



## Lateral Ownership: Pros and Cons



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## Role of Laterals

Pipe that carries wastewater from a home's plumbing to the public sewer

Over 76 million sewer laterals in the USA

~3.8 billion feet of lateral piping

>50% of collection piping located in residential areas

Most service laterals are owned and maintained by the property owner.

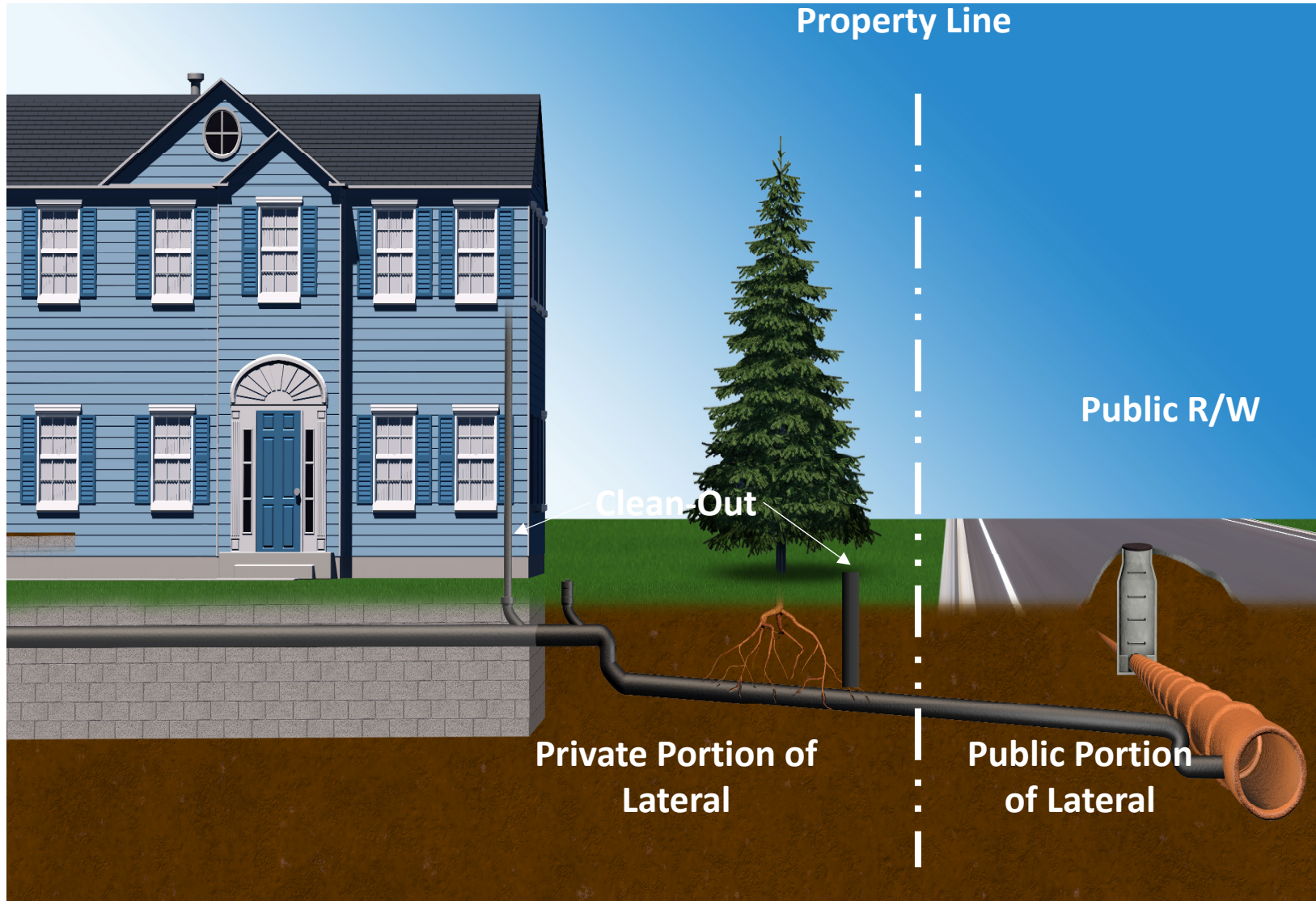






# UNDERGROUND CONSTRUCTION TECHNOLOGY

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## Private: Property Owner

- Repair when clogged drain, sewage backup
- Ordinances for inspection/repair at sale or major remodel to property

## Public: Municipality

- Consent decree compliance, SSO remediation, eliminate cost associated with treatment of non-wastewater flow
- Comprehensive rehabilitation program



