

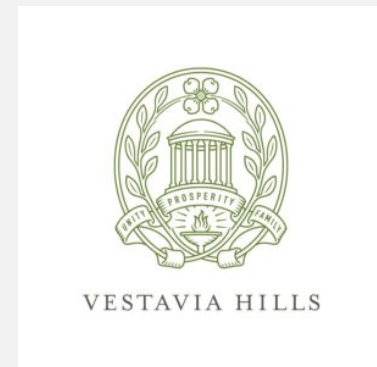
FAIRHAVEN DRAINAGE STUDY

Engineering Design Group, LLC

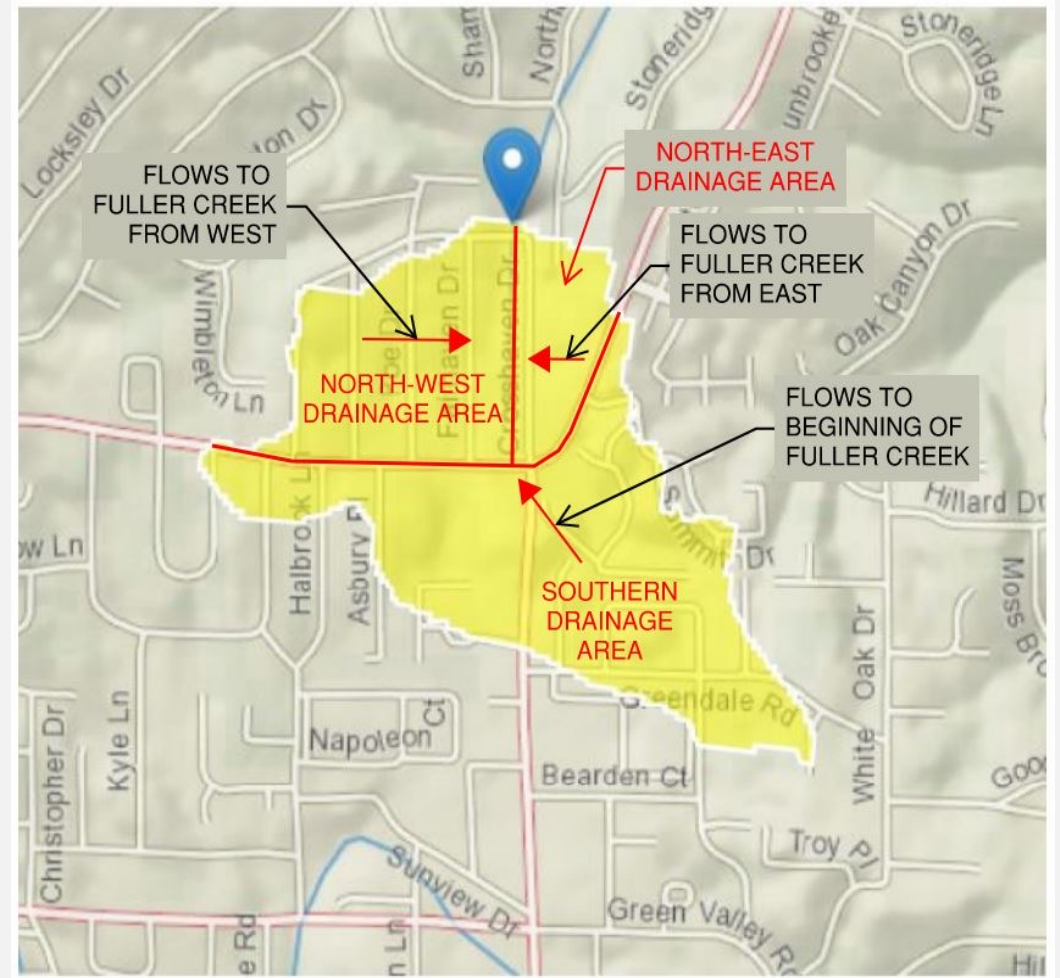
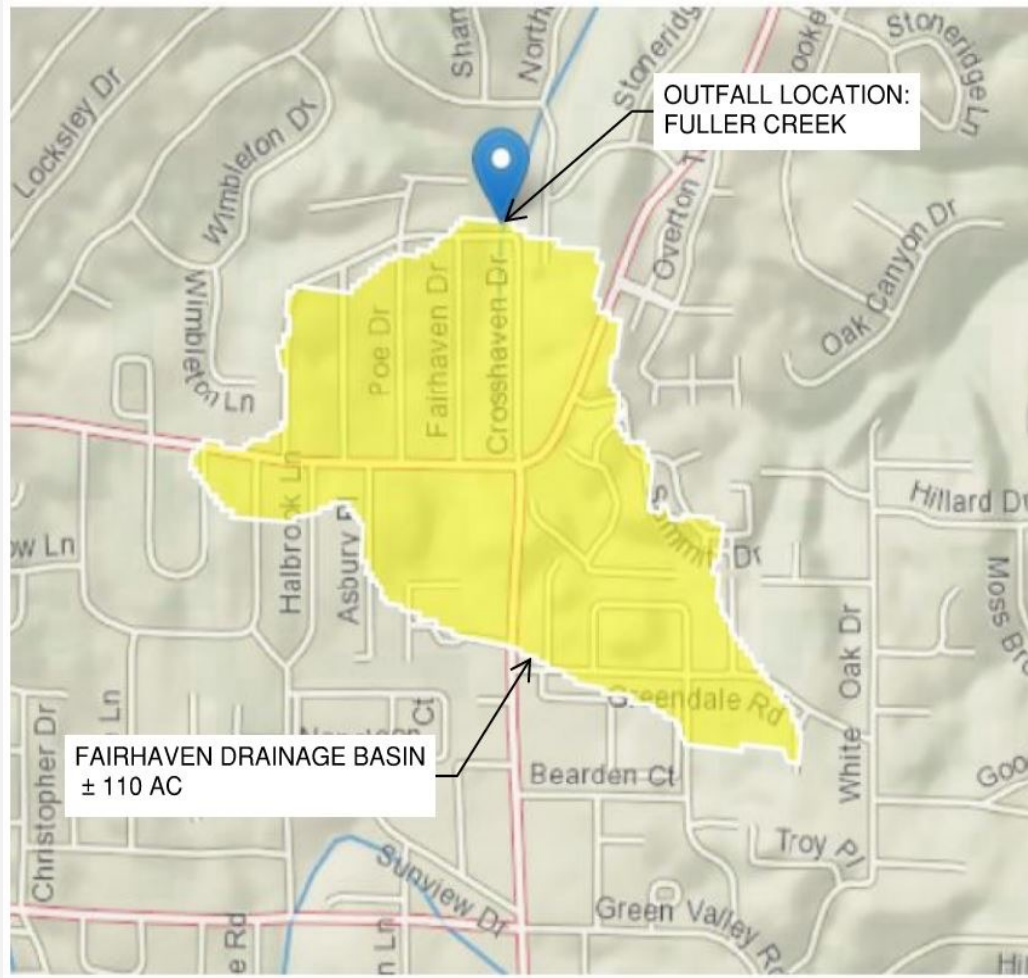
Project No. COVH0012

