

# Proposed Canal Realignment for Cove Springs North Subdivision

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March 7, 2025

In conjunction with the development of the proposed Cove Springs North Subdivision, it is proposed to realign a portion of the East Lateral of the Triangle Irrigation District to route it around the subdivision. This stretch of canal is sometimes referred to as the Cove Ditch. The proposed elements of the realignment are numbered below and correlate to the attached map.

1. Install new check structure, turnout and measuring device to District standards. This turnout will deliver only the water appurtenant to the subdivision, or 3.75 cfs. Rework the area to eliminate the existing sinuous channel from the well. The well will not deliver water to the District’s canal. Both canal water and well water will enter only the private system at this location. All waterways and other infrastructure on Parcel B will be private.
2. Remove existing check structure.
3. Abandon and backfill approximately 3,430 feet of existing canal and associated structures.
4. Construct approximately 3,860 feet of new canal to District standards having a minimum capacity of 35 cfs. Based on a preliminary design, the new channel will have the following characteristics.

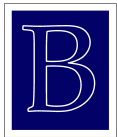
	<b>Reach 1</b>	<b>Reach 2</b>
Location	Start of new channel to leftward bend at southwest corner of Parcel B	From leftward bend eastward to existing canal
Length	1,170 feet	2,690 feet
I.E. start	5063 feet	5055 feet
I.E. end	5055 feet	5048 feet
Slope	0.73%	0.26%
Bottom width	8.0 feet	8.0 feet
Side slope	1.5:1	1.5:1
Top width	11 feet at flow depth 1.5 feet	11 feet at flow depth 1.5 feet
Capacity	44 cfs at 1.0-ft flow depth 88 cfs at 1.5-ft flow depth	25 cfs at 1.0-ft flow depth 51 cfs at 1.5-ft flow depth
Freeboard	1.0 ft	1.0 ft

5. Road crossing at southern entrance to subdivision. Two (2), 49x33 pipe-arch CMP culverts, min. capacity 37 cfs at headwater depth 1.5 feet, 52 cfs at headwater depth 2.0 feet.
6. Leftward bend, erosion protection on outside of bend and berming as required to maintain freeboard.

7. Return flow pipe from subdivision system. Amount of return flow will vary in accordance with irrigation pumping within subdivision.
8. End of canal realignment and point of reconnection to existing canal – match invert and geometry.



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

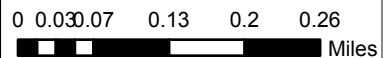


**BROCKWAY**  
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P.L.L.C.







### COVE SPRINGS NORTH SUBDIVISION

PROPOSED DITCH REALIGNMENT  
ESRI 2024 AERIAL



#### Legend

-  Cove Springs North Subdivision
-  Proposed Canal
-  Existing Canal
-  Project Elements