## Challenges of Ownership

1. Political Will
2. Costs
3. Equipment
4. Access







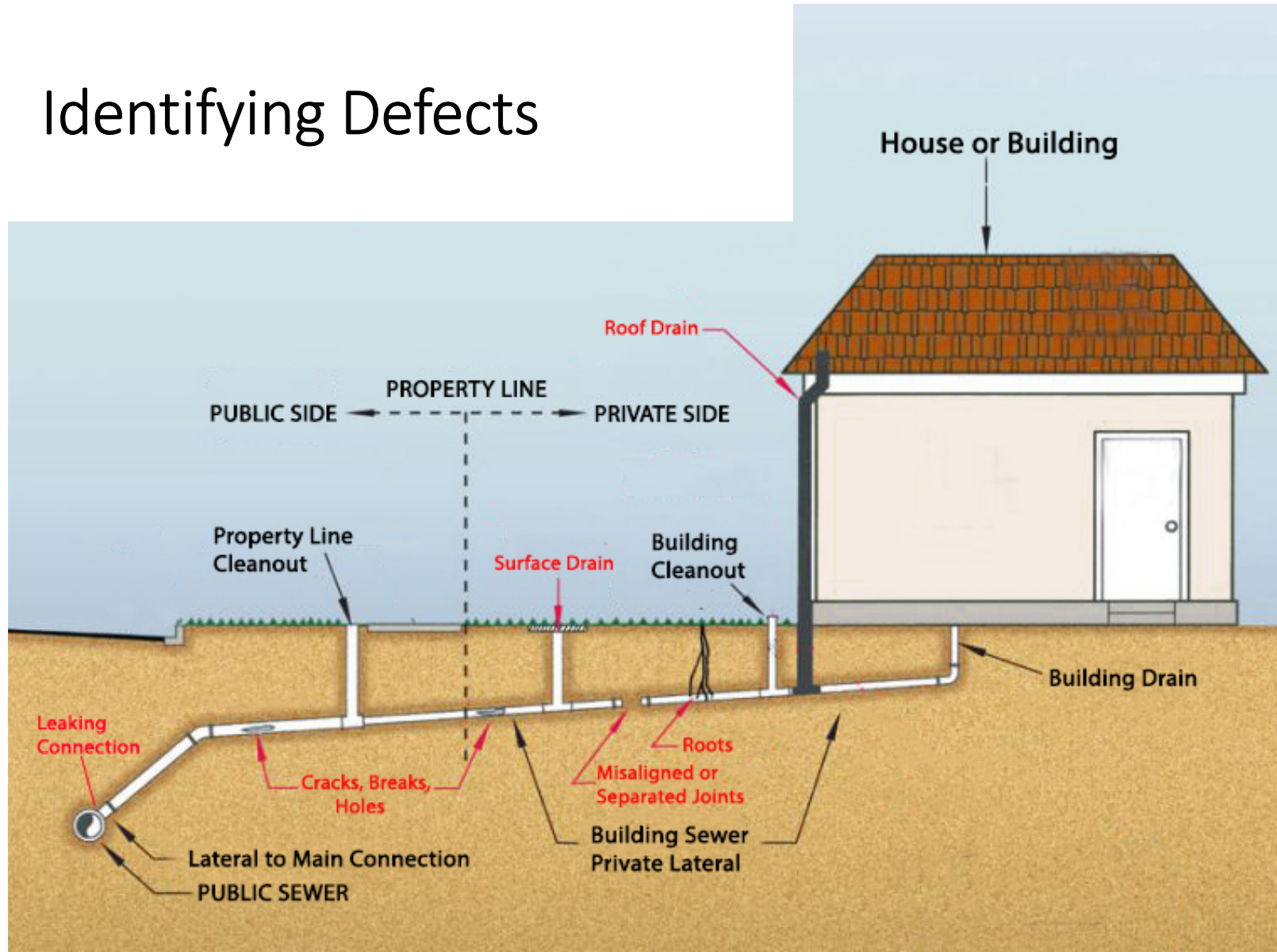
## Economic Benefit

- Reduction in treatment costs resulting from removal of unwanted flow
- Volume discounts for services and materials
- Regulatory compliance
- Funding





