

City of Middleton

Request for Urban Service Area Amendment for
a 3.2 acre parcel for Multi-family Housing

December 4, 2015

The City of Middleton is submitting this request for an Urban Service Area Amendment (USAA) for a 3.2 acre parcel annexed to the City in 2014. The subject parcel is located at the northwest corner of the intersection of Blackhawk Rd. and Pleasant View Rd., immediately adjacent to the southeast boundary of the City of Middleton's Pleasant View Golf Course. To the west of the property are single family homes in the Town of Middleton, and further west is a portion of the City's Pleasant View Golf Course, fronting Blackhawk Rd. To the south is the City of Madison Blackhawk Neighborhood, with multi-family units directly south, and single family homes to the west. Across Pleasant View Rd. to the east is the Sauk Trail Business Park in Madison. To the north is the City of Middleton's Pleasant View Golf Course.

The City of Middleton and the City of Madison have entered into an intergovernmental agreement that allows the developer of this parcel to extend sanitary sewer and water service from the Blackhawk Rd/Pleasant View Rd. intersection. The City of Middleton recently approved rezoning of this property to allow a total of ninety-two (92) apartments in one four-story building. The proposal also calls for 129 underground parking stalls and 33 above ground spaces, for a total of 162 parking spaces, or 1.76 spaces per unit. As part of the approval for a Certified Survey Map (CSM), additional public right-of-way for Pleasant View Rd. and Blackhawk Rd. was recently dedicated from this property. The approved site plan and elevations for the project can be found in Appendix A. The approved CSM is shown in Appendix B.

PLAN CONSISTENCY

The development of this parcel in the City and the application for an Urban Service Amendment is consistent with the City's 2006 Comprehensive Plan in the following ways:

- The City of Middleton's Intergovernmental Agreement with the City of Madison, which states that properties north of Blackhawk Rd., if annexed, will annex to the City of Middleton. The amended agreement also allows the developer of this property to extend City of Madison water and sewer service for the anticipated development, and allows up to 110 apartment units.
- A goal in the 2006 Comprehensive Plan to "expand housing opportunities and allow for flexibility in residential development and promote affordable quality housing, a range of housing options, and a suitable living environment for all residents."
- A goal in the 2006 Comprehensive Plan to "support design of residential neighborhoods with mixed land use at a scale appropriate to residential development and with convenient access to a neighborhood shopping area or to larger commercial areas. Residential development located near commercial areas or commercial uses in a residential neighborhood helps meet day-to-day needs of residents."
- A goal in the 2006 Comprehensive Plan to "encourage the development of housing to meet the needs of all the people who work in Middleton, so that they can have good housing choices closer to their jobs." This property is within walking distance of the Greenway Center area, with thousands of jobs in many sectors of the economy. The property is also adjacent to a large business park in the City of Madison.
- A goal in the 2006 Comprehensive Plan to "assure that new growth is balanced, and encourage the development of both rental and ownership housing for a range of incomes."

- A goal in the 2006 Comprehensive Plan to “encourage the infilling of housing in urban areas that make more efficient use of existing infrastructure.”
- A goal in the 2006 Comprehensive Plan to “maintain the mutually beneficial intergovernmental relationships with surrounding jurisdictions.”

1.1 Local Community or Neighborhood Plan

The City of Middleton Comprehensive Plan was adopted in 2006, and is available on-line at <http://www.ci.middleton.wi.us/City/Departments/planning/plans/plans.htm>.

1.2 Local Plan Commission Documentation

The City of Middleton Plan Commission and the Common Council both found this amendment request to be consistent with the City’s 2006 Comprehensive Plan. On December 9, 2014 the Plan Commission passed a motion to submit this application, with the consistency findings noted above. The Common Council voted in favor of the submittal on December 16, 2014. The minutes of those meetings are included in Appendix C.

2.0 INTERGOVERNMENTAL COOPERATION

The City of Middleton has Intergovernmental Agreements with each of its three (3) neighboring townships, Westport, Middleton, and Springfield, and with the City of Madison. The property that is the subject of this amendment was annexed from the Town of Middleton, and although the Town has not commented on this request, and no formal submittal has been made to the Town, this amendment request is consistent with the City’s annexation of this property.

2.1 Document Notification of Adjacent Local Government Units

Capital Area Regional Planning Commission (CARPC) staff will notify the appropriate governmental units of this urban service area amendment (USAA) application.

2.2 Adjacent Local Government

CARPC staff will compile objections and support of the project.

3.0 LAND USE

The proposed USAA will add a 3.2 acre parcel of land to the Central Urban Service Area. The land is currently occupied by a single family house. Table 1 summarizes the existing and proposed land uses in the USAA.

As shown on both the site plan and the Certified Survey Map, the USAA land will access an existing street, Blackhawk Rd., and is adjacent to Pleasant View Rd. It is contiguous to the current City of Madison Central Urban Service Area (CUSA) boundary. It is also adjacent to existing infrastructure: to the west of the property are single family homes in the Town of Middleton, and further west is a portion of the City’s Pleasant View Golf Course, fronting Blackhawk Rd. To the south is the City of Madison Blackhawk

Neighborhood, with multi-family units directly south, and single family homes to the west. Across Pleasant View Rd. to the east is the Sauk Trail Business Park in Madison. To the north is the City of Middleton's Pleasant View Golf Course.

3.1 Proposed USAA Boundary and Rights-of-Way

Figure 6.1 in Appendix D shows the proposed change to the USAA Boundary (adding the subject parcel, shown in red on Figure 6.1). No additional roads are needed or planned for this parcel, as access will be from an existing street.

3.2 Acreage of Proposed Lands Uses for USAA

The proposed land use in the USAA is a four story, ninety-two unit apartment building. Table 1 shows the proposed land use by acre. There is an existing single family house on the property. Due to the nature and size of the parcel, and the characteristics of the land itself, which does not include any resources appropriate for inclusion in an environmental corridor, there is no proposed environmental corridor area. The developer will pay fees in lieu of park dedication and also park improvement fees.

Table 1

Proposed Land Use	Number of Acres			Number of Housing Units
	Total Area	Existing Development	Environmental Corridor	
Multi Family Residential	3.2 acres			92
Single Family Residential	0	3.2 acres		1
Residential Total	3.2 acres			92
Commercial	0			
Industrial	0			
Institutional/Municipal				
Street R.O.W				
Parks				
Stormwater Management/Environmental Corridor				
Other Open Space				
Total	3.2 acres			

3.3 Total Acreage of Existing Development

There is one existing single family house on this 3.2 acre parcel.

3.4 Land Uses Surrounding the USAA

The map in Appendix E shows the existing and planned land uses on and adjacent to the proposed USAA. The proposed USAA parcel is adjacent to existing development or permanent public open space on all sides. To the west of the property are single family homes in the Town of Middleton, and further west is a portion of the City's Pleasant View Golf Course, fronting Blackhawk Rd. To the south is the City of Madison Blackhawk Neighborhood, with multi-family units directly south, and single family homes to the west. Across Pleasant View Rd. to the east is the Sauk Trail Business Park in Madison. To the north is the City of Middleton's Pleasant View Golf Course.

3.5 20-year Staging Plan

The amendment size is only 3.2 acres and will be developed with a 92 unit apartment building, therefore a 20-year staging plan is not needed.

4.0 HOUSING and ECONOMIC DEVELOPMENT

4.1, 4.2 and 4.3 Proposed Housing, Affordability and Economic Development

This is a single parcel/use request with only one **ninety two (92) unit multi-family apartment structure** proposed. This property is within walking distance of the Greenway Center area, with thousands of jobs in many sectors of the economy. The property is also adjacent to a large business park in the City of Madison.

5.0 AGRICULTURAL, NATURAL and CULTURAL RESOURCES

There are no known historic structures, archaeological areas, wetlands, floodplains, natural resource areas or drainage ways within the proposed USAA parcel. This parcel is at the edge of the City/Town of Middleton boundary, and is consistent with the City/Town intergovernmental agreement and the City of Middleton/City of Madison intergovernmental agreement.

6.0 UTILITIES and STORMWATER MANAGEMENT

This parcel will have the full range of utility services, and will meet required stormwater management and erosion control standards for construction of a multi-family apartment building.

6.1 Public Sanitary Sewerage System

The proposed USAA includes one parcel on which an apartment building is proposed for construction. The apartment building is proposed to have a total of 92 units which are estimated to generate an average daily wastewater flow rate 19,300 gallons per day with a peak hourly rate of 54 gallons per minute. Please see **Table 6.1** below.

Table 6.1 - Wastewater Generation Estimates

Land Use	Number of Units	Population	Average Daily Flow (gpd)	Peak Hourly Flow (gpm)	Peak Hourly Flow (cfs)
Apartment Residential	92	193	19,300	54	0.12

Design Factor	Factor Value
Apartment Residential ¹ =	2.10 persons per unit
Wastewater Generation ² =	100.0 gals./day*person
Peak Flow/Average Day Factor ³ =	4.00

Notes: (1) Average Household Size of Renter-Occupied Units for the City of Middleton per U.S. Census Bureau, Census 2000 Profile of General Demographic Characteristics = 1.84 PE/DU. However, City's engineering consultant traditionally uses 2.1.

(2) Per Cory Stelljes, City of Madison Engineering Department.

(3) 10 States Standards - Recommended Standards for Wastewater Facilities, 2004 Edition, Figure 1

Sanitary sewer service will be provided to the proposed apartment building (USAA) by connection to the City of Madison's sanitary sewer collection system. Approximately 400 feet of eight-inch sanitary sewer will be extended from the existing manhole at the intersection of Blackhawk Road and Pleasant View Road to connect the apartment

building to the City of Madison's sanitary sewer collection system which connects to the Madison Metropolitan Sewerage District (MMSD) sanitary interceptor sewer. The proposed sanitary sewer is shown on the attached **Utility Plan** found in Appendix Section 6.1. The existing City of Madison sanitary sewer collection system (shown in green) and MMSD interceptor (shown in black) are shown in **Figure 6.1 - Sanitary Sewer System Map & Current MMSD Service Area Boundary**, in Appendix D.

