



City of Chicago Inlet Control Valve

Full Mitigation Best Practice Story

Cook County, Illinois



Chicago, IL - In August of 1997, the City of Chicago experienced flooding and sewer back-up damage during a torrential rainstorm. The flood caused hardship and property loss for over 35,000 City residents. Because of the City's population density, many basements are utilized as garden apartments, and many of the affected residences have experienced damages on a recurring basis. In addition to property loss, four fatalities occurred as a result of the flood disaster.

The City was awarded Hazard Mitigation Grant Program (HMGP) funds to install valves that attach to the inlets of the combined storm water and sewer system; these valves restrict the flow of rainwater into the combined system at the peak of a storm. Engineering studies determined that the inlet valves were the most cost effective mitigation measure. The inlet control valves are located throughout the area based on topography and other engineering criteria.

The result was that the combined system functioned at no more than full capacity. The sewers function as they are intended, and the inlet valves prevented back up of sewage into the residential basements. During peak periods of full capacity, the excess storm water was temporarily stored in the streets and not contaminated with sewage.

Standard Homeowner's insurance policies do not cover flood damage. The National Flood Insurance Program makes Federally backed flood insurance available to homeowners, renters, and business owners in participating communities.

Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region V**

State: **Illinois**

County: **Cook County**

City/Community: **Chicago**

Key Activity/Project Information

Sector: **Public**

Hazard Type: **Flooding**

Activity/Project Type: **Utility Protective Measures**

Activity/Project Start Date: **10/1998**

Activity/Project End Date: **Ongoing**

Funding Source: **Hazard Mitigation Grant Program (HMGP); Local Sources**

Funding Recipient: **Local Government**

Funding Recipient Name: **City of Chicago**

Activity/Project Economic Analysis

Cost: **\$14,300,000.00 (Estimated)**

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **Yes**

Federal Disaster #: **1188 , 09/07/1997**

Value Tested By Disaster? **No**

Repetitive Loss Property? **Unknown**

Reference URLs

Reference URL 1: <http://www.floodsmart.gov/floodsmart/pages/index.jsp>

Reference URL 2: <http://www.state.il.us/iema/>

Main Points

- The City used HMGP funds to install valves that attach to the inlets of the combined storm water and sewer system; these valves restrict the flow of rainwater into the combined system at the peak of a storm.
- Engineering studies determined that the inlet valves were the most cost effective mitigation measure. The inlet control valves are located throughout the area based on topography and other engineering criteria.
- The result was that the combined system functioned at no more than full capacity. The sewers function as they are intended, and the inlet valves prevented back up of sewage into the residential basements.