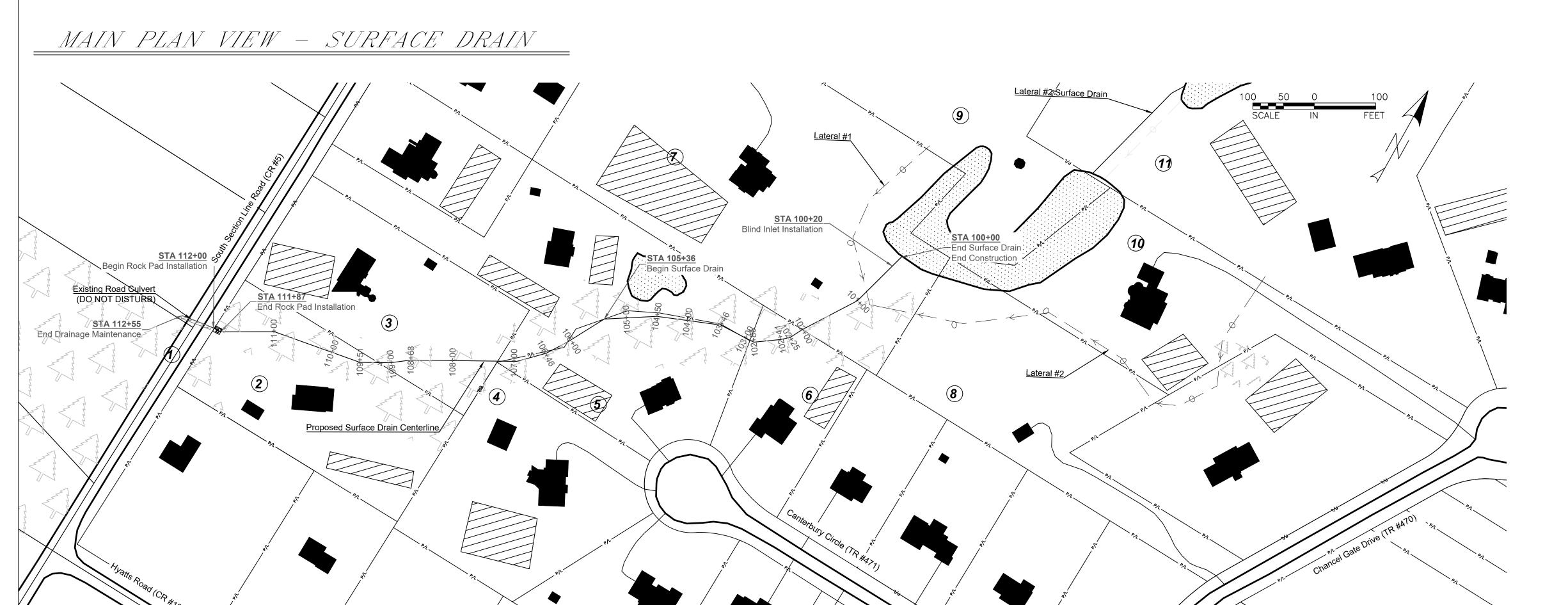
4" Tubing

ODOT #57 Gravel Bedding

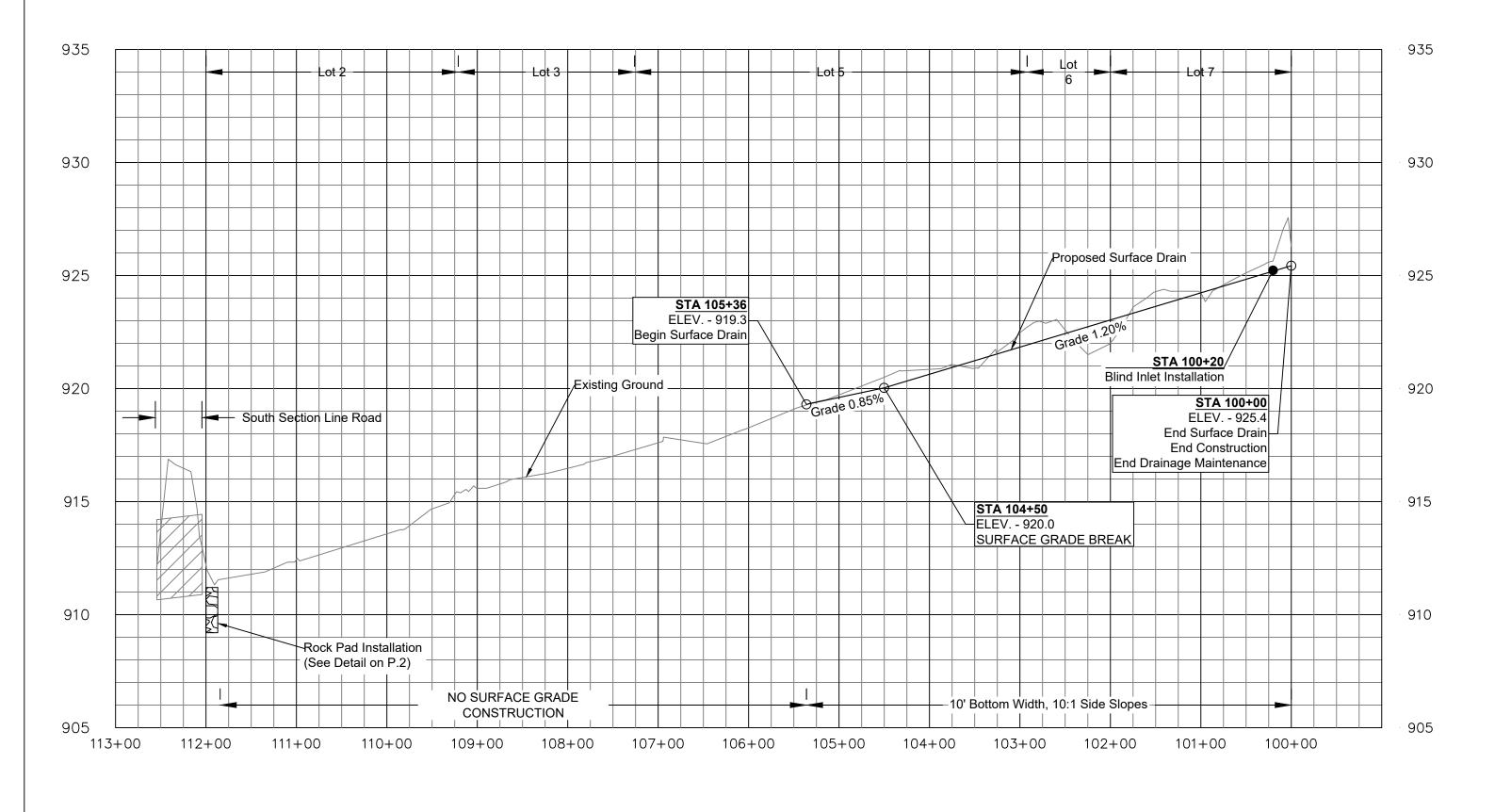
ODOT #15 and #2s

A" Tubing

ODOT #15 and #2s







CONSTRUCTION NOTES

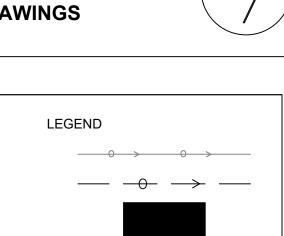
1. All General Construction Notes on P. 2 of 7 shall apply.

2. Clearing and snagging will be performed within the limits of the channel and swale construction as per the instructions in the General Construction Notes. All debris from clearing and snagging is to be exported from the site. Payment for export of debris shall be considered as incidental to payment for NRCS Item #326.

 Details to be referenced on p. 2 of 7:
 Typical Surface Drain Cross Section Blind Inlet Installation Rock Pad Installation

4. 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.

