

Silverwood Plantation Roads & Drainage Project Plan 2017

Project Name:

Roads and Drainage Project Plan 2017 – Roads & Drainage Committee

Purpose

Define all issues associated with Roads and Drainage in Silverwood Plantation. Generate solutions to address the issues with Roads and Drainage, provide prioritized list of efforts and the order in which they should be executed. Priority is primarily based on needs of the residents relative to potential or realized damage to home and property; secondarily based on a goal of maintaining or increasing owner property value.

Scope

Assess and evaluate all roads and drainage systems in Silverwood Planation.

Charter

Roads & Drainage Committee will evaluate all Roads and Drainage Systems in Silverwood Plantation, document all issues, provide a prioritized list of projects to address these issues. Will work with Silverwood Plantation Board to review quotes for required work and assist in execution of the corrective actions.

Reporting

Roads & Drainage Committee will update this project plan frequently and brief the Silverwood Plantation Board on progress.

Work Break Down Structure

1. Determine what data is required to fully assess, evaluate and document issues with roads and drainage.
2. Generate check sheets to document issues and areas that need to be fixed.
3. Meet with Committee members and volunteers to document issues and areas to be fixed
 - 3.1. Solicit volunteers and residents from the road being evaluated
4. Systematically review roads and associated drainage systems and document results
 - 4.1. Cypress Drive
 - 4.2. Palmetto Drive

Silverwood Plantation Roads & Drainage Project Plan 2017

- 4.3. Willowpeg Road
- 4.4. Lake Tomacheechee Drive
- 4.5. Red Bluff Circle
- 4.6. Red Bluff Run
- 4.7. Silver Lake Drive
5. Generate Action Plan with Prioritized List of Corrective Actions/Sub Projects
6. Generate Appendices for this plan to document issues for each road/drive
 - 6.1. Appendix A – Action Plan with Prioritized List of Projects
 - 6.2. Appendix B – Cypress Drive
 - 6.3. Appendix C – Palmetto Drive
 - 6.4. Appendix D – Willowpeg Drive
 - 6.5. Appendix E – Lake Tomacheechee
 - 6.6. Appendix F – Red Bluff Circle/Red Bluff Run
 - 6.7. Appendix G – Silver Lake Drive

Budget Estimate

Minimum of three cost estimates will be solicited by the Board to complete the work required to address the issues noted in Appendix A – Action Plan.

Schedule

Committee evaluations will begin with Cypress Drive and progress through the list of roads as noted in the list of appendices. The work will be done as volunteers support the effort for their perspective roads/drives.

Silverwood Plantation Roads & Drainage Project Plan 2017

Appendix A – Action Plan and Prioritized List of Projects

This appendix provides the list of projects required to correct the issues documented in each of the appendices. The Details of the issues will be primarily documented in the appendices for that drive/road.

Club House – Water Leak

Find and fix the water leak at the club house. Continued water seepage and leaking could impact the foundation of the building, result in damage to the lower level gym facilities and damage the tennis courts.

Action: Contract company to find and fix the water leak; Three Bids Minimum, Select best value

Cypress Drive

Drainage List:

1. Re-cut the ditch line – Drain line West of Ditch #2 (see Appendix B) intersection Behind 128, 126, 124, 122 Cypress.
 - a. The Ditch Line was incorrectly cut, does not drain from properties into Ditch #2. Lake forms with any rain, high potential for house damage with any significant rain fall.
2. Clean out Ditch #6 from Tomacheechee to the Pond.
 - a. Clear debris, dams, brush, Sand from Ditch #6
 - b. Remove Sand from end of Ditch#6 and Pond – sand has formed significant impediment to flow of water out of Ditch #6, causing back up of water in Ditch #6.
3. Cut ditch line east of Ditch#2 along easement up to edge of 144 Cypress Drive. Original Drainage System indicates drain path along easement, it does not exist. Water accumulates in back yards, there is no place to drain.
4. Swale Lines need to be corrected
 - a. Ditch #2: from 128 Cypress to 122 Cypress
 - b. Ditch #2: from 130 Cypress to 138 Cypress
 - c. Ditch #3: from 131 Cypress to 137 Cypress

