

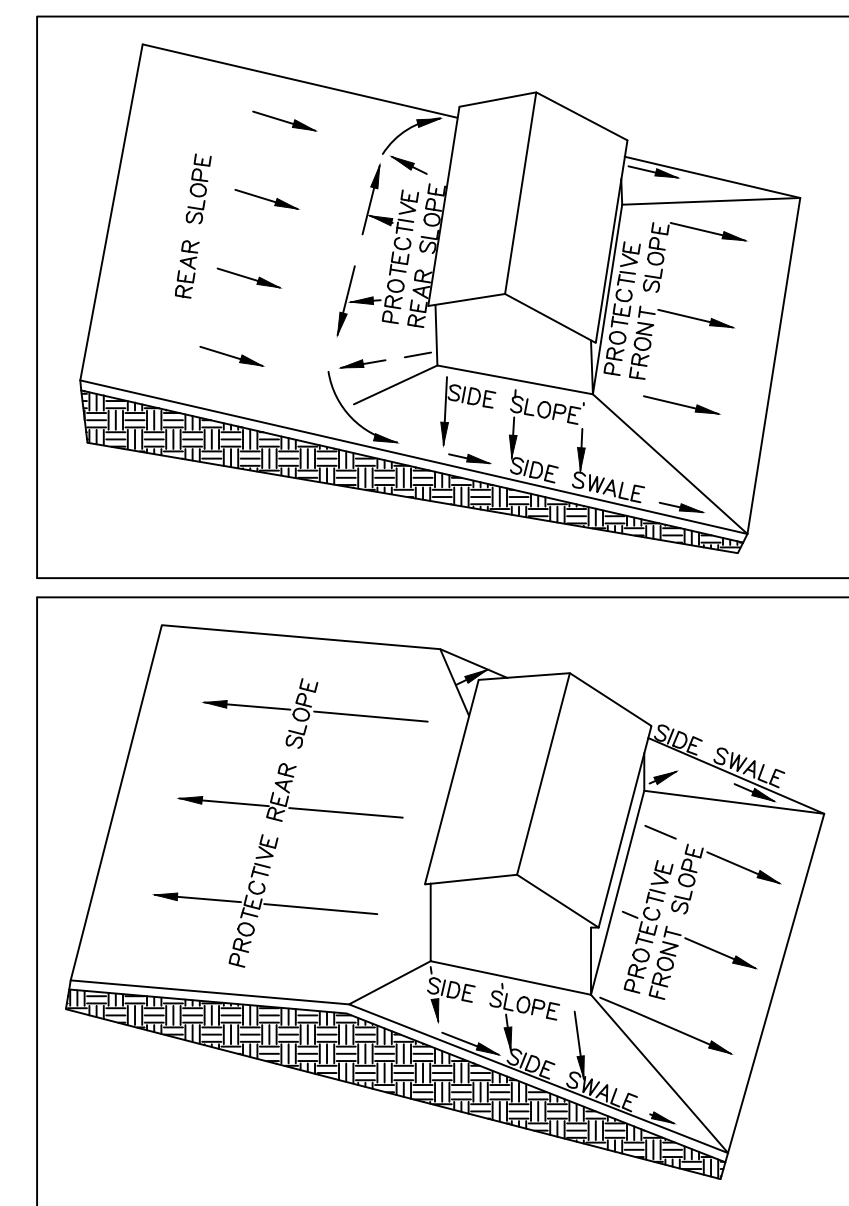
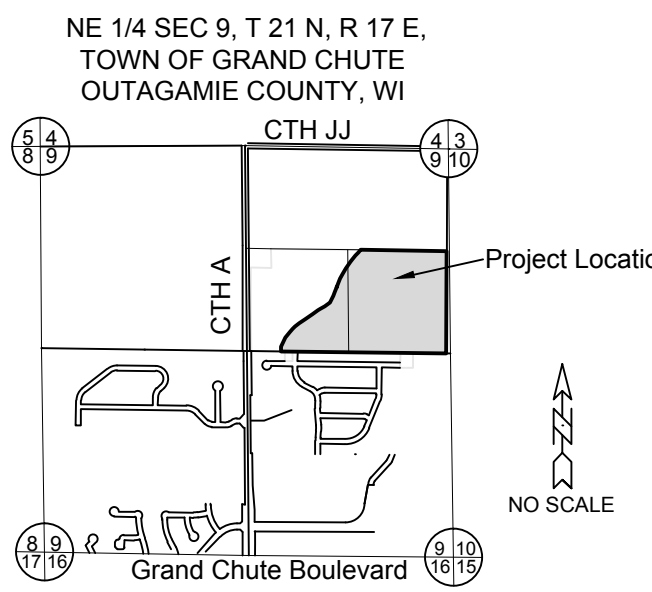
LEGEND

