

Planning for Storm Water Management

Jason Fruth, Senior Planner

Waukesha County Planning & Zoning Division

Preliminary Storm Water Review Letters & Storm Water Permits

- Subdivision Plats (Preliminary and Final)
- Preliminary Review and Storm Water Permit required for certain projects:
 - Certified Survey Maps
 - Conditional Use Permits & Site Plans
 - Zoning Changes
 - Grading Permits

Development Review Team

- Planning and Zoning Division
 - Land Use, Zoning, Natural Features
- Land Resources Division
 - Storm water evaluation, erosion control
- Environmental Health Division
 - Private septics/wells, hazardous materials
- Parks Division
 - Areas of acquisition interest
- Department of Public Works
 - Access issues

Development Review Team- Top 5 Reasons to Attend

1. Receive comments at front end of project/eliminate surprises
2. Improve chances for plat approval
3. County has extensive inventory resources
4. Detailed review letter provided
5. It's free!

Town Subdivision Plat Submittals

■ Submittal Process

- Planning Division=forwarding agency
- Land Division Checklist
- Prelim. Review Letter application
(Prelim. Plats) or Storm Water Permit
app. **(Final Plats)**- submit to LRD.
- Soil tests for Environmental Health
Division and LRD

Preliminary Plats- Review Timeframe/Basis for Action

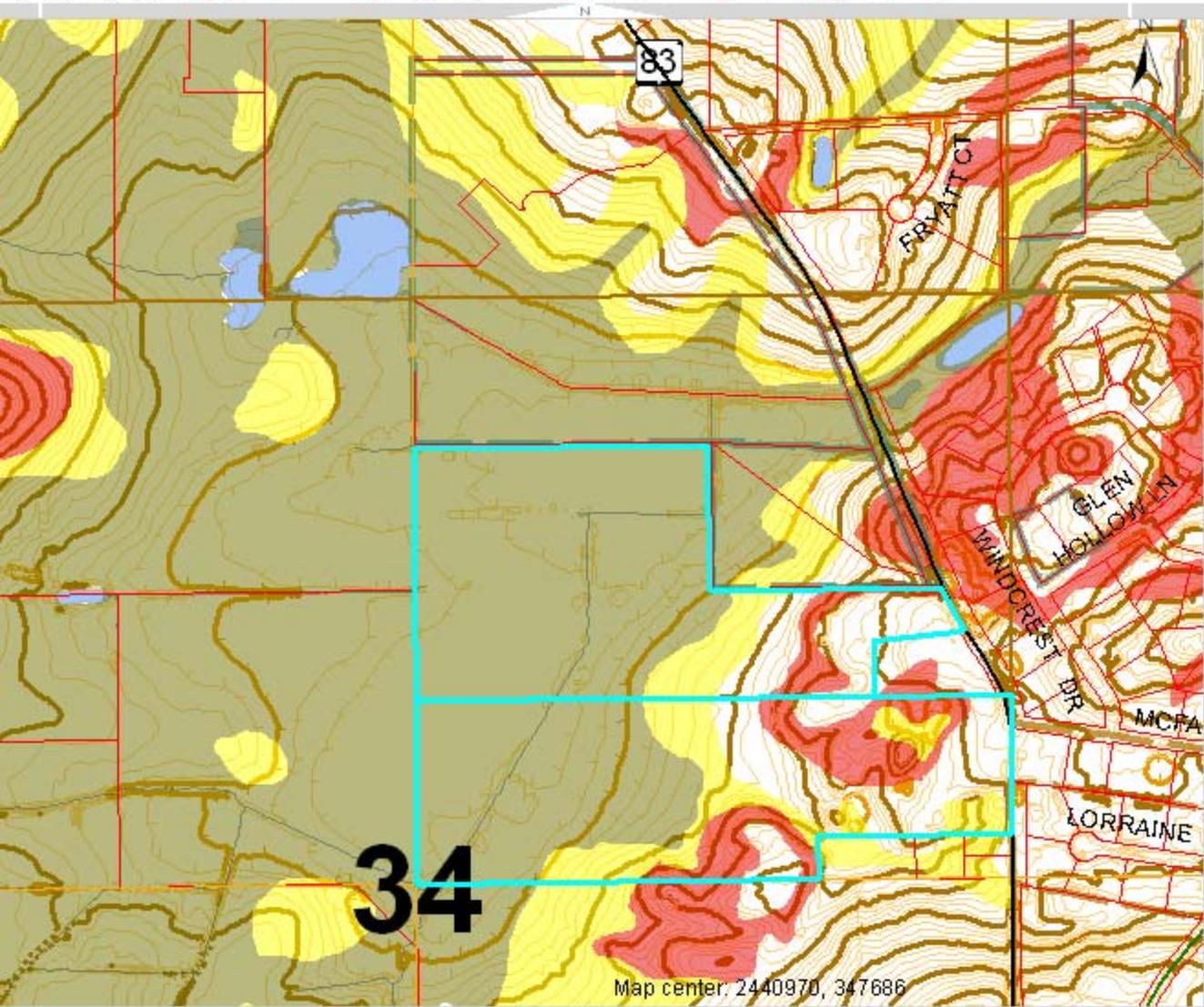
- Preliminary Storm Water Review required
- 90-day plat review period per Ch. 236
- Prelim. Storm Water Review time = 10 days.
- Must receive favorable recommendation from LRD, Health, Parks and DPW to approve per 236.13.
- Detailed review letter- use as checklist for Final Plat.

