

Drainage Services Flood Prevention Program


Community Consultation Belmead and Aldergrove



How Did We Get Here?

- **Major flooding in July, 2004**
- **Flood prevention becomes top priority**
- **Commitment to reduce flood risk and public education**
- **43 at risk neighbourhoods identified**
- **15 hardest hit – studies and planning in 2004/05**
- **28 others – studies and planning in 2005/06**

How Did We Get Here?

- New  program launched in May/05
- Home Flood Prevention Checkup;
Homeowners Guide to Flood Prevention
- Public education (print, TV, and on the web)
- Education workshops: backwater valves and sump pumps
- Backwater valve subsidy program



Current Status

- **\$146M in flood prevention improvements recommended to City Council on April 25**
- **Council requested report on alternative methods of funding. To be discussed in July.**
- **Public hearing on selected funding alternative & 2007 sewer rates set for September 26**



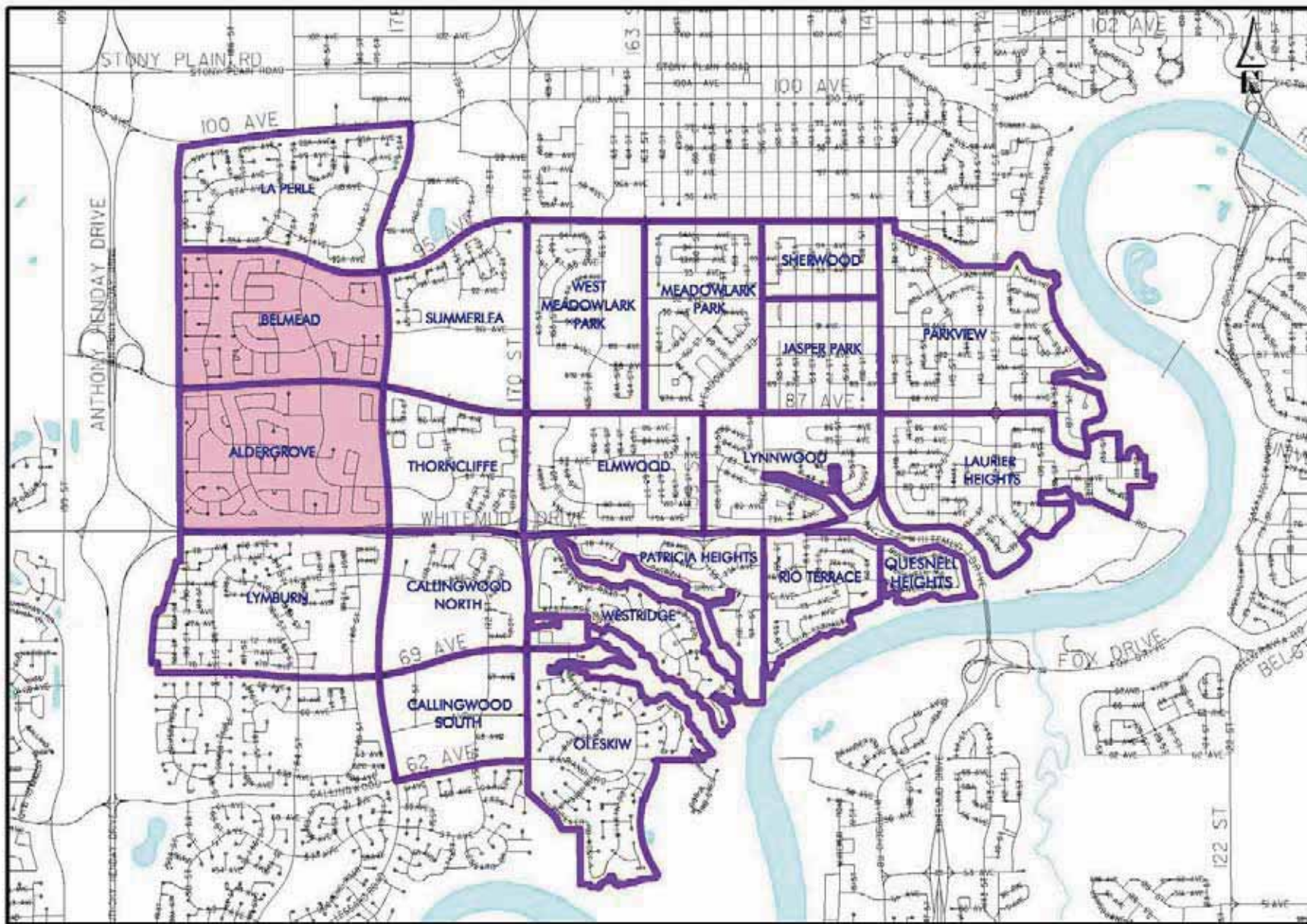
Today's Meeting

- 1. Present engineering findings**
- 2. Discussion implementation plan recommendations**
- 3. Get your input and feedback**

The image features a vertical banner on the left side. The top portion of the banner shows a photograph of a modern building with a large, triangular, glass-enclosed roof structure, situated behind a body of water. Below the photograph, the words "City of Edmonton" are written vertically in a white, serif font. The main background of the slide is a solid dark blue color.

After Today's Meeting

- 1. Summarize and share input**
- 2. Incorporate input into planning**
- 3. Report progress**
- 4. Keep communities informed as work is completed**