Wade Lowery, PE

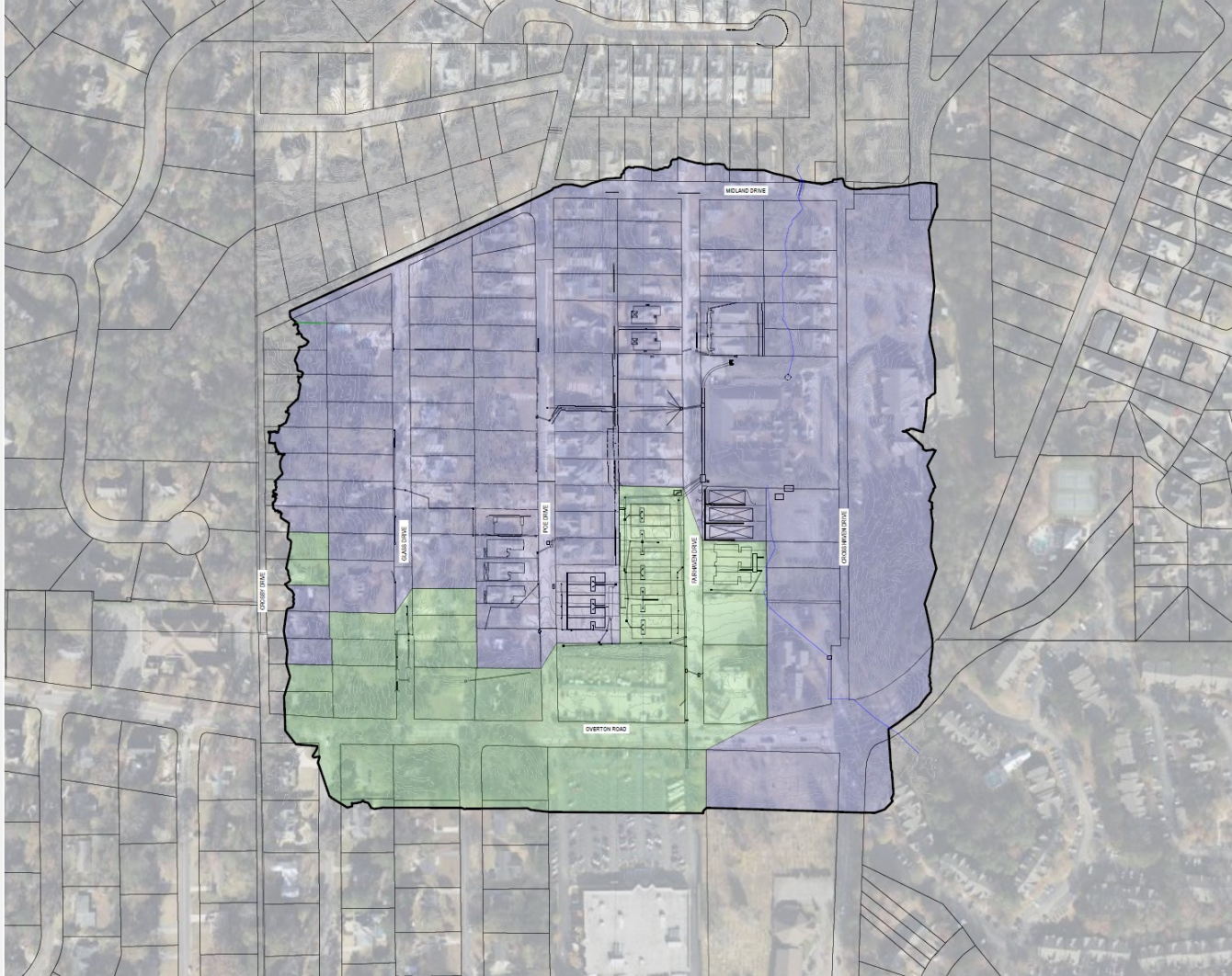
Conner Stewart



OVERALL DRAINAGE BASIN



CITY LIMITS

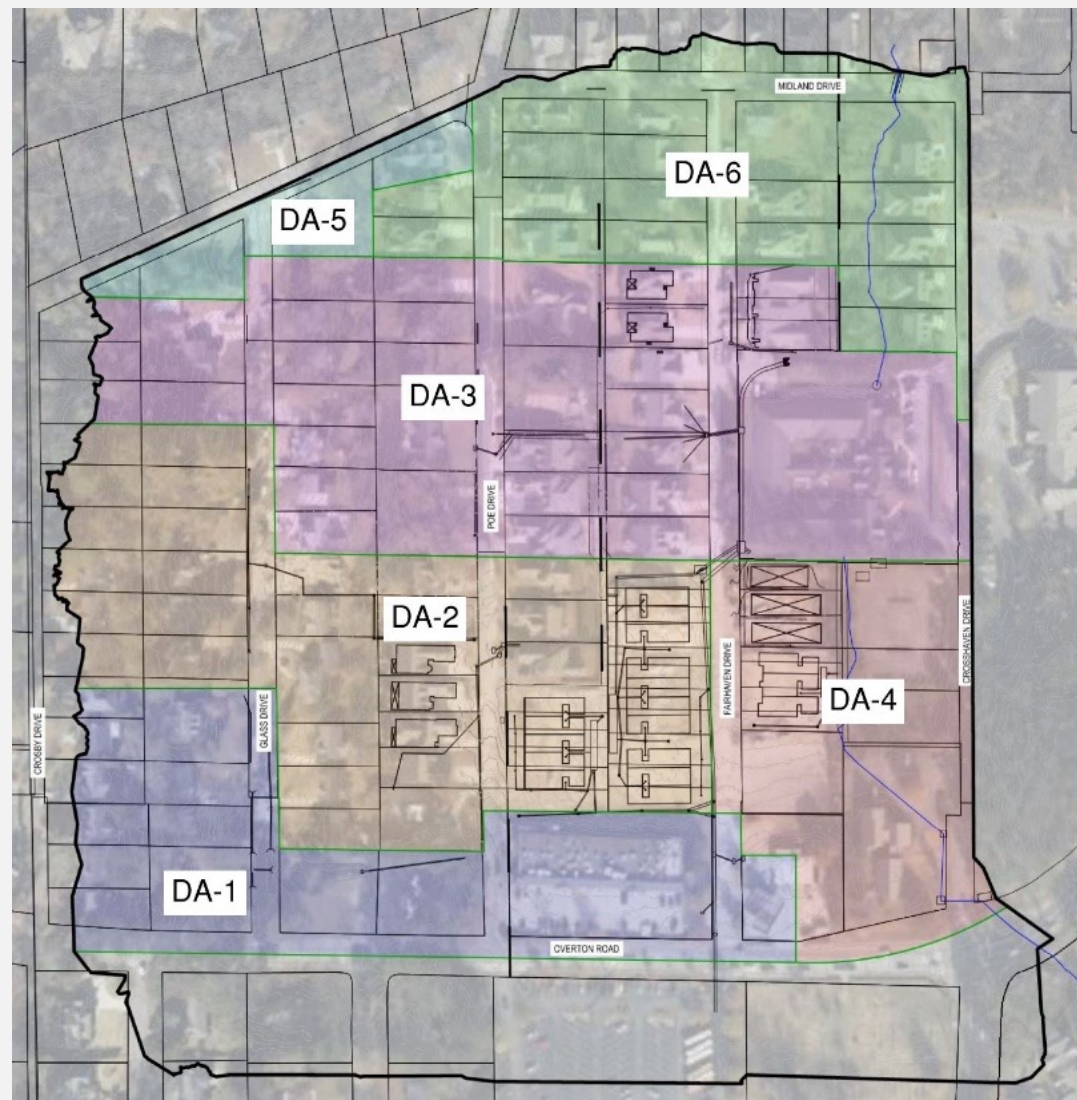


City of Vestavia Hills

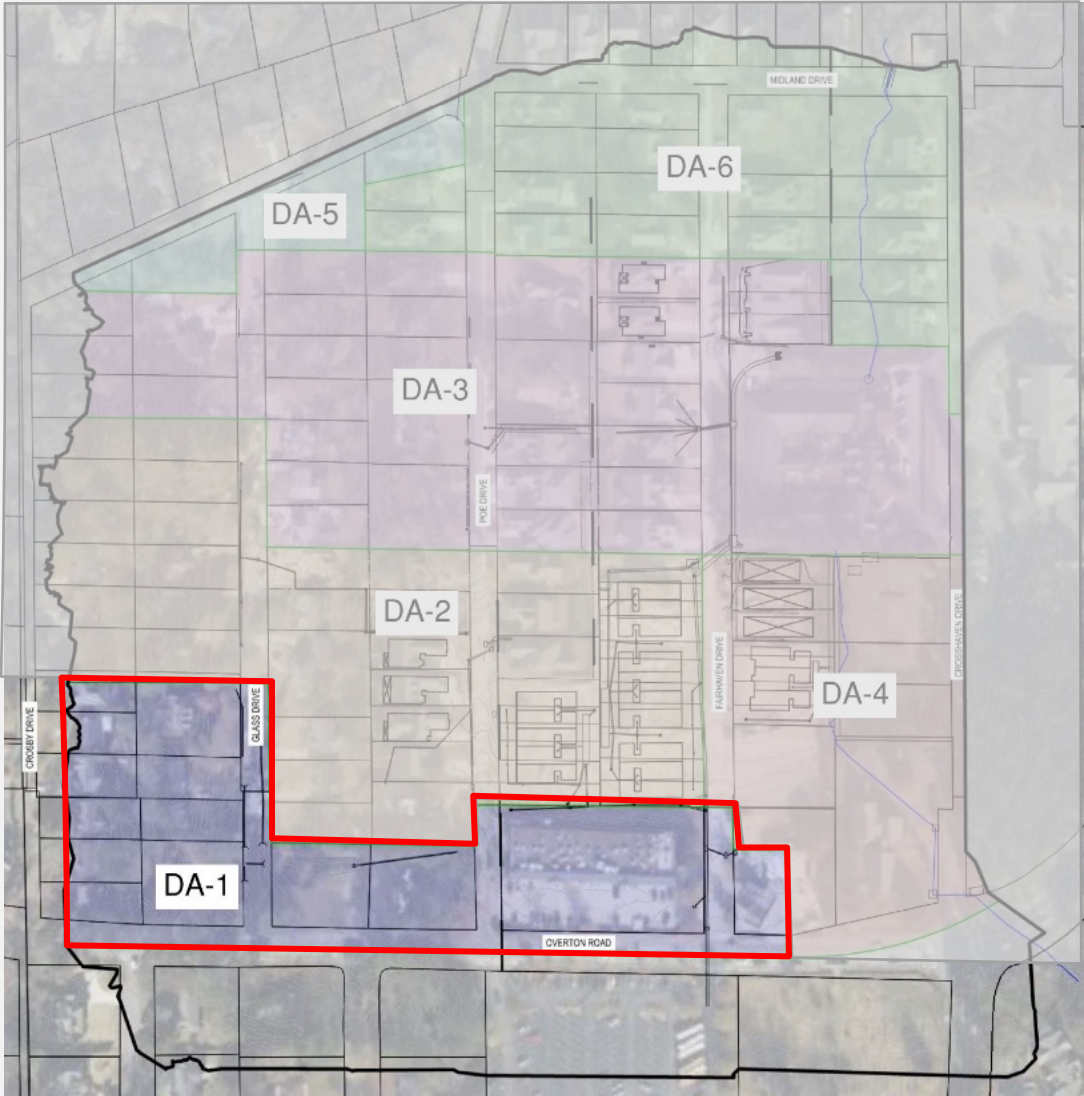


City of Mountain Brook

