

Public Works Committee Agenda
Tuesday February 20, 2024 - 7:00 AM
Town of Verona Hall, 7669 County Highway PD

1. Call to Order/Additions to Agenda/Approve Agenda
2. Action: Review Minutes of January 24, 2024
3. Discussion: Boom Mower/ Tractor acquisition review (**10 Minutes**)
4. Discussion and Possible Action: Draft Road maintenance agreement with the Town of Middleton
(10 minutes)
5. Discussion and Possible Action review and recommendation of 2024 Capital Improvement Program Road Project bids (**15 minutes**)
6. Discussion and Possible Action: Goose Lake and Fitchrona Road storm drainage engineering and Badger Mill Creek Stakeholders group update (**20 Minutes**)
7. Information: Madison Metropolitan Sewerage District Pump Station 17 and Force Relief Sewer and Lower Badger Mill Sewer Extension (**15 minutes**)
8. Information: Country View Road and County Highway PD widening/relocation (**5 Minutes**)
9. Development Updates: (**5 minutes**)
 - a. Riverside Vista Development
10. Equipment Condition Update (**5 minutes**)
11. Schedule March Committee Meeting and set agenda items
12. Adjourn

To receive agendas and other announcements by email, use the "alert notifications" feature on the Town website at <http://www.town.verona.wi.us/>.

If anyone having a qualifying disability as defined by the American With Disabilities Act, needs an interpreter, materials in alternate formats or other accommodations to access these meetings, please contact the Town of Verona Clerk's office @ 608-845-7187 or twithee@town.verona.wi.us Please do so at least 48 hours prior to the meeting so that proper arrangements can be made.

Notice is also given of a possible quorum of the Plan Commission and /or the Town of Verona Board could occur at this meeting for the purposes of gathering information only.

Public Works Committee Minutes

Tuesday January 23, 2024- 7:00 AM

Town of Verona Hall, 7669 County Highway PD

Present: Mike Duerst - Chair, Brett Lindell, John Senseman Russ Swiggum

Absent: Manfred Enburg

Also Present: Christopher Barnes - Public Works Director, Mark Judd - Patrolman

Public Present: Archie Serwe, Serwe Implements

Call to Order/Additions to Agenda/Approve Agenda - Chair Duerst called the meeting to order at 7:03

1. AM. Duerst asked for additions and approval of the agenda. Sensemen moved to accept the agenda, seconded by Swiggum, motion carried.
2. **Action: Review Minutes of December 19,2023** - The minutes were reviewed by the committee. Sensemen moved to approve the minutes as amended, second by Swiggum, motion carried.
3. **Discussion and Possible Action: Boom Mower/ Tractor acquisition-** Duerst opened the discussion by referencing the agenda material and questioned the committee on the preference for new or a used equipment. Barnes described the payback information contained in the agenda. Barnes state the payback for a until varied for 7 years to 20 years based on the hours of use per year and the equipment purchased. Discussion followed on various tractor pros and cons. Lindell proposed the advantage of finding a low hour's tractor. Barnes stated that the biggest issue the town has experienced with rental units is the reliability of the mower unit. Swiggum asked about the different mower manufacturers. Barnes discussed the various mower head options and cost. Swiggum Judd stated the flail head would do a better job of cutting trees up to 6-inch diameter. Senseman asked what was the e was the cost of the best value unit. Barnes responded with a \$160,000 level. Sensemen questioned what does the town get for the \$160,000? Barnes replied that mower would provide a higher level and added mileage of roadside maintenance and vegetation management. Archie Serwe, Serwe Implements, entered the meeting. Duerst asked Serwe about specific tractors pros and cons. Serwe explained many of the various tractor/mower combinations and uses. Discussion followed. Serwe explained that he has sold units to Greene County, Iowa County, Ridgeway, and the town of Dadeville are all current customers.