Silverwood Plantation Roads & Drainage Project Plan 2017

Road Damage

The following locations on Cypress need to be repaired for Tree Root Damage. The location is in front of the house numbers noted below:

1. 107 Cypress
2. 109 Cypress
3. 111 Cypress
4. 113 Cypress
5. 118 Cypress
6. 120 Cypress
7. 122 Cypress
8. 123 Cypress
9. 130 Cypress
10. 131 Cypress

Silverwood Plantation Roads & Drainage Project Plan 2017

Appendix B – Cypress Drive

General Notes and result of walking ditch lines, swale and road evaluations. The ditches are identified as noted in the figures below. These are excerpts from the overall drainage plot and is color coded as Dark Blue signifies open ditches, the red lines are swale/ditches with drain tiles. Ditch #2 extends to the rear of 128 Cypress and intersects the ditch line noted behind the properties (West as indicated) extending as noted in the diagram.

Ditch Line Notes and Issues

Ditch #1 – the drainage system diagram for the neighborhood indicates a ditch line between 102 and 104 Cypress Drive. At some point in the past that ditch line was converted into an underground pipe. No issues.

Ditch #2 from Cypress to the back of 128 Cypress is generally clear, some clean out required. The Ditch line West from Ditch#2 along back of properties 128-122 requires re-digging to a measured drain line. The original ditch line was not correctly dug to a fall line that would allow water to flow into Ditch#2. Much debris, brush, and trees block the ditch line going West from 122 Cypress out to the end of the drain line. This needs to be cleared and cleaned out. The Drain line on the last three properties is clear and clean, appears to be functioning properly.

The original Drainage Diagram shows an open Ditch and drain lines from Ditch#2 intersection with the easement behind 128/130 Cypress. This does not exist. Need to cut a ditch line from 144 Cypress down to Ditch#2, needs to be done in a manner as not to back flow in the West direction from Ditch#2 West, which would compound issues for 128-122 Cypress back yard drainage.

Ditch #3 – Relatively clear, no major obstructions, some clean out required. Need to clear pipe under road between Ditch#2 and Ditch#3.

Ditch #4 – This currently does not exist. At some point in the past this ditch was filled in. There is no indication of a pipe buried in its place. There does not appear to be any major issues, only a back up/dam at the road on 144 Cypress that needs to be cleared out so that run off can drain into Ditch #5. Need to clean/clear the pipe line under the road.

Ditch#5 – from Cypress to Ditch #6 – is relatively clear and would require minimal clearing/clean up.

Ditch#6 – from Tomacheechee to the Pond. This ditch line requires significant clean out and removal of brush, debris, and materials that have resulted in numerous dams. There are several tree roots from over turned trees in the ditch line from Tomacheechee West behind 153-155 Cypress. There is also a significant amount of sand in the ditch line from 133 Cypress to the Pond. The source of the sand needs to be addressed with insurances that no more additional sand will be deposited into the ditch line. There is a significant amount of sand deposited at the end of Ditch#6 at the pond that is impeding the flow of water into the Pond.

Silverwood Plantation Roads & Drainage Project Plan 2017

General note – the drainage diagram shows drain tiles in many places between properties that drain into Ditch#6. There are many areas that appear as noted on the diagram, some on the Palmetto side of Ditch#6 actually have pipe that appears to run toward the Palmetto side of the properties.

Swales

Several areas on the even and odd side of Cypress from Ditch#2 and Ditch#3 are not functioning correctly due to property owners having filled in the Swales in over time, or the Swales were never contoured correctly to allow drainage. The Figures below, App B -3, App B -4, and App -5 provide swale drain line contour data that clearly shows the issues. The plots run from the ditch water line/bottom East and West as noted on the plot. Areas in the swale fall line that form bucket or low areas will collect water and not correctly drain. Corrections to the swales would require re-cutting these swale lines using both fill and removal to accomplish drain lines that would function properly.

Road Damage

Numerous areas along Cypress Drive have been damaged by tree roots. The roots are pushing through the pavement and causing significant bulging and cracking. If not addressed, this will result in greater damage to the surrounding pavement well beyond the current local root damage. The protruding pavement is also a safety hazard to the walkers, runners, and strollers in our neighborhood.

