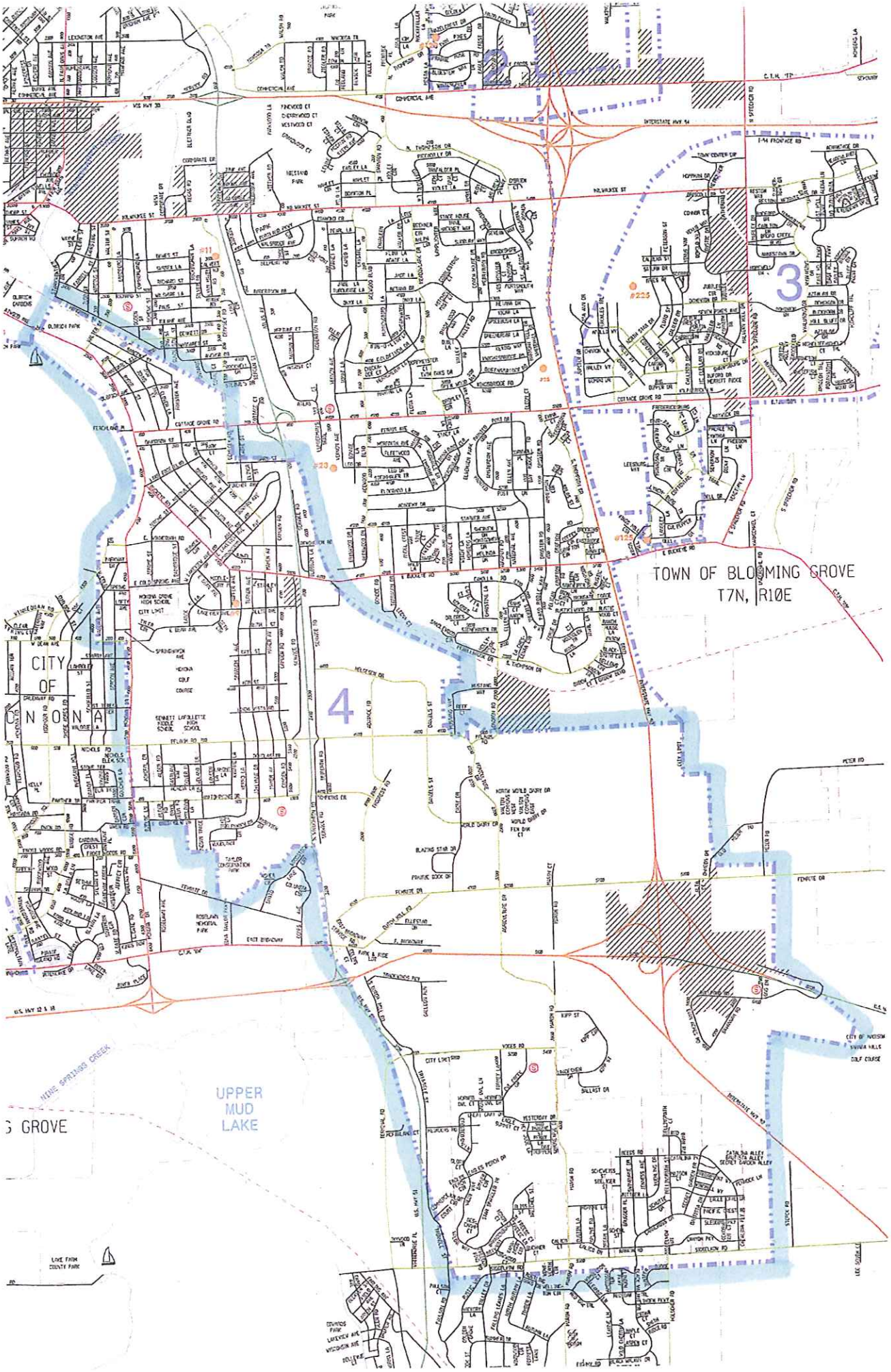
EXHIBIT A

LOCATION MAP AND SYSTEM FACILITIES MAP


TOWN OF BLOOMING GROVE
T7N, R10E