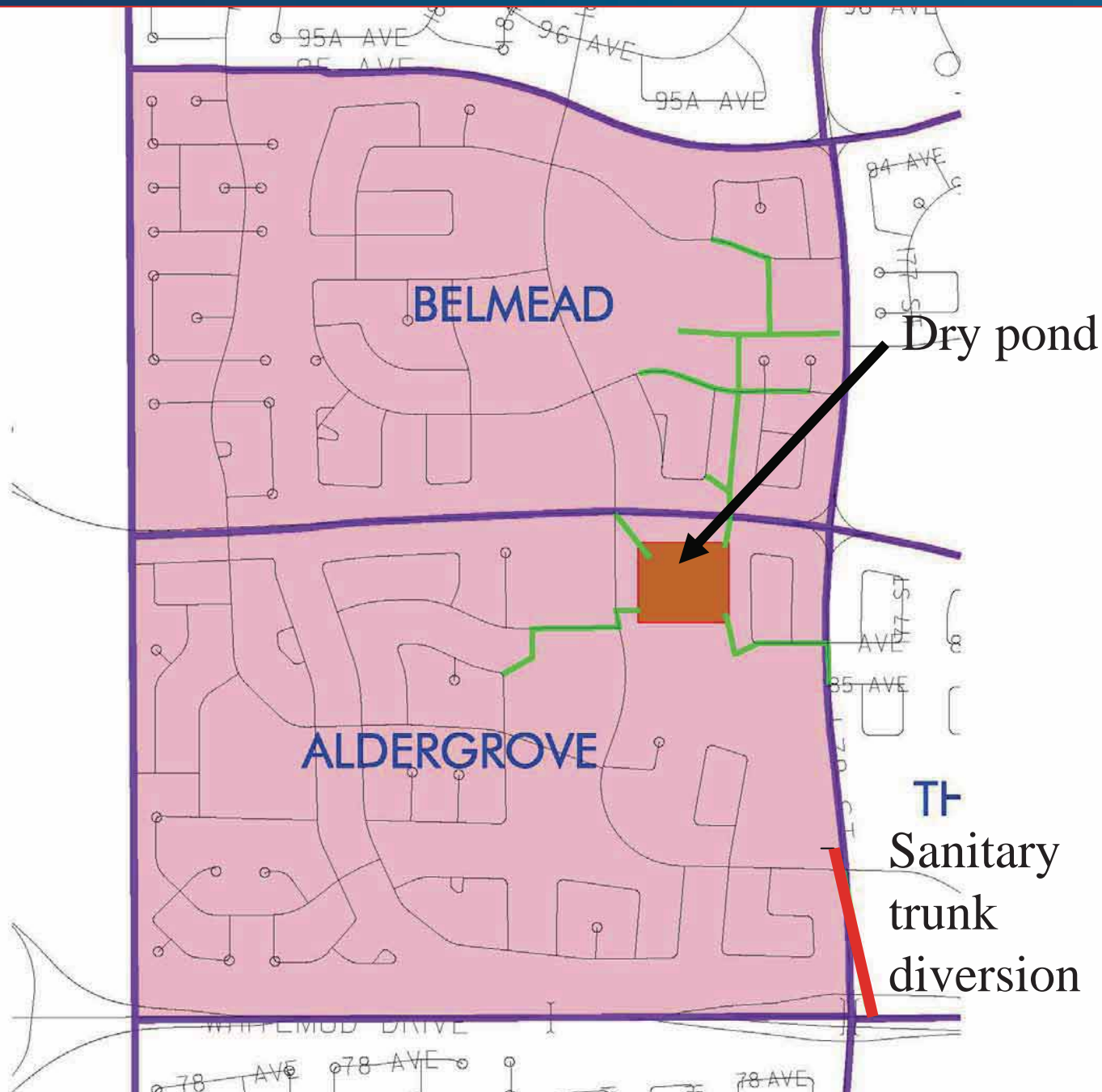
Engineering Findings

- **Water volume exceeded storm sewer capacity**
- **Stormwater got into sanitary system via:**
 - Flooded manhole covers
 - Weeping tile connected to home's sanitary sewer
- **Most flooded basements caused by sanitary sewer backup**



Engineering Findings

- **Common characteristics of flooded homes**
 - Many homes had yard elevations above the street curb of 0.5 metres or less
 - homes had landscaping or lot grading that caused water to drain toward the house
 - Houses with no roof leader or extensions were less than recommended length
 - Only 3% had backflow prevention valves



What is a Dry Pond?

- **Low Area - collects storm water runoff**
- **Receives storm water from:**
 - Surface drainage
 - Surcharged storm drain
- **Usually takes 4 to 6 hrs to drain**
- **Landscaped to blend in**
- **Can be used for recreation when dry**
- **Common in many cities; some on school sites (incl. Regina, Red Deer & Calgary)**
- **60 in Edmonton, mostly along roadways**

How Do Dry Ponds Work?