**CHANCEL GATE** DRAINAGE IMPROVEMENT PROJECT **ENGINEERING DRAWINGS** 

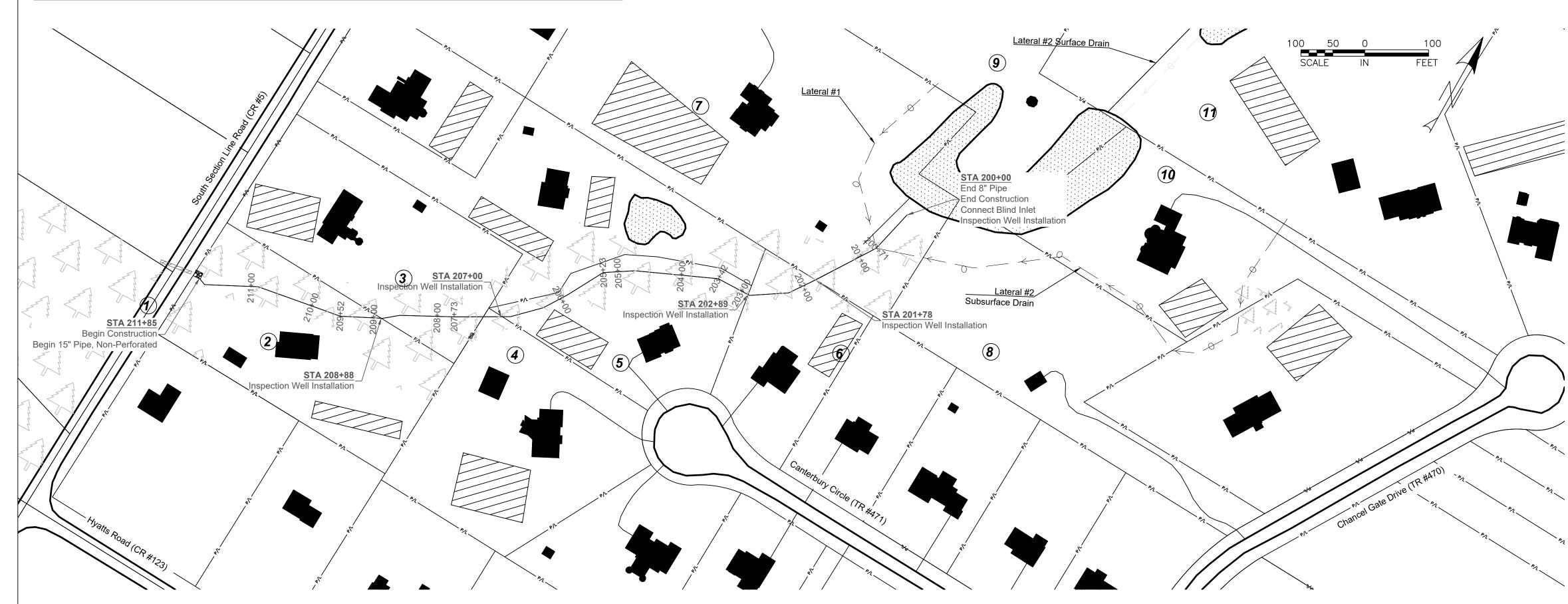


Existing SSD	<del></del>
Proposed Mains	$-\!\!\!-\!\!\!\!-\!\!\!\!-\!\!\!\!\!-\!\!\!\!\!-\!\!\!\!\!-\!\!\!\!\!-\!\!\!\!$
Building	
Septic System	
Pond	
Woodlands	
Road	
Driveway	
Benchmark	•