CITY OF MONONA
UPPER MUD LAKE
3
4

MADISON WATER UTILITY

05-21-2008

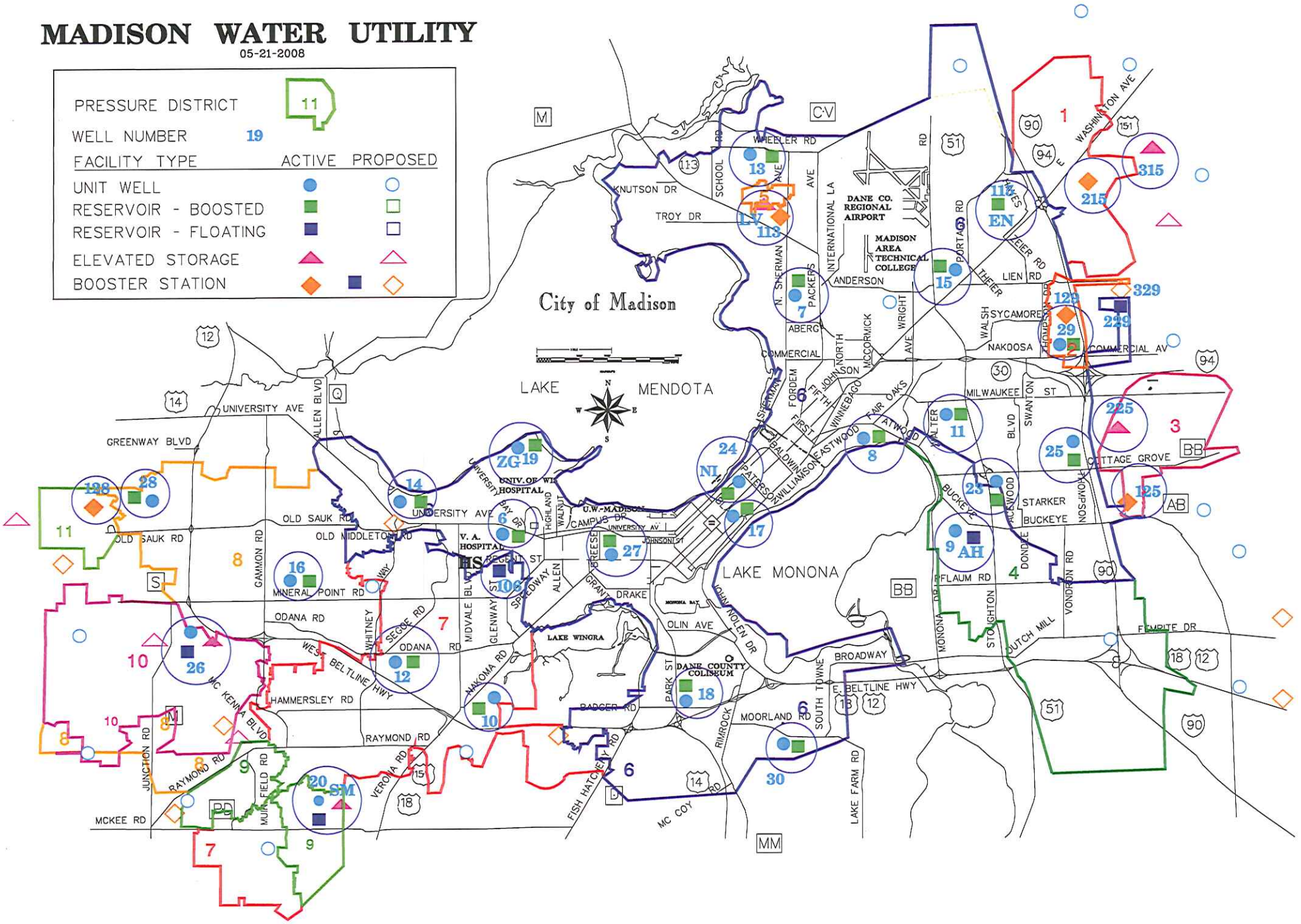


EXHIBIT B