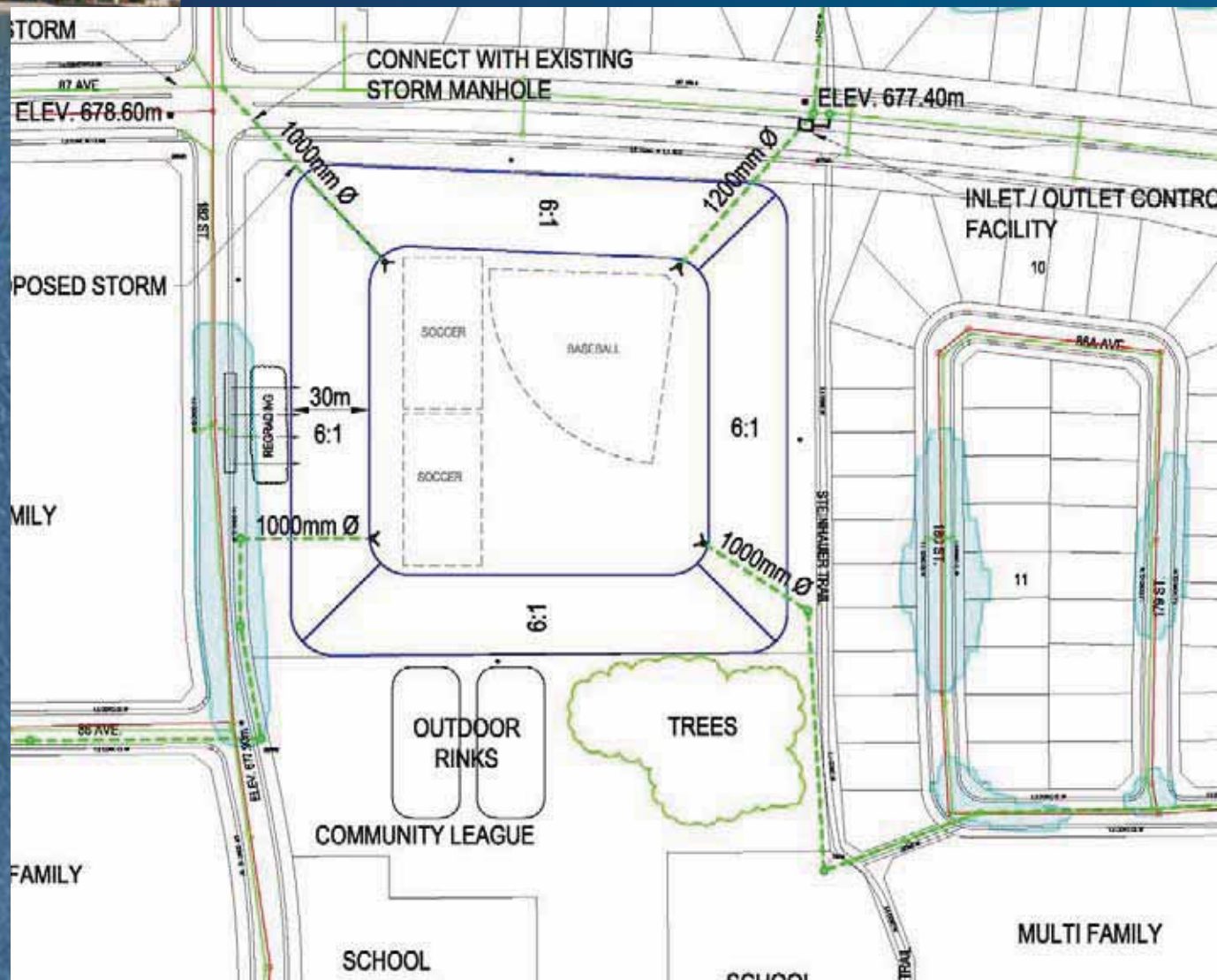




87th Ave.

182nd St.

Aldergrove School



Legend:

- Proposed Trail Regrading
- Proposed Storm Pipeline
- Proposed Sanitary Pipeline
- Existing Storm Pipeline
- Existing Sanitary Pipeline
- Existing Street Ponding Locations
- Inlet or Outlet
- Spot Elevations
- Proposed Manhole Locations

What Do Dry Ponds Look Like?

City of Edmonton



What Do Dry Ponds Look Like?