Swiggum asked about fiancée options and Serwe discussed various options. Barnes stated that the town has been a "pay as you go" agency and would likely pay for any equipment in cash. Discussion followed. Serwe distributed literature and left the meeting. Duerst asked for a motion to recommend to the Board to purchase a used tractor/mower combination for an amount not to exceed \$160,000. Motion by Lindell, second by Swiggum. Motion carried.

4. **Discussion and Possible Action: Draft Road maintenance agreement with the Town of Middleton-** Barnes introduced the proposed road maintenance agreement and offer back ground on the agreements and the limits in the agreement. Barnes explained the maintenance division between the two towns. Barnes

expressed his concern over which township controls the speed limit and seasonal weight limit road Duerst asked that the details be worked out and come back to the board in February.

5. **Discussion 2024 Capital Improvement Program-** Barnes explained the 2024 road project is ready to bid and that the cost estimate is significantly under his original estimate. Barnes stated that he and Judd discussed various roads which could be added and that Flint Lane represented the logical choice to repave since the road condition is currently so poor. Barnes explained that he liked to repave at least one of the "orphan" roads that have long been neglected due to low traffic. Discussion followed. Duerst asked for a motion. Lindell made the motion to add Flint Lane to the bidding package, second by Swiggum, motion carried.

6. **Discussion and Possible Action: Town generated right of way brush disposal-** Duerst states that he had been contacted by Tom Mathies, town supervisor, for the committee to consider alternates to burning brush. Barnes referenced the memo in the agenda which describes different options and costs to dispose. Judd mentioned that less brush would be generated by the use of a boom mower. Discussion followed. Sensemen made a motion to table the discussion for more information and consideration, second by Swiggum, Motion carried.

7. **Information: Fitchrona Road Design Engineering Intergovernmental Agreement-** Barnes stated that he had worked on an inter-governmental agreement to share the engineering cost for reconstruction project. Swiggum questioned if this agreement was for the work from Nesbitt roundabout to Tonto Trail. Barnes yes and the total contact amount was \$440,000 with town share at \$33,000. Barnes explained that \$33,000 was approximately 7% of the total cost and was derived at by as a function of the estimated construction cost split between the town and the city. Barnes stated that the agreement would go to the town board for approval at the February meeting. Discussion followed. No further questions.

8. **Information: Madison Metropolitan Sewerage District Pump Station 17 and Force Relief Sewer-** Barnes stated that construction was underway and work was ongoing at the Military Trail crossing, force main installation on the Grandview property, and bores under Old PB and US 151. Swiggum questioned what the plastic PVC pipe was being used for? Barnes stated that it was the force main pipe.

9. **Information: Country View Road and County Highway PD widening/relocation-**Barnes stated that construction on County Highway PD was shut down for the winter and no new information on County view road realignment to the south. Barnes also state that Country view Road south of the EPIC gardens would be closed in mid-February for utility installation until likely September.

10. **Development Updates:**
 - a. **Riverside Heights Development** -Barnes states that the river Vista conceptual plan was approved by Town Board and he was awaiting preliminary plans from the engineer. Further Barnes stated that the Sugar River Estates development was discussed at the last plan commission meeting and many of the neighboring property owners were opposed primarily due to concerns about flooding of the single road entrance proximity to the west branch Sugar River. Barnes discussed that the capital improvement program includes a road project to improvement Sugar River Road by reconstructing the roadbed and some widening to accommodate a paved shoulder.

12. **Equipment Condition Update**-Judd stated that there were no pending issues at this time. Sensemen asked if the town had any where the snow needed to load and haul snow? Judd replied no, we had never had to haul snow from a road are. Swiggum asked about snow drifting roads, Judd replied that Grandview Road, Whalen Road, and Fitchrona Road were the most likely to drift.
13. **Schedule February Committee Meeting and set agenda items**- Meeting was set for February 20, 2024
14. **Adjourn** - Motion by Lindell, second by Sensemen to adjourn at 8:37 AM.