## Identifying Defects

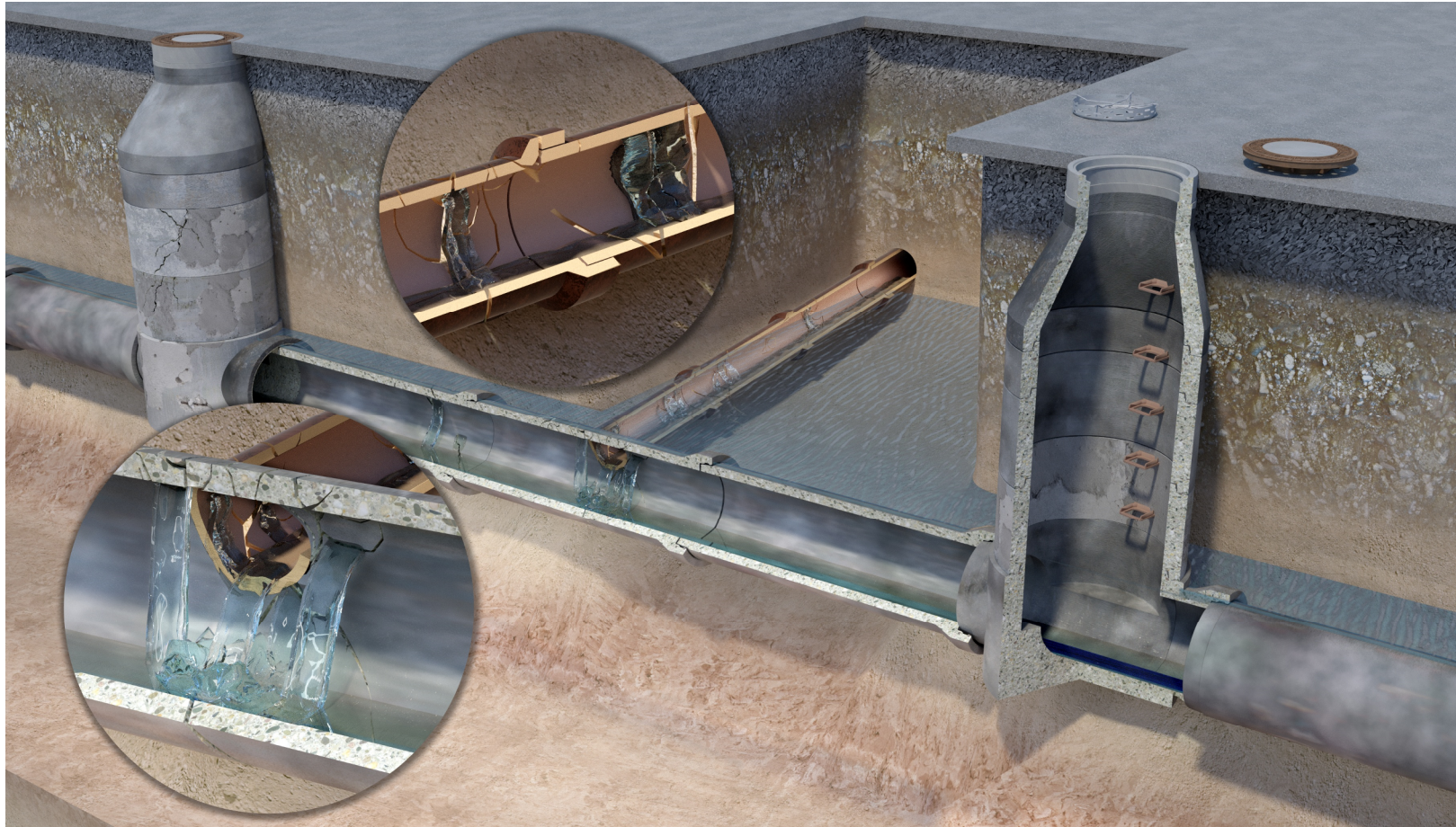


- Standardization of inspection practices consistent with utility
- Inspection to identify illegal connections and defects
- Proactive and efficient planning for maintenance and repairs





## Eliminate Unwanted Flow



- Standardization of practices and materials
- Compatible materials connecting to sewer main
- Cost efficiencies with volume





## Regulatory Compliance and Funding

- Removal of I/I from laterals can be greater than 50% of total system
- Consent decree response
- Federal and State funding assistance







## Private vs Public Cost

### PRIVATE

Average single home cost

Inspection: \$500 to \$1,000

Repair <10 ft: \$3,000 to \$6,000

Replacement ~50 ft: \$10,000 to \$20,000

### PUBLIC

Average public rehabilitation  
project unit cost

Inspection: \$200 to \$400

Repair <10 ft: \$2,000 to \$4,000

Rehabilitation ~50 ft: \$3,500 to \$7,500

**Reduction in treatment costs ultimately reflected in utility rates.**





## Social Benefit

- Cost savings for customers
- Controlled and timely construction
- Proactive maintenance reduces backups and obstructions