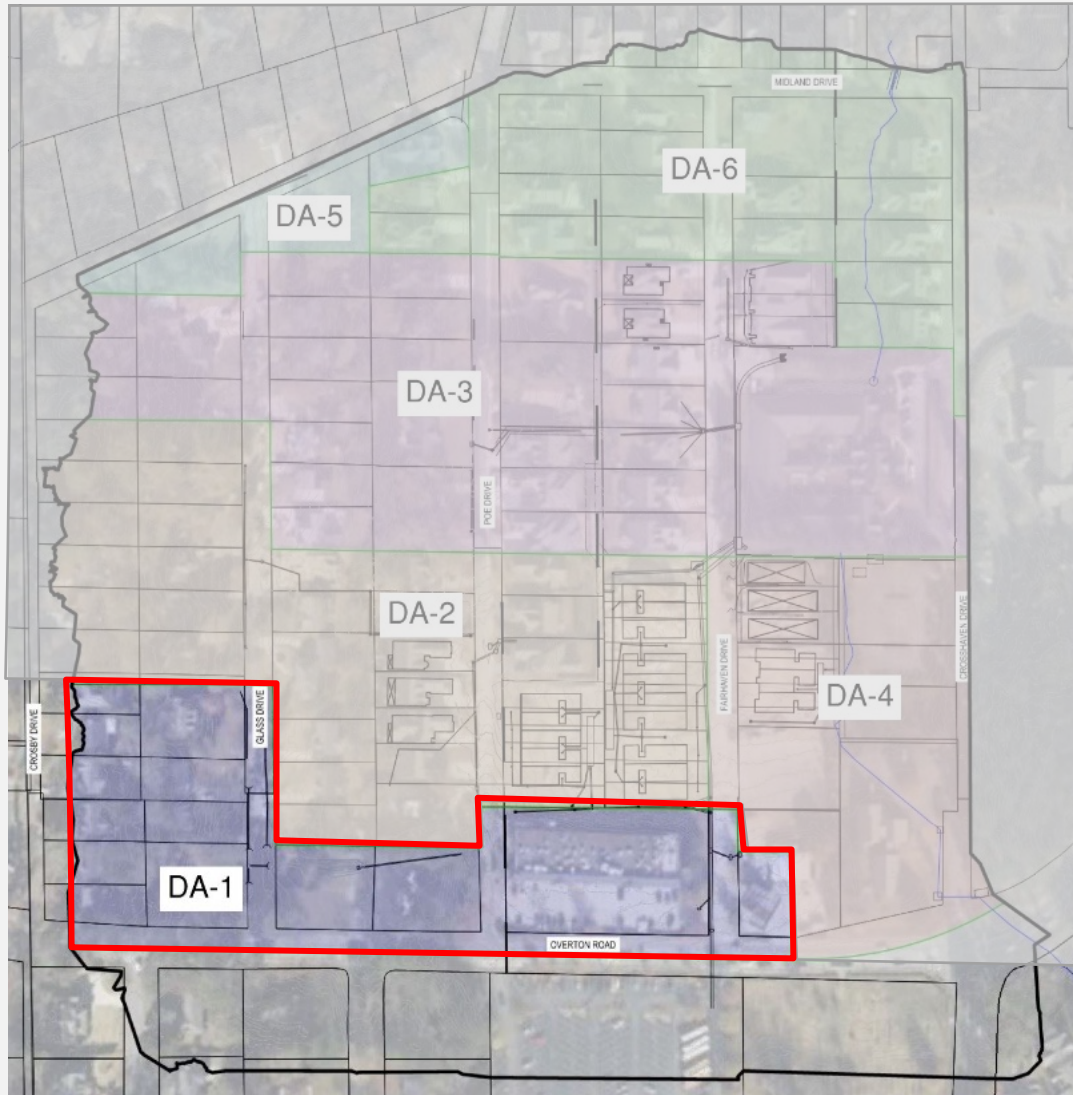
SUB-BASINS



DRAINAGE AREA 1



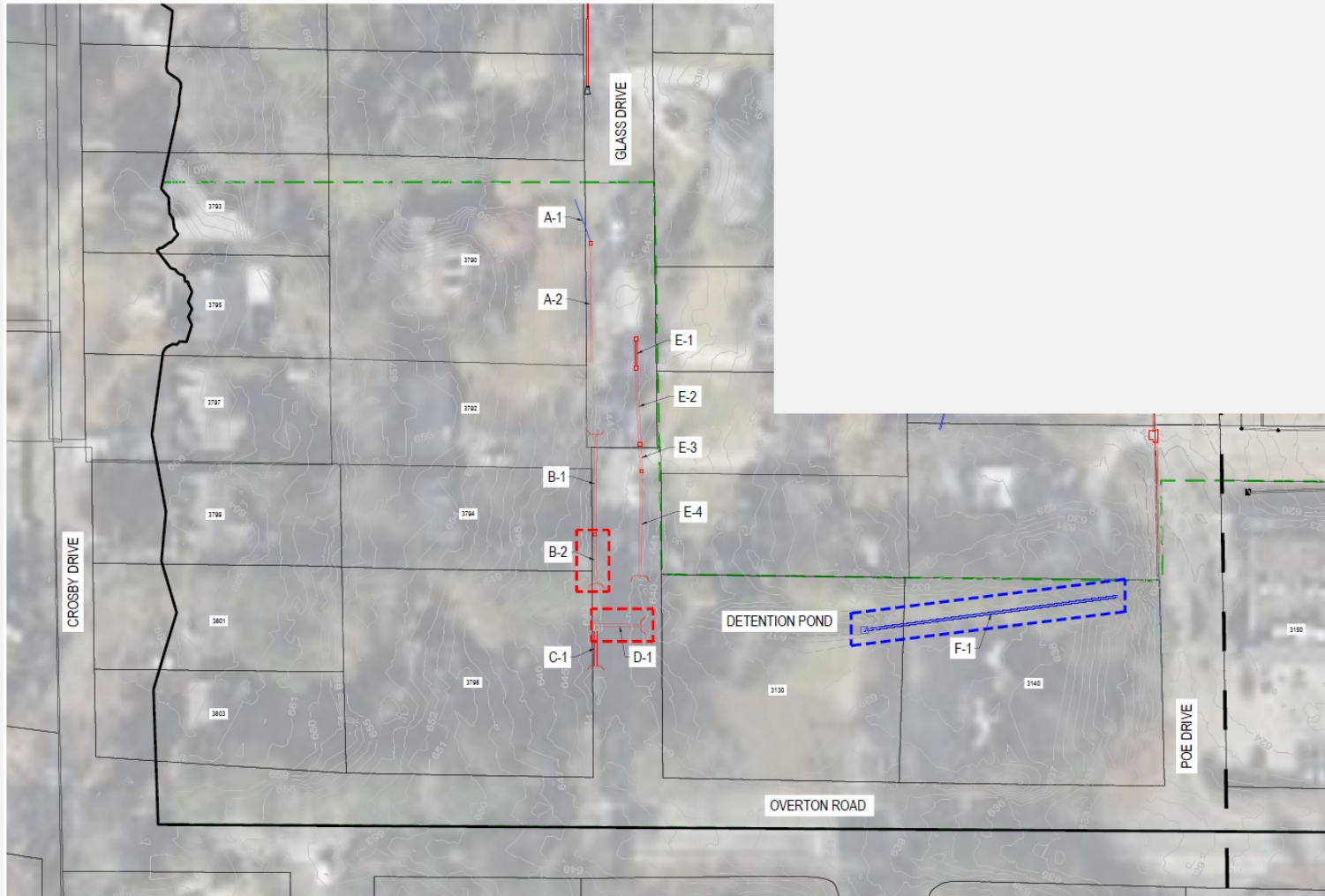
DRAINAGE AREA 1



Summary of Concerns:

- Overgrown grass swales and ditches
- Clogged pipes
- Undersized pipes

DRAINAGE AREA 1



Concerns within Drainage Area 1:

- Existing grass swales/ditches and appropriately sized pipes within ROW
- Pipe B-2 along the west side of Glass Drive
- Pipe D-1 that travels west to east underneath Glass Drive
- Detention pond located at 3130 Overton Road in Mountain Brook

