

New Hampshire & Delaware Sanitary Sewer Project Summary

- Multiple Calls per Year for Backups
- Sewer Main Deteriorated – TV Inspection Not Possible
- Garages, Fencing, and Landscaping Over Sewer Main
- No Easements
- Multiple Neighborhood Meetings During Design
- Contracted with Plumber to Locate Services During Design
- Easement Acquisition
- Project Bid Two Times
- Sewer Backup 1 Week Prior to Contractor Mobilization
- May 2009 RFP Issue for Design
- May 2011 Substantial Completion of Construction

New Hampshire & Delaware Sanitary Sewer Project Summary

- **Methods of Construction**
 - Horizontal Directional Drilling
 - Pipe Reaming
 - Open Cut
- **Pipe Materials**
 - PVC
 - DIP
- **Service Connection (Typical)**
 - New Tap and 3' of New Service Lateral

New Hampshire & Delaware Sanitary Sewer Replacement Project Summary

1500 Block of New Hampshire Street

Total Project Length (ft)	597
Total Project Cost	\$ 300,039
Total cost per Lineal Foot	\$ 503

1100 Block of Delaware Street

Total Project Length (ft)	1,079
Total Project Cost	\$ 279,855
Total cost per Lineal Foot	\$ 259

Combined Totals

Total Project Length (ft)	1,676
Total Project Cost	\$ 579,894
Total cost per Lineal Foot	\$ 346



Replacement

New Hampshire Project Mobilization



City of Lawrence
UTILITIES

Cured In Place Pipe (CIPP) Sanitary Sewer Project Summary

- Use TV Inspection Program to Identify Sewer Mains for CIPP
- 28,826 linear feet identified for CIPP
- 15 Point Repairs Identified
- Completed Point Repairs Cost: \$59,868
- September 2010 Request CIPP Bid Date
- May 2011 Substantial Completion
- Completed Cost for 28,826 feet CIPP: \$601,518

Total CIPP/Point Repairs Project Cost: \$661,386

Cost per Foot: \$23



CIPP Mobilization

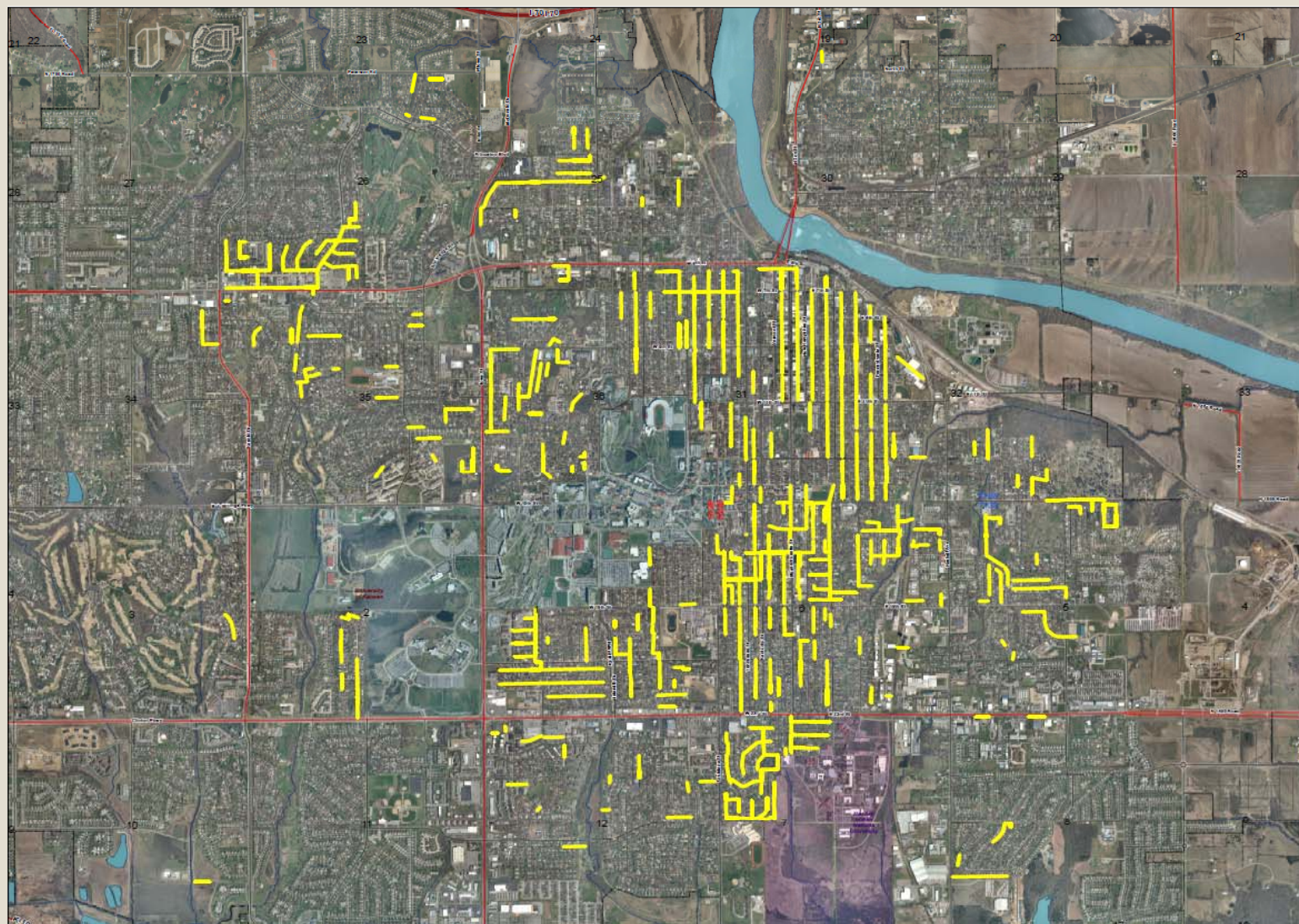
Project Time: 9 Months
Project Cost: \$661,386
Project Length: 28,826 feet
Cost/Foot: \$23