6.2 Wastewater Plant/Interceptor Capacity

The proposed USAA will be serviced by the Madison Metropolitan Sewerage District (MMSD) wastewater treatment plant (WWTP) and interceptor sewer. The USAA is within the MMSD's current WWTP and interceptor sewer service area boundary as shown in **Figure 6.1** provided by MMSD. Therefore, there will be adequate MMSD wastewater plant and interceptor capacity to serve the proposed USAA.

The proposed sanitary sewer serving the USAA will connect to the City of Madison's sanitary sewer system at the intersection of Blackhawk Road and Pleasant View Road. The City's sanitary sewer system connects to a MMSD's interceptor at the southwest corner of Greenway Boulevard and USH 12 & 18. Mark Moder, of the City of Madison Engineering Division, analyzed the available capacity of the city's sewer system from the intersection of Blackhawk Road and Pleasant View Road to the connection point with the MMSD interceptor. According to Mark, the system has 0.94 cfs of available capacity. The estimated peak from the USAA is 0.12 cfs (see Table 6.1 above); therefore, the city's sewer system has adequate capacity for the proposed USAA.

6.3 Current Wastewater Plant/Interceptor Current Flow

The CARPC has data from the Madison Metropolitan Sewerage District (MMSD) on current flow to the wastewater treatment plant and interceptor serving the proposed USAA.

6.4 Proposed Water Supply/Distribution System

The USAA will include 92 units. The estimated average daily and peak hourly water demands are shown in **Table 6.4** below.

Table 6.4 – Water Demand Estimates

Land Use	Number of Units	Population	Average Daily Demand Sold (gpd)	Average Daily Demand Pumped (gpd)	Max Day Demand (gpd)	Peak Hourly Demand (gpm)
Apartment Residential	92	193	9,892	10,870	22,175	24

Water Use Factors:	City of Middleton
Apartment Residential ¹ =	2.10 persons per unit
Per Person Demand ² =	51.2 gals./day*person
Water Pumped to Water Sold ³ =	91%
Max Day/Aver. Day Pumped Peaking Factor ³ =	2.04
Peak Hour/Max Day Peaking Factor ³ =	1.56

Footnotes: (1) Average Household Size of Renter-Occupied Units for the City of Middleton per U.S. Census Bureau, Census 2000 Profile of General Demographic Characteristics = 1.84 PE/DU. However, City's engineering consultant traditionally uses 2.1.

(2) Average residential sales for the City of Middleton from 2004 to 2008.

(3) 91% of water pumped is sold average last 5 years; Max. Day/Aver. Day Pumped = 2.04; typical Peak hour/Max. Day factor = 1.56 per City of Middleton Water Utility.

Public water supply will be provided to USAA by connection to the City of Madison's existing water main in Blackhawk Road. The proposed water service connections are shown in the **Utility Plan** found in **Appendix Section 6.1**.

6.5 Water System Current Capacity

According to the City of Madison Water Utility's 2013 annual report to the Wisconsin Public Service Commission (WPSC), there are currently 22 water supply wells providing a total well capacity of 47,700 gpm. The 2013 annual report to the WPSC lists thirty storage facilities providing a total of 39,124,000 gallons (39.12 MG) of water storage.

6.6 Adequacy Public Water System to Provide Fire Flows

The **Fire Flow Test Report** (found in the Appendix) provided by the City of Madison Water Utility indicate that 3,500 gpm is available from the hydrant at the southeast corner of Pleasant View and Blackhawk Roads at a residual pressure of 20 psi. The well and storage facilities listed in Section 6.5 above have adequate capacity to sustain this fire flow for 2.5 hours for fire fighting.

6.7 Current Water Demands

According to the City of Madison Water Utility's 2013 annual report to the Wisconsin Public Service Commission (WPSC), the year 2013 average daily demand was 27.55 million gallons per day (MGD) with a maximum day demand of 43.10 MGD. Utilizing a 1.56 peak hour to maximum day factor, the estimated peak hourly water demand would be 46,688 gpm. The estimated peak hourly demand from the proposed USAA is 24 gpm. Therefore, the city's current well capacity (47,700 gpm) will be able to meet the city's current peak hourly demand plus that from the USAA (46,715 gpm). Similarly, the city's current storage capacity (39.12 MG) exceeds the current average daily demand plus that from the proposed USAA (27.55 MG).

6.8 Stormwater Facility Management and Ownership

Stormwater facilities located on private parcels or within easements will be owned and maintained by the property owners or homeowners association. This includes infiltration, bioretention and underground detention facilities, which will provide sediment reduction, infiltration, detention, and thermal reduction. Facilities are shown in the proposed stormwater summary. The **stormwater summary** is provided in **Appendix Section 6.8**. The **geotechnical report** is also provided in **Appendix Section 6.8**.

6.9 Stormwater Management Measures and Standards

The criteria used for stormwater design meets City, County, and State requirements:

Criteria	Standard
Sediment Control	80% reduction of total suspended solids from average annual storm
Oil and Grease Control	Treat first 0.5 inch of runoff from vehicular surfaces
Thermal Control	Reduction of enhanced effluent temperature

Runoff Rate Control	Limit developed peak flow rates to predeveloped peaks for 1, 2, 5, 10, 25 and 100-year, 24-hour storms
Conveyance System	Design pipes to convey 10-year, 24-hour storm; streets and open channels to convey 25-year, 24-hour storm; and overland drainage ways with no overflow to convey 100-year, 24-hour storm
Infiltration	Infiltrate 90 percent of the predeveloped average annual rainfall depth

These standards will be met using infiltration facilities (Thermal, Infiltration), bioretention basins (Sediment, Oil and Grease, Thermal, Infiltration,), and an underground detention facility (Runoff Rate).

6.10 Stormwater Ponds

Infiltration and bio-retention facilities may not be installed until disturbed areas are restored as they can become clogged with construction sediment.

7.0 TRANSPORTATION

No additional roads are needed or planned for this parcel, as access will be from existing local streets.

The City hired a consultant to prepare a Traffic Impact Analysis (TIA) for the proposed apartment project (paid for by the developer). The complete results of the TIA are available upon request. Based on a current peak hour level of service F at the intersection of Blackhawk Rd. and Pleasant View Rd., the City of Madison and the City of Middleton coordinated funding for a traffic signal at the intersection. The City of Madison will design the improvement and fund 75% of the cost and the City of Middleton will pay 25% of the cost, up to a maximum of \$75,000 from the City of Middleton.

8.0 COMMUNITY FACILITIES

Police protection and services will be provided to this lot at a level appropriate for the proposed 92 unit multi-family construction. The City of Middleton is part of a Fire District that encompasses all of the City of Middleton, plus the Town of Middleton and

portions of the Towns of Springfield and Westport. The EMS station is adjacent to the Fire District fire station and this lot is within their service area.

Future residents of the apartment building to be built on this parcel will be served by the Middleton-Cross Plains Area School District. Other community facilities, including the Middleton Public Library, Middleton Senior Center, and the Aquatic Center, are located between 2.0 and 2.7 miles from this property.

APPENDIX A

Site Plan and Elevations for Multi-Family Project

BROWNPOINT RESERVE

8850 BLACKHAWK ROAD, MIDDLETON, WI



AERIAL OVERVIEW

SITE MAP

EXISTING CONDITIONS

STATEMENT OF RATIONALE

ANALYSIS OF IMPACT

AND RELATION TO

COMPREHENSIVE PLAN

GENERAL DEVELOPMENT PLAN

OVERALL DESCRIPTION

EXAMPLE PROJECTS

SITE PLAN

ELEVATIONS

UNDERGROUND PARKING PLAN

SAMPLE UNIT PLANS

LANDSCAPE PLAN

PROPOSED LIGHTING PLAN

EXISTING SITE CONDITIONS

DEMOLITION PLAN

EROSION CONTROL &

GRADING PLAN

UTILITY PLAN

EROSION CONTROL DETAILS

CONSTRUCTION DETAILS

SPECIFIC IMPLEMENTATION PLAN

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SITE DEVELOPMENT STATISTICS		BUILDING STATISTICS		PARKING STATISTICS	
TOTAL SITE AREA	147328 SF	GROSS FLOOR AREA	144827 SF	SURFACE SPACES	33 (2 HC)
BUILDING FOOTPRINT	38527 SF	MAIN BUILDING	141198 SF	UNDERGROUND SPACES	128 (5 HC)
LOT COVERAGE RATIO	0.26	CLUBHOUSE	3045 SF	TOTAL PARKING SPACES	161 (7 HC)
FLOOR AREA RATIO	0.96	UNIT TYPES		UNDERGROUND PARKING RATIOS	
IMPERVIOUS SURFACE		1 BEDROOM	28	PER UNIT	1.39
EXISTING	7166 SF	1 BEDROOM-DEN	16	PER BEDROOM	0.89
PROPOSED	65780 SF	2 BEDROOM	29	COMBINED PARKING RATIOS	
IMP. SURFACE RATIO	0.45	2 BEDROOM-DEN	8	PER UNIT	1.75
BUILDING AREA		2 BEDROOM TOWNHOUSE	7	PER BEDROOM	1.12
EXISTING	3177 SF	3 BEDROOM	4		
PROPOSED	144243 SF	TOTAL UNITS	92		
PARKING/PAVEMENT AREA		TOTAL BEDROOMS	144		
EXISTING	3756 SF				
PROPOSED	27100 SF				
OPEN SPACE/DWELLING UNIT	1016 SF				



A001	PRELIMINARY SITE PLAN	BROWNPOINT RESERVE 8850 BLACKHAWK ROAD MIDDLETON, WI 53562		 202 West Gartham St., Madison, WI 53703 608.663.5100 608.663.5151 fax
	REVISION/NO			
	DATE			
	BY			

