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Spring 4-13-2020

### **Butte High School Storm Water Rehabilitation**

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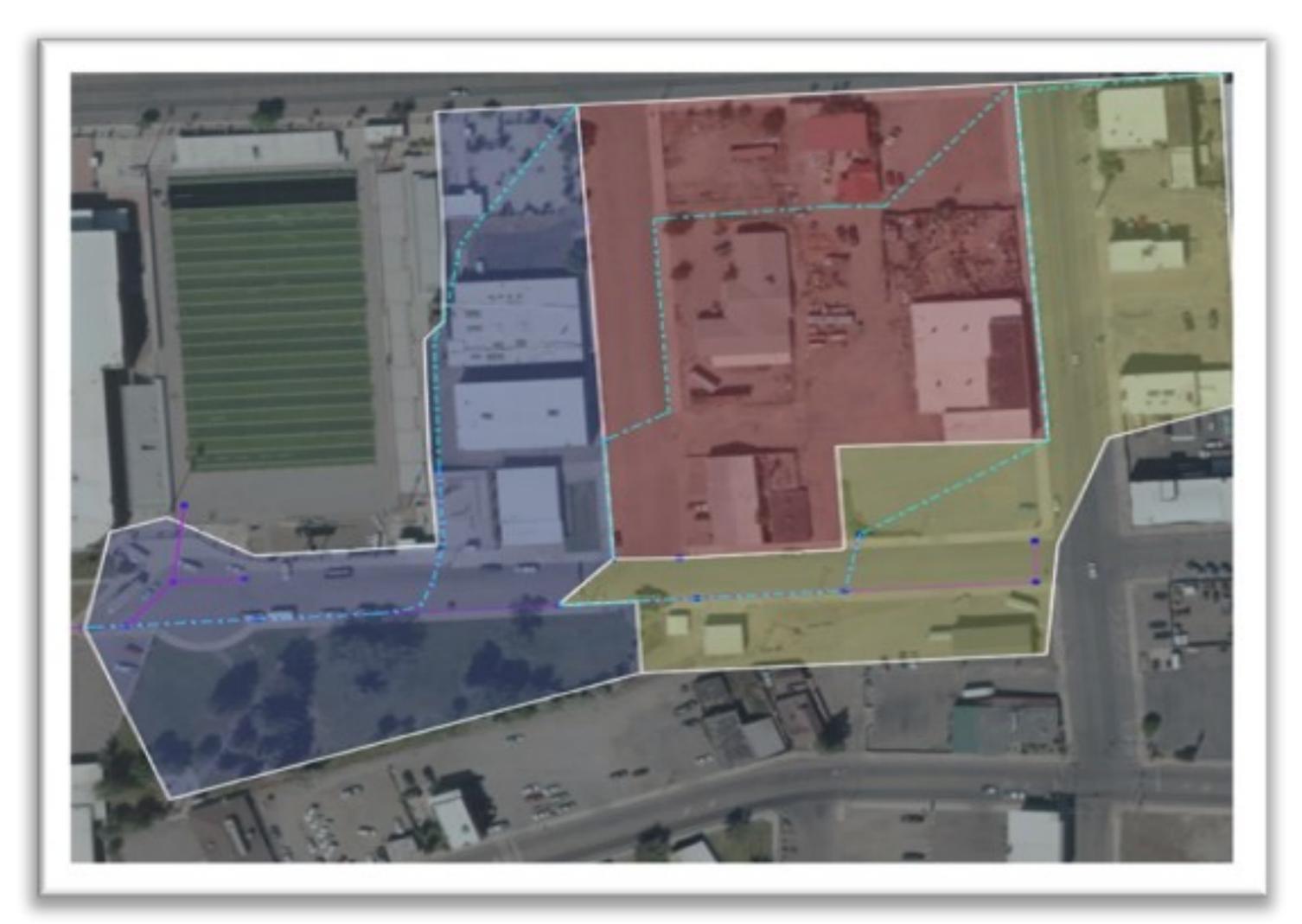
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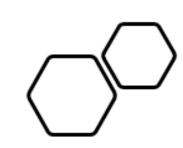
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authors	
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## THE OBJECTIVE

Improve the storm drainage system around BHS.