The Check Sheet provides the detail listing of the locations of the root damage. The severity is indicated by a scale of 1 to 5, 5 being significant bulging and cracking.

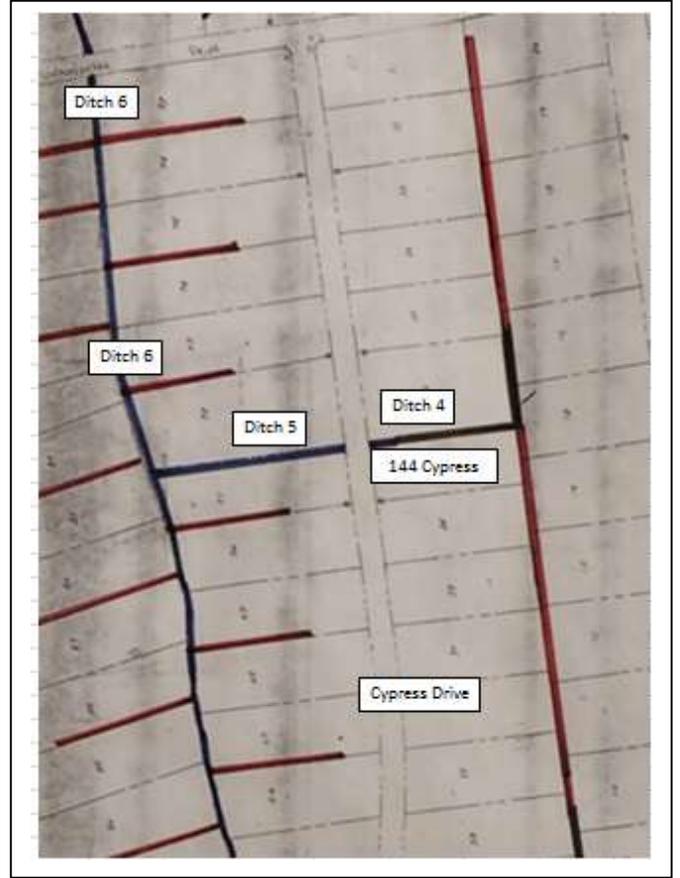
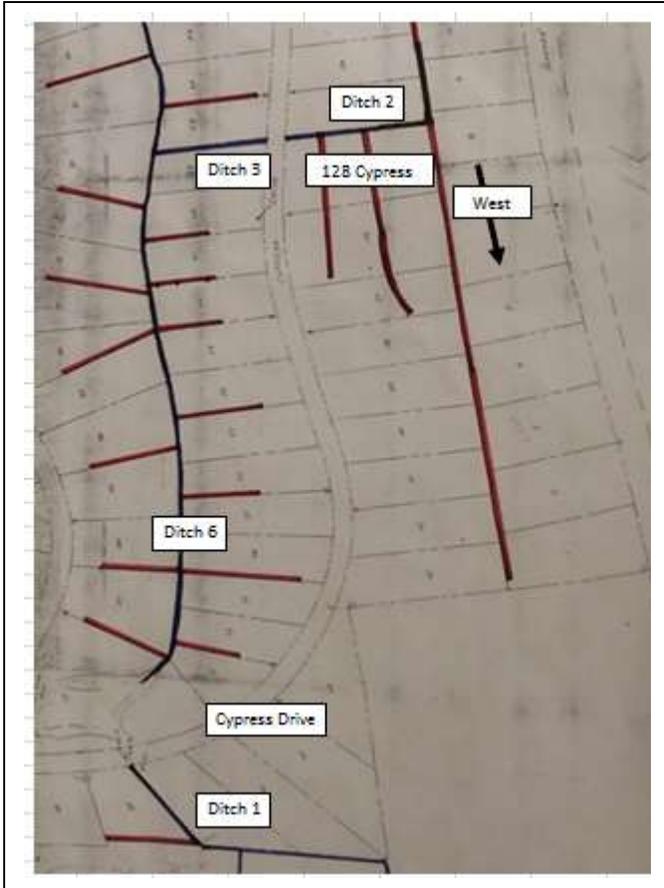
Silverwood Plantation Roads & Drainage Project Plan 2017