BROWNPOINT RESERVE

8850 BLACKHAWK ROAD, MIDDLETON, WI



AERIAL OVERVIEW

SITE MAP

EXISTING CONDITIONS

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LANDSCAPE PLAN

PROPOSED LIGHTING PLAN

EXISTING SITE CONDITIONS

DEMOLITION PLAN

EROSION CONTROL &
GRADING PLAN

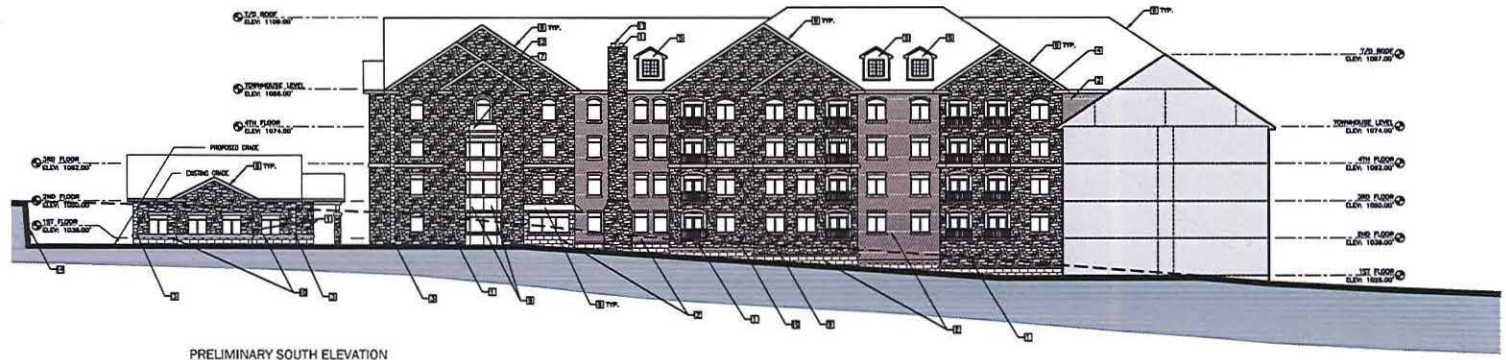
UTILITY PLAN

EROSION CONTROL DETAILS

CONSTRUCTION DETAILS

SPECIFIC IMPLEMENTATION PLAN

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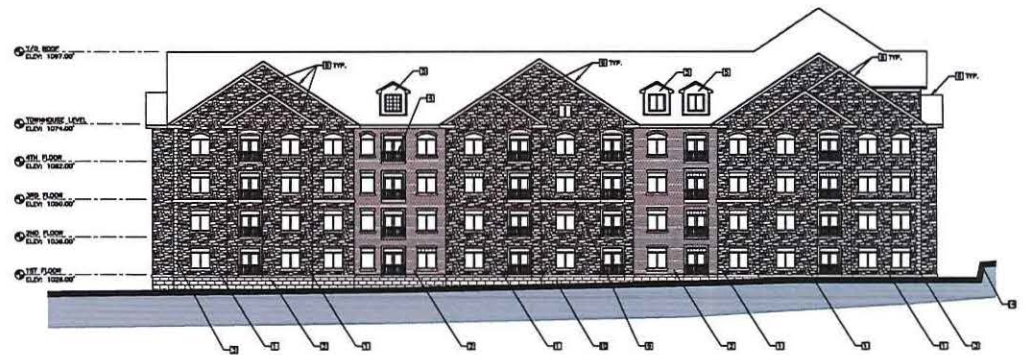
PRELIMINARY SOUTH ELEVATION

EXTERIOR SPECIFICATIONS:

1. 1" THIN STONE VENEER, SPEC T.B.D.
2. BOARD SIDING, SPEC T.B.D.
3. STONE CORNER QUIONS, SPEC T.B.D.
4. STAINLESS CABLE BALUSTERS AND RAILING SYSTEM.
5. ALL DORMERS 7" CEDAR LAP SIDING MADE BY LP.
6. ASPHALT SHINGLES, SPEC T.B.D.
7. STANDING SEAM METAL ROOFING, SPECS & INSTALLATION T.B.D.
8. K&K EXTERIOR DECORATIVE STONE WALL PANELS.
9. 12" STONE BANDING, TYPE AND INSTALLATION T.B.D.
10. CULTURED STONE WATER TABLE, SPECS & INSTALLATION T.B.D.
11. LARGE CLAY CHIMNEY POTS.
12. SPECIALTY WINDOW, SIZE AND TYPE TO BE BASED ON WINDOW MFG.
13. OPEN CAVITY FOR WOOD STORAGE.
14. SIZE & LOCATION OF STAIRS & RETAINING WALLS TBD BY OTHERS.

EXTERIOR GENERAL NOTES:

1. CONTRACTOR TO INCLUDE PRE-FINISHED GUTTERS, DOWNSPOUTS, SOFFIT, AND FASCIA AND DRIP EDGES.
2. ALL EXTERIOR MATERIALS ARE TO BE MAINTENANCE FREE OR SYNTHETIC IN LIEU OF PAINTED WOOD.
3. GUTTERS P. 3/4" D.S. ALL CONNECT TO UNDERGROUND DRAINAGE.



PRELIMINARY EAST ELEVATION

A002	PRELIMINARY ELEVATIONS	BROWNPOINT RESERVE 8850 BLACKHAWK ROAD MIDDLETON, WI 53562	brownhouse 202 West Gorham St. Madison, WI 53703 608.663.5100 608.663.5151 fax
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BROWNPOINT RESERVE

8850 BLACKHAWK ROAD, MIDDLETON, WI



AERIAL OVERVIEW

SITE MAP

EXISTING CONDITIONS

STATEMENT OF RATIONALE

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AND RELATION TO
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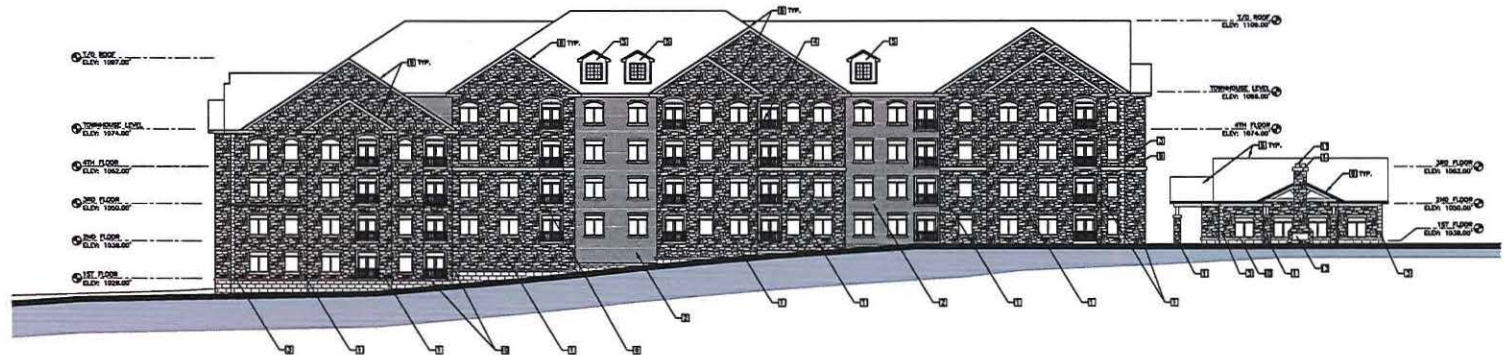
UTILITY PLAN

EROSION CONTROL DETAILS

CONSTRUCTION DETAILS

SPECIFIC IMPLEMENTATION PLAN

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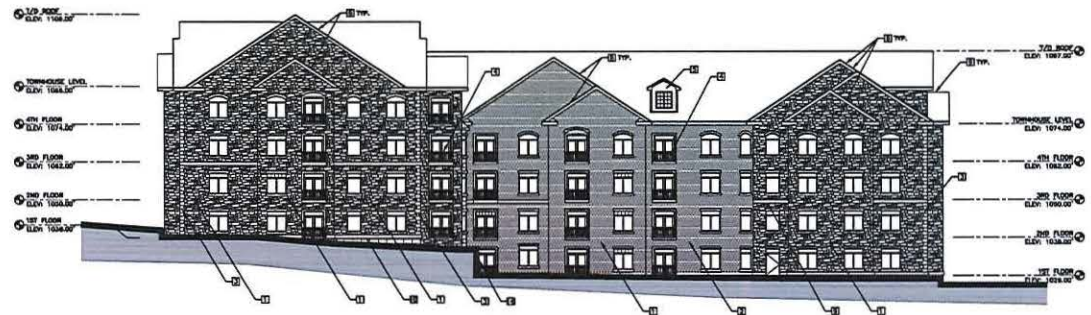
PRELIMINARY NORTH ELEVATION

EXTERIOR SPECIFICATIONS:

1. 1" THIN STONE VENEER, SPEC T.B.D.
2. BOARD SIDING, SPEC T.B.D.
3. STONE CORNER QUOINS, SPEC T.B.D.
4. STAINLESS CABLE BALUSTERS AND RAILING SYSTEM.
5. ALL DORMERS 7" CEDAR LAP SIDING MADE BY LP
6. ASPHALT SHINGLES, SPEC T.B.D.
7. STANDING SEAM METAL ROOFING, SPECS & INSTALLATION T.B.D.
8. 4X4 EXTERIOR DECORATIVE STONE WALL PANELS.
9. 12" STONE BANDING, TYPE AND INSTALLATION T.B.D.
10. CULTURED STONE WATER TABLE, SPECS & INSTALLATION T.B.D.
11. LARGE CLAY CHIMNEY POTS.
12. SPECIALTY WINDOW, SIZE AND TYPE TO BE BASED ON WINDOW MFG.
13. OPEN CAVITY FOR WOOD STORAGE.
14. SIZE & LOCATION OF STAIRS & RETAINING WALLS TBD BY OTHERS.