Final Plat Review Timeframe/ Basis for Action

- Storm Water Permit required
- 60-day review period per Ch. 236
- Certification of Compliance- 10 days
- If you cannot satisfy Certification of Compliance terms, Final Plat should not be submitted.
- Maintenance Agreement must be recorded immediately after recordation of Final Plat.

Storm Water & Plats-common mistakes observed by Plat Reviewers

- No storm water plan submitted w/ plat submittal.
- Plat layout completed before considering storm water management needs.
- Hydric soils not considered relative to lot grades.
- Storm water facilities not located within commonly held outlots/lack of access
- Private well, 100-year design storm setbacks overlooked.



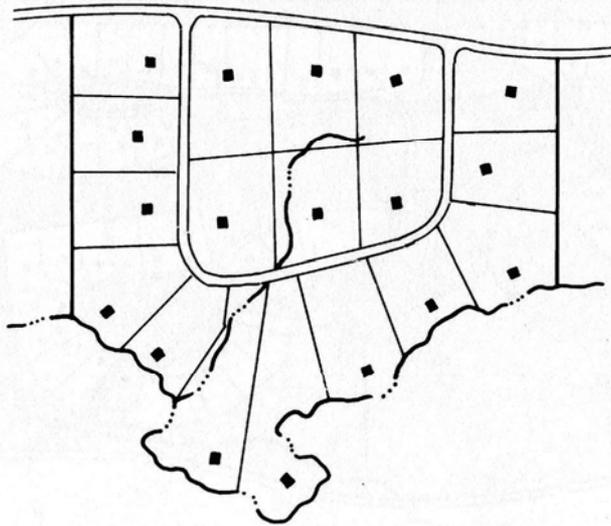
- Road ROW Annotation
- Cartographic Elements
- Parcels
- Land Divisions
- Shared Interest Parcels
- Road Rights of Way
- Railroad Rights of Way
- Background
- Survey Control System
- Transportation
- Environment and Land Use
- Soils
 - Soil Thematic Maps
 - Building Limitations
 - <1 Foot to Watertable
 - <3 Feet to Watertable
 - 1-4 Feet to Bedrock
 - Slopes >12%
 - Depth to Seasonal High Water Table
 - Hydric Classification
 - Hydrologic Soil Group (Native Con)
 - Land Capability Class
 - Percent Slope
 - Stormwater Infiltration Potential
 - Surface Textures
 - Soils
- Park and Open Space
- Topography
- Contour Lines 2005

Conservation Design & Storm Water Management

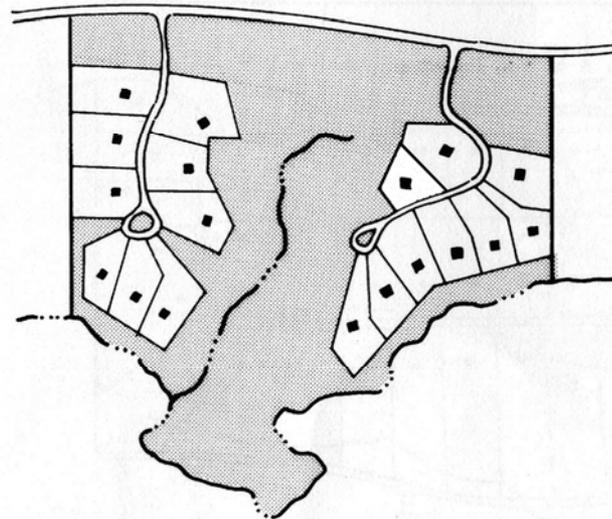
- Sustainable Development/Conservation Design
 - Less roads, grading, infrastructure
 - Lower storm water costs
 - '05 Conservation Research Inst. Study- savings of 15-50% in 4 WI, IL studies
 - Increases in density, higher lot prices
- Capitalize on the Green Phenomenon
 - '06 Wauk. Co. Survey- 76% favored conservation design vs. conventional.

Traditional vs. Cluster Design- Public Preference

Option A- 24%



Option B- 76%



(Survey Research Center- UW-River Falls- 2006)

Prairie Glen (Germantown) Case Study- Bielinski Homes

Description	Conventional Cost	Conservation Cost	Cost Savings %
Site Prep	\$277,043	\$188,785	32%
Storm water Man.	\$215,158	\$114,364	47%
Sanitary Sewer	\$189,402	\$166,827	12%
Water Distribution	\$166,260	\$146,868	12%
Utilities	\$64,790	\$39,680	39%
Site Paving & Sidewalks	\$463,547	\$242,707	48%
Landscaping	\$50,100	\$53,680	-7%
Construction Cost Subtotal	\$1,426,300	\$952,911	33%
Finance Costs/Prof. Serv.	\$332,085	\$241,710	27%
Total Costs	\$1,758,385	\$1,194,621	32%

Source: Changing Cost Perceptions: An Analysis of Conservation Development. Conservation Research Institute, Feb., 2005. Source data for study obtained from Bielinski Homes, 11/4/03.