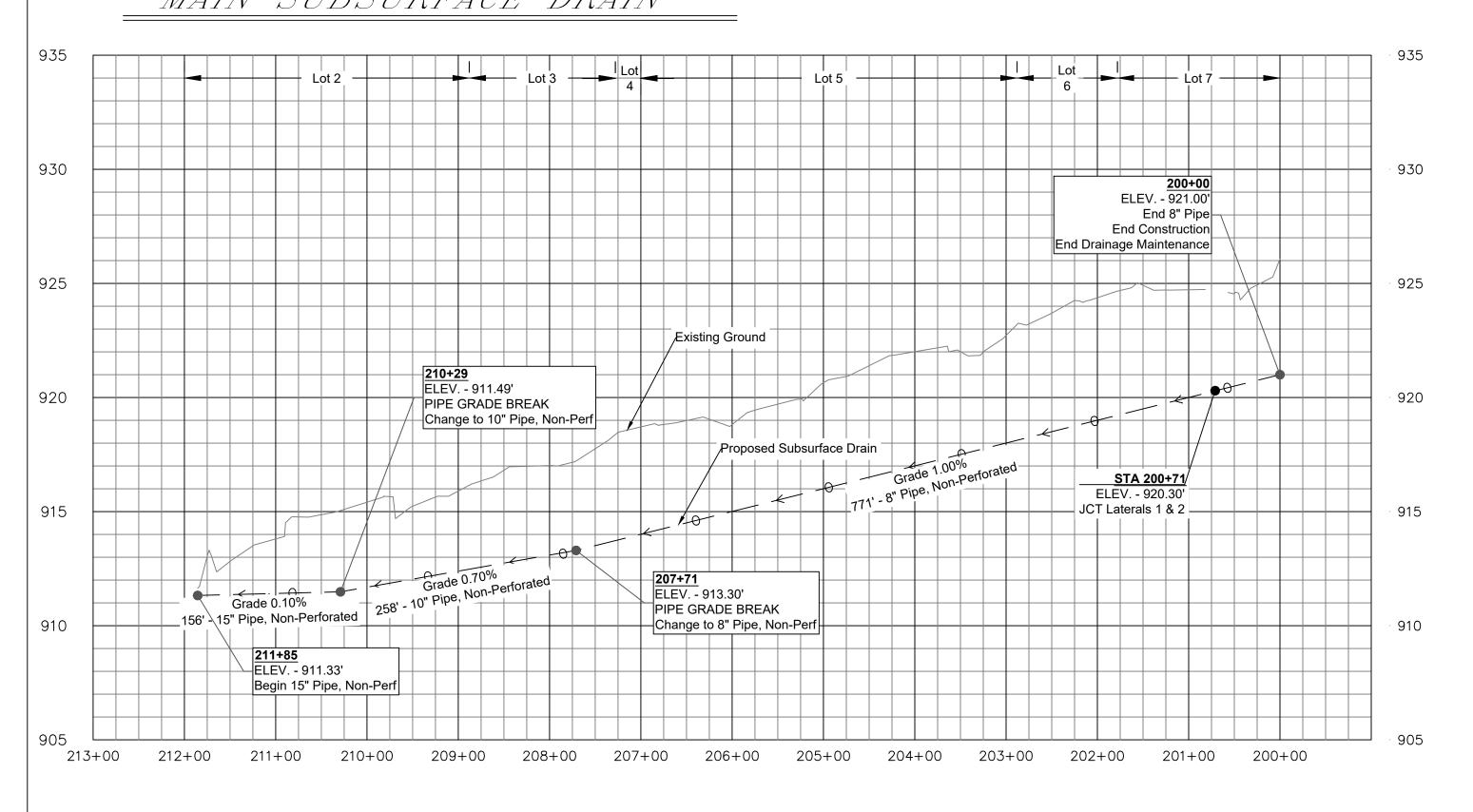
	_		
<u>Lot</u>	<u>Owner</u>	Address	Parcel Number
1	Dedicated Road Right of Way	South Section Line Rd	99999907000000
2	Subhajit Datta	6275 South Section Line Rd	41933002026000
3	Christopher Mampe	6235 South Section Line Rd	41933002025000
4	Daniel & Deborah Saliaris	4783 Canterbury Circle	41933002042000
5	Kami & Said Atiyeh	6205 South Section Line Rd	41933002024000
6	Tom & Amy Ailabouni	4756 Canterbury Circle	41933002044000
7	Douglas & Michele Grout	6115 South Section Line Rd	41933002020001
8	Stephen Corvi	6138 Chancel Gate Dr	41933002048001
9	Paula & Gochev Alexander	6101 South Section Line Rd	41933002019000
10	Tamara East	6074 Chancel Gate Dr	41933002048003
11	David & Sabrina Reno	6066 Chancel Gate Dr	41933002048004

	Main			
Item	Description	Quantity	Unit	
SPECIAL	Utility Relocation	LUMP		
NRCS 326	Clearing & Snagging	LUMP		
NRCS 410	Grade Stabilization Structure - Rock Pad	1	Each	
NRCS 606	8" Pipe, Non-Perforated (ODOT 707.33)	771	Lineal Feet	
NRCS 606	10" Pipe, Non-Perforated (ODOT 707.33)	258	Lineal Feet	
NRCS 606	15" Pipe, Non-Perforated (ODOT 707.33)	156	Lineal Feet	
NRCS 606	15" Animal Guard	1	Each	
NRCS 606	Tile Inspection Well	5	Each	
NRCS 608	Surface Drain - Swale	536	Lineal Feet	
NRCS 620	Underground Outlet - Blind Inlet	1	Each	
ODOT 659	Seeding & Mulching, Class 1, no anchoring	4,200	Square Yards	