EXTERIOR GENERAL NOTES:

1. CONTRACTOR TO INCLUDE PRE-FINISHED GUTTERS, DOWNSPOUTS, SOFFIT, AND FASCIA, AND CRIP EDGES.
2. ALL EXTERIOR MATERIALS ARE TO BE MAINTENANCE FREE OR SYNTHETIC IN LIEU OF PAINTED WOOD.
3. GUTTERS 8" ,3/4" O.D. ALL CONNECT TO UNDERGROUND DRAINAGE.



PRELIMINARY WEST ELEVATION

A003	PRELIMINARY ELEVATIONS	BROWNPOINT RESERVE					brownhouse 202 West Gorham St. Madison, WI 53703 608.663.5100 608.663.5151 fax
		8850 BLACKHAWK ROAD					
		MIDDLETON, WI 53562					
		DATE	BY	CHKD BY	DATE		

APPENDIX B

Certified Survey Map

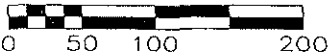
CERTIFIED SURVEY MAP No. 14028

PART OF THE SW 1/4 - NW 1/4 OF SECTION 15, TOWNSHIP 07 NORTH, RANGE 08 EAST, CITY OF MIDDLETON, DANE COUNTY, WISCONSIN

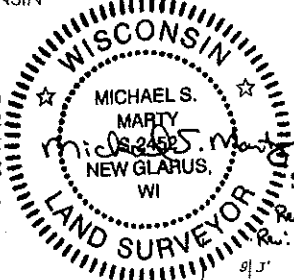
SURVEY LEGEND

- FOUND 3/4" Ø IRON ROD
 - ⊙ 1" PINCHED TOP PIPE FOUND
 - ⊠ SET 3/4" Ø x 18" SOLID IRON RE-ROD, MIN WT. 150 lbs./ft.
 - () INDICATES RECORDED AS
- DISTANCES ARE MEASURED TO THE NEAREST HUNDREDTH OF A FOOT.

GRAPHIC SCALE FEET

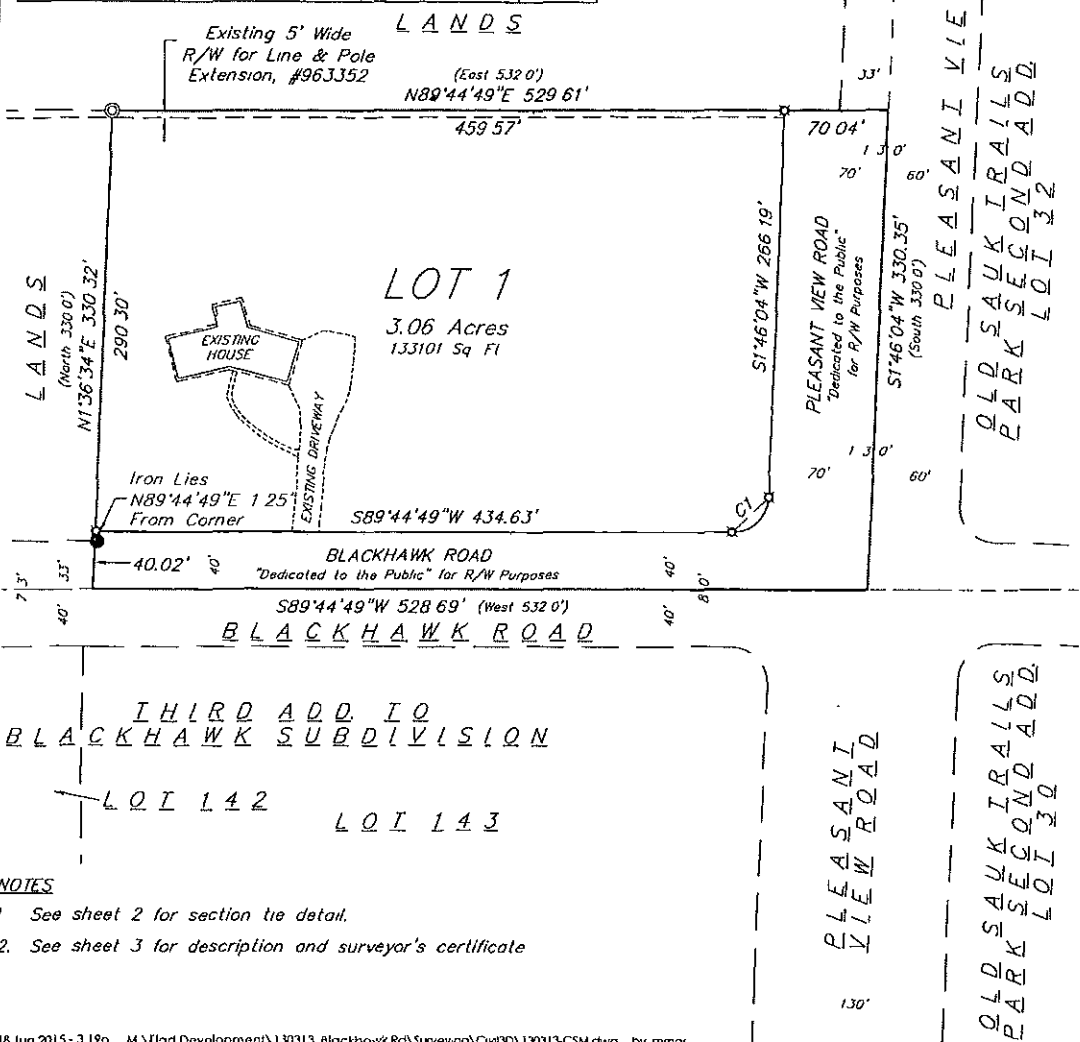


BEARINGS ARE BASED UPON THE WISCONSIN COUNTY COORDINATE SYSTEM, DANE COUNTY, THE SOUTH LINE OF THE NW 1/4 OF SEC 15-07-08 MEASURED AS BEARING N89°44'49"E



5/5/2015
5/22/2015
6/18/2015

Curve Table					
CURVE NUMBER	ARC LENGTH	RADIUS	DELTA	CHORD DIRECTION	CHORD LENGTH
C1	38.39'	25.00'	087°58'45"	S45°45'26"W	34.73'



NOTES

1. See sheet 2 for section tie detail.
2. See sheet 3 for description and surveyor's certificate

18 Jun 2015 - 3:19p M:\Prod Development\130313_Blackhawk Rd\Surveying\Gw\3D\130313-CSM.dwg by mvmr

vierbicher
planners | engineers | advisors



REEDSBURG - MADISON - PRAIRIE DU CHIEN
999 Fourier Drive Suite 201 Madison, Wisconsin 53717
Phone (608) 826-0532 Fax (608) 826-0530

FN 130313
DATE 05-05-2015
REV 05-22-2015
Drafted By MMAR
Checked By MZHC

SURVEYED FOR
Dennis A. Gerfen
8850 Blackhawk Road
Middleton, WI 53562

C.S.M. No. 14028

Doc. No. 5172646

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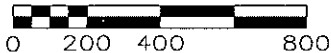
SHEET
1 OF 4

PART OF THE SW $\frac{1}{4}$ - NW $\frac{1}{4}$ OF SECTION 15, TOWNSHIP 07 NORTH, RANGE 08 EAST, CITY OF MIDDLETON,
DANE COUNTY, WISCONSIN



BEARINGS ARE BASED UPON THE
WISCONSIN COUNTY COORDINATE SYSTEM,
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NW ¼ OF SEC 15-07-08 MEASURED AS
BEARING N89°44'49"E