Cypress Drive Check List

Table App B-1

	LH Side	Swale Condition	Road Issues	RH Side	Swale Condition	Road Issues
Cypress Drive	103	Ok		100	Ok	
Cypress Drive	105	Ok		102	Ok	
Cypress Drive	107	Ok	5	104	Ok	
Cypress Drive	109	Ok	3	106	Ok	
Cypress Drive	111	Ok	3	108	Dig out	
Cypress Drive	113	Ok	5	110	Ok	
Cypress Drive	115	Ok		112	Ok	
Cypress Drive	117	?		114	Culvert Errosion	
Cypress Drive	119	?		116	Ok	
Cypress Drive	121	Ok		118	Too Deep	3
Cypress Drive	123	Ok	3	120	Ok	5
Cypress Drive	125	Ok		122	Ok	5
Cypress Drive	127	Ok		124	Ok	
Cypress Drive	129	Ok		126	Ok	
Cypress Drive	131	Ok	3	128	Ok	
Cypress Drive	133	Ok		130	Ok	5
Cypress Drive	135	X		132	X	
Cypress Drive	137	X		134	X	
Cypress Drive	139	Ok		136	X	
Cypress Drive	141	Ok		138	Ok	
Cypress Drive	143	Ok		140	Ok	
Cypress Drive	145	Ok		142	Ok	
Cypress Drive	147	Ok		144	Ok	
Cypress Drive	149	Ok		146	Ok	
Cypress Drive	151	Ok		148	Ok	
Cypress Drive	153	Ok		150	Ok	
Cypress Drive	155	Ok		152	Ok	
Cypress Drive				154	Ok	3
Primary Road Issues are Tree Roots Buldging up and Cracking Pavement						
Rating for Road Damage						
Minor: Slight buldge - 1						
Medium - Noticable Buldge - 3						
Significant Buldge/Cracking - 5						

Cypress Drive Drainage Diagrams



Note: Red indicates Drain Tile/Swale lines; Dark Blue indicates Open Ditch

The drain lines between Ditch #2 and Ditch #4 does not exist. Ditch#4 does not exist. The drainage line noted East from Ditch#4 does not exist.