### MAIN PLAN VIEW - SUBSURFACE DRAIN



### MAIN SUBSURFACE DRAIN



### CONSTRUCTION NOTES

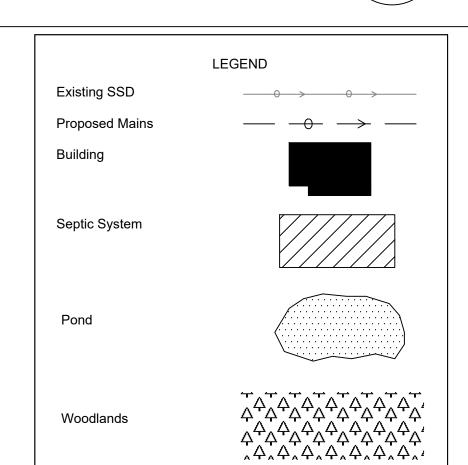
All General Construction Notes on P. 2 of 7 shall apply.

2. Clearing and snagging will be performed within the limits of the channel and swale construction as per the instructions in the General Construction Notes. All debris from clearing and snagging is to be exported from the site. Payment for export of debris shall be considered as incidental to payment for NRCS Item #326.

3. Details to be referenced on p. 2 of 7:
 Typical Surface Drain Cross Section
 Typical Subsurface Drain Installation
 Typical Subsurface Drain Lateral Connection
 Inspection Well Installation

4. 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.

