

**DETENTION**  
This site will provide detention, as shown, to limit developed peak flow rates to be equal to or less than existing peak runoff rates. Flow rates are preliminary and will be finalized as part of the Final Drainage Plan. This site is planned to discharge into the Bristol Hollows reserve and will over-excavate and create a wet surface pond in said reserve. The wet surface pond will provide detention and water quality for both this site as well as Bristol Hollows.

**FEMA**  
No Mapped FEMA Floodplain within site boundaries as of this date.

**GRADING**  
All lots will be graded with a minimum 1% rear cross lot drainage and a minimum 0.3% street slope. A minimum of 2' to the lowest opening will be maintained around the proposed ponds. A Preliminary Grading Plan will be developed as part of the Final Drainage Plan.

**STORMWATER SEWER**  
A preliminary storm water sewer collection system has been sized and laid out, as shown. The final storm water system will be sized for the at least the 5-year peak storm event as part of the Final Drainage Plan. Emergency overflow elevation will be provided around structures as part of the Preliminary and Final Grading Plan(s).

**WATER QUALITY**  
Water quality will be achieved within the pond surface(s).

DISCHARGE POINT	
EXISTING	DEVELOPED
AREA = 7.3 ACRES	AREA = 6.3 ACRES
CN = 79	CN = 90
Tc = 28 MIN	Tc = 15 MIN
Q <sub>2</sub> = 10 CFS	Q <sub>2</sub> = 18 CFS
Q <sub>5</sub> = 15 CFS	Q <sub>5</sub> = 24 CFS
Q <sub>10</sub> = 20 CFS	Q <sub>10</sub> = 29 CFS
Q <sub>25</sub> = 28 CFS	Q <sub>25</sub> = 37 CFS
Q <sub>100</sub> = 38 CFS	Q <sub>100</sub> = 49 CFS

DEVELOPED PEAK FLOWS WILL BE DETAINED IN THE RE-WORKED BRISTOL HOLLOW'S POND, AS SHOWN

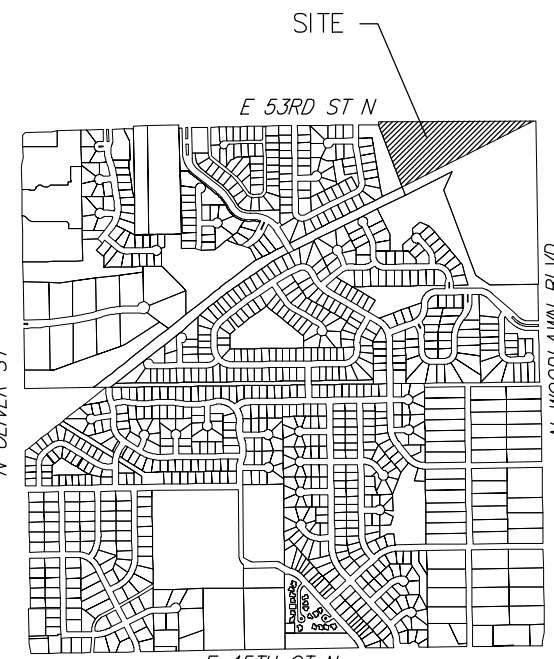
DISCHARGE POINT	
EXISTING	DEVELOPED
AREA = 7.2 ACRES	AREA = 7.0 ACRES
VARIABLES	VARIABLES
Q <sub>2</sub> = 9.3 CFS	Q <sub>2</sub> = 15 CFS
Q <sub>5</sub> = 14 CFS	Q <sub>5</sub> = 21 CFS
Q <sub>10</sub> = 18 CFS	Q <sub>10</sub> = 26 CFS
Q <sub>25</sub> = 24 CFS	Q <sub>25</sub> = 34 CFS
Q <sub>100</sub> = 35 CFS	Q <sub>100</sub> = 47 CFS

VARIES DUE TO ROUTING  
ON-SITE CN = 83  
Tc = 24 min

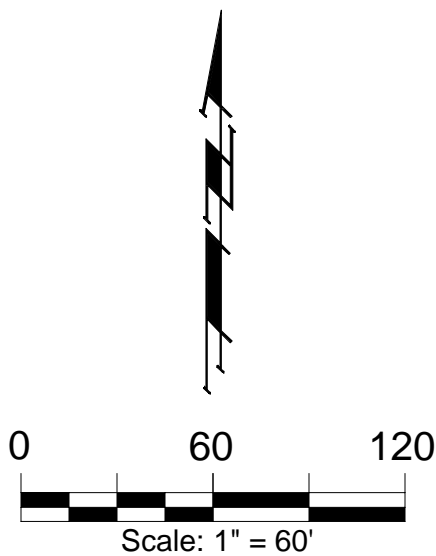
VARIES DUE TO ROUTING  
ON-SITE CN = 96  
Tc = 15 min

DEVELOPED PEAK FLOWS ARE DEVELOPED ON-SITE PLUS THE OFFSITE TO THE SOUTH. THE DEVELOPED FLOWS WILL BE REDUCED TO AT LEAST THE EXISTING CONDITIONS IN THE PROPOSED POND

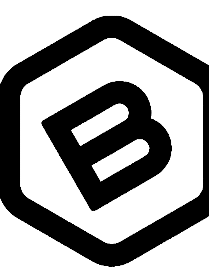
OFFSITE RUNOFF	
EXISTING	
AREA = 3.8 ACRES	
CN = 73	
Tc = 27 MIN	
Q <sub>2</sub> = 3.7 CFS	
Q <sub>5</sub> = 5.9 CFS	
Q <sub>10</sub> = 8.0 CFS	
Q <sub>25</sub> = 11 CFS	
Q <sub>100</sub> = 17 CFS	



VICINITY MAP  
SEC. 24, T26S, R2E



**PRELIMINARY PLAN. NOT FOR CONSTRUCTION.**  
This document is preliminary in nature and is not a final, signed and sealed document.



**BAUGHMAN COMPANY**

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CHAPEL LANDING  
7TH ADDITION

**DRAINAGE  
CONCEPT**

PROJECT NUMBER:

DESIGN: TRK DRAWN: TRK

DATE: 28 August 2023

SHEET  
1 OF 1