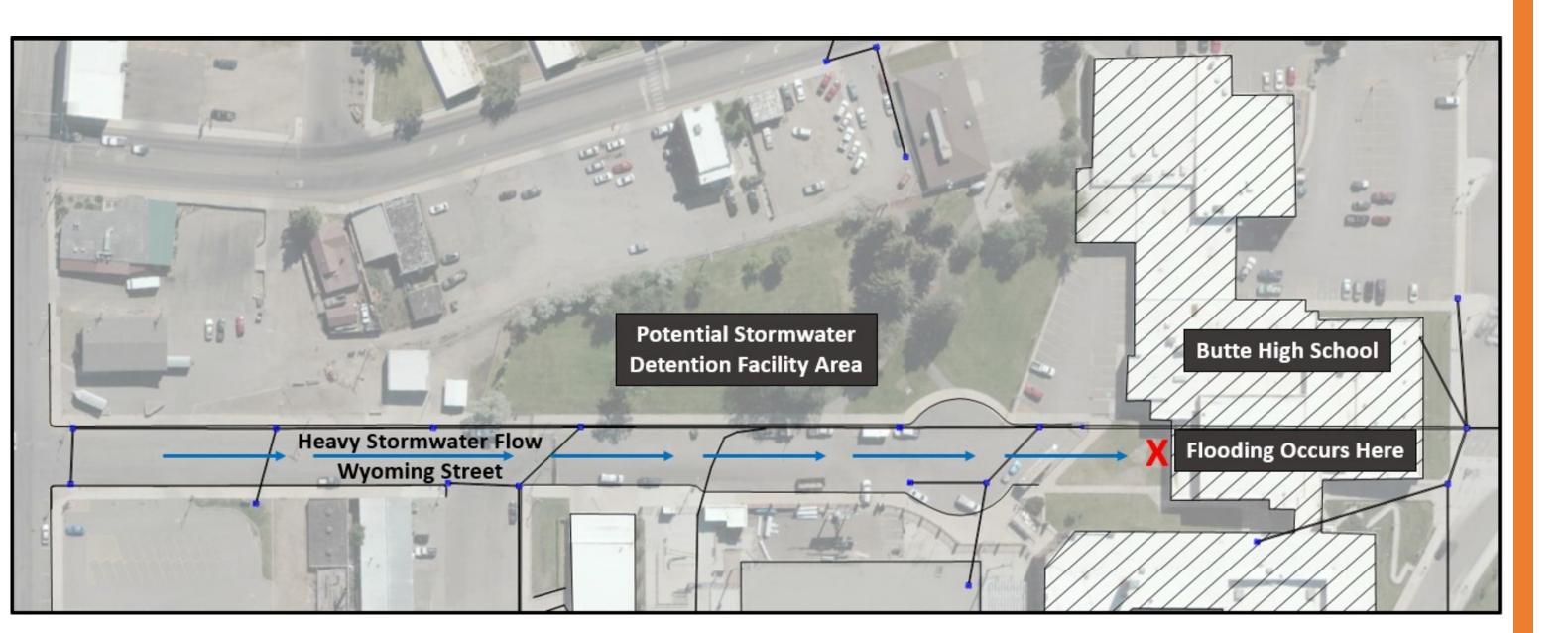


Heavy storm events lead to manhole surcharges and flooding inside BHS

Ineffective inlet placing allows water to flow into the school

Redesign the storm drain system on Wyoming Street

Design a stormwater detention facility to relieve overwhelmed pipes



## MontanaTech

Senior Design: Spring Semester

# Butte High School Storm Water Rehabilitation

### **Project Team Members:**

Brady Cheeney
Rob Cromwell
Dylan Pannabecker
Reese Spears
Doug Tamcke

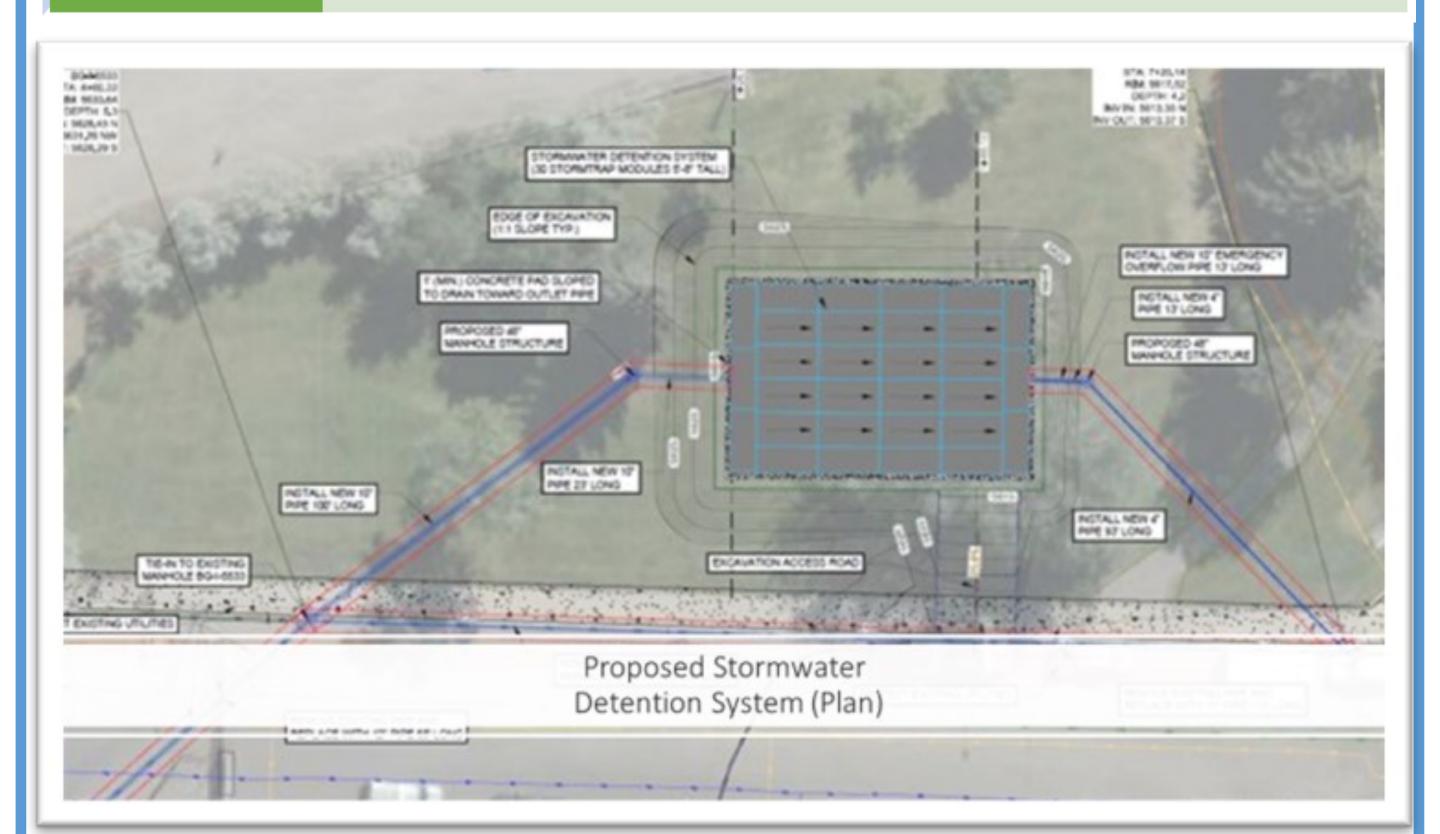
TJ Thomas
Clyde Thompson

Marie Waldbillig Bryce Williams

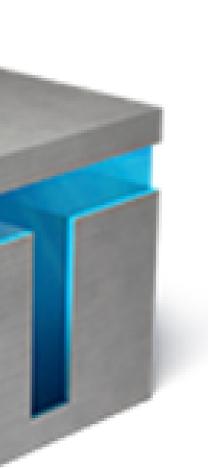
Bryo

## THE OPPORTUNITY

Improve	Improve the storm drainage system around BHS.
Design	Design a storm water retention system.
Accommodate	Accommodate 100-year 24-hour rain event volumes.
Prevent	Prevent flooding of BHS during heavy rain events.
Be	Be able to drain detention system within 24-hours of a rain event ending.
Sacrifice	Not sacrifice any current green space.



No More Flooding



## THE SOLUTION

# Storm Trap®

MODULAR CONCRETE
STORMWATER MANAGEMENT

StormTrap is an Underground Storage System

Modular Design Increases Versatility



### The Proposed System Will:

- Accommodate a 100-year 24-hour rain even.
- Prevent the Flooding of Butte High School.
- Detain Approximately 18,250 c.f. of Stormwater to Prevent Surcharging Downstream.

Summary of Project Costs						
Category	Sub Totals	Project Budget				
Labor & Equip	\$ 18,101.76	\$250	0,000.00			
Excavating	\$70,663.25					
Piping	\$4,244.94					
Structures	\$126,690.00					
Asphalt	\$1,417.78					
		<b>Total Cost</b>	\$221,117.72			

**Project Estimated Cost** 

\$221,117.72