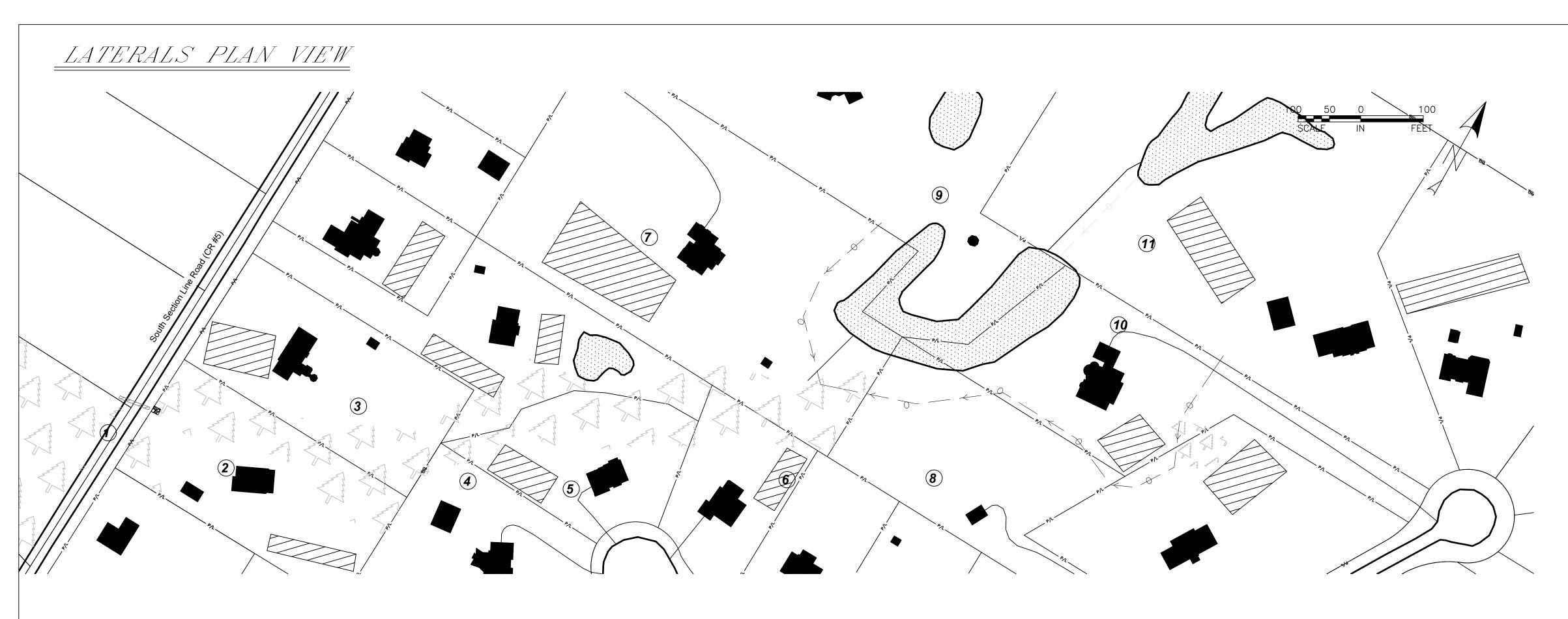
CHANCEL GATE
DRAINAGE IMPROVEMENT PROJECT
ENGINEERING DRAWINGS



<u>Lot</u>	<u>Owner</u>	Address	Parcel Number
1	Dedicated Road Right of Way	South Section Line Rd	99999907000000
2	Subhajit Datta	6275 South Section Line Rd	41933002026000
3	Christopher Mampe	6235 South Section Line Rd	41933002025000
4	Daniel & Deborah Saliaris	4783 Canterbury Circle	41933002042000
5	Kami & Said Atiyeh	6205 South Section Line Rd	41933002024000
6	Tom & Amy Ailabouni	4756 Canterbury Circle	41933002044000
7	Douglas & Michele Grout	6115 South Section Line Rd	41933002020001
8	Stephen Corvi	6138 Chancel Gate Dr	41933002048001
9	Paula & Gochev Alexander	6101 South Section Line Rd	41933002019000
10	Tamara East	6074 Chancel Gate Dr	41933002048003
11	David & Sabrina Reno	6066 Chancel Gate Dr	41933002048004

Benchmark

Main				
Item	Description	Quantity	Unit	
SPECIAL	Utility Relocation	LUMP		
NRCS 326	Clearing & Snagging	LUMP		
NRCS 410	Grade Stabilization Structure - Rock Pad	1	Each	
NRCS 606	8" Pipe, Non-Perforated (ODOT 707.33)	771	Lineal Feet	
NRCS 606	10" Pipe, Non-Perforated (ODOT 707.33)	258	Lineal Feet	
NRCS 606	15" Pipe, Non-Perforated (ODOT 707.33)	156	Lineal Feet	
NRCS 606	15" Animal Guard	1	Each	
NRCS 606	Tile Inspection Well	5	Each	
NRCS 608	Surface Drain - Swale	536	Lineal Feet	
NRCS 620	Underground Outlet - Blind Inlet	1	Each	
ODOT 659	Seeding & Mulching, Class 1, no anchoring	4,200	Square Yards	



LATERAL #2 SUBSURFACE DRAIN

LATERAL #1 SUBSURFACE DRAIN

ELEV. - 923.41'

End 8" Pipe, Non-Perf ⊣End Drainage Maintenance⊢

Proposed Subsurface Drain

⊢Begin 8" Pipe, Non-Perforated⊢

303+00 302+00 301+00 300+00

920

Existing Ground

ELEV. - 920.30'