City of Edmonton





The King's University College dry pond





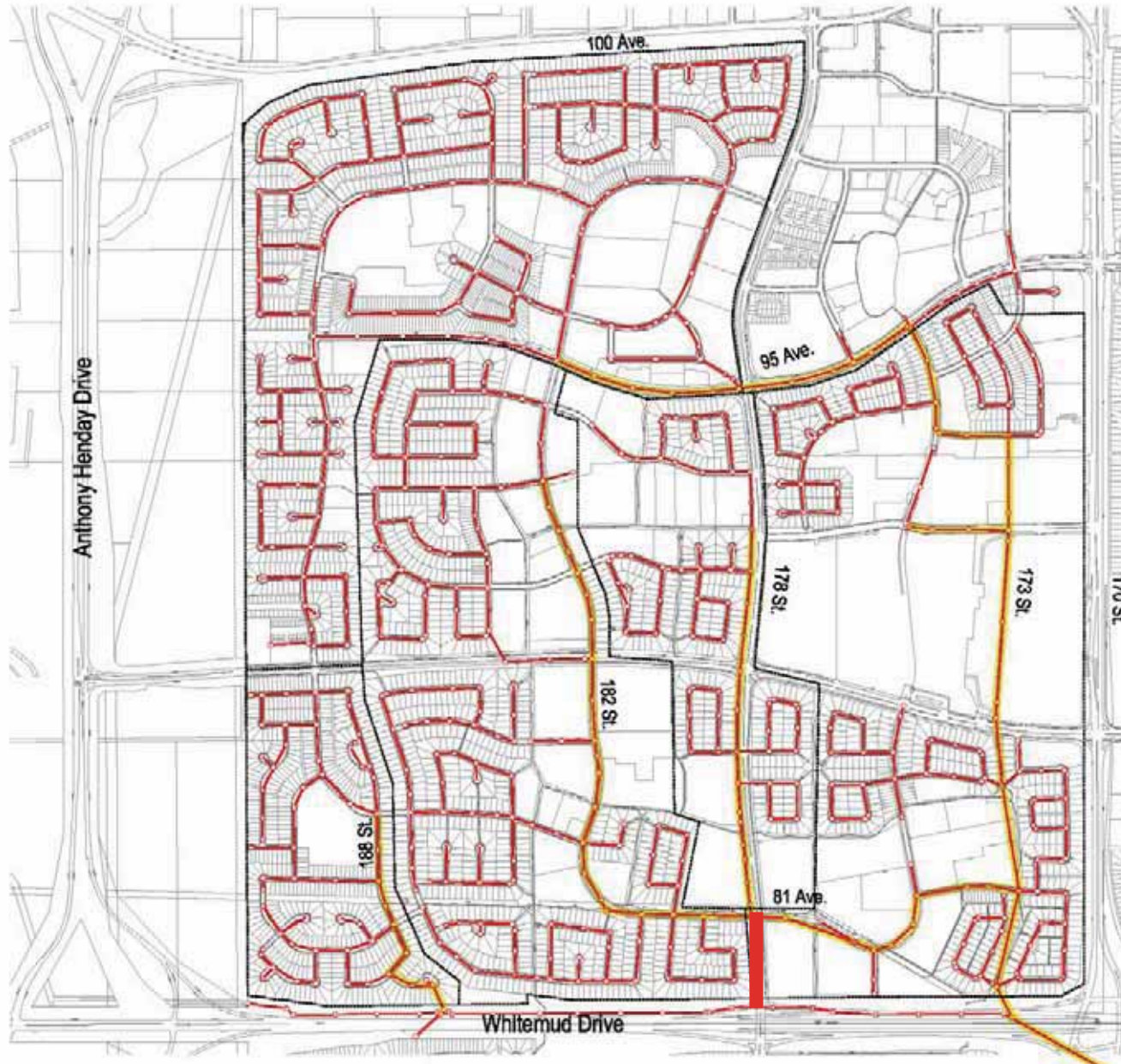




The logo for the City of Edmonton, featuring a stylized building with a triangular roof and the text "City of Edmonton" written vertically.

Dry Pond Safety

- **Built to minimize safety risk**
- **Sides gently sloped**
- **Bottom relatively shallow**
- **Sides and corners pool first**
- **Warning signs**
- **Gradual filling and draining**
- **SCADA remote monitoring system**
 - Alarm will sound when water filling
 - Operations staff will respond
- **Cleanup after each event**



Legend:

- Existing Sanitary Pipeline
- Catchment Boundary
- Sanitary Trunk



Improvement Options

Seal sanitary manhole covers	
Aldergrove dry pond and conveyance	\$7,848,000
Sanitary relief pipe	\$1,706,000
Total	\$9,554,000

The image features a vertical banner on the left side with the text "City of Edmonton" in a stylized font. The background of the banner shows a modern building with a glass facade and a large, triangular, lattice-like structure on top, situated behind a body of water.

What Does it Mean?

- **Better flood prevention requires joint effort from homeowners and City**
- **System improvements needed; involves significant time and expense**
- **Cooperation needed from others who manage or own private property**
- **Support needed from community to move ahead**

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Homeowner Options

- **Improve lot grading to get surface water away from house**
- **Install/maintain adequate eavestroughs: 6 inch wide trough recommended**
- **Set in place downspouts: 1.5 metre extensions**
- **Install backflow prevention valve**
- **Install sump pump**

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What are the Benefits?

- **Quicker overall drainage**
- **Less pooling of water on the surface**
- **Less likelihood of basement flooding**
- **Less property damage**
- **Savings of time, money and inconvenience**

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Discussion and Feedback

Clarifying Questions?



Issues, comments, concerns?



Additional information needs?