## Benefit to Private Owner

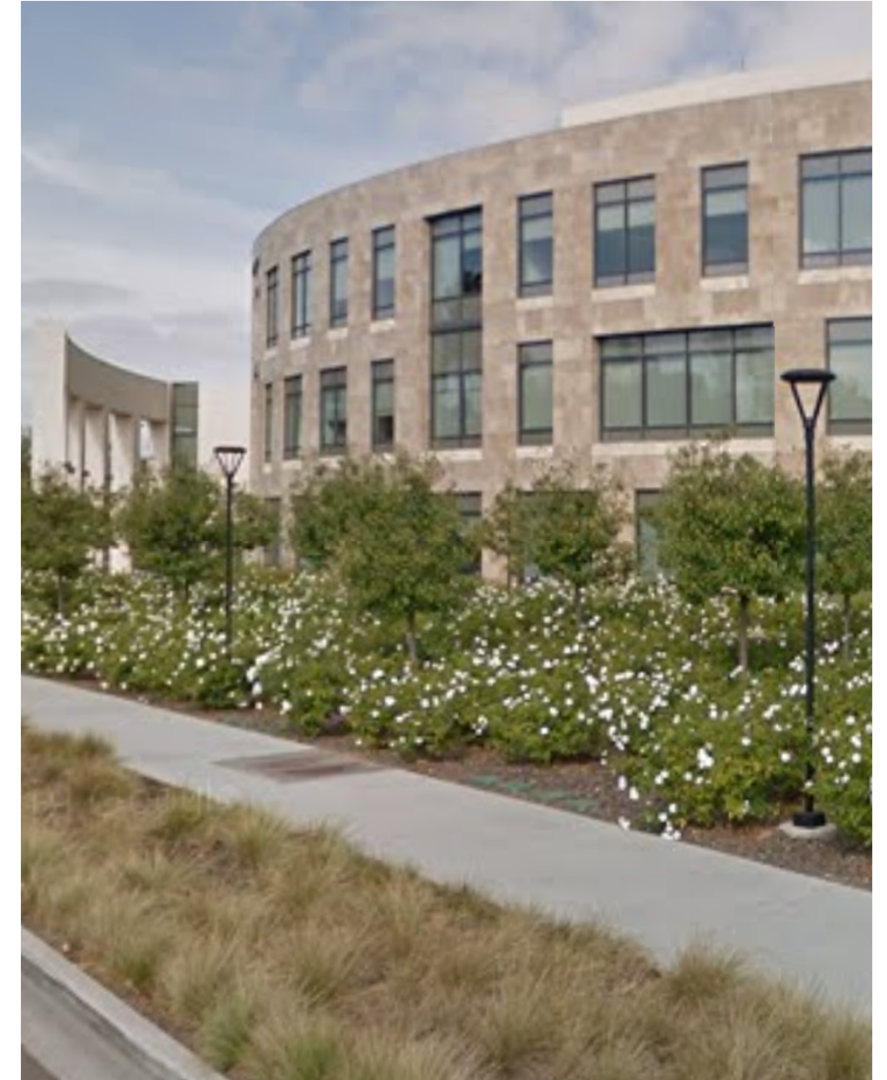
- Reduction in unforeseen events
  - Clogged drains from root intrusion or obstructions
  - Sewage backups
- Remove disruption and damage with repairs
  - Landscaping and driveway restoration
  - Buried utilities – cable, gas, water, irrigation
- Knowledgeable management
  - Engineering and utility management of inspection and repair
  - Allows laterals to remain 'out of sight and out of mind'