Begin Lateral #1

930

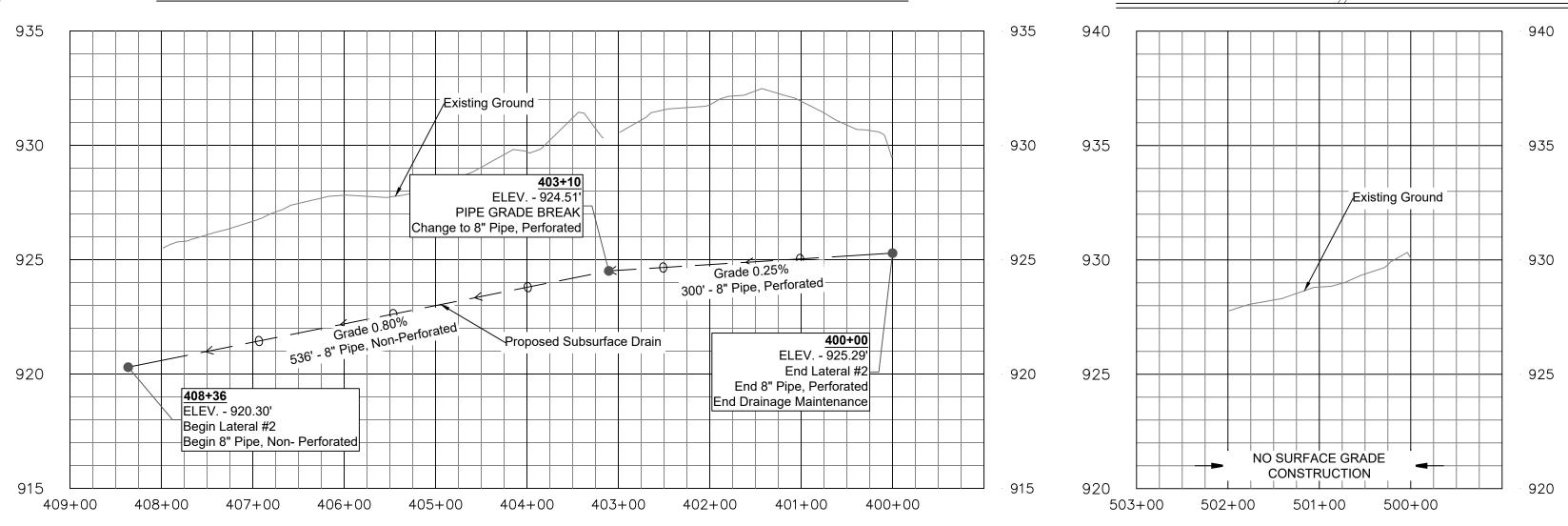
925

920

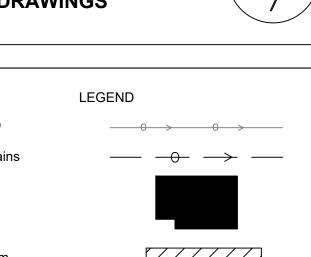
304+00

End Lateral #1

### LATERAL #2 SURFACE DRAIN



CHANCEL GATE
DRAINAGE IMPROVEMENT PROJECT
ENGINEERING DRAWINGS



Existing SSD	<del></del>
Proposed Mains	$\longrightarrow \longrightarrow \longrightarrow$
Building	
Septic System	
Pond	
Woodlands	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Road	
Driveway	
Benchmark	•