Silverwood Plantation Roads & Drainage Project Plan 2017

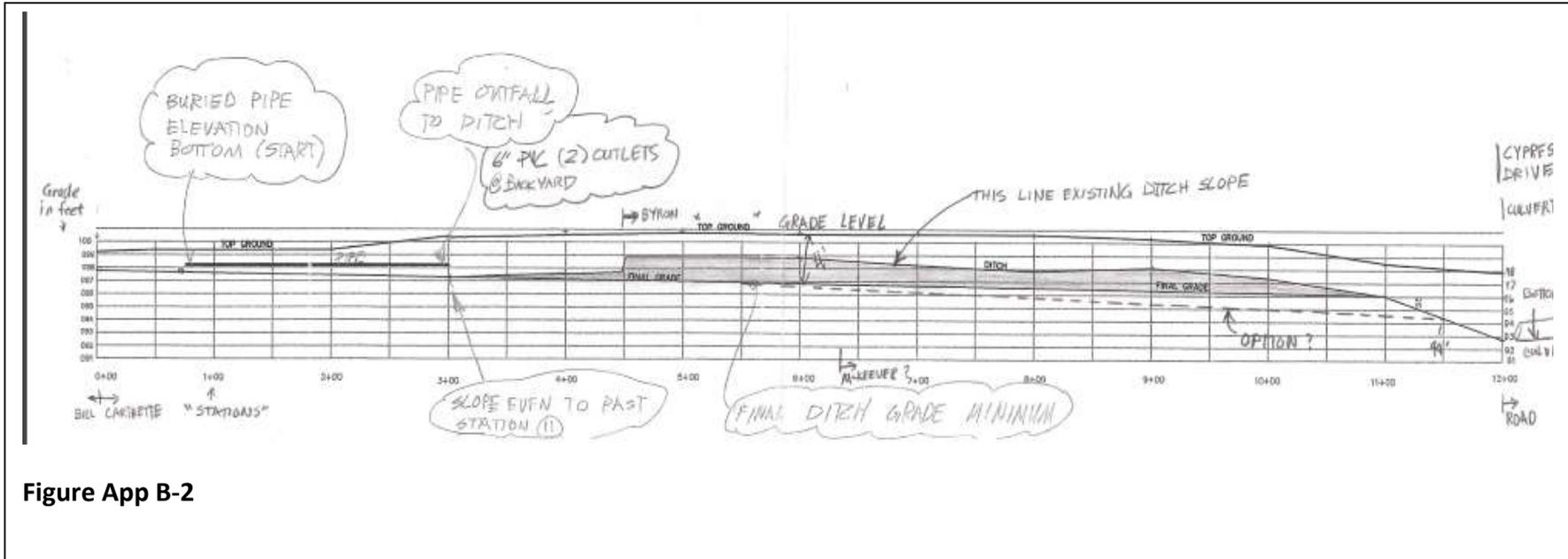


Figure App B-2

Figure App B-2 – Note existing ditch line and slope relative to depth/grade to the left (West). Ditch line requires regrading/digging out to the correct fall line for water to properly drain into Ditch #2. These properties currently collect significant amounts of water with any measurable rain fall.