## Administrative Benefit

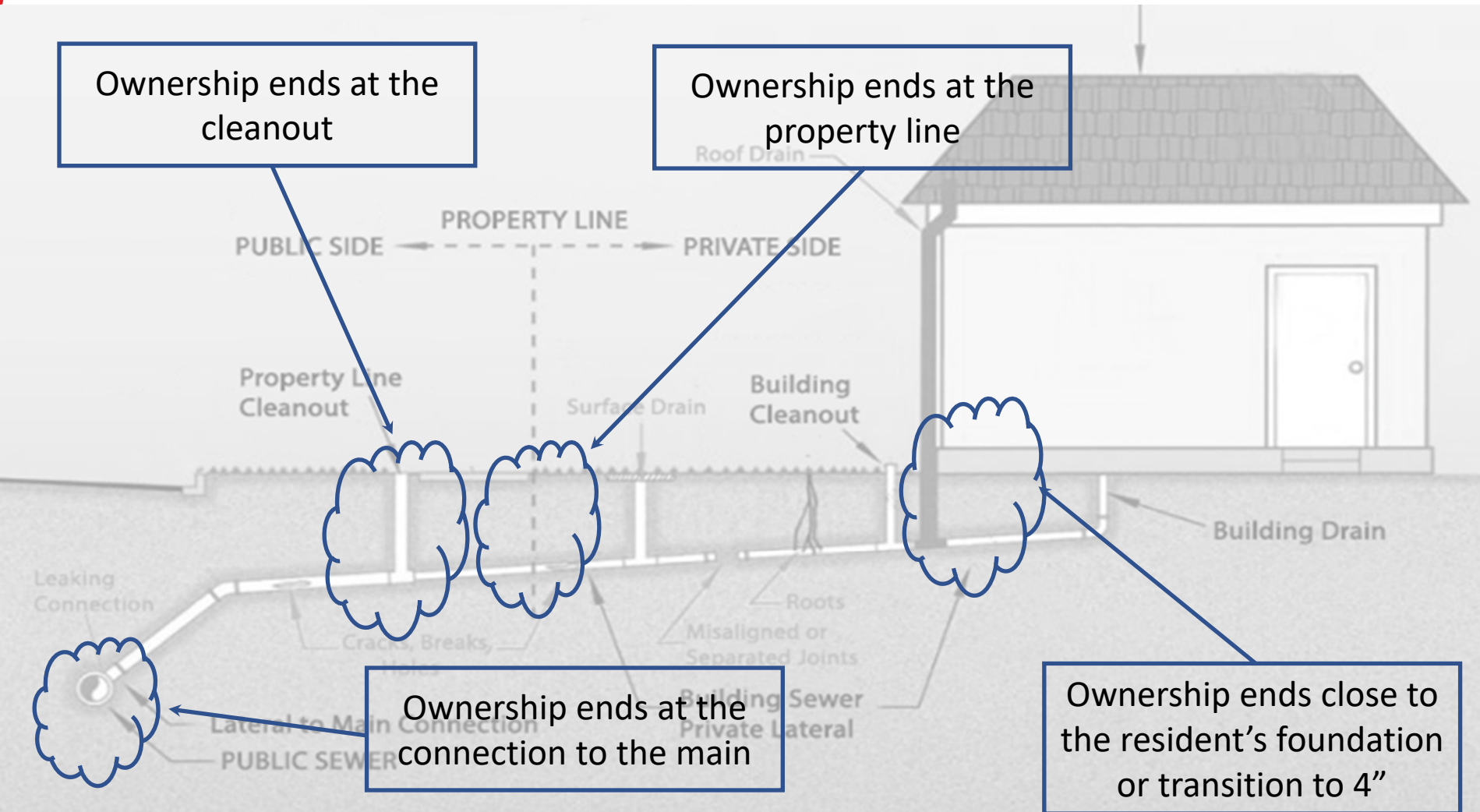
- Control Standardization of materials and methods
- Proactive inspection and maintenance program
- Regulatory compliance
- Reduction in disruption, damage and restoration of surface and adjacent buried infrastructure due to homeowner emergency repairs







## Rehabilitation Options: What role does ownership play in the decision?



Where does ownership end?

1. At the connection
2. At the clean out
3. At the R/W line
4. At the structure



## Rehabilitation Design

- Determine Rehabilitation Requirements to Meet Goals
- Lateral Ownership
- What Length of Lateral to Rehabilitate
- Cleanouts or No Cleanouts
- Investigate Laterals







## CCTV Inspection & Cleaning

- Active / Inactive
- LACP™ Condition Assessment
- Configuration & Location
- Allows Proper Recommendations for Rehabilitation or Replacement





## Lateral Replacement Options



- Structural Replacement
- Prevents Future Root Growth
- Watertight





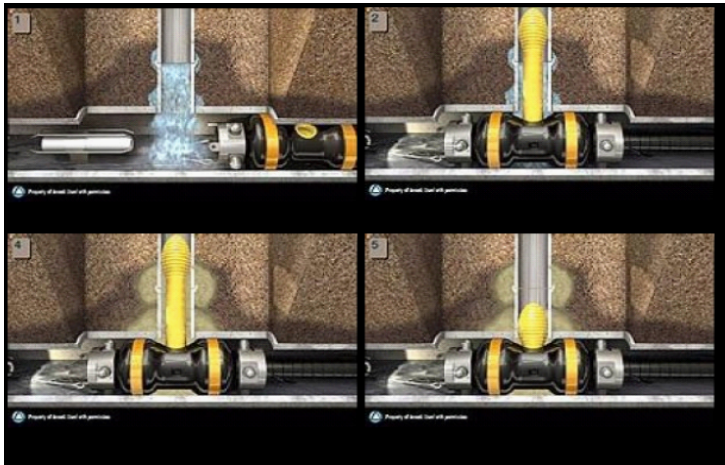
## Cost Implications: Replacement

- Diminishes the expected life of surrounding assets
- Social costs are much higher for replacement than for rehabilitation