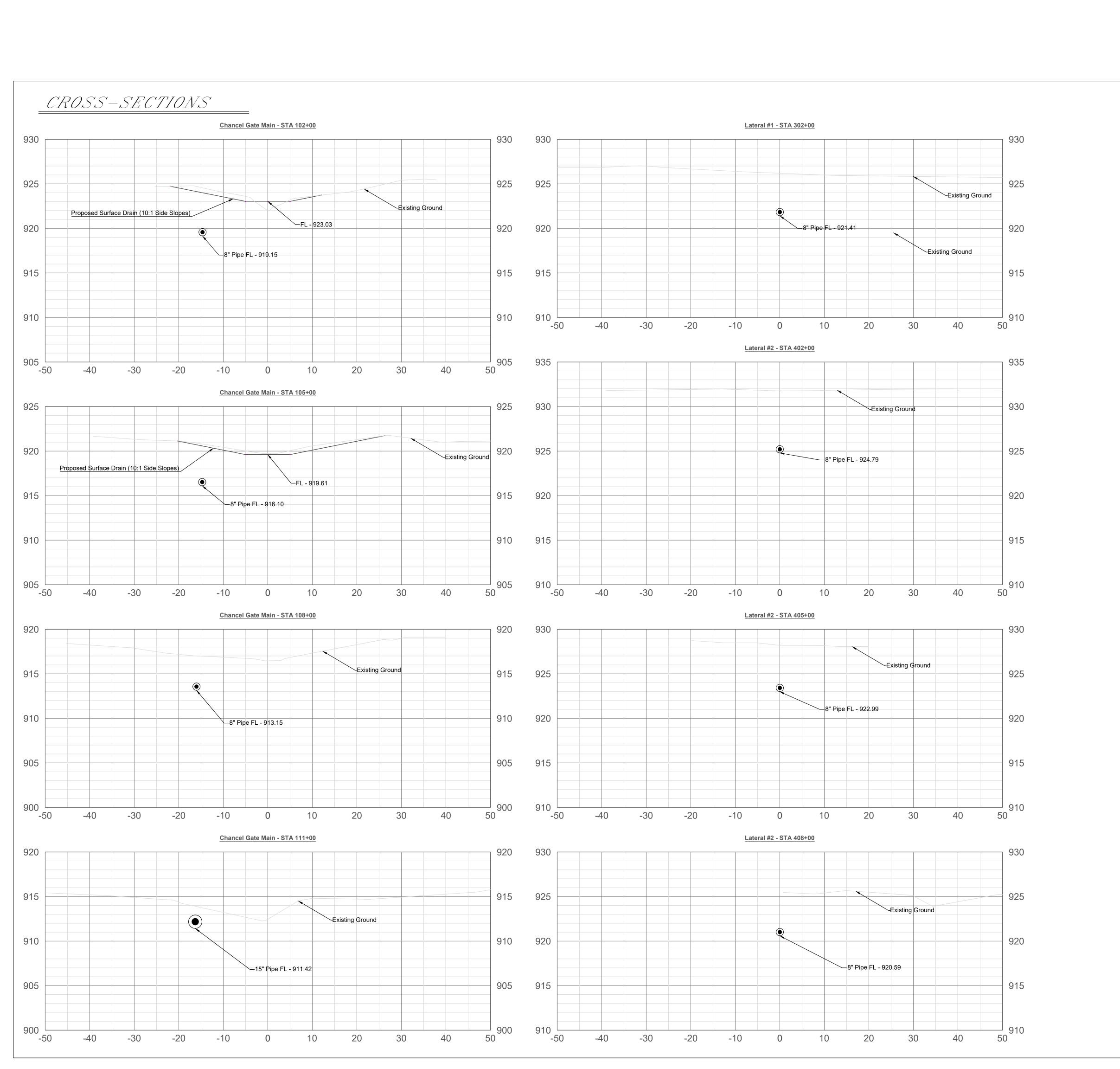
<u>Lot</u>	<u>Owner</u>	Address	Parcel Number
1	Dedicated Road Right of Way	South Section Line Rd	99999907000000
2	Subhajit Datta	6275 South Section Line Rd	41933002026000
3	Christopher Mampe	6235 South Section Line Rd	41933002025000
4	Daniel & Deborah Saliaris	4783 Canterbury Circle	41933002042000
5	Kami & Said Atiyeh	6205 South Section Line Rd	41933002024000
6	Tom & Amy Ailabouni	4756 Canterbury Circle	41933002044000
7	Douglas & Michele Grout	6115 South Section Line Rd	41933002020001
8	Stephen Corvi	6138 Chancel Gate Dr	41933002048001
9	Paula & Gochev Alexander	6101 South Section Line Rd	41933002019000
10	Tamara East	6074 Chancel Gate Dr	41933002048003
11	David & Sabrina Reno	6066 Chancel Gate Dr	41933002048004

### **CONSTRUCTION NOTES** 1. All General Construction Notes on P. 2 of 7 shall apply.

2. Clearing and snagging will be performed within the limits of the channel and swale construction as per the instructions in the General Construction Notes. All debris from clearing and snagging is to be exported from the site. Payment for export of debris shall be considered as incidental to payment for NRCS Item #326.

3. Details to be referenced on p. 2 of 7: Subsurface Drain Installation Subsurface Lateral Connections Inspection Well Installation

	Lateral #1	·	
ltem	Description	Quantity	Unit
NRCS 326	Clearing & Snagging	LUMP	
NRCS 382	Fence Gate	2	Each
NRCS 606	8" Pipe, perforated (ODOT 707.33)	311	Lineal Feet
NRCS 606	Tile Inspection Well	1	Each
ODOT 202	Fence for Removal	100	Lineal Feet
ODOT 659	Seeding & Mulching, Class 1, no anchoring	750	Square Yards
	Lateral #2		
Item	Description	Quantity	Unit
SPECIAL	Utility Relcoation	LUMP	
NRCS 326	Clearing & Snagging	LUMP	
NRCS 606	8" Pipe, perforated (ODOT 707.33)	816	Lineal Feet
NRCS 606	Tile Inspection Well	5	Each
ODOT 611	8" Pipe (707.33), Type B Installation, Asphalt Drive	20	Lineal Feet
ODOT 659	Seeding & Mulching, Class 1, no anchoring	2,000	Square Yards



CHANCEL GATE
DRAINAGE IMPROVEMENT PROJECT
ENGINEERING DRAWINGS

