

# Mystic Street Trench Project

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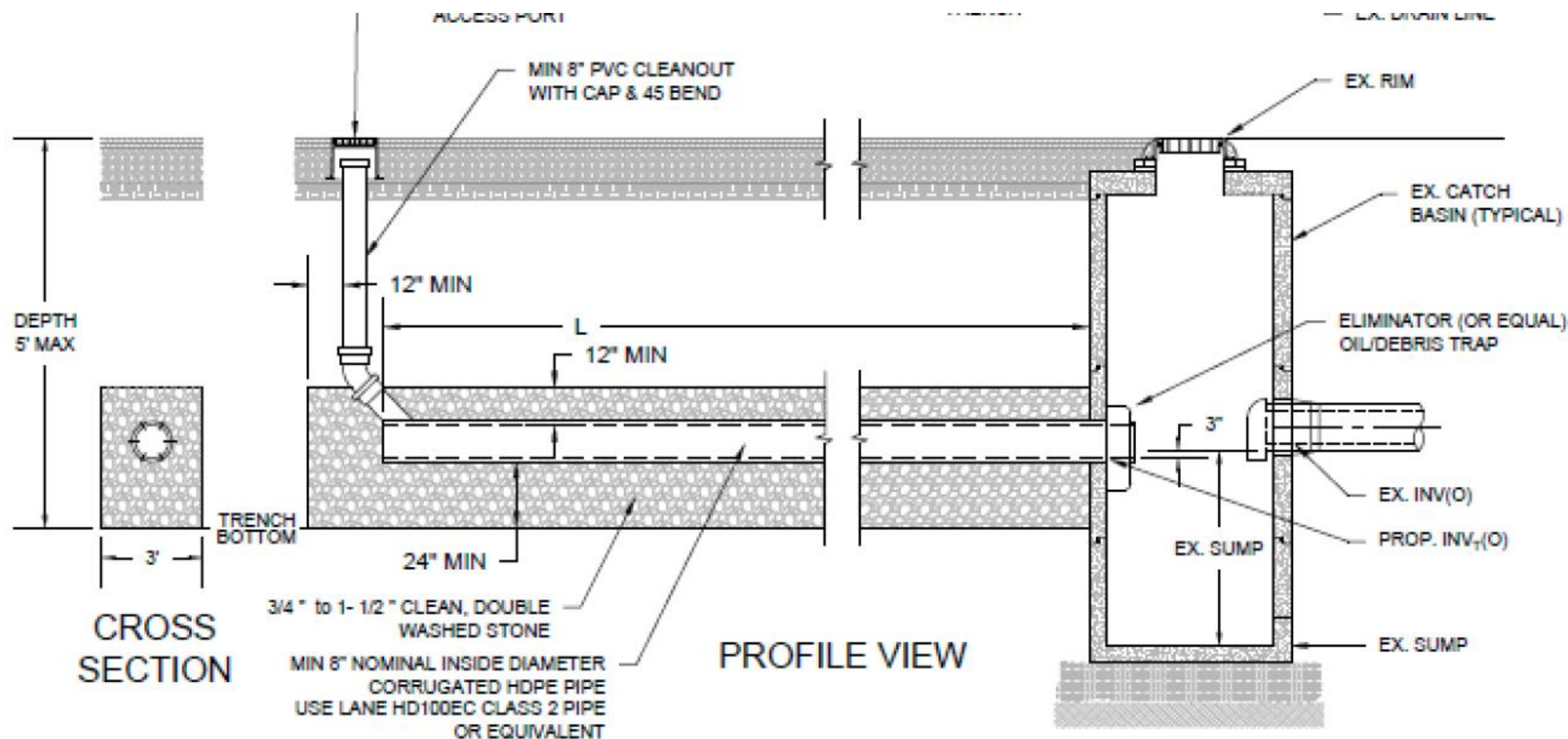
Mystic River Watershed Association

Mystic Steering Committee

December 3, 2020

# Small scale (but Mighty): Infiltration Trenches





# STANDARD PIPE TRENCH INFILTRATION SYSTEM

MODIFIED BY UNHSC, MAY 2019

MAR 2019

NOT TO SCALE

REVISION

①

D-0014

# Quantifying Benefits

Output	<i>Water Quality Volume</i>	Water Quality Volume	WQV	cf
		Water Quality Volume (Philadelphia method)	WQV <sub>p</sub>	cf
	<i>Design Storage Volume</i>	Design Storage Volume	DSV	cf
	<i>Performance curve results</i>	Infiltration Rate	IR	in/hr
		BMP Capacity: Depth of Runoff from Impervious Area	PSC	in
		Runoff Volume Reduction	Volume	-
		Phosphorus Load Reduction	TP	-
		Nitrogen Load Reduction	TN	-
		Cumulative TSS Load Reduction	TSS	-
		Cumulative Zinc Load Reduction	TZn	-
	<i>Nutrient loading</i>	P - Pre-BMP export	P <sub>Pre</sub>	lb/yr
		P - Post-BMP export	P <sub>Post</sub>	lb/yr
		N - Pre-BMP export	N <sub>Pre</sub>	lb/yr
		N - Post-BMP export	N <sub>Post</sub>	lb/yr
		TSS - Pre-BMP export	TSS <sub>Pre</sub>	lb/yr
		TSS - Post-BMP export	TSS <sub>Post</sub>	lb/yr
	<i>BMP Performance</i>	P Reduction	P <sub>Red</sub>	lb/yr
		N Reduction	N <sub>Red</sub>	lb/yr
		TSS Reduction	TSS <sub>Red</sub>	lb/yr
		Volume Reduction (By infiltration)	Vol <sub>Red</sub>	cf





2019

2021

2022

2022 and beyond

**Taking a  
pilot  
project to  
scale**

360  
trenches

Arlington

Arlington  
Lexington

Arlington  
Medford  
Winchester

Everett  
Lexington

Reading  
Medford

Woburn  
Arlington

Cambridge  
Melrose

# Mystic Street Trench Project

- \$720,000+ in grant funding (CZM, 319, 604b)
- 9+ municipalities
- 100+ built, 2019-2022
- 250+ shovel-ready by 2022