BLACK & VEATCH FIRE FLOW ANALYSIS

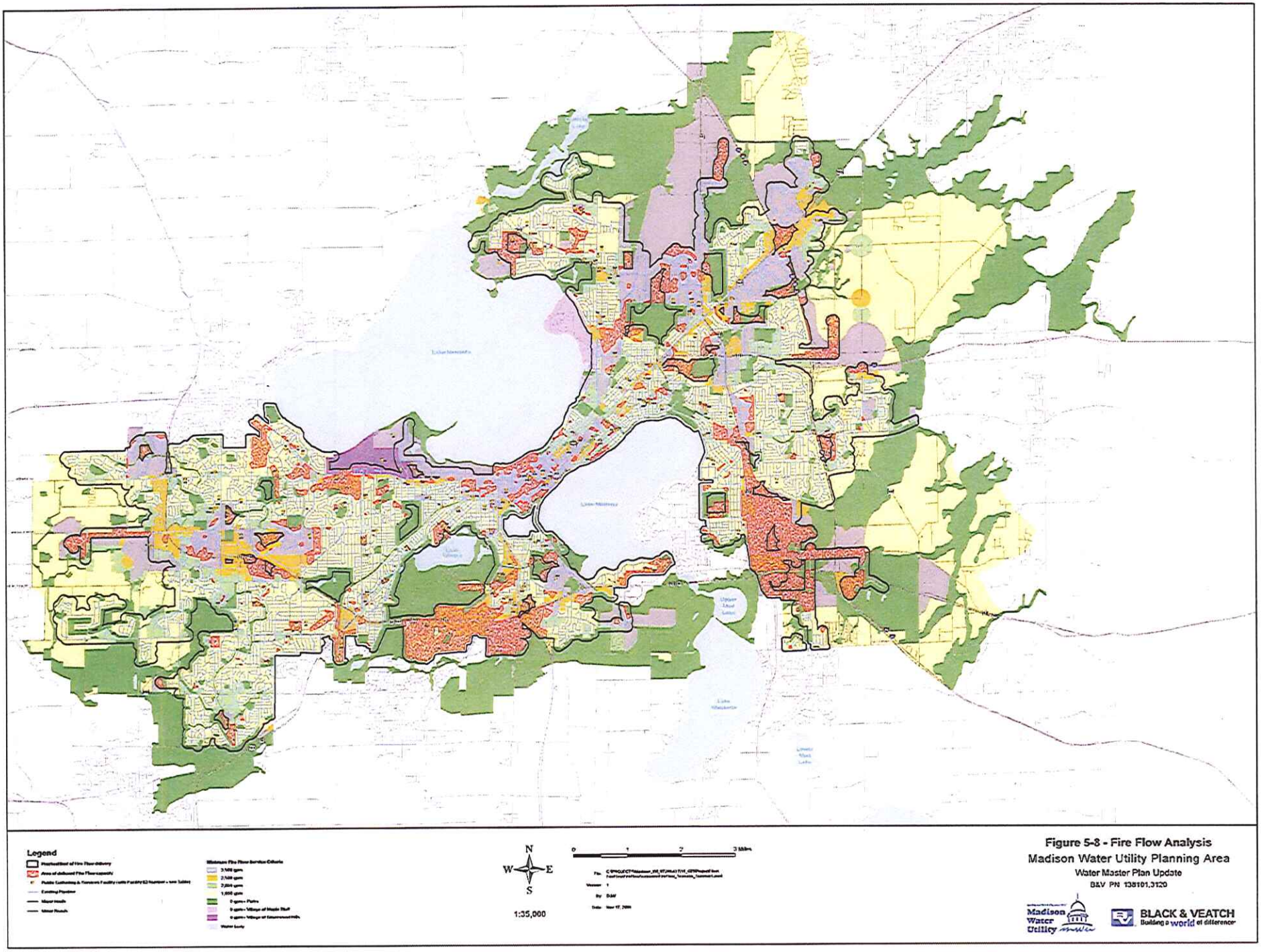
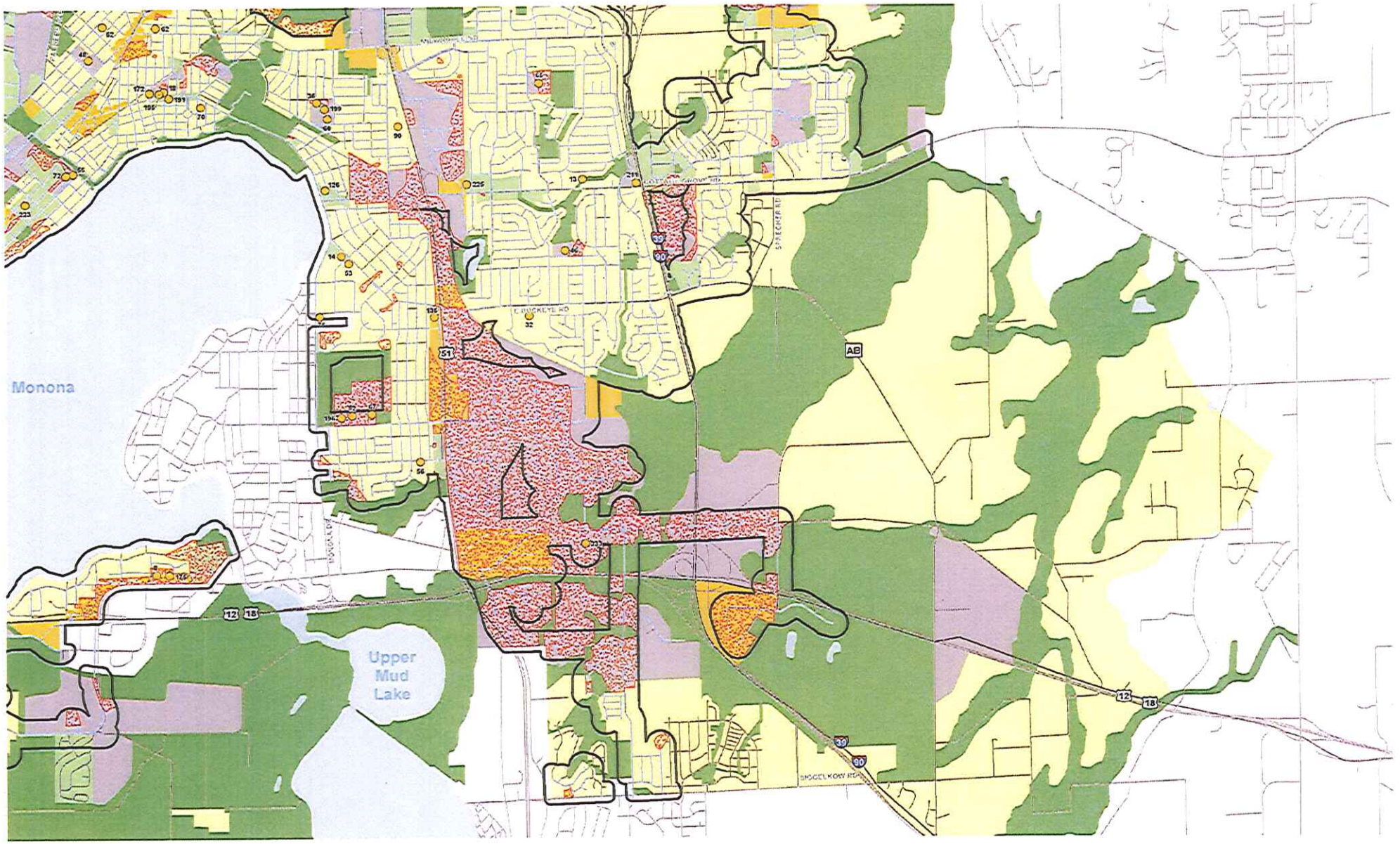