—DH—DH—	Overhead Electric Lines	○	Sanitary MH / Tank / Base	□	Telephone Pedestal
—San—San—	Utility Guy Wire	○	Clean Out / Curb Stop / Pull Box	□	CATV Pedestal
—S—S—	Sanitary Sewer	○	Storm Manhole	□	Gas Regulator
—Sto—Sto—	Storm Sewer	○	Inlet	□	Railroad Signal
—E—E—	Underground Electric	○	Catch Basin / Yard Drain	□	Sign
—G—G—	Underground Gas Line	○	Water MH / Well	□	Post / Guard Post
—T—T—	Underground Telephone	○	Hydrant	□	Deciduous Tree
—W—W—	Water Main	○	Utility Valve	□	Coniferous Tree
—F—F—	Fence - Steel	○	Utility Meter	□	Bush / Hedge
—Wet—Wet—	Wetlands	○	Utility Pole	□	Marsh
—Tre—Tre—	Treeline	○	Light Pole / Signal	□	Soil Boring
—RR—RR—	Railroad Tracks	○	Guy Wire / Pump	□	Benchmark
—C—C—	Culvert	○	Electric Pedestal	□	Asphalt Pavement
—800—	Index Contour	○	Electric Transformer	□	Concrete Pavement
—799—	Intermediate Contour	○	Ex Spot Elevation	□	
—608—	Proposed Storm Sewer	○	Proposed Storm Manhole	□	
—	Proposed Contour	○	Proposed Curb Inlet	□	
—	Proposed Swale	○	Prop. Catch Basin / Yard Drain	□	
—	Proposed Culvert	○	Proposed Endwall	□	
—	Adjacent Plat Grade	○	Proposed Rip Rap	□	
—	Prop. Lot Corner Elevation	○	Prop. Drainage Direction	□	
—	Proposed Spot Elevation	○	Prop. Garage Floor Elev. /	□	
—	Existing Grade	○	Finish Grade @ Foundation	□	

BENCHMARKS (NAVD 88 Datum)

BM 0	NGS Monument Grand Chute C GPS N R/W CTH JJ, +/- 1 km East of STH 47 Elev 835.7
BM 1	Fire Hydrant, Tag Bolt North end of White Hawk Drive Elev 800.72
BM 2	Nail in Power Pole. East pole of set of PP 800' east of existing bam. Elev 799.79
BM 3	Nail in 8" tree approx. 1400' East of BM 1 on south plat line Elev 799.29
BM 4	Nail in 8" Tree South plat line approx. 150' West of Southeast plat corner. Elev 800.42
BM 5	Nail in 36" Tree North plat line approx. 250' West of Northeast plat corner. Elev. 803.14
BM 6	Nail in Power Pole Power Pole # 91-26822 West R/W of CTH A just North of entrance to Nature center. Elev. 800.79
BM 7	Nail in Power Pole Power Pole # 01-12184 West R/W of CTH A 400' south of BM 6 Elev 800.51

LOCATION MAP



HOUSE ELEVATIONS:

The house elevations shall be set to provide positive drainage away from the building in all directions as shown in the above details. House elevations and driveway locations may need to vary depending on site, location, and architecture of the home. Changes to the grading plan or house elevations can be allowed only if an individual lot grading plan is prepared by a professional engineer.

NOTES:

- Existing utilities shown are indicated in accordance with available records and field measurements. The contractor shall be responsible for obtaining exact locations & elevations of all utilities, including sewer and water from the owners of the respective utilities. All utility owners shall be notified by the contractor 72 hours prior to excavation. Contact Digger's Hotline (1-800-242-8511) for exact utility locations.
- The Contractor shall verify all staking and field layout against the plan and field conditions prior to constructing the work and immediately notify the Engineer of any discrepancies.
- Updated survey and title search have not been authorized and the boundary and easements shown may be inaccurate or incomplete.

RUNOFF SUMMARY:

Table 1: Pre-Development Conditions

Basin	Area (ac)	CN	T _c (hr)
West	20.12	65.2	0.70
East	9.62	63.5	0.76
South	15.30	55.0	0.93
Total	45.04	61.4	

Table 2: Post-Development Conditions

Basin	Area (ac)	CN	T _c (hr)
West	45.04	81.9	Varies
East	2.32	76.4	0.18 - 0.73
South	3.40	54.4	Varies
Total	50.76	81.3	

Table 3: Pre-Development Peak Flow Rates (cfs) 24-Hour Rainfall Event

Basin	1-Year	2-Year	10-Year	100-Year
West	1.18	2.20	10.00	22.55
East	0.35	0.74	3.71	8.86
South	0.06	0.16	2.05	7.10
Total	1.51	2.96	15.15	37.37

Table 4: Post-Development Peak Flow Rates (cfs) 24-Hour Rainfall Event with detention, (w/o detention)