GRAPHIC SCALE FEET

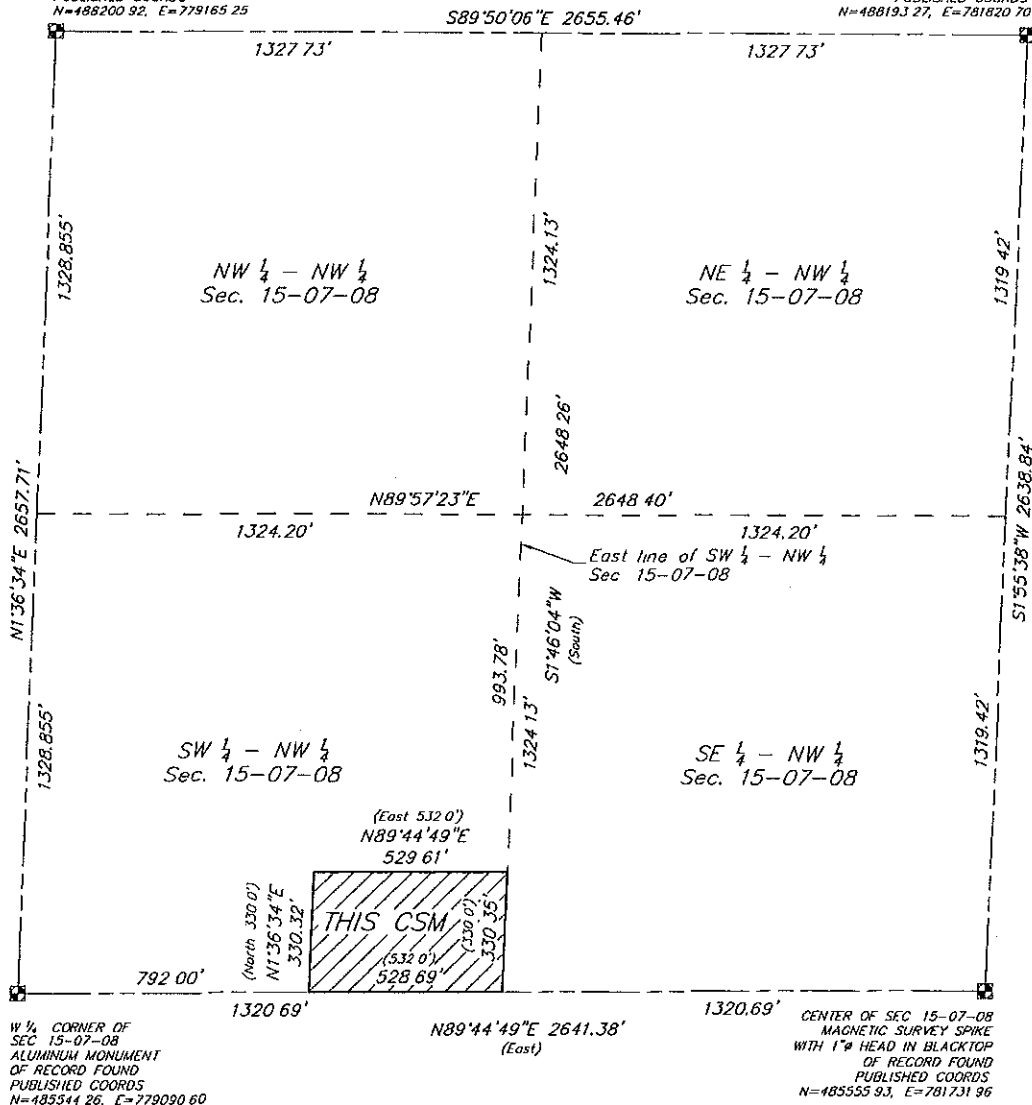


5/5/2015
Rev: 5/22/2015
Rev: 4/18/2015

NW CORNER OF
SEC 15-07-08
ALUMINUM MONUMENT
OF RECORD FOUND
PUBLISHED COORDS
N=488200.92, E=779165.25

SECTION TIE DETAIL

N 1/4 CORNER OF
SEC 15-07-08
ALUMINUM MONUMENT
OF RECORD FOUND
PUBLISHED COORDS
N=488193 27, E=781820 70



18 Jun 2015 - 3 21p M:\Prod Development\130313_Blackhawk Rd\Surveying\Cmi3D\130313-CSM.dwg by mmx

vierbicher
planners | engineers | advisors



FN 130313
DATE 05-05-2015
REV 05-22-2015
Drafted By MMAR
Checked By MZIE

SURVEYED FOR.
Dennis A Gerfen
8850 Blockhawk Road
Middleton, WI 53562

C.S.M No 14028

Doc. No. 5172646

Vol 94 Page 51

SHEET
2 OF 4

REEDSBURG • MADISON • PRAIRIE DU CHIEN
999 Fourrier Drive Suite 201 Madison Wisconsin 53717
Phone (608) 826-0532 Fax (608) 826-0530

CERTIFIED SURVEY MAP No. 14028

PART OF THE SW $\frac{1}{4}$ - NW $\frac{1}{4}$ OF SECTION 15, TOWNSHIP 07 NORTH, RANGE 08 EAST, CITY OF MIDDLETON, DANE COUNTY, WISCONSIN

SURVEYOR'S CERTIFICATE:

I, Michael S. Marty, Professional Land Surveyor No. 2452, hereby certify: That in full compliance with the provisions of Chapter 236.34 of the Wisconsin Statutes and the subdivision regulations of the City of Middleton, and under the direction of Dennis A. Gerfen, owner of said land, I have surveyed, divided and mapped this Certified Survey Map; that such Certified Survey Map correctly represents all exterior boundaries and the subdivision of the land surveyed; and that this land is located in the SW $\frac{1}{4}$ - NW $\frac{1}{4}$ of Section 15, Township 07 North, Range 08 East, City of Middleton, Dane County, Wisconsin, more fully described as follows:

Commencing at the West $\frac{1}{4}$ corner of said Section 15; thence N89°44'49"E along the South line of said NW $\frac{1}{4}$ of Section 15, 792.00 feet to the point of beginning; thence N01°36'34"E along a line parallel with the West line of said NW $\frac{1}{4}$ of Section 15, 330.32 feet; thence N89°44'49"E along a line parallel with the South line of said NW $\frac{1}{4}$ of Section 15, 529.61 feet to the East line of said SW $\frac{1}{4}$ - NW $\frac{1}{4}$, thence S01°46'04"W along said East line of the SW $\frac{1}{4}$ - NW $\frac{1}{4}$, 330.35 feet to the South line of said NW $\frac{1}{4}$ of Section 15; thence S89°44'49"W along said South line of the NW $\frac{1}{4}$ of Section 15, 528.69 feet to the point of beginning. Said description contains 174,697 square feet or 4.01 acres more or less.

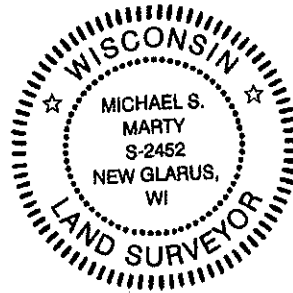
Vierbicher Associates, Inc.

By: Michael S. Marty, P.L.S. No. 2452

Dated this 5th day of May, 2015.

Rev: 5/22/2015 Rev: 6/18/2015

Signed: Michael S. Marty
Vierbicher Associates, Inc.
Michael S. Marty, P.L.S. No. 2452



CITY OF MIDDLETON COMMON COUNCIL RESOLUTION

Resolved that this certified survey map located in the City of Middleton was hereby approved on this 16 day of June, 2015.

Dated this 23 day of June, 2015.

Lorie J. Burns

City Clerk, City of Middleton LORIE J. BURNS

CITY OF MIDDLETON PLAN COMMISSION APPROVAL

Approved for recording per the City of Middleton Planning Commission action of May 26, 2015.

Eileen Kelley
Authorized Representative Eileen Kelley

Date. June 23, 2015

REGISTER OF DEEDS CERTIFICATE:

Received for recording on this 30th day of July, 2015, at 11:54 o'clock a.m., and recorded in Volume 94 of Certified Survey Maps on pages 50-53 as Document Number 5172646.

Received 7/30/15
9:44am.

Kristi Chlebowski by John H. Pope Jr. Deputy
Kristi Chlebowski, Dane County Register of Deeds

18 Jun 2015 - 3 21p M:\Flood Development\130313_Blackhawk Rd\Surveying\Civil\130313-CSM.dwg by mmr

vierbicher
planners | engineers | advisors



REDSBURG - MADISON - PRAIRIE DU CHIEN
999 Fournier Drive Suite 201 Madison, Wisconsin 53717
Phone (608) 826-0332 Fax (608) 826-0330

FN 130313
DATE 05-05-2015
REV 05-22-2015
Drafted By MMAR
Checked By MZIE

SURVEYED FOR
Dennis A. Gerfen
8850 Blackhawk Road
Middleton, WI 53562

CSM No. 14028

Doc. No.

Vol 94 Page 52

SHEET
3 OF 4

CERTIFIED SURVEY MAP No. 14028

PART OF THE SW 1/4 - NW 1/4 OF SECTION 15, TOWNSHIP 07 NORTH, RANGE 08 EAST, CITY OF MIDDLETON,
DANE COUNTY, WISCONSIN

OWNER'S CERTIFICATE OF DEDICATION

Dennis A. Gerfen, as owner, does hereby certify that I caused the land described on this Certified Survey Map to be surveyed, divided, mapped, and dedicated as represented hereon. Dennis A. Gerfen, does further certify that this Certified Survey Map is required by S.236.34 of the State Statutes to be submitted to the City of Middleton for approval or objection.

Dated this 30th day of July, 2015.

Signed: Dennis A. Gerfen
Dennis A. Gerfen

STATE OF WISCONSIN)
DANE COUNTY) SS

Personally came before me this 30 day of July, 2015, the
above named Dennis A. Gerfen, to me known to be the persons who executed the foregoing
instrument and acknowledged the same.

Notary Public:

Rachael R. Schroeder
Rachael R. Schroeder

NOTARY PUBLIC
RACHAEL R. SCHROEDER
STATE OF WISCONSIN

My Commission Expires/~~is Permanent~~: 8/16/15

CONSENT OF MORTGAGEE CERTIFICATE:

AnchorBank, fsb a banking association duly organized and existing under and by virtue of the laws of the State of Wisconsin, mortgagee of the above-described land, does hereby consent to the surveying, dividing, mapping and dedicating of the land described on this Certified Survey Map, and does hereby consent to the above Owner's Certificate.

IN WITNESS WHEREOF, the said AnchorBank, fsb has caused these presents to be signed by
Steven MacMillan its Loan Services Manager at Madison, Wisconsin, on this
25th day of June, 2015

Signed:

Steven MacMillan
STEVEN MACMILLAN

State of Wisconsin)
County of Dane) SS

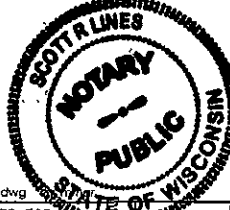
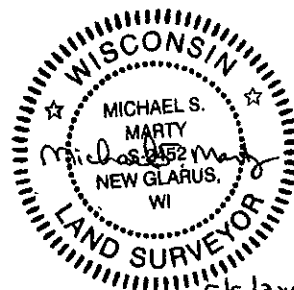
Personally came before me this 25 day of JUNE

2015 Steven MacMillan of the above named banking association,
and acknowledged that they executed the foregoing instrument as
such officer of the deed of said banking association.

Notary Public:

Scott R. Lines
SCOTT R. LINES

My commission expires/is permanent. 3/4/19



S/S/2015
Rev: 5/22/2015
Rev: 6/18/2015

18 Jun 2015 - 3:21p M:\Field Development\130313_Blackhawk Rd\Surveying\Civil\130313-CSM.dwg

vierbicher
planners | engineers | advisors



REEDSBURG - MADISON - PRAIRIE DU CHIEN
999 Touraine Drive Suite 201 Madison Wisconsin 53717
Phone (608) 826-0337 Fax (608) 826-0330

FN 130313
DATE 05-05-2015
REV 05-22-2015
Drafted By: MMAR
Checked By: MZIE

SURVEYED FOR:
Dennis A. Gerfen
8850 Blackhawk Road
Middleton, WI 53562

Doc No. 14028

Doc No. 5172646

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SHEET
4 OF 4

APPENDIX C

Plan Commission and Common Council Meeting Minutes

5. **Central Urban Service Area (CUSA) Amendment Findings – Grove Parcel, Twin Sunset Rd. (PC 2430)**

BACKGROUND: When the City submits a request for an urban service amendment, there must be a finding that the request is consistent with the City's comprehensive plan and other planning efforts. The findings for this amendment are listed below.