Figure 5-8 - Fire Flow Analysis
Madison Water Utility Planning Area
Water Master Plan Update
B&V PN 138101.3120

Madison Water Utility

BLACK & VEATCH
Building a world of difference


Monona
Upper
Mud
Lake
AB
51
12
18
39
90

map presentation. The four flow goals developed for this report and the associated land use designations are presented in Table 3-26.

Table 3-26
Municipal Fire Flow Goals

Flow Rate, gpm	Duration, hours	Planned Future Land Use
0	-	P - Parkland Water Bodies
		Outside Study Area
1,000	2	LDR - Low Density Residential
		NPA - Neighborhood Planning Area
		TND - Traditional Neighborhood Development
2,000	2	MDR - Medium Density Residential
		NMU - Neighborhood Mixed Use
2,500	2	HDR - High Density Residential
		CMU - Community Mixed Use
		GC - General Commercial
3,500	3	RMU - Regional Mixed Use
		RC - Regional Commercial
		E- Employment
		SI - Special Institutional
		D - Downtown
		C - Campus
		AP - Airport I - Industrial

The future municipal fire flow goal areas are shown on Figure 3-14 bound at the end of this Chapter.

Figure 3-14 also shows the location of approximately 140 sites throughout the Study Area with significant buildings used for public gatherings and public services. These

Madison Water Utility

April 8, 2009

Fireflow Deficiency is equal to the Minimum Fireflow Service Criteria minus the Available Fireflow. Different land use types require different amounts of fireflow.