DRAINAGE AREA 1: PIPE B-2



DRAINAGE AREA 1: PIPE D-1



DRAINAGE AREA 1: POND



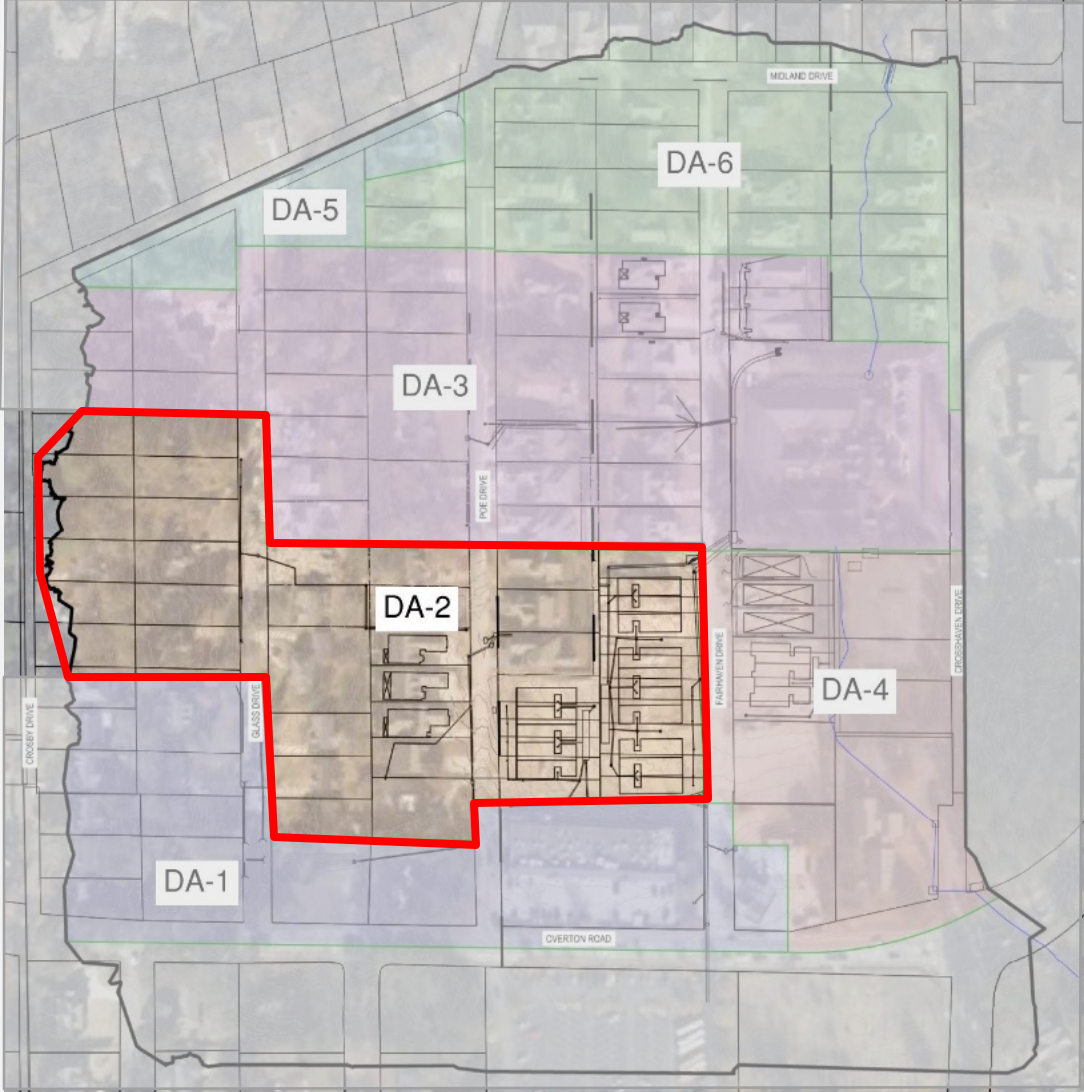
DRAINAGE AREA 1



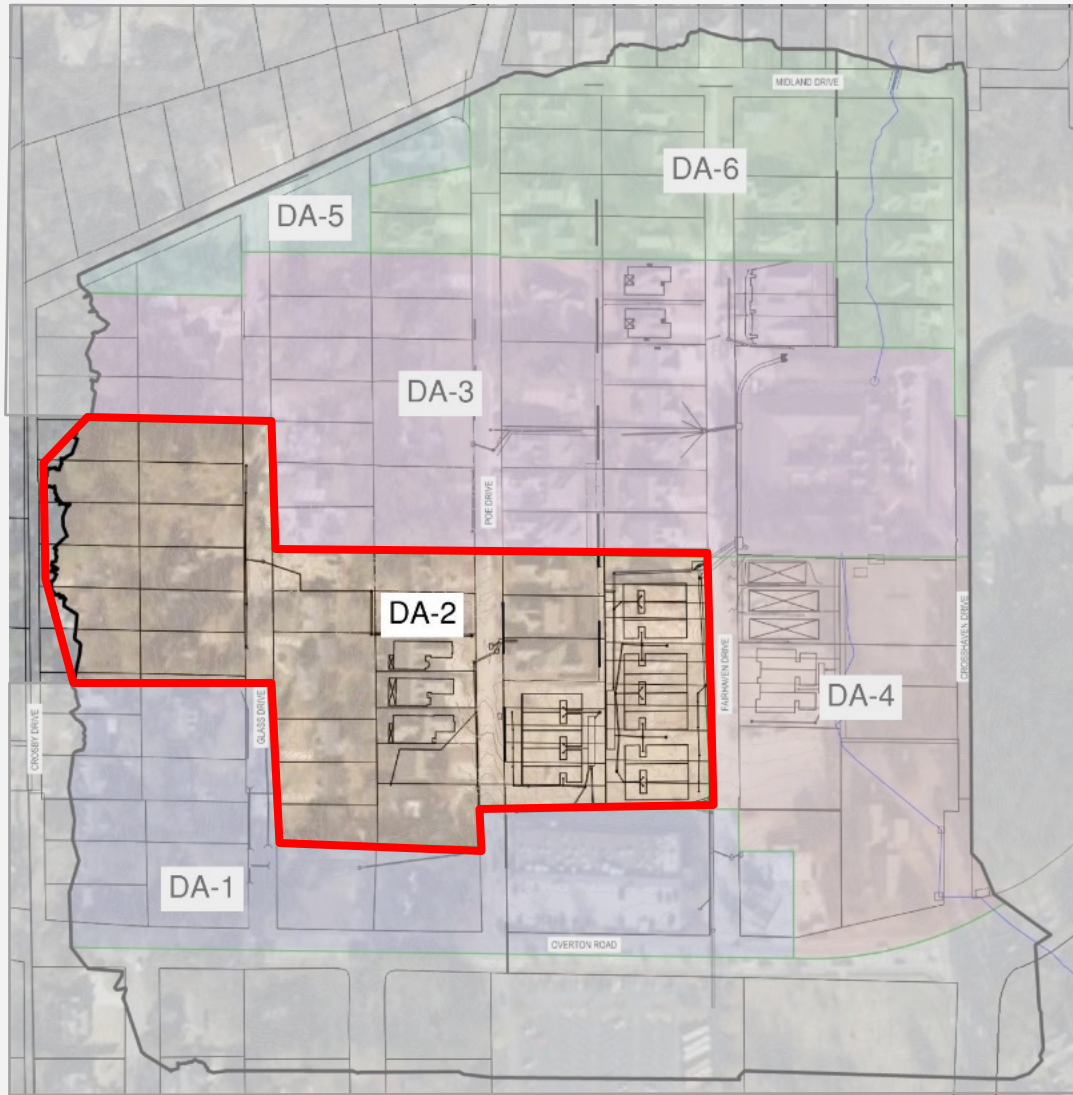
Recommendations within Drainage Area 1:

- Short Range: (City of Vestavia)
 - Inspect and clean pipes along Glass Drive
 - Clean and regrade Grass swales/ditches within ROW
- Long Range: (City of Mountain Brook)
 - Pipe D-1 should be replaced with a 24" pipe.
 - Pipe B-2 should be replaced with an 18" pipe.
 - Additional design effort should be performed on the existing detention pond.