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Project Cost: \$661,386
Project Length: 28,826 feet
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Project Time: 24 Months
Project Cost: \$579,894
Project Length: 1,676 feet
Cost/Foot: \$346

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Project Cost: \$579,894
Project Length: 1,676 feet
Cost/Foot: \$346





Cured In Place Pipe by Year

Legend

CIPP
YEAR

Total Feet

1992	344
1995	454
1997	4,232
1998	1,971
1999	5,242
2000	5,354
2001	11,421
2002	13,563
2003	5,319
2004	14,117
2005	15,991
2006	17,094
2007	22,408
2008	46,204
2011	45,210

Total Feet: 208,932

Total feet of
Vitreous Clay Pipe: 938,121

0 950 1,900 3,800 Feet



DISCLAIMER NOTICE

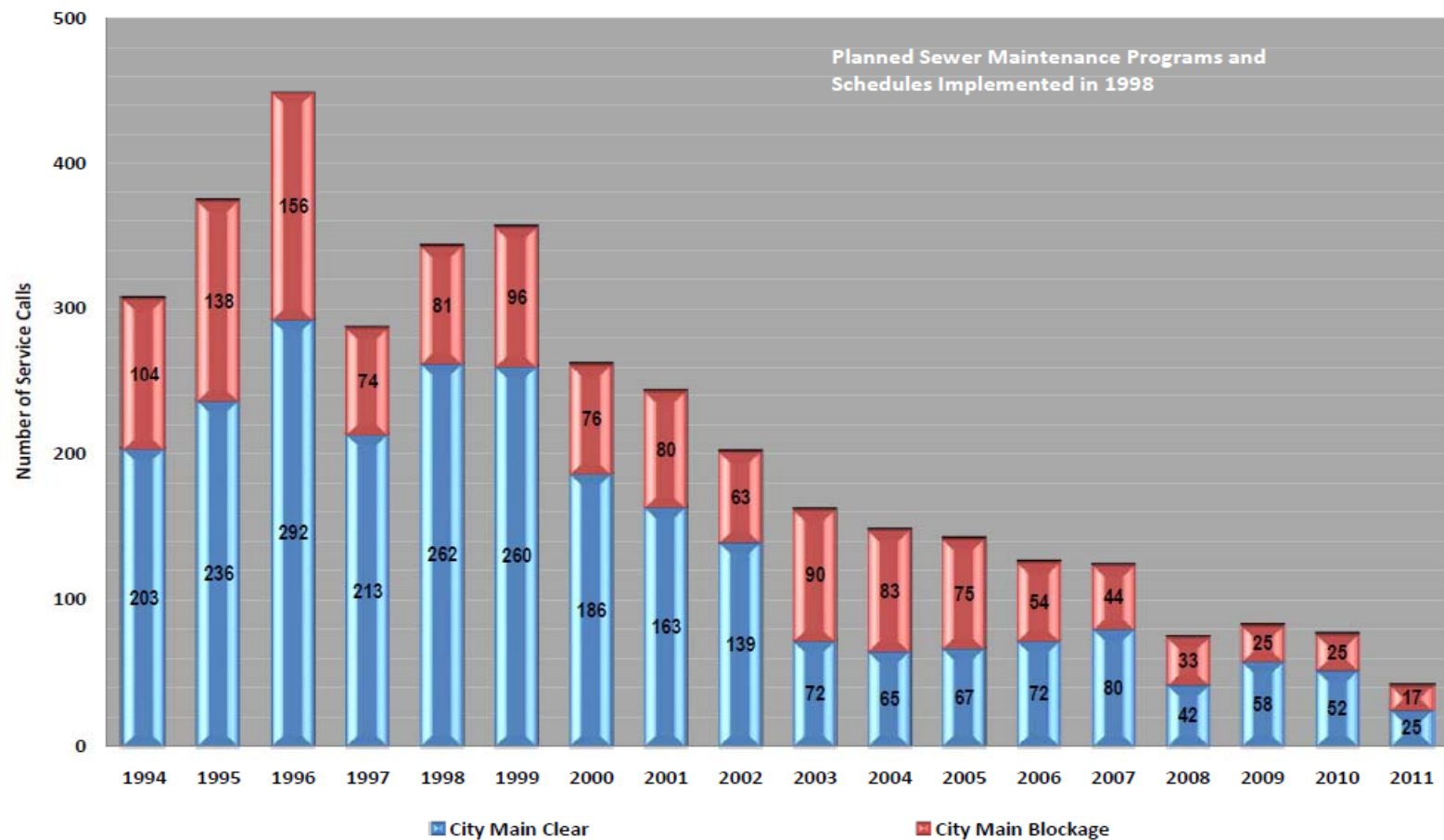
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1992 – 2011 Completed CIPP



City of Lawrence
UTILITIES

Sanitary Sewer Service Calls 1994-2011 YTD



Service Calls Decline