DEVELOPMENT PROCESS

At the time that the developers proposed purchasing the land, the city of Medina had imposed a moratorium on development in certain sections of town, including this one. Developer David Newman and his team worked with a committee of planning commission and council members over a number of months to come to an agreement on how the site should ultimately be developed. To address this issue, Steve Apfelbaum of Applied Ecological Services was invited to visit Medina. Apfelbaum, an ecological restoration and development expert from Brodhead, Wis., was able to create a compelling vision of homes clustered in an ecologically functioning landscape. The developers became champions of the concept and added Applied Ecological Services to the design team in order to create a lasting legacy, while simultaneously creating a marketable development. When complete, a part-time ecologist will help residents recognize what is on the land, assist in maintaining the natural areas and foster a sense of community through activities like nature walks, maple sugaring and prairie burns. Resident fees will cover the cost of the ecologist and the maintenance of the natural areas. A conservation easement will eventually cover the primary preserved areas of the site.

One of the goals of the Wild Meadows team is to preserve and restore some of the natural areas in Medina.

Wild Meadow's overall success will be based on several long-term factors, including: the quality of the restoration, the restored areas' effectiveness in treating stormwater runoff, the residents' perception of the natural areas and the eventual land uses surrounding the site (e.g.; how this site connects to other natural areas within Medina). While no one can predict the future – especially in regards to ecological functions – the city and the developers have gone to great lengths to address these issues in their agreements, thereby helping to ensure the project's future viability.

PROJECT STATUS

Ground was broken in May 2001, initiating both development and restoration of phase one. Initial market response has been very favorable, largely due to the demand for high-end homes in the area and the quality of the project. Lot prices range from $90,000 to $490,000.

PROJECT PARTNERS

Restoration Development ***(a team assembled for this project, consisting of the Bancor Group, Lundgren Bros. and VKO Enterprises)***

Applied Ecological Services

Dahlgran, Shardlow and Uban

Minnesota Land Trust

LeGran Homes

Conservation Design Portfolio, Case Study 7

St. Paul, Minnesota 55114

WILD MEADOWS

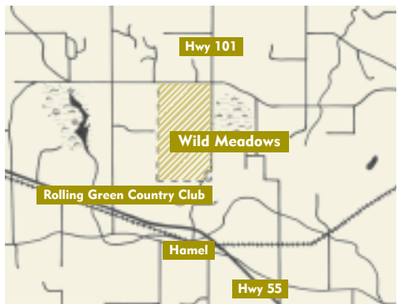
WILD MEADOWS *elevates the practice of ecological restoration within a development project to a new level. It demonstrates that a development can actually improve environmental quality if significant parts of a previously degraded site are placed in open space and restored to more natural conditions. Not only will the restored prairies and woodlands add beauty to the development; they will also serve substantial stormwater management functions. Ecology and infrastructure will be truly married in this development.*

PROJECT OBJECTIVES

Wild Meadows is located in Medina, Minn., just west of Plymouth and Maple Grove on Highway 101. The site's hills, woods and views, as well as its location, made it attractive to realtors and developers. However, residents and the city council were concerned about too much development altering the character of Medina and damaging the integrity of the site. Conservation design – or perhaps more accurately "restoration design"– provided a means to preserve the existing natural features, and restore them to a higher quality. This goal of improving the landscape's ecological functions is to be partially financed by the sales of 150 clustered homes, and annual homeowners association dues. The design of Wild Meadows was inspired in part by other successful conservation developments including Prairie Crossing, an award-winning development outside of Chicago. The project is specifically based on the following goals:

- Environmental protection and enhancement through ecological restoration
- Creating a unique sense of place
- Aesthetic design and high-quality construction
- Economic viability

All lots will have access to restored natural areas protected by a conservation easement. This not only benefits the residents of the development; the project will also provide Medina with a unique neighborhood with multiple public benefits. Drained and degraded wetlands will be restored into wet meadows and used for an alternative stormwater management system. Forest systems will be managed to introduce more light, reestablish ground cover and regenerate oaks, which are undergoing significant decline. The eroding shore of the pond will also be stabilized. All of these improvements should help create the habitat conditions for the increased presence of wildlife and reintroduction of other native species.



SPECIFICATIONS

SITE SIZE:
345 acres

NUMBER OF UNITS:
150 single family homes

LOT SIZES:
0.5 – 1.7 acres

OPEN SPACE:
200 acres (58%)

WASTE TREATMENT:
City sewer

WATER:
City water

TRAILS:
Extensive trails throughout the project

NATURAL FEATURES:
More than 200 acres of restored prairies and woodlands

LOT LAYOUT

Nearly every lot in the development has a view of open space from the rear and many also have open space in front, in a central green or planted cul-de-sac island. In addition to the substantial restoration in the open space, most homeowners will have restored buffer areas at the rear of their lots as well, thereby extending the ecological benefits of the overall project.

ARCHITECTURE

The homes will have a high attention to detail and will create a unique, upscale sense of place. The designs will include such elements as front porches and less obtrusive garages.

Artwork courtesy Restoration Development Inc.