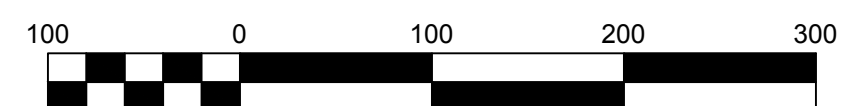
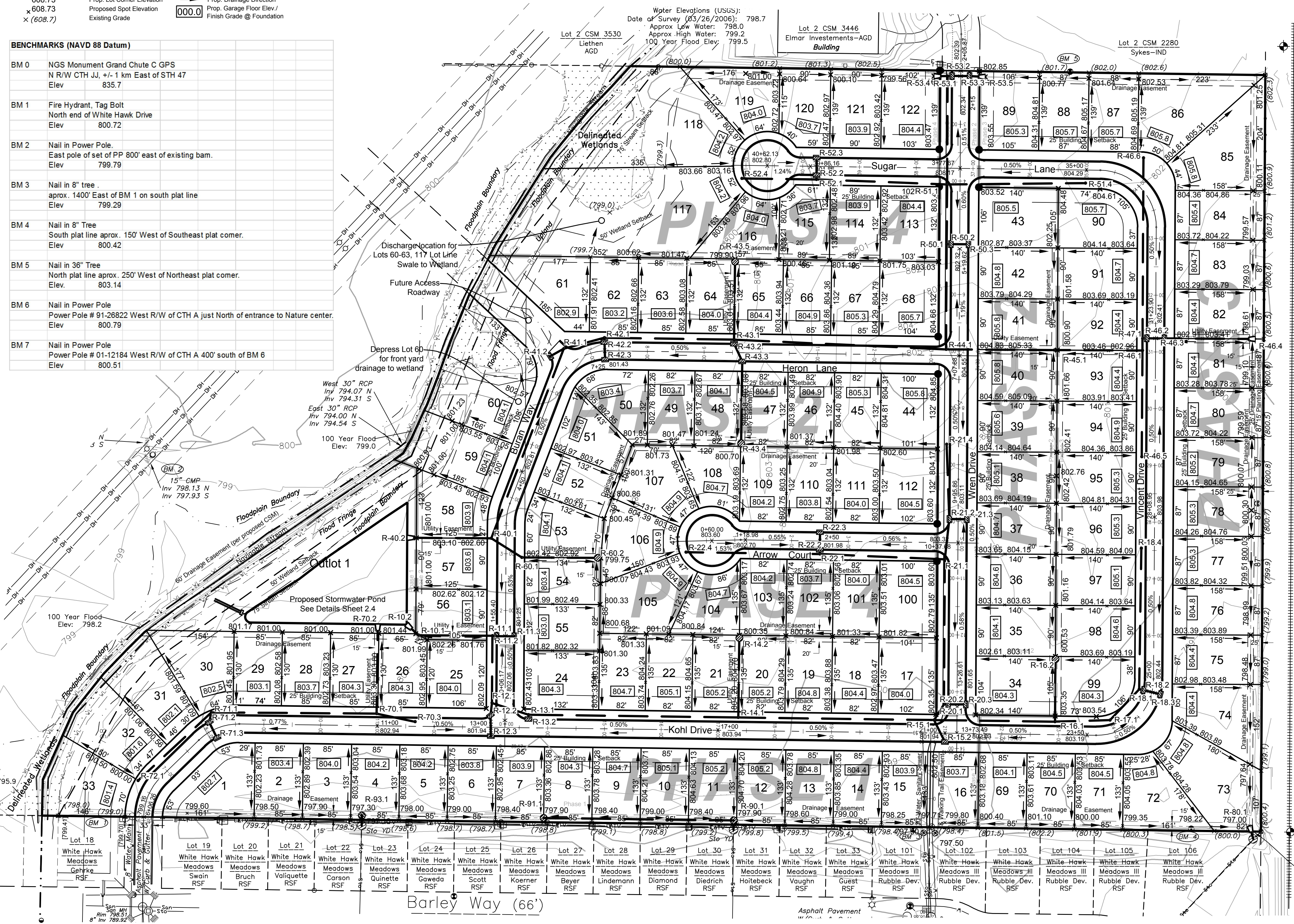
Basin	1-Year	2-Year	10-Year	100-Year
West	1.51	2.05	15.13	34.21
	(34.48)	(43.95)	(88.67)	(135.85)
East	Calculated as part of White Hawk Meadows III SWMP (0.75) (1.06) (2.64) (11.52)			
South	Calculated as part of White Hawk Meadows SWMP (1.46) (2.05) (5.16) (9.30)			
Total	1.51	2.05	15.13	34.21
	(34.48)	(43.95)	(88.67)	(135.85)

DRAINAGE PLAN CERTIFICATION:

I, Timothy N. Wittmann, Professional Engineer, hereby certify that this Drainage Plan will meet or exceed the requirements of the Town of Grand Chute.

Timothy N. Wittmann, P.E. E-40111 Date _____

Wisconsin Central Limited R.R. (100')



03/12/2015

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DAVEL ENGINEERING & ENVIRONMENTAL, INC.
CIVIL ENGINEERING CONSULTANTS
1811 Racine Street, Menasha, WI 54952
Ph: 920-991-1866 Fax: 920-830-9595
www.davelpro.com

DRAINAGE & GRADING PLAN

White Hawk Meadows North
Town of Grand Chute, Outagamie County, WI
For: Rubble Development, LLC

Date: 03/12/2015
Filename: 2968engr.dwg
Author: JRD
Last Saved by: katie
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