

BACKGROUND

There are 2,485 linear feet of 30-inch diameter sewer trunkline located south of the Hewlett Packard Campus in Boise, ID that has severe Hydrogen Sulfide (H₂S) corrosion and is at risk of collapsing. Additionally, there are currently 7 manholes located in residential backyards that are not accessible by the pump truck for maintenance.

OBJECTIVES

- Reroute damaged trunkline and abandon manholes located on private property
- Design multi-use pathway for maintenance access
- Adhere to local and national standards when designing

TRUNKLINE

Flow Conditions :

- 2.9 MGD from the west
- 3.6 MGD from the east
- 6.2 MGD to the north

Standards:

- 10 States Standards for Wastewater Facilities
- Department of Environmental Quality – Wastewater Rules

Cleaning Schedule:

- Increase maintenance schedule due to flow velocities that could lead to sludge build-up

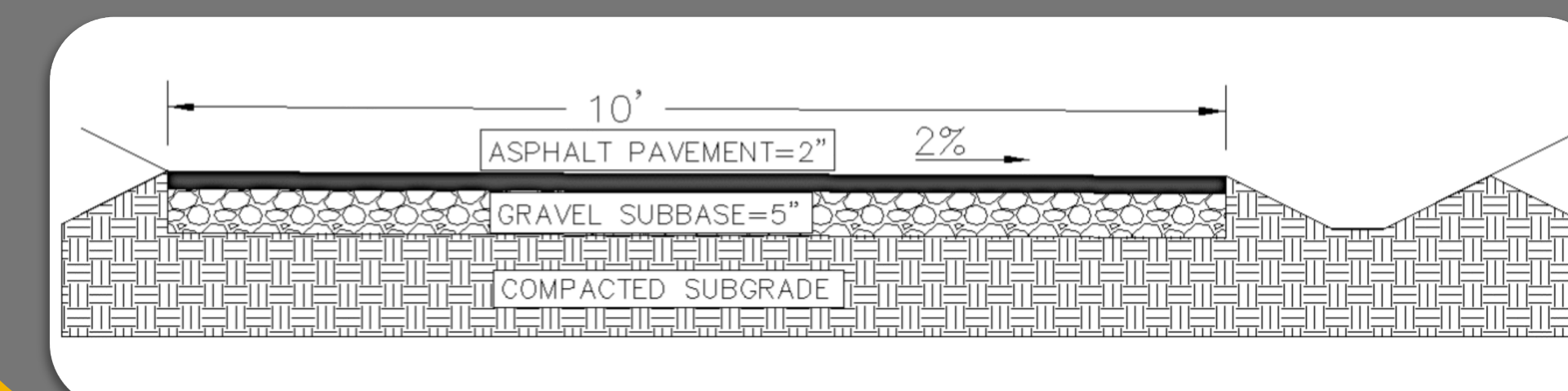
PATHWAY DESIGN

Pavement Design:

- Freightliner 114SD Sewer Truck 3+ times per year (92,000 lbs. GVW)
- 2430 ESALs over 15-year period
- Hot Mix Asphalt surface course
- Idaho Transportation Department minimum standards

Pathway:

- Recommended 2% side slope leading into a drainage ditch



LEGEND

- = Pathway
- = Rerouted Pipe
- = Damaged Pipe
- = Undamaged Pipe
- = New Manholes
- = Damaged Manholes
- = Undamaged Manholes

CONSTRUCTION

Cut and Fill Quantities:

- Cut: 796 yds.³
- Fill: 744 yds.³
- Excess: 25 yds.³

Recommendations:

- Slurry backfill existing pipe
- Temporary runoff basins with sewer truck access
- Trench boxes for deep trench excavations
- Construction should take place June-October

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