DRAINAGE AREA 2



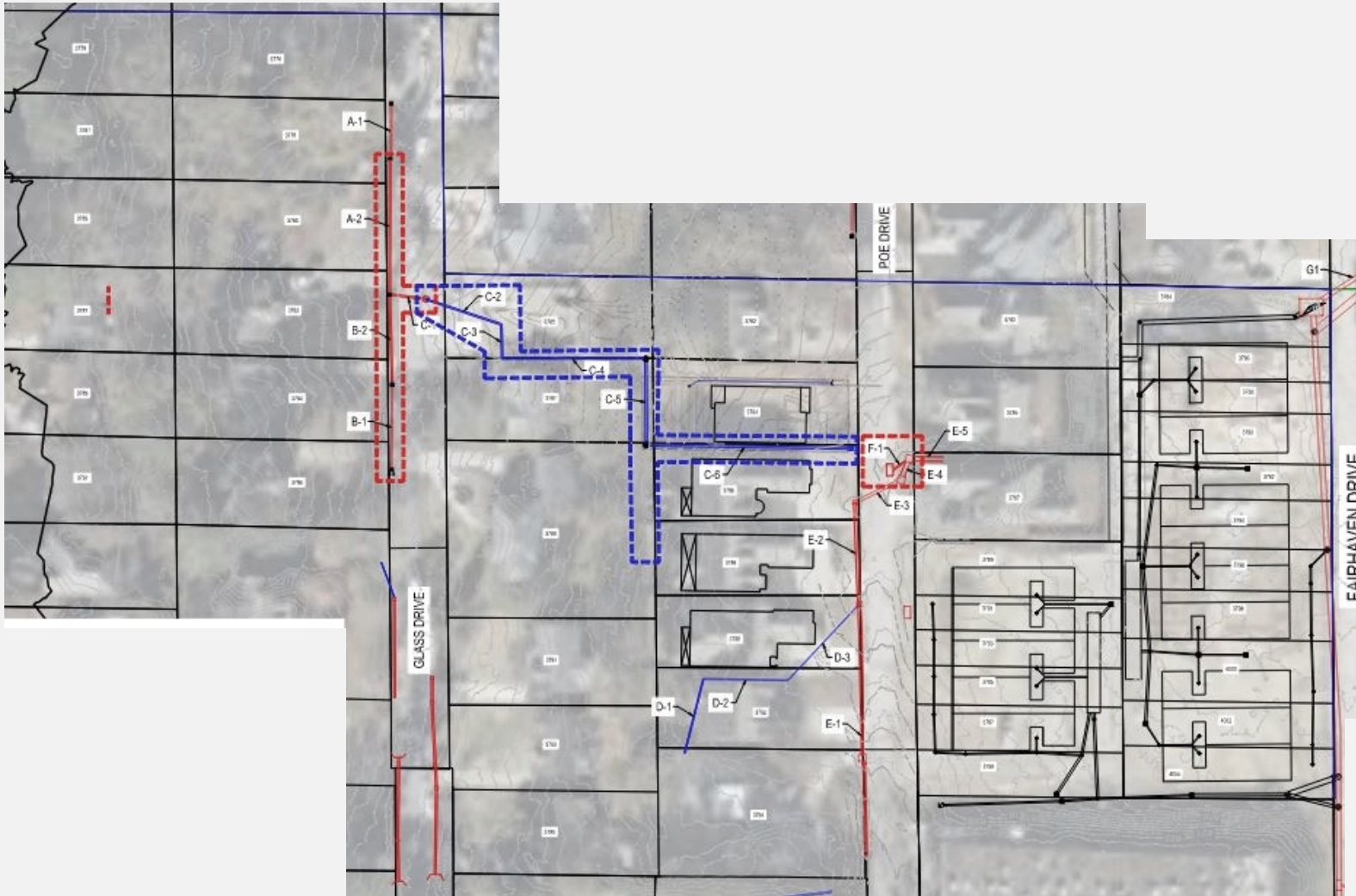
DRAINAGE AREA 2



Summary of Concerns:

- Overgrown grass swales and ditches
- Clogged pipes
- Undersized pipes
- Unknown outfall location of pipes

DRAINAGE AREA 2



Concerns within Drainage Area 2:

- Existing pipes within ROW not being appropriately sized
- Unknown pipe sizing of infrastructure running from 3785 Glass Drive to 3786 Poe Drive
- Unknown outlet pipe of inlet 7C
- Pipe F-1 not appropriately sized
- Unknown outfall location of pipe E-5 that runs between 3785 Poe Drive and 3787 Poe Drive