Approved: February 20, 2024

Prepared By: W. Christopher Barnes

AGREEMENT BETWEEN THE TOWN OF MIDDLETON AND THE TOWN OF VERONA FOR SHARED ROAD MAINTENANCE

This Agreement made between the Town of Middleton (“Middleton” or “TOM”), Dane County, Wisconsin, and the Town of Verona (“Verona” or “TOV”), Dane County, Wisconsin, collectively, the “Parties,” effective this ____ day of _____, 2024.

WHEREAS, Middleton and Verona share certain roads that lie within both Middleton and Verona; and

WHEREAS, Middleton and Verona, in the interest of efficient operations in each Town, also have undertaken responsibility for the maintenance of roads that lie within each other’s jurisdiction and wish to continue to do so;

THEREFORE, in consideration of the following rights and covenants, Middleton and Verona do agree as follows:

- Each party shall maintain the sections of the following roads as described below:

| Road Segment | Road Name | Starting Point | End Point | Owner | Responsible Party Plowing | Responsible Party Mowing | Responsible Party Road Maintenance |
|--------------|------------------|-------------------------|-----------------|--------|---------------------------|--|------------------------------------|
| 1 | Mid-Town Road | Lower Badger Mill Creek | Meadow Road | Shared | TOV | TOM | Shared |
| 2 | Mid-Town Road | Meadow Road | Mound View Road | Shared | TOV | TOM: northside of road TOV: southside of road | Shared |
| 3 | Timber Lane Road | TOM line | Mid-Town Road | TOV | TOM | TOM | TOV |

NOTE: Mid-Town Road Shared Ownership – Eastbound Lane TOV; Westbound Lane TOM

2. The responsible party designated in paragraph 1 above shall furnish the labor and material for snowplowing (including salting and sanding) and the responsible party designated in paragraph 1 above shall furnish the labor and material for mowing (including brushing). The responsible party designated in paragraph 1 above shall furnish the labor and material for the purpose of performing maintenance work that includes all other customary and usual town road repair and maintenance including but not limited to patching, crack filling, and chip sealing. The responsible party designated in paragraph 1 above shall furnish labor for replacement of traffic signs with the cost of the signs to be split 50/50 between municipalities.

3. Each party shall have the right to claim each segment of road designated in Paragraph 1 above for General Transportation Aids purposes to the same extent it claimed such road segment in 2022. In the event either party is required to claim any road segment for General Transportation Aids purposes for any reason in conflict with this paragraph, any such aid or funds received by the party shall be remitted to the other party within thirty (30) days of receipt of such aid or funds.

- This Agreement shall continue unless modified in writing by the parties hereto.

5. In the event either party is notified of or becomes aware of any deficiencies in the performance of snowplowing, mowing or maintenance on any portion of any road designated in paragraph 1 above that is the responsibility of the other party as to such snowplowing, mowing or maintenance, or if either party is notified of deterioration/dangerous road conditions requiring repair or attention, the party shall report the deficiency or condition to:

For Verona: Town Public Works Director
For Middleton: Town Crew Leader

6. By executing this Agreement, the Parties acknowledge, warrant and represent that each is entering this Agreement freely and voluntarily and that each has had the opportunity to obtain such legal and other counsel as each deems necessary and prudent.

7. This Agreement contains the entire understanding between the Parties on the subject matter hereof and no representations, inducements, promises or agreements, oral or otherwise, not included herein shall be of any force or effect, and this Agreement supersedes any other oral or written agreements entered into between the Parties on the subject matter herein. To be effective, any and all modifications must be in writing.

8. No delay or omission by either party in exercising any right or power arising out of any default under any of the terms or conditions of this Agreement shall be construed to be a waiver of the right or power. A waiver by a party of any of the obligations of the other Party shall not be construed to be a waiver of any breach of any other terms or conditions of this Agreement.