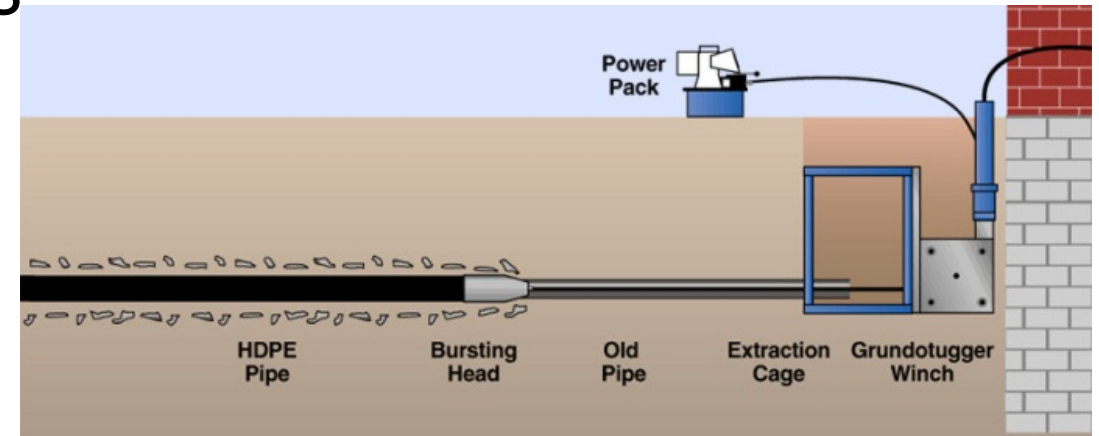
## Lateral Rehabilitation Options



Chemical Grouting



CIPP Lining



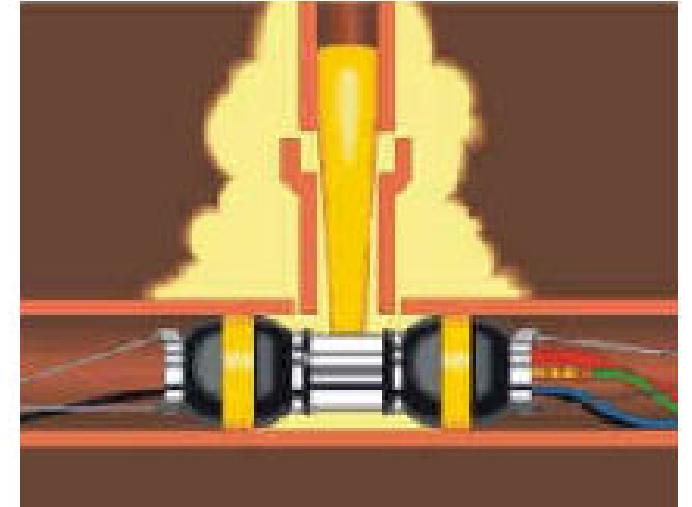
Pipe Bursting





## Connection to Main - Grouting

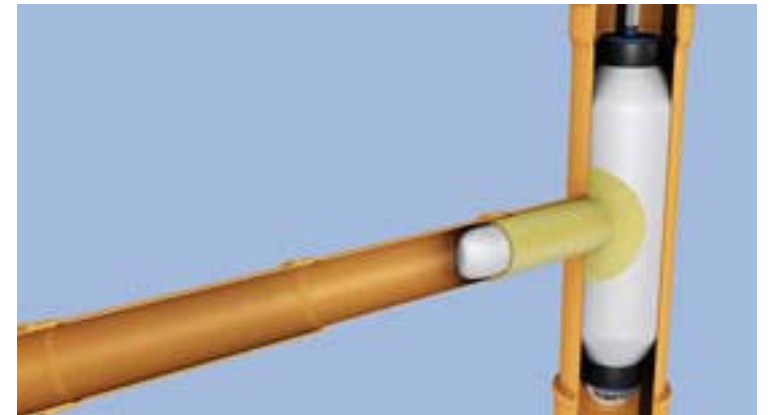
- 100% trenchless
- Quick to install
- Able to stop infiltration under active flow
- Can temporarily prevent roots
- Not a structural repair





## Connection to Main - CIPP Technology

- 100% trenchless
- Quick to install
- Reduces infiltration
- Prevents root intrusion
- Structural repair