Minimum Fireflow Service Criteria		
Flow Rate (gpm)	Duration (hours)	Planned Future Land Use
0		P – Parkland Water Bodies
0		Outside Area
1,000	2	Low Density Residential
1,000	2	Neighborhood Planning Area
1,000	2	Traditional Neighborhood Development
2,000	2	Medium Density Residential
2,000	2	Neighborhood Mixed use
2,500	3	High Density Residential
2,500	3	Community Mixed Use
2,500	3	General Commercial
3,500	3	Regional Mixed Use
3,500	3	Regional Commercial
3,500	3	Employment
3,500	3	Special Institutional
3,500	3	Downtown
3,500	3	Campus
3,500	3	Airport
3,500	3	Industrial

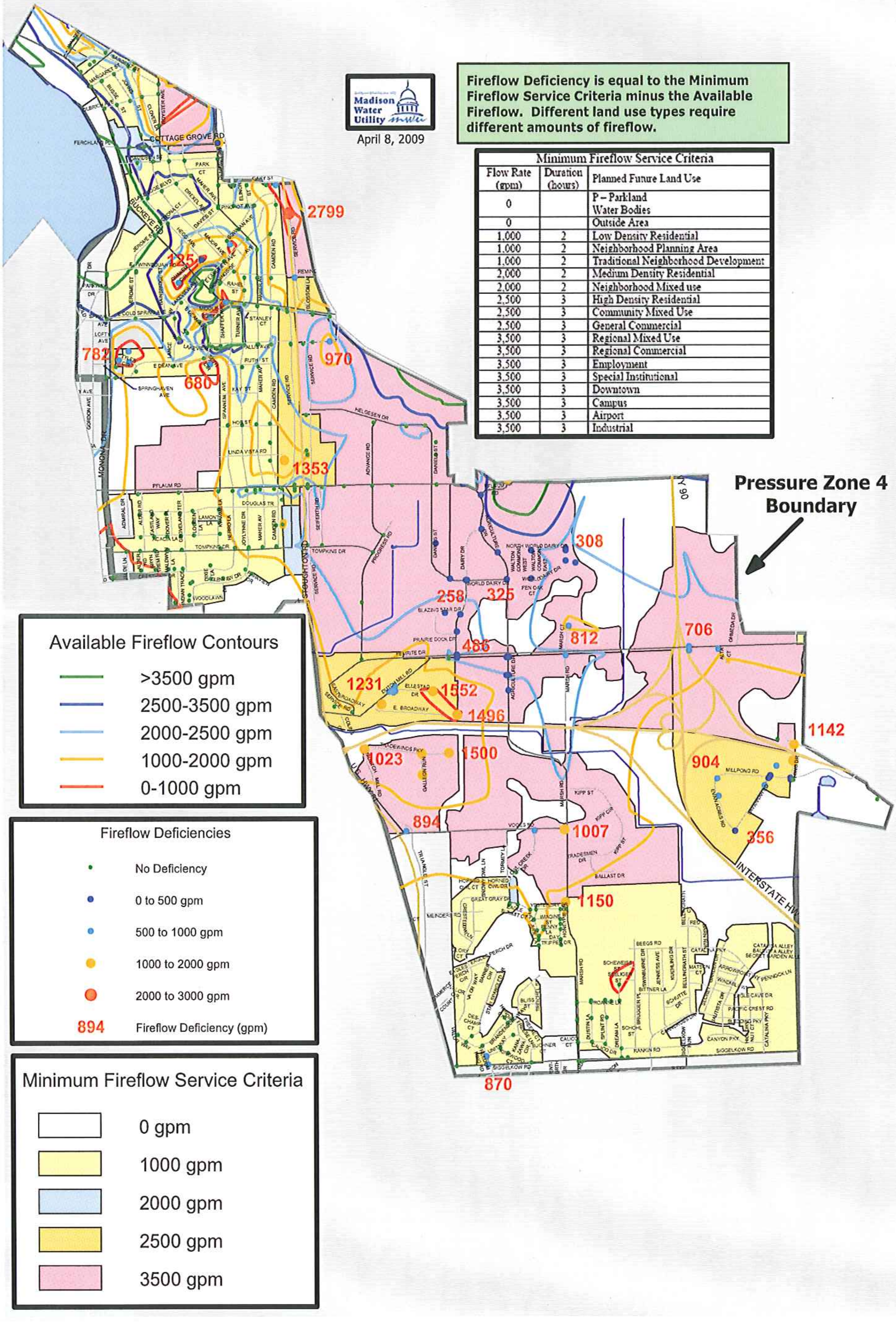


EXHIBIT C

PHOTOS OF UNIT WELLS 28, 29, & 30

1830