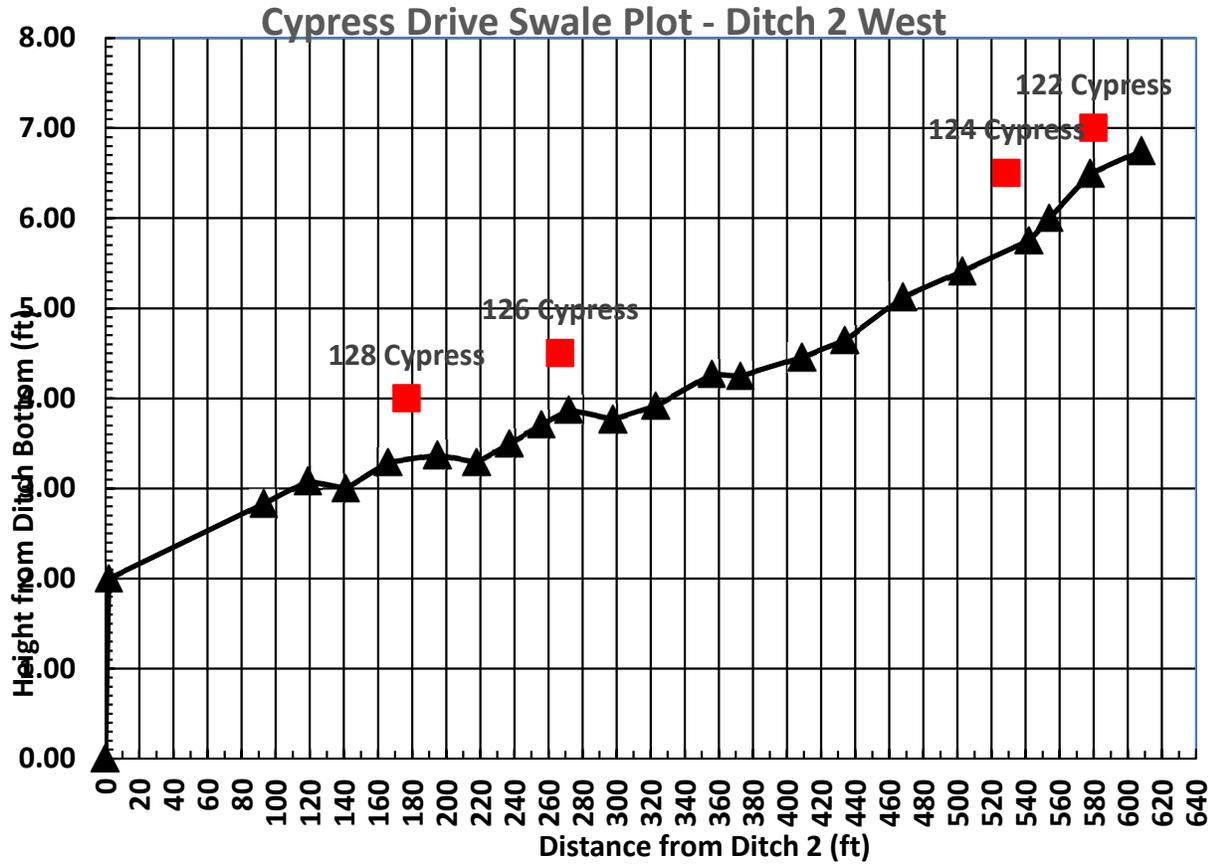


Figure App B-3

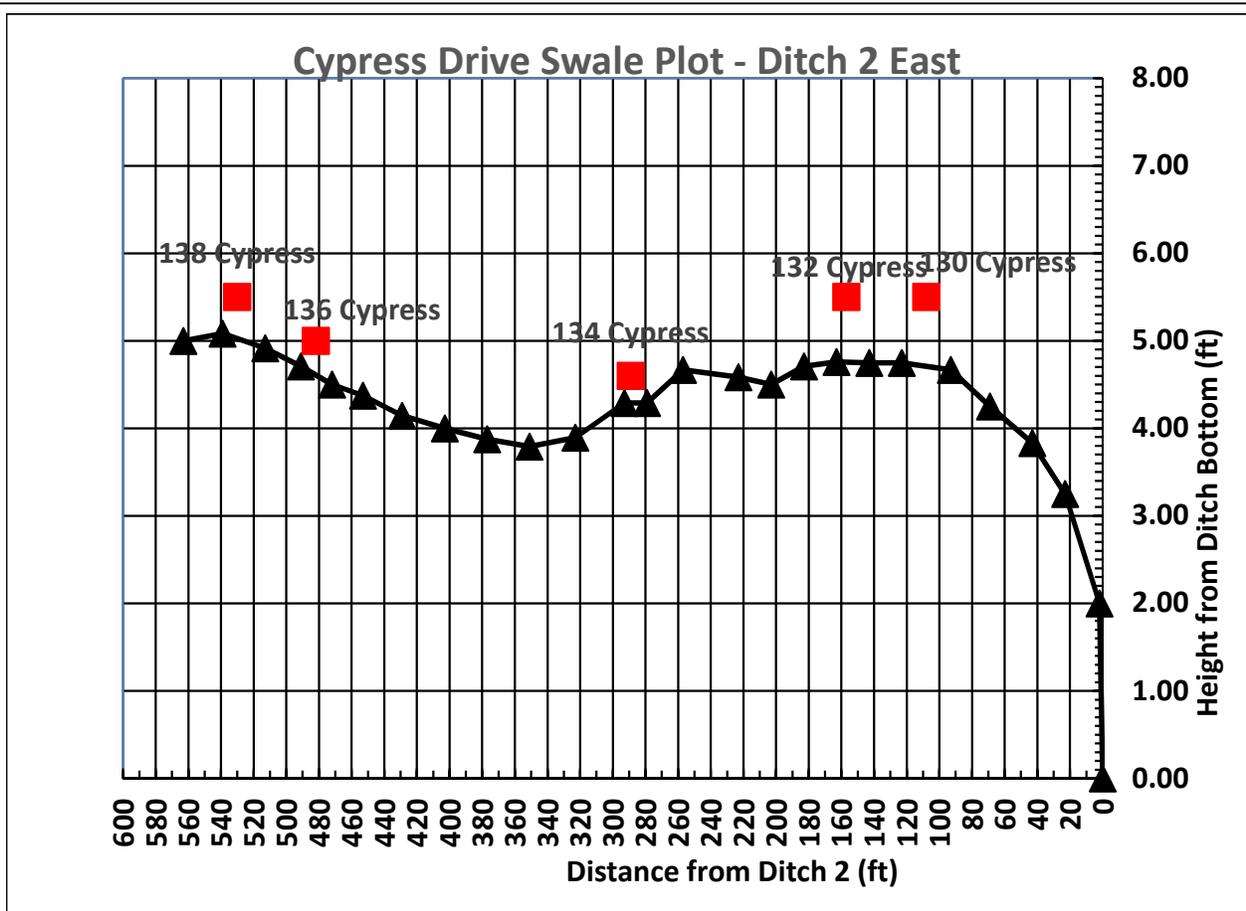