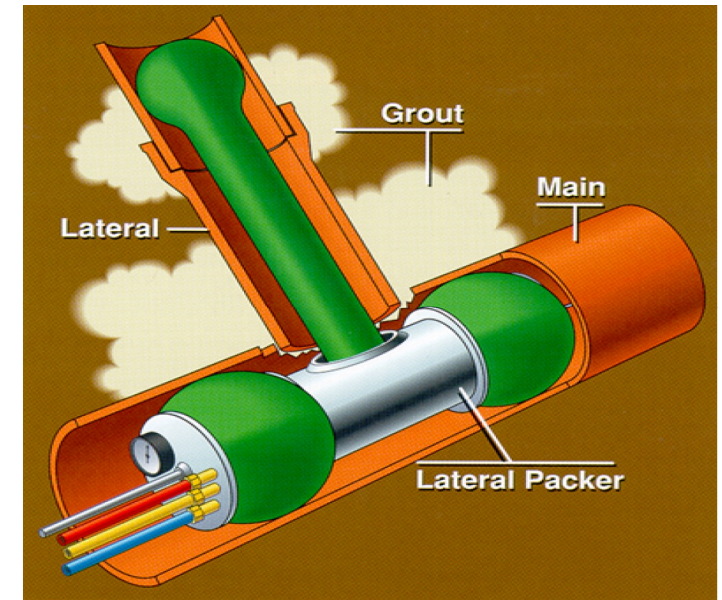
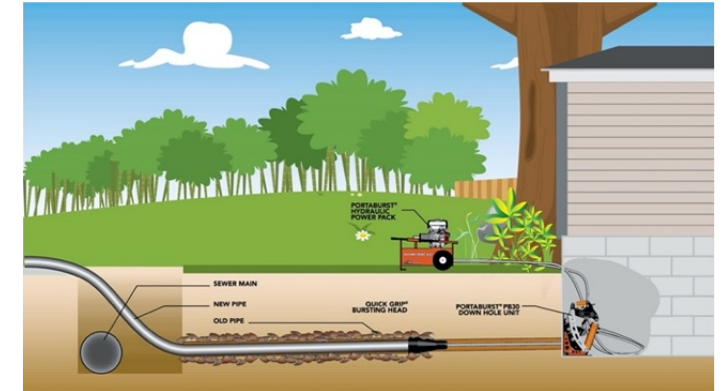
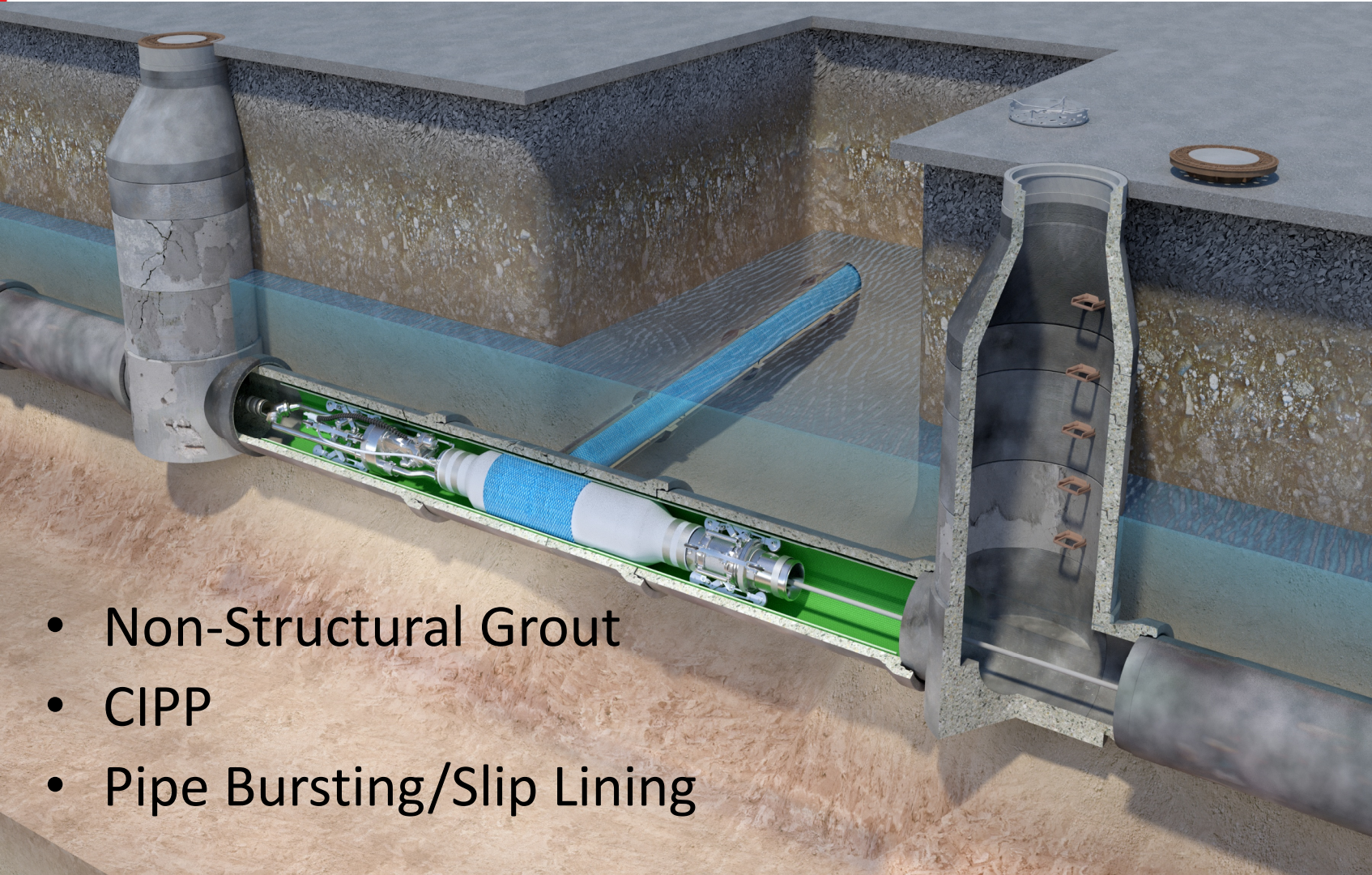