9. If any term or condition of this Agreement, or the application of this Agreement to any person or circumstance, shall be deemed invalid or unenforceable, the remainder of this Agreement, or the application of the term or condition to persons or circumstances other than those to which it is held invalid or unenforceable, shall not be affected thereby, and each term and condition shall be valid and enforceable to the fullest extent permitted by law. This Agreement shall be construed and enforced in accordance with the internal laws of the State of Wisconsin.

10. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either Middleton or Verona.

Dated this ____ day of _____, 2024.

TOWN OF MIDDLETON:

By: _____
Cynthia L. Richson, Town Chair

By: _____
Barbara Roesslein, Town Clerk

TOWN OF VERONA:

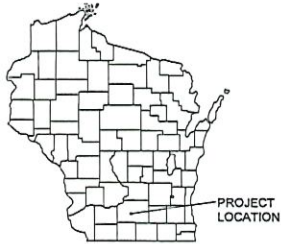
By: _____
Mark Geller, Town Chair

By: _____
Teresa Withee, Town Clerk/Treasurer

**2024 Road Project
Bid results will be
available at the
meeting**

SHAGBARK COURT RECONSTRUCT

TOWN OF VERONA DANE COUNTY, WISCONSIN



SHEET INDEX

G - GENERAL SHEETS
G 1 TITLE SHEET

R - ROAD CONSTRUCTION PLANS
R 1 SHAGBARK COURT

UTILITIES

GAS & ELECTRIC:
ALLIANT ENERGY
2147 COUNTY ROAD PB
VERONA, WI 53593
CONTACT: JEFF NELSON
(608) 845-1148

MADISON GAS & ELECTRIC
623 RAILROAD STREET
MADISON, WI 53703
CONTACT: EMERGENCY
GAS: (608) 252-1111
ELECTRIC: (608) 242-7111

TELEPHONE:
TDS TELECOM
525 JUNCTION ROAD
MADISON, WI 53717
CONTACT: SHANE DORGAN
(608) 664-1460

SANITARY SEWER:
TOWN OF VERONA
7899 CTH PD
VERONA, WI 53593
CONTACT: CHRISTOPHER
BARNES
(608) 807-4471

SHAGBARK COURT



LOCATION MAP 
NOT TO SCALE



Dial **811** or (800) 242-8511

www.DiggersHotline.com

NOTE:
UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE AND CONTRACTOR
SHALL HAVE APPROPRIATE UTILITY MARK EXACT LOCATIONS PRIOR TO
CONSTRUCTION.

| PROJECT DATE: | DRAWN BY: | CHKD BY: | REV. | DATE | REVISION | BY |
|---------------|-----------|----------|------|------|----------|----|
| | TAM | JME | | | | |
| | TAM | | | | | |
| | JME | | | | | |