Figure App B-4

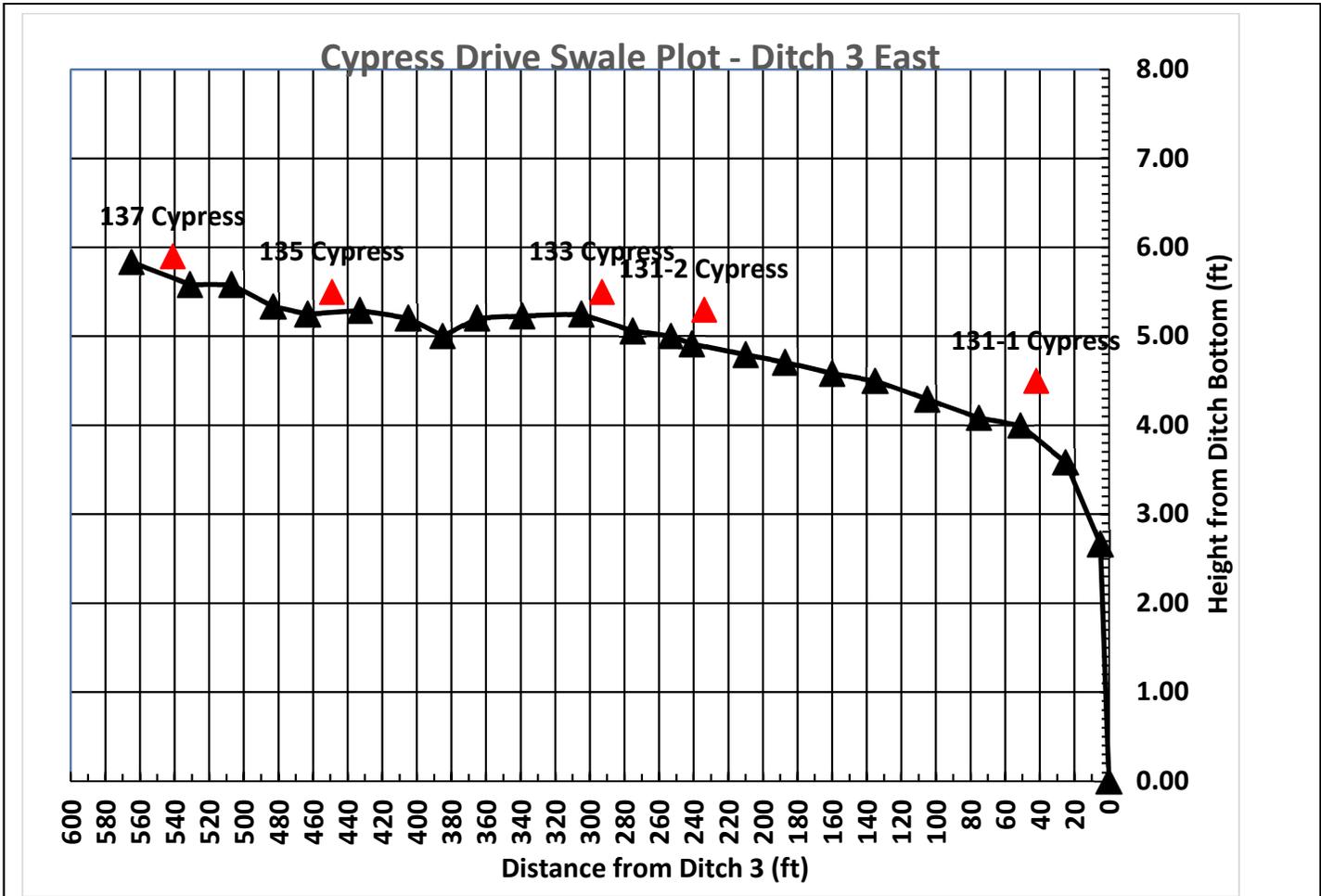


Figure App B-5