The proposed amendment is consistent with:

- A goal in the 2006 Comprehensive Plan to "maintain the mutually beneficial intergovernmental relationships with surrounding jurisdictions."
- A goal in the 2006 Comprehensive Plan to "link the approval of new housing developments to the availability of infrastructure (including streets, schools, and utilities) to serve the housing."
- A goal in the 2006 Comprehensive Plan to "encourage the infilling of housing in urban areas that make more efficient use of existing infrastructure."

RECOMMENDATION: Approve, and recommend Common Council approval of, the application for a Central Urban Service Amendment with the findings noted above.

ENCLOSURES: Map with this property highlighted.

6. **Central Urban Service Area (CUSA) Amendment Findings – Gerfen Parcel, 8850 Blackhawk Rd. (PC 2429)**

BACKGROUND: When the City submits a request for an urban service amendment, there must be a finding that the request is consistent with the City's comprehensive plan and other planning efforts. The findings for this amendment are listed below.

The proposed amendment is consistent with:

- The City of Middleton's Intergovernmental Agreement with the City of Madison, which states that properties north of Blackhawk Rd., if annexed, will annex to the City of Middleton. The recently amended agreement also allows the developer of the Gerfen property to extend City of Madison water and sewer service for the anticipated development.
- A goal in the 2006 Comprehensive Plan to "expand housing opportunities and allow for flexibility in residential development and promote affordable quality housing, a range of housing options, and a suitable living environment for all residents."
- A goal in the 2006 Comprehensive Plan to "support design of residential neighborhoods with mixed land use at a scale appropriate to residential development and with convenient access to a neighborhood shopping area or to larger commercial areas. Residential development located near commercial areas or commercial uses in a residential neighborhood helps meet day-to-day needs of residents."
- A goal in the 2006 Comprehensive Plan to "encourage the development of housing to meet the needs of all the people who work in Middleton, so that they can have good housing choices closer to their jobs." This property is within walking distance of the Greenway Center area, with thousands of jobs in many sectors of the economy. The property is also adjacent to a large business park in the City of Madison.
- A goal in the 2006 Comprehensive Plan to "assure that new growth is balanced, and encourage the development of both rental and ownership housing for a range of incomes."
- A goal in the 2006 Comprehensive Plan to "encourage the infilling of housing in urban areas that make more efficient use of existing infrastructure."

RECOMMENDATION: Approve, and recommend Common Council approval of, the application for a Central Urban Service Amendment with the findings noted above.

ENCLOSURES: Aerial photo highlighting this property.

Common Council Minutes

Tuesday

December 16, 2014

7:30 PM

City Council Chambers

Call to Order Regular Council Meeting

Mayor Sonnentag called the meeting to order at 7:45 p.m.

Roll Call

Present: Teal, Wexler, Brar, West, Hilbert, Sullivan, Richard, Share

Comments from Citizens Present (Limited to 3 minutes per speaker)

Van Nutt, Middleton Chamber of Commerce, thanked Council for their efforts in 2014. He recognized the great working relationship the Chamber has with the City.

Ellen Steinhauer, 8905 Blackhawk Road, Middleton, asked Council not to approve a development agreement for the Gerfen property at this time. She stated the proposed development would reduce the quality of life of the area and asked Council to proceed with caution. She asked to wait until Pleasant View Road is redeveloped before approving any plans for the area.

Approval of Consent Agenda

Moved by Wexler, seconded by Brar, to approve the consent agenda items as follows:

- Common Council Minutes - December 2, 2014.
- Audit of Bills Paid

Motion Passed. 8-0.

Proclamations

1.) 75th Anniversary of Springs Window Fashions

Moved by Wexler, seconded by Brar, to approve the Proclamation recognizing the 75th Anniversary of Springs Window Fashions. Motion Passed. 8-0.

Miscellaneous

1.) International Exchange with Timor-Leste (City Administrator)

Moved by Sullivan, seconded by Brar, to approve Mike Davis, City Administrator's, travel plans to Timor-Leste as part of the International Exchange program with funding provided by the State Department. Motion Passed. 8-0.

Ordinances - First Reading (Final Action may be taken upon approval of motion to suspend rules under Section 1.07, Middleton Gen. Ords.)

1.) An Ordinance to amend Section 15.03(1) Relating to Stop Sign Locations. Additional Location: Charis Trail at High Road.(PWC 11/24/14, L&O 12/09/14).

Moved by Teal, seconded by Richard, to approve the first reading of An Ordinance to amend Section 15.03(1) Relating to Stop Sign Locations adding Charis Trail at High Road. Motion Passed. 8-0.

Planning/Zoning

1.) Central Urban Service Area (CUSA) Amendment Findings - Grove Parcel, Twin Sunset Rd. (PC 2430) (PC 12/09/14)

Moved by Hilbert, seconded by Wexler, to approve the Central Urban Service Area (CUSA) Amendment Findings for the Grove Parcel, Twin Sunset Rd. Motion Passed. 8-0.

2.) Central Urban Service Area (CUSA) Amendment Findings - Gerfen Parcel, 8850 Blackhawk Rd. (PC 2429) (PC 12/09/14)

Moved by Hilbert, seconded by Wexler, to approve Central Urban Service Area (CUSA) Amendment Findings for the Gerfen Parcel, 8850 Blackhawk Rd. Motion Passed. 8-0.

3.) Reapproval of the Cardinal Crest Planned Development District (PDD) - Specific Implementation Plan (SIP) (PC 1567) (PC 12/09/14)

Moved by Wexler, seconded by Hilbert, to re-approve the Cardinal Crest Planned Development District (PDD) Specific Implementation Plan (SIP). Motion Passed. 8-0.

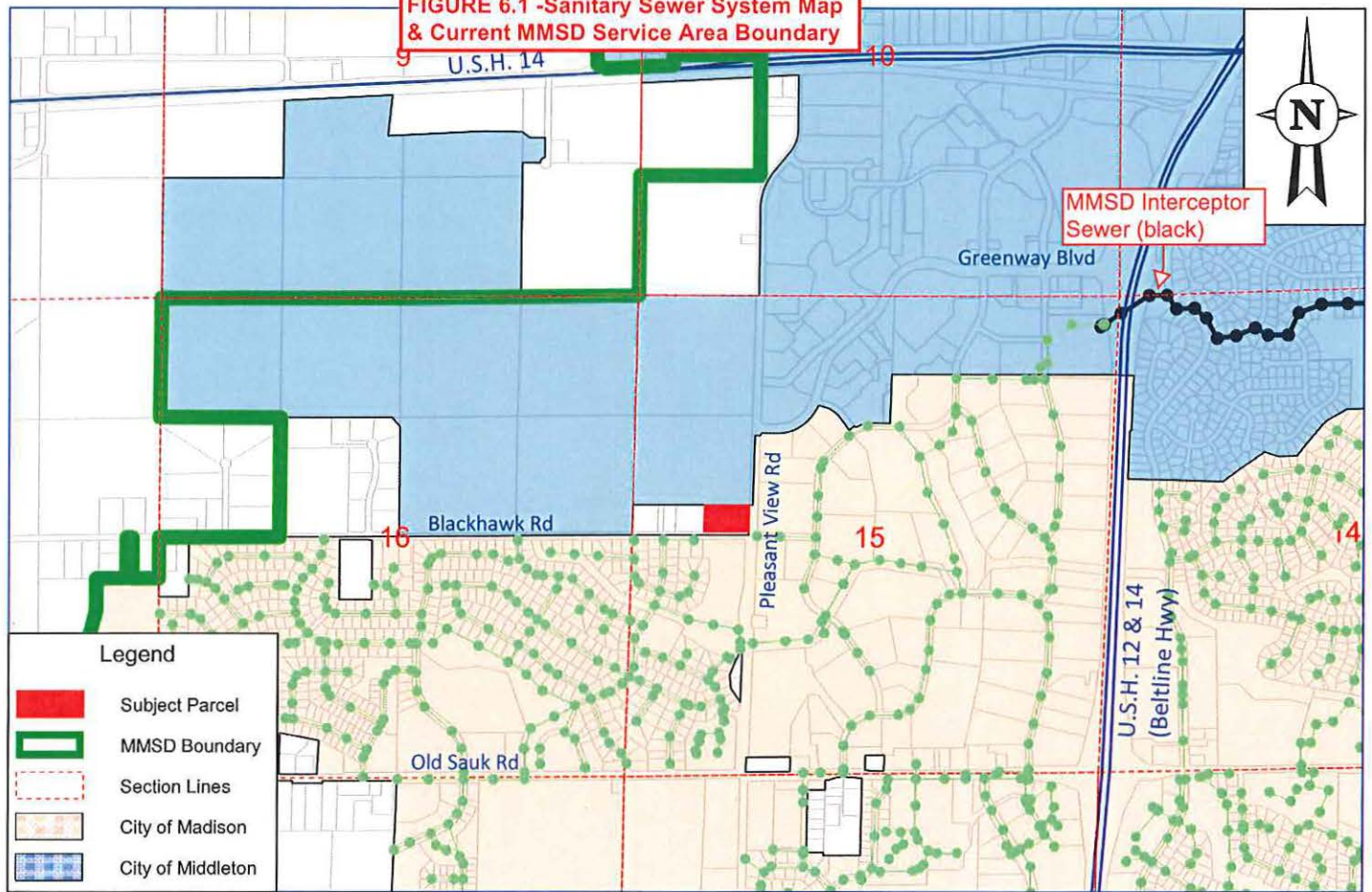
Middleton Common Council Minutes

APPENDIX D

Figure 6.1, Current and Proposed Urban Service Boundary



**FIGURE 6.1 -Sanitary Sewer System Map
& Current MMSD Service Area Boundary**



Madison Metropolitan Sewerage District



Municipal Map
Blackhawk and Pleasant View Roads
City of Madison / City of Middleton

Prepared by: CAS

Date: 01/26/2015

APPENDIX E

Map Showing Adjacent Land Uses

STORMWATER REPORT SUMMARY

Brownpoint Reserve

7082 Blackhawk Road
Middleton, Wisconsin

Prepared For:
Steve Brown Apartments
120 West Gorham Street
Madison, WI 53703

Prepared By:
Vierbicher Associates,
Inc.
999 Fourier Drive, Suite
201
Madison, WI 53717

Prepared On:
December 3, 2015

© 2015 Vierbicher

NARRATIVE

1.1 Introduction

Steve Brown Apartments proposes to construct a four-story residential apartment building with one level of underground parking, along with a clubhouse, at the northwest corner of the intersection of Blackhawk Road and North Pleasant View Road (see Maps 2.1 and 2.2). The 3.056 acre site is located in the Southwest 1/4 of the Northwest 1/4 of Section 15, Township 7 North, Range 8 East, in the City of Middleton, Dane County, Wisconsin.

