



DISTRICT HEATING

**Smaller Systems are
Making it BIG in
District Heating:**

**Starrett City
Clark University
Willmar, Minn.**

Willmar, Minnesota Lays District Heating Pipe



The streets of Willmar have been torn up for total redevelopment.

The city of Willmar, Minnesota, is undergoing major redevelopment of its downtown area that will include a new hot water district heating system, as well as new electrical transmission lines, new water system, some new sewer systems, and new streets, sidewalks and lighting.

Willmar is a typical small town of 15-20,000 with an aging strip development. In recent years business had been leaving the downtown area and moving to the new shopping malls on the outskirts of town.

Several years ago the city administration started investigating ways to stop the migration of business and increase the attraction of the downtown area. As their plans developed, the city realized that a redevelopment period would be an ideal time to also install a new hot water



The pipe was welded and hydrostatically tested before being lowered into the ground.



Pipe was delivered for the district heating system, which was the first utility to be installed in the redevelopment.

district heating system for downtown. The downtown merchants have strongly backed the project because of the potential renewal of business. An existing steam system that is part of the municipal cogeneration plant will remain functioning to serve a loop to the hospital, and a heat exchanger will be used to provide hot water for the new downtown system.

Once the decisions to redevelop the town were made, progress was very fast. The firm of Scantec Inc. was hired to prepare the district heating design work in the fall of '81. Bids were taken in March of '82 and ground was broken May 3, 1982. Plans are to have the district heating system completed by September 15.

The Willmar system is completely financed by the municipality. They have received no state or federal funds. With the schedule developed for the project, the district heating system will have gone from advanced design work to completion in less than a year.



The piping was fitted to make the connections to the individual buildings.



A connection is made to one of the many businesses on the new district heating system.



A new building was erected adjacent to the existing municipal power plant to house the heat exchangers to convert the steam to hot water for the new system.

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Phase One

- **July 6 to July 14:** Site tours.
- **July 16:** Proposers Conference.
- **July 30:** Initial project proposals due. The proposals shall include contract principles and an outline of financial benefit to the State. Approximately three initial proposals per site will be selected for detailed proposals in Phase Two.

Phase Two

- **September 7:** Selections announced and proposal requirements available to finalists.
- **October 7:** Final proposals due.
- **November 5, 1982:** Final selections announced.

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City, Inc. has the resources through its affiliations to construct and operate the energy project in-house. These resources put Starrett City, Inc. in the position to assume total responsibility for the project.

Starrett City, Inc.'s decision to assume total responsibility is unique in its implications. The issues of co-siting, the utilization of municipal waste-to-energy in a private facility, private development in a public facility, and the role of the private sector in the revitalization of American cities are involved in Starrett City's decision. It is anticipated that the Starrett City/26th Ward Project will serve as a model for similar energy resource development projects and offer the rationale for industry and municipalities to build together for the future.

This Article is a summary of a two volume report on the Starrett City project sponsored by the Department of Energy. If you would like to receive a copy of the full report send \$1.50 to IDHA to cover postage. 1735 Eye St. N.W. Suite 611, Washington D.C. 20006.