DRAINAGE AREA 2: PIPE C-7 AND B-1



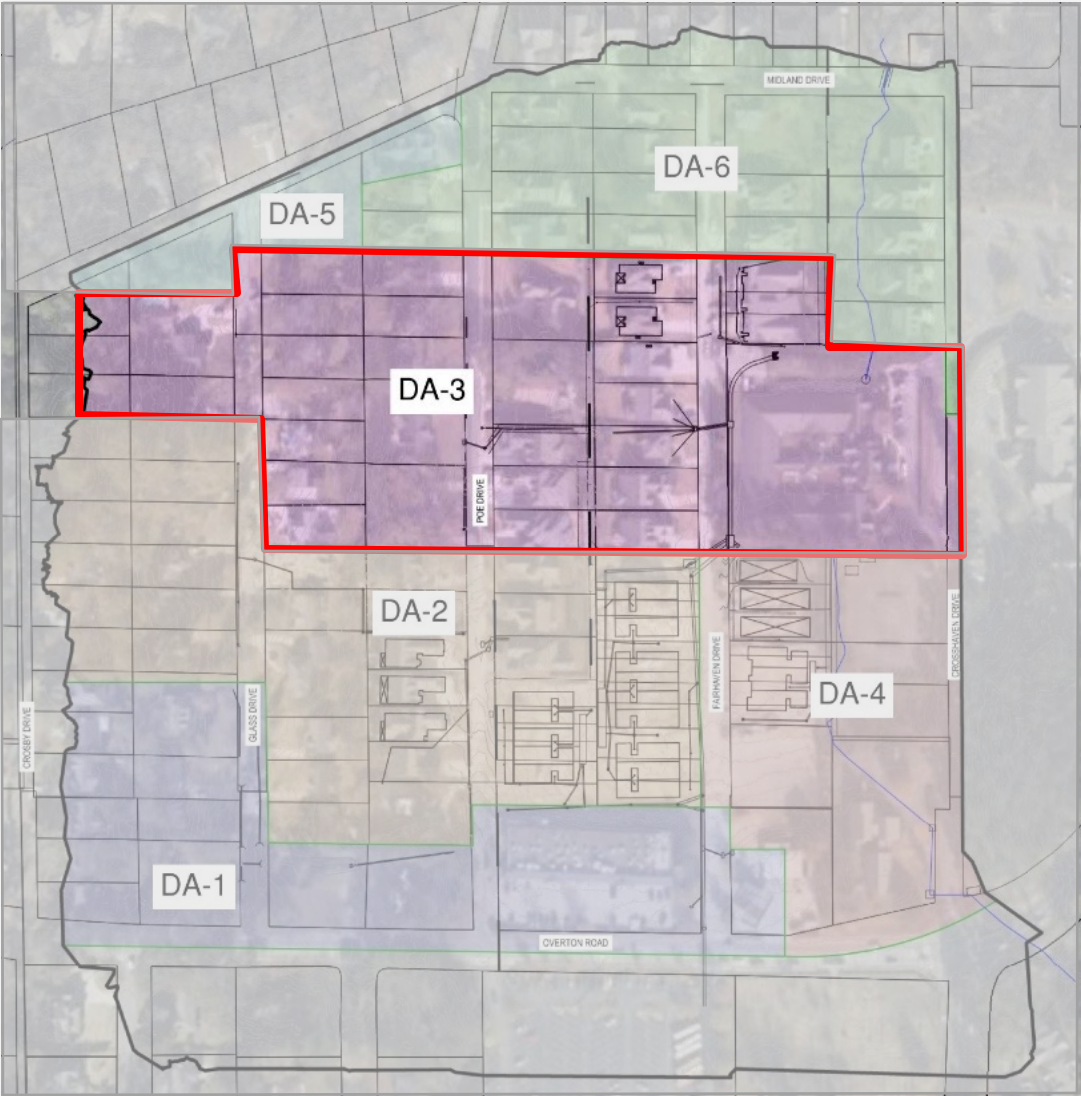
DRAINAGE AREA 2



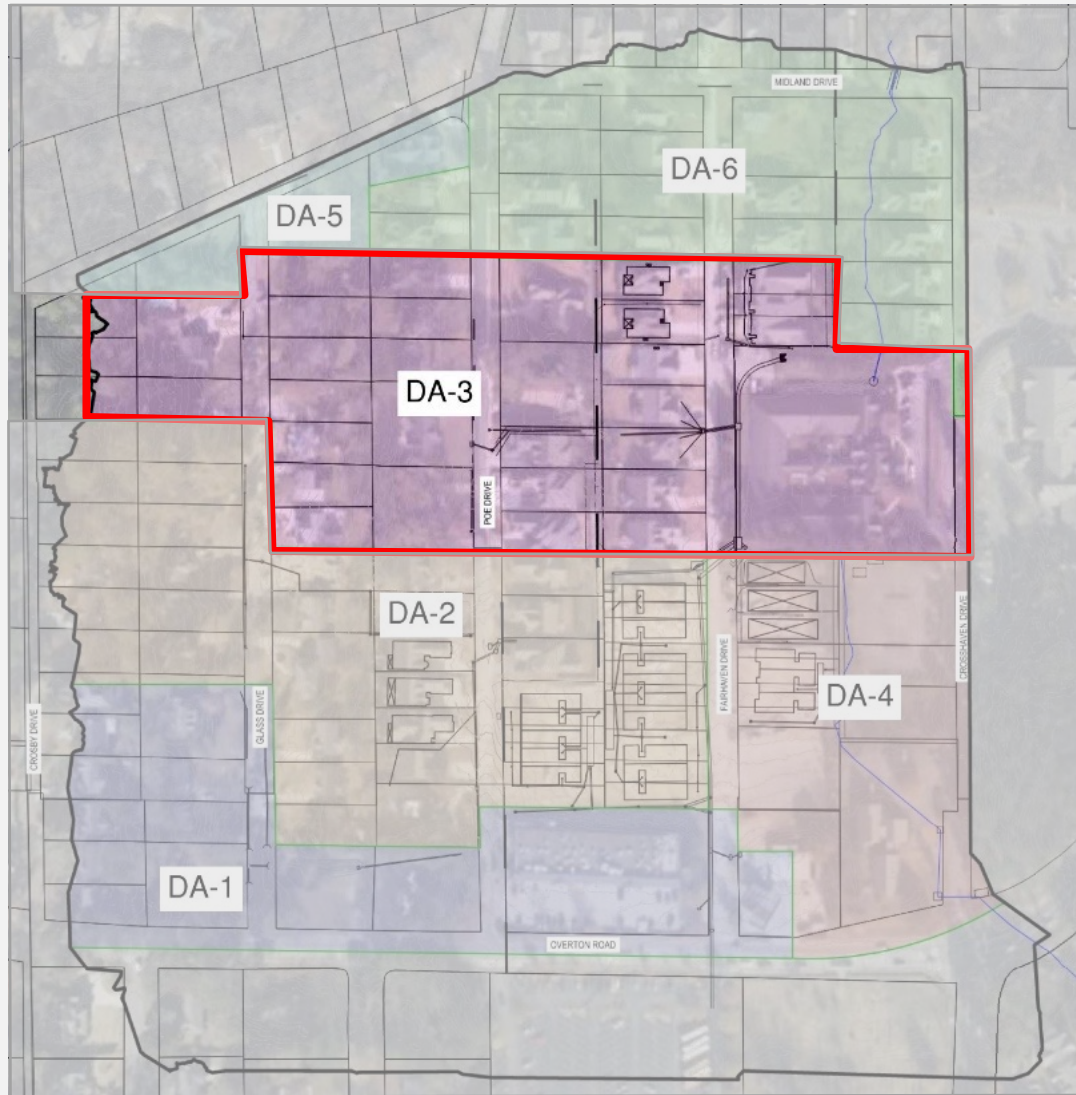
Recommendations within Drainage Area 2:

- Short Range:
 - Inspect and clean pipes along Glass Drive
- Long Range:
 - Survey pipe infrastructure and replace all storm pipe that does not meet the required design size.
 - Verify that inlet 7C does not have an outlet pipe. Install 24" pipe from inlet 7C to junction structure at 3787 Poe Drive.
 - Determine outfall location of 36" pipe (E-5) that runs between 3785 Poe Drive and 3787 Poe Drive through survey or video efforts.

DRAINAGE AREA 3



DRAINAGE AREA 3



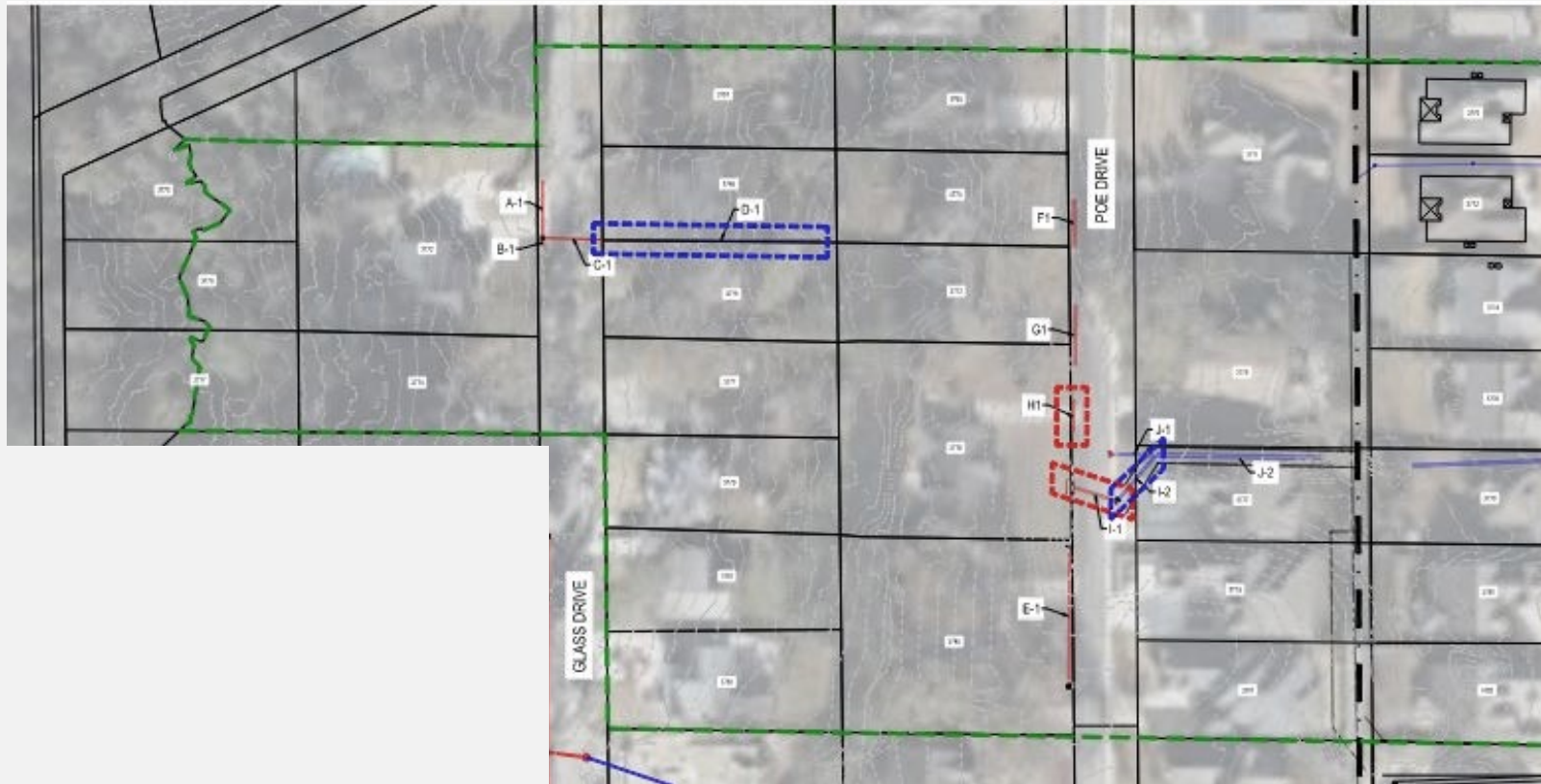
Summary of Concerns:

