

**Project 28  
SURREY LANE  
(Cul-De-Sac)**



956 Surrey Lane (June 23, 2011)



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Surrey Lane flooding



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Statement of Conditions:

The existing storm sewer drainage system is 60 to 70 years old. The system cannot adequately convey runoff from storms of moderate to high intensities and the receiving storm sewer system is small compared to today's standards. The drainage service area is  $9.1 \pm$  acres with another  $3.9 \pm$  acres contributing via flood overflow paths. The Surrey Lane cul-de-sac and adjacent properties lie within a depressional area that can flood as deep as  $1 \frac{1}{2}'$  to 2' before flood overflow relief occurs. The flood overflow relief path and outlet storm sewer drain to the Lee Road drainage system.

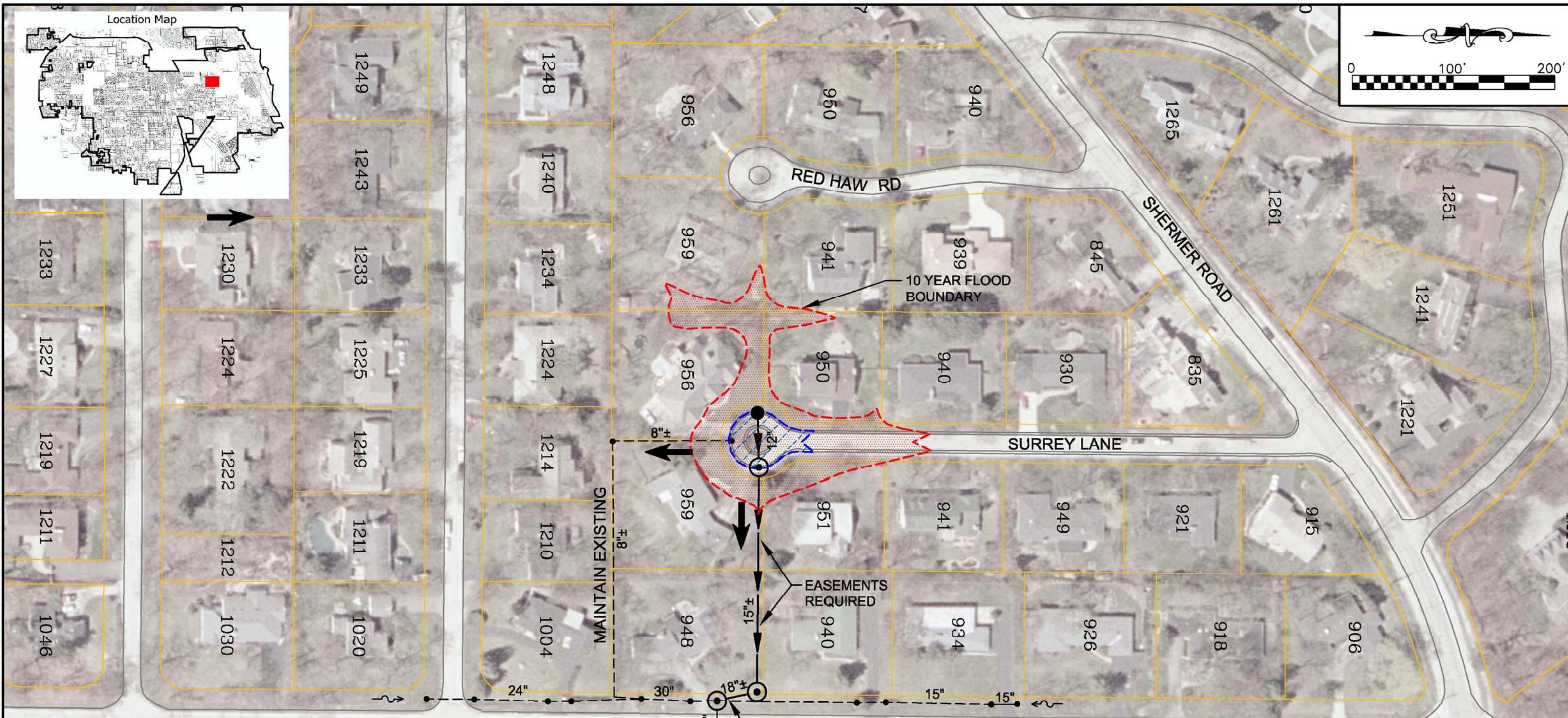
Problem Identification:

Cul-de-sac, front yard and rear yard flooding (no known flooded structures).

Recommended Plan:

- Obtain 15' wide drainage easement between the Surrey Lane cul-de-sac and Lee Road.
- Improve low flow from the cul-de-sac area by constructing a conveyance storm sewer ( $15" \pm$ ) from the cul-de-sac to Lee Road.
- Construct a low/flood overflow structure at the east side of the cul-de-sac with a restrictor plate (10" to 12"+ opening).
- Define flood overflow relief location by constructing a relief swale within the drainage easement.
- Improve Surrey Lane drainage collection system by adding 2 inlets within the cul-de-sac area.
- Modify a short segment of the Lee Road storm sewer system to accommodate the new storm sewer and flood overflow path
- Retain the existing  $8" \pm$  storm sewer.

Estimated Total Cost	Construction Cost	Property Cost	Engineering Cost	B/C Ratio	Optimum Protection
\$61,000	\$36,000	\$20,000	\$5,000	0.34	10-yr



**HLR**

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