## Rehab Options for Longer Lateral Lengths

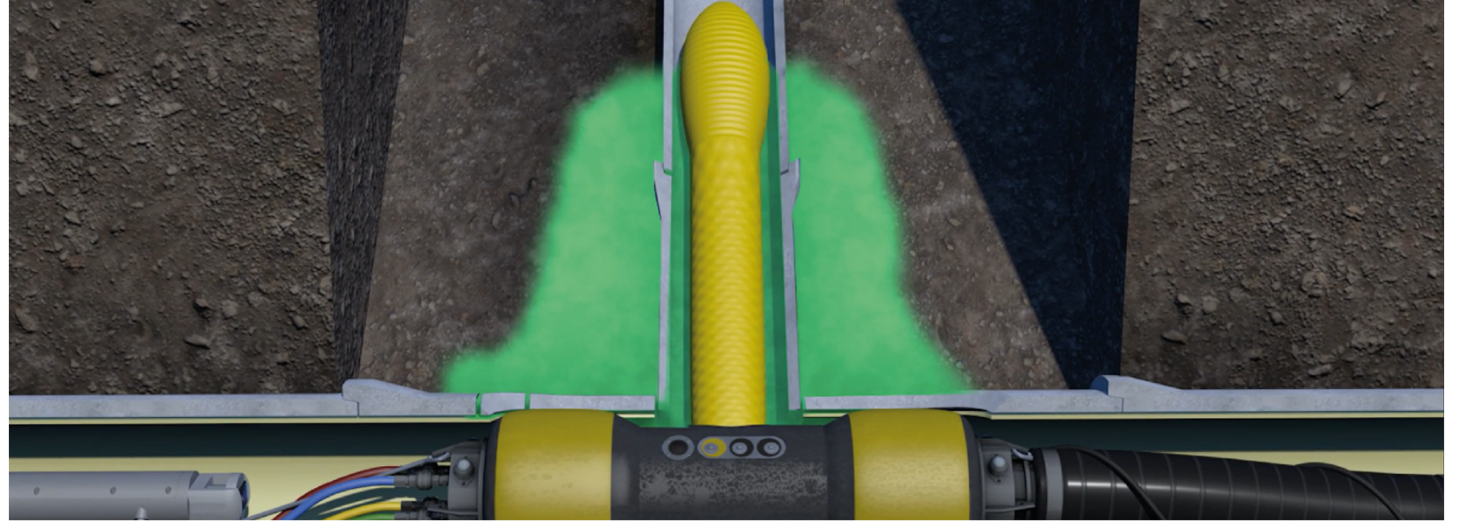
- Non-Structural Grout
- CIPP
- Pipe Bursting/Slip Lining







## Rehab Options for Longer Lateral Lengths



- Options without Cleanouts/Access Pits





## Cost Implications: Rehabilitation

- Typically, Less Expensive
- Less Disruption
- Less Time





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## Questions?







# Thank you.

For additional questions, please contact [TAC@NASSCO.org](mailto:TAC@NASSCO.org)