The purpose of this stormwater management report is to evaluate the impacts of stormwater runoff leaving the Blackhawk Road site. To protect receiving waters and lands, runoff from the proposed development will be treated to reduce total suspended solids, remove oils and grease, reduce peak flows, and infiltrate stormwater on-site per city, county, and state regulations.

Stormwater management requirements will be met through the implementation of three bioretention basins, an infiltration basin, and an underground stormwater detention facility (oversized pipes). Stormwater runoff from the parking lots, drive aisles and clubhouse roof will be routed to the proposed bioretention basins. Overflow from the bioretention basins will then be routed to the underground stormwater detention facility. Roof runoff from the apartment building will be routed to the infiltration facility on the eastern side of the site. Overflow from the infiltration facility will be routed to the underground stormwater detention facility. Runoff entering the stormwater detention facility will discharge into an existing stormwater manhole along North Pleasant View Road.

1.2 Soils Description

According to the Dane County soils map (see Map 3.1) the primary soil type of the proposed site is ScC2 (silt loam), with KrD2 (Loam), KdC2 (Loam), and ScB (Silt Loam) comprising small portions of the site. All soils are classified as Hydrologic Soil Group B. The subsurface profile can be generally described as 6-12 inches of clayey topsoil and topsoil fill above 0-5 ft of fill consisting of silty clay and clayey sand, above 0 to 9 feet of lean clay, above sand (see soil borings in Exhibit 3.2).

1.3 Design Criteria

The stormwater system was designed to meet or exceed city, county, and state requirements for new development, as described in the table on the subsequent page.

Design Criteria Summary	
Rainfall Design Frequency	1, 2, 5, 10, 25, 100-Year
Rainfall Intensity	Middleton: 2.50, 2.90, 3.60, 4.20, 5.18 and 7.06 inches DNR: 2.49, 2.84, 3.49, 4.09, 5.01, and 6.66 inches
Rainfall Distribution	NOAA Atlas 14, MSE-4 24-hr
Water Quality: Total Suspended Solids	80% Reduction of Total Suspended Solids - based on average annual rainfall, as compared to no controls
Oil/Grease	Treat first 0.5 inch of runoff from parking lots
Pre-treatment	60% Reduction of Total Suspended Solids in runoff from

Design Criteria Summary	
	parking lots and drive aisles prior to being infiltrated-based on average annual rainfall, as compared to no controls
Runoff Rate Control	Maintain Pre-Developed Runoff Rates - 1, 2, 5, 10, 25 and 100-year, 24-hour design storm
Conveyance System	Pipes convey 10-year storm. Open Channel and streets convey 25-year storm. Overland Drainage conveys 100-year storm.
Infiltration	90% Pre-Developed Volume based on average annual rainfall.
Recharge	9.1" per year based on Wisconsin Geological and Natural History Survey's 2012 report
Overflow	Safely Pass Storm Events in Excess of 100-Year, 24-hour design storm
Existing Endwall Culvert Capacity	Confirm Post-developed flow to the existing 15-inch endwall in the west ditch of N. Pleasant View Road is equal to or less than the Pre-developed flow entering
Temperature Control	Not required because the site is not located within a thermally sensitive area.

1.4 Summary of Results

The stormwater requirements have been satisfied by the use of Best Management Practices (BMPs) as follows:

- Sediment Control. Total suspended solids will be reduced by 80.35% by the bioretention basins and infiltration basin (see Section 4.0).
- Oil and Grease Control. Bioretention basins will provide treatment of the first 0.5" of runoff from parking lots and drive aisles.
- Pretreatment. 60% TSS reduction from parking lots and drive aisles is required prior to infiltration. Bioretention basins achieve greater than 80% total suspended solids load reduction prior to infiltrating. The infiltration basin only accepts runoff from the apartment roof and green areas; therefore, pretreatment is not required.
- Runoff Rate Control. The peak discharge rates were calculated using both DNR rainfall data and the Middleton rainfall data. The stormwater facilities, including the underground storage facilities, meet runoff rate control requirements for all storm events when a 2-inch diameter outlet orifice is used in the underground storage facilities. However, as discussed and approved at the Middleton Water Resources Management Commission on October 21, 2015 (see minutes in Section 10.5), a 4 inch diameter outlet orifice will be used instead. This was directed to reduce the potential for flooding due to clogging of the orifice. When the diameter is increased from 2 inches to 4 inches, the 1-year event is not met when using Middleton or DNR rainfall data. Peak flow control is met for all other events. Details are shown in the following tables. See Section 5.0 for full model results.

Results using DNR Rainfall Data			
Storm Frequency	Pre-Developed (3.056 Acres) CFS	Post-Developed No Controls (3.056 Acres) CFS	Post-Developed with Controls (3.056 Acres) CFS
1-Year	0.14	4.11	0.32
2-Year	0.38	5.16	0.38
5-Year	1.39	7.24	0.60
10-Year	2.65	9.24	0.97
25-Year	4.95	12.40	2.72
100-Year	9.82	18.20	9.30

Results using Middleton Rainfall Data			
Storm Frequency	Pre-Developed (3.056 Acres) CFS	Post-Developed No Control (3.056 Acres) CFS	Post-Developed with Control (3.056 Acres) CFS
1-Year	0.14	4.14	0.32
2-Year	0.45	5.35	0.40
5-Year	1.61	7.60	0.65
10-Year	2.91	9.61	1.05
25-Year	5.42	12.99	3.33
100-Year	11.10	19.63	11.06

- **Infiltration.** The proposed stormwater management facilities will infiltrate 95.1% of the pre-development infiltration volume. This exceeds the requirement to infiltrate 90% of the pre-settlement infiltration. See Section 6 for infiltration calculations.
- **Groundwater Recharge.** The proposed stormwater management facilities will provide a recharge rate of 10.3 inches/year. This exceeds the requirement to meet the predevelopment recharge rate of 9.1 inches/year. See Section 7 for recharge calculations.
- **Erosion Control.** To reduce the soil loss on site during construction to 5.0 tons/acre/year or less, silt fence, storm sewer inlet protection, stone tracking pad, seeding and mulching, and erosion matting will be implemented. In addition, the Bioretention Basin C and the infiltration basin will be constructed first and will be used as sediment basins during construction. See Section 8 for erosion control calculations.
- **Overflow.** The overflow weirs for the bioretention basins and infiltration basin have been designed to handle the 100 year, 24-hour storm events.
- **Existing Endwall Culvert Capacity.** The peak flow resulting from the combined onsite and offsite area contributing to the endwall was modeled. The post-developed peak flow is less than the pre-developed peaks for all storm recurrences using both the DNR and Middleton rainfall data (See figure).

Results using DNR Rainfall Data		
Storm Frequency	Pre-Developed CFS	Post-Developed CFS
1-Year	3.50	2.28
2-Year	5.58	3.64
5-Year	10.15	6.61
10-Year	14.93	9.72
25-Year	23.03	15.00
100-Year	39.22	25.54

Results using Middleton Rainfall Data		
Storm Frequency	Pre-Developed CFS	Post-Developed CFS
1-Year	3.94	2.65
2-Year	6.63	4.55
5-Year	12.32	8.81
10-Year	17.82	13.20
25-Year	27.69	21.22
100-Year	48.56	38.37