- Clogged pipes
- Undersized pipes
- Junction of multiple pipes on Fairhaven

DRAINAGE AREA 3A

Concerns within Drainage Area 3A:

- Existing grass swales/ditches and appropriately sized pipes within ROW
- Pipe D-1 that travels west to east underneath Glass Drive
- Pipe H-1 underneath the driveway of 3776 Poe Drive
- Pipes I-1 and I-2 underneath Poe Drive and into 3777 Poe Drive



DRAINAGE AREA 3A: POE DRIVE



DRAINAGE AREA 3A

Recommendations within Drainage Area 3A:

- Short Range:
 - Inspect and clean pipes along Glass and Poe Drive
 - Determine size and outfall of pipe D-1
- Long Range:
 - Pipe H-1 should be replaced with an 18" pipe.
 - Pipes I-1 and I-2 should be replaced to 24" pipes.



DRAINAGE AREA 3B



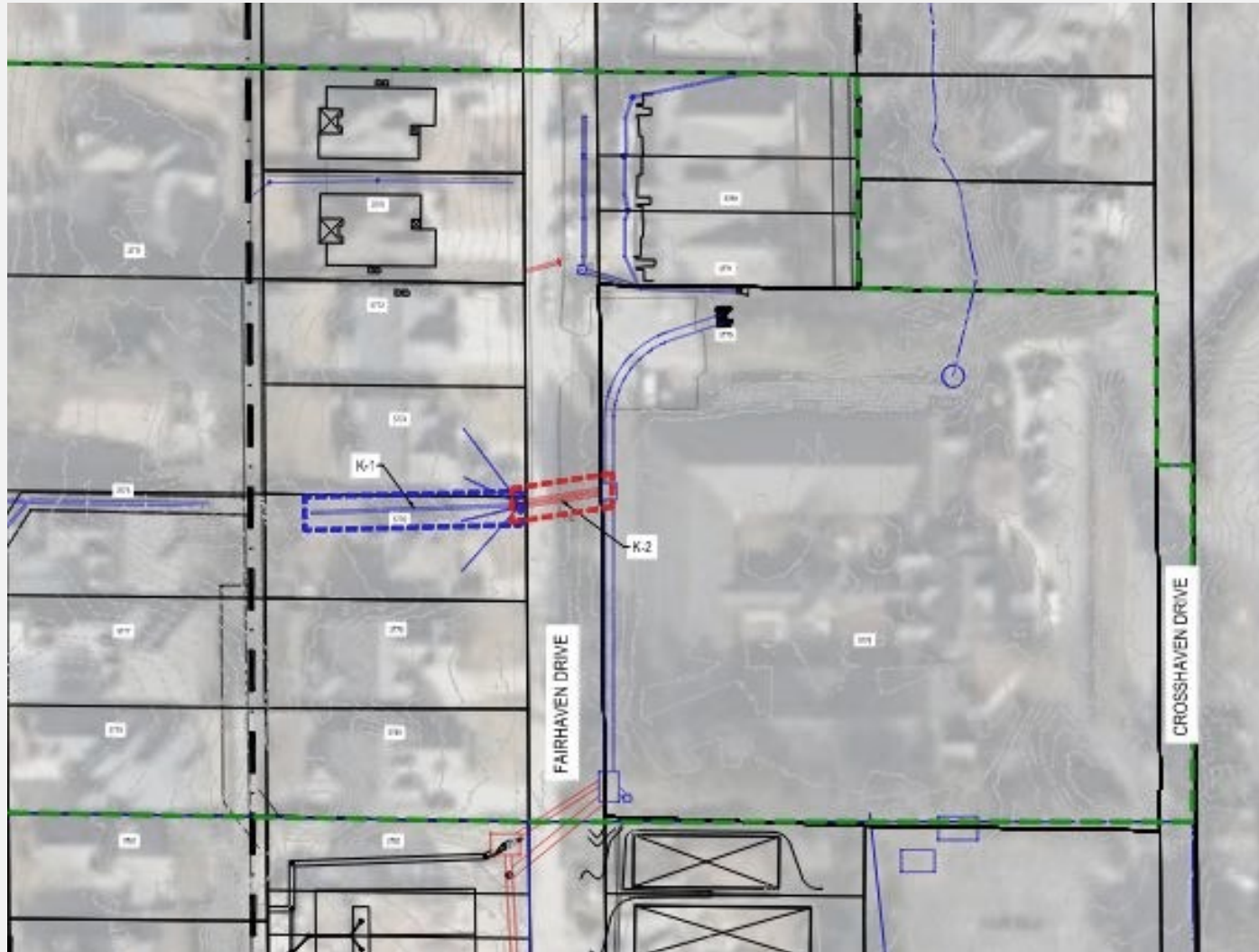
Concerns within Drainage Area 3A:

- Two pipes discharging from the junction at 3776 Fairhaven Drive and 3778 Fairhaven Drive
- The junction at 3776 Fairhaven Drive and 3778 Fairhaven Drive
- Pipe K-1 that begins in the rear yard of 3776 Fairhaven Drive

DRAINAGE AREA 3B: FAIRHAVEN



DRAINAGE AREA 3B



Recommendations within Drainage Area 3B:

- Short Range:
 - The two 18” pipes discharging from the junction at 3776 Fairhaven Drive and 3778 Fairhaven Drive should be cleaned and investigated. After additional investigation, a more clear design decision can be made to mitigate the drainage issues around these two outlet pipes.
 - The junction at 3776 Fairhaven Drive and 3778 Fairhaven Drive is eroding and should be replaced with a structure.
- Long Range:
 - The existing 18” pipe (K-1) that begins in the rear yard of 3776 Fairhaven Drive but should be replaced with a 24” pipe.

QUESTIONS?



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