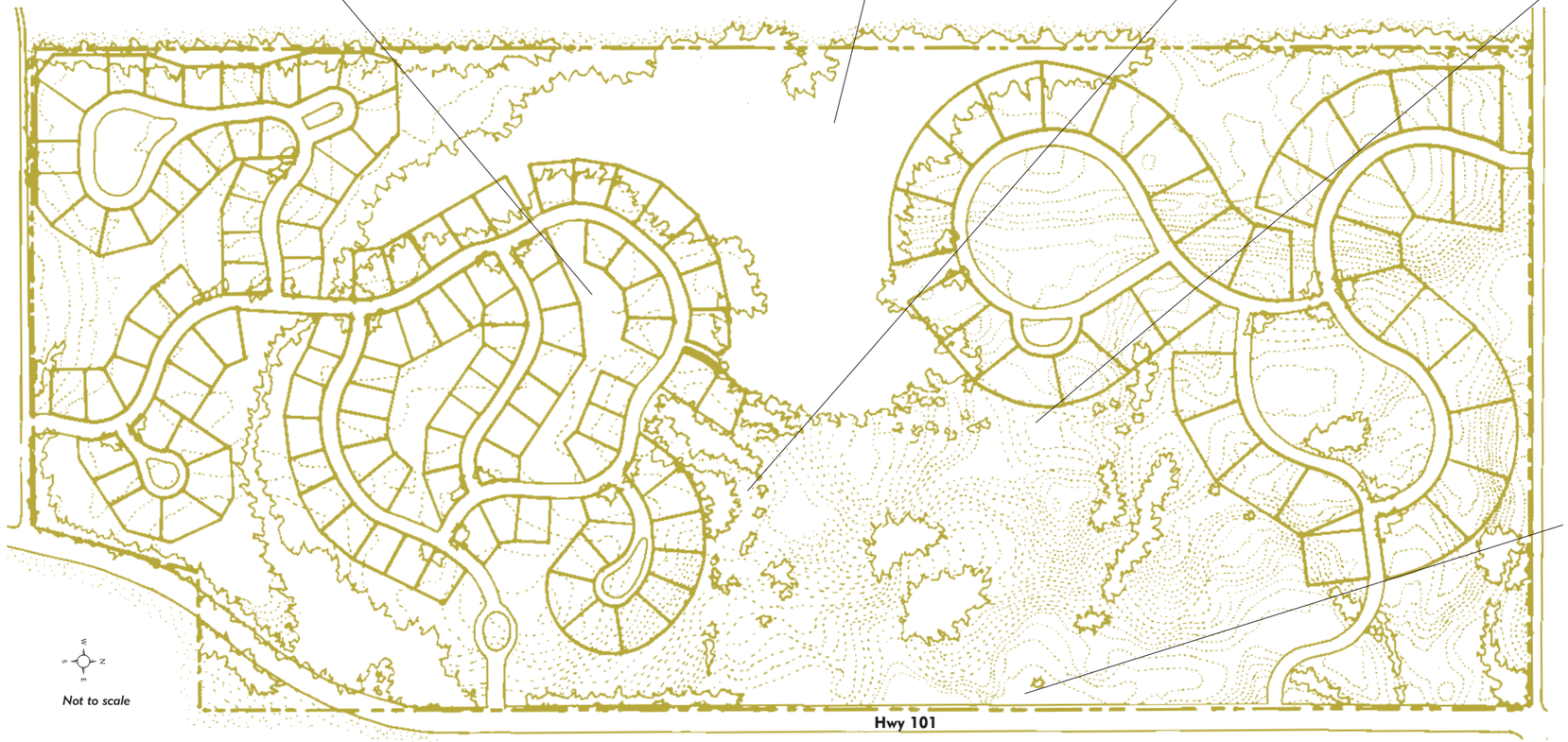
STORMWATER TREATMENT TRAIN

Stormwater runoff will be treated in a linked series of swales, wetlands and ponds that are part of the ecological restoration. The goals of the Stormwater Treatment Train *(developed by Applied Ecological Services)* are to: restore natural hydrologic functions of the site, improve water quality, enhance groundwater recharge and cut infrastructure costs. The Minnesota Center for Environmental Advocacy, the Metropolitan Council and the development team are collaborating on a five-year monitoring study to document the changes in runoff quantity and quality.

Artwork courtesy Applied Ecological Services

LANDSCAPING

While most of the site will be restored with ecological function in mind, areas of formal landscaping will help complement the natural aesthetic, including the turnaround greens, roadway intersections, and a more highly designed prairie garden. In addition, several mowed areas will provide opportunities for active recreation.



FOREST RESTORATION

This 50-acre woodland, a remnant of the maple-basswood "Big Woods" ecosystem, will be improved through selective thinning and the removal of invasive species like European buckthorn. The site's woodlands will provide important ecological and visual buffers to adjacent land uses.

WETLAND RESTORATIONS

The pond shorelines and other wetland areas will be stabilized and restored with native vegetation. In addition, prairie vegetation adapted to wetter conditions will be planted in lower areas of the site. These restoration areas are an important component of the Stormwater Treatment Train.

PRAIRIE RESTORATION

Careful analysis of soils, topography, vegetation and hydrology allows ecologists to decide which plant communities to restore in which areas. On the higher uplands, prairie species adapted to drier conditions will be planted, including wildflowers, like those in this photograph. The mesic prairie type will also be restored on the site. It is one of the rarest types still found in Minnesota, because it grew on the rich, moist soils well suited to farming.

Photo courtesy Applied Ecological Services

PUBLIC VIEWS

In order to temper the visual impact of this tract from Highway 101, the development will be pushed back from the roadway and screening vegetation will be planted. In addition, from many areas of the open space, all of the houses will be hidden from view.