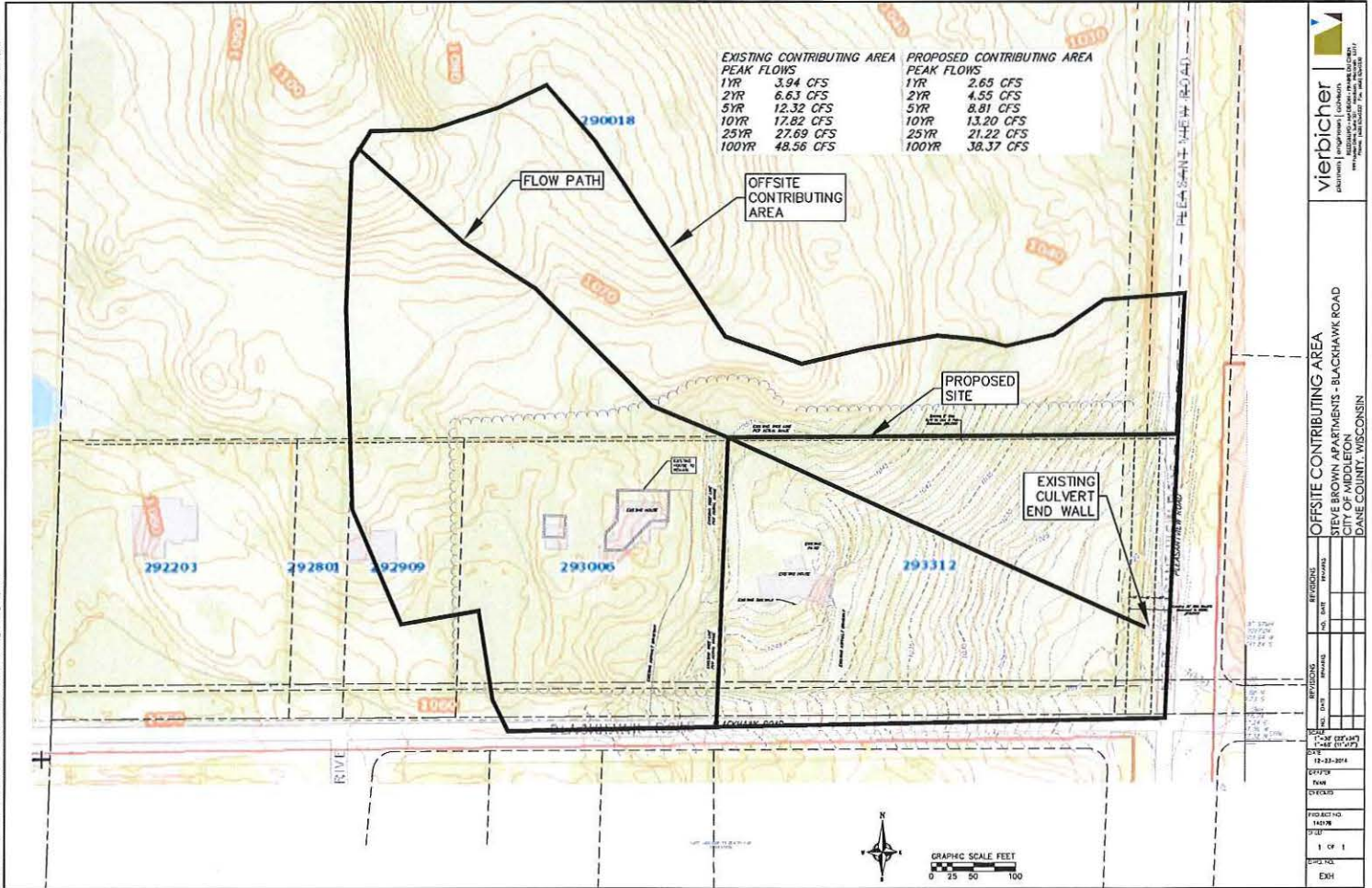
1.5 Conclusions

Brownpoint Reserve at 7082 Blackhawk Rd will meet or exceed the TSS, infiltration, recharge and oil and grease control requirements outlined Chapter 26 of the City of Middleton Ordinance through the implementation of three bioretention basins, an infiltration basin, and an underground stormwater detention facility (oversized pipes). Peak flow requirements for all storm events with the exception of the 1-year event will be met by utilizing the basins and detention facility. A stormwater maintenance agreement will be implemented to ensure proper functionality of the stormwater management facilities.

1.6 Permits

The following is a list of anticipated permits that will be applied for:

- Wisconsin Department of Natural Resources - Water Resources Application for Project Permit (WRAPP)
- Department of Safety and Professional Services - Plumbing Permit
- City of Middleton - Stormwater Runoff Management and Erosion Control Permits





FLOW TEST REPORT

Madison Water Utility, Wisconsin

ESTIMATE ONLY: NOT TO BE USED FOR DESIGN OR CONSTRUCTION

Project Address: **8850 Blackhawk Rd**

Date Requested: **1/30/15**

Requested By: **Vierbicher**

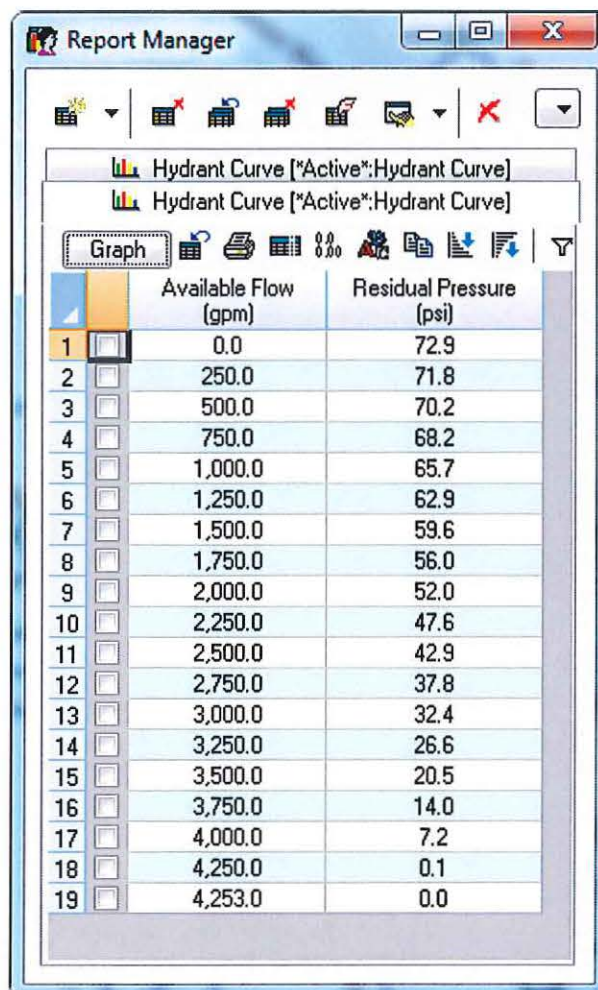
Bill To:

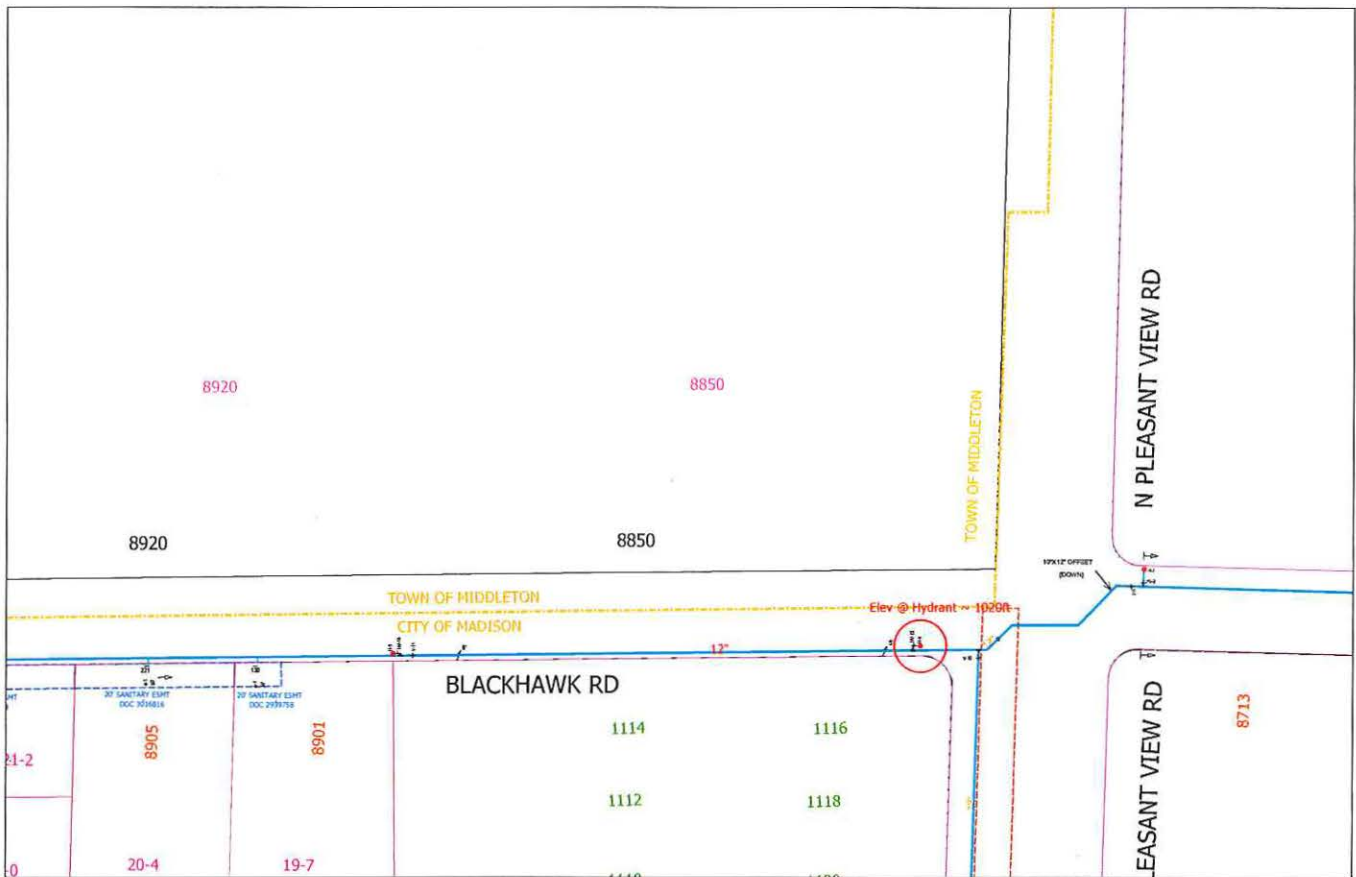
Disclaimer:

This flow data is provided based on the best information available to Madison Water Utility at the time of the test. Madison Water Utility provides the information on this form with the understanding that available pressures at hydrants will vary as much as +/- 15 psi depending on the time of day, time of year, operating wells at the time of the test and many characteristics of the water system that are subject to change. Fire protection system designers need to take the +/-15 psi into consideration when preparing the hydraulic calculations for this project.

Computer model results are provided as a method of simulating conditions on the maximum water demand day and should be considered when evaluating available fire flows and pressures. The model results represent conditions in the water main, and do not account for head losses in the hydrant.

Model Results





City of Madison, WI - GIS/Mapping data

Printed By: wupib

Disclaimer: The City makes no representation about the accuracy of these records and shall not be liable for any damages