PRELIMINARY



ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
1702 Parkrats St Madison, WI 53704
(608) 242-7778 www.msa-pa.com
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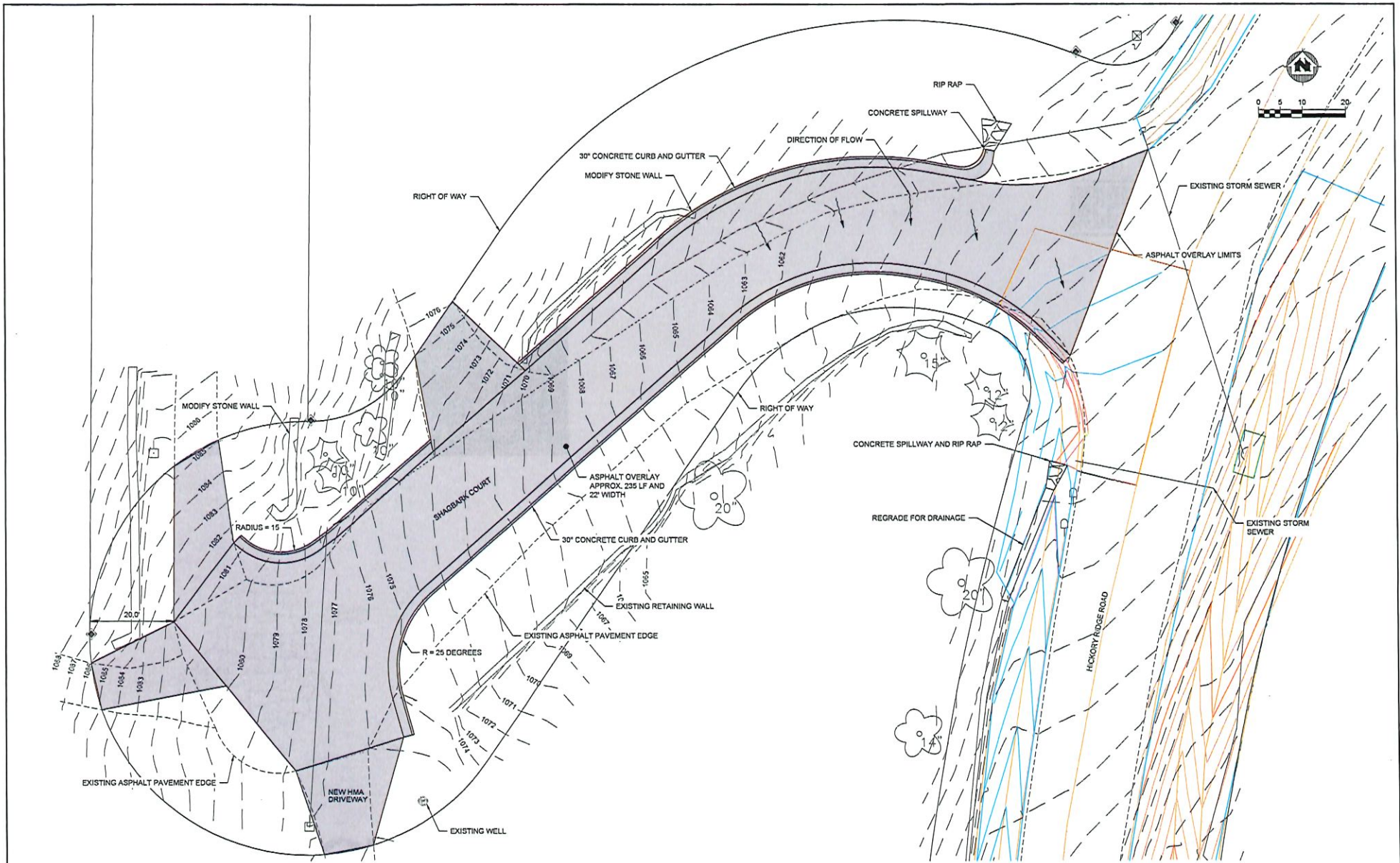
SHAGBARK COURT RECONSTRUCT
TOWN OF VERONA
DANE COUNTY, WISCONSIN

TITLE SHEET

PROJECT NO.
00376040

SHEET
G1

PLOT DATE: 1/14/2024 9:53 AM, G:\00376040\CADD\C10\Shagbark Road\Title Sheet - Shagbark Court.dwg



| PROJECT DATE: | DRAWN BY: | TAM | NO. | DATE | REVISION | BY |
|---------------|--------------|-----|-----|------|----------|----|
| | DESIGNED BY: | TAM | | | | |
| | CHECKED BY: | ME | | | | |

PRELIMINARY



ENGINEERING | ARCHITECTURE | SURVEYING
 FUNDING | PLANNING | ENVIRONMENTAL
 1702 Parkrate St Madison, WI 53704
 (608) 242-7779 www.msa-inc.com

SHARGBARK COURT RECONSTRUCT
 TOWN OF VERONA
 DANE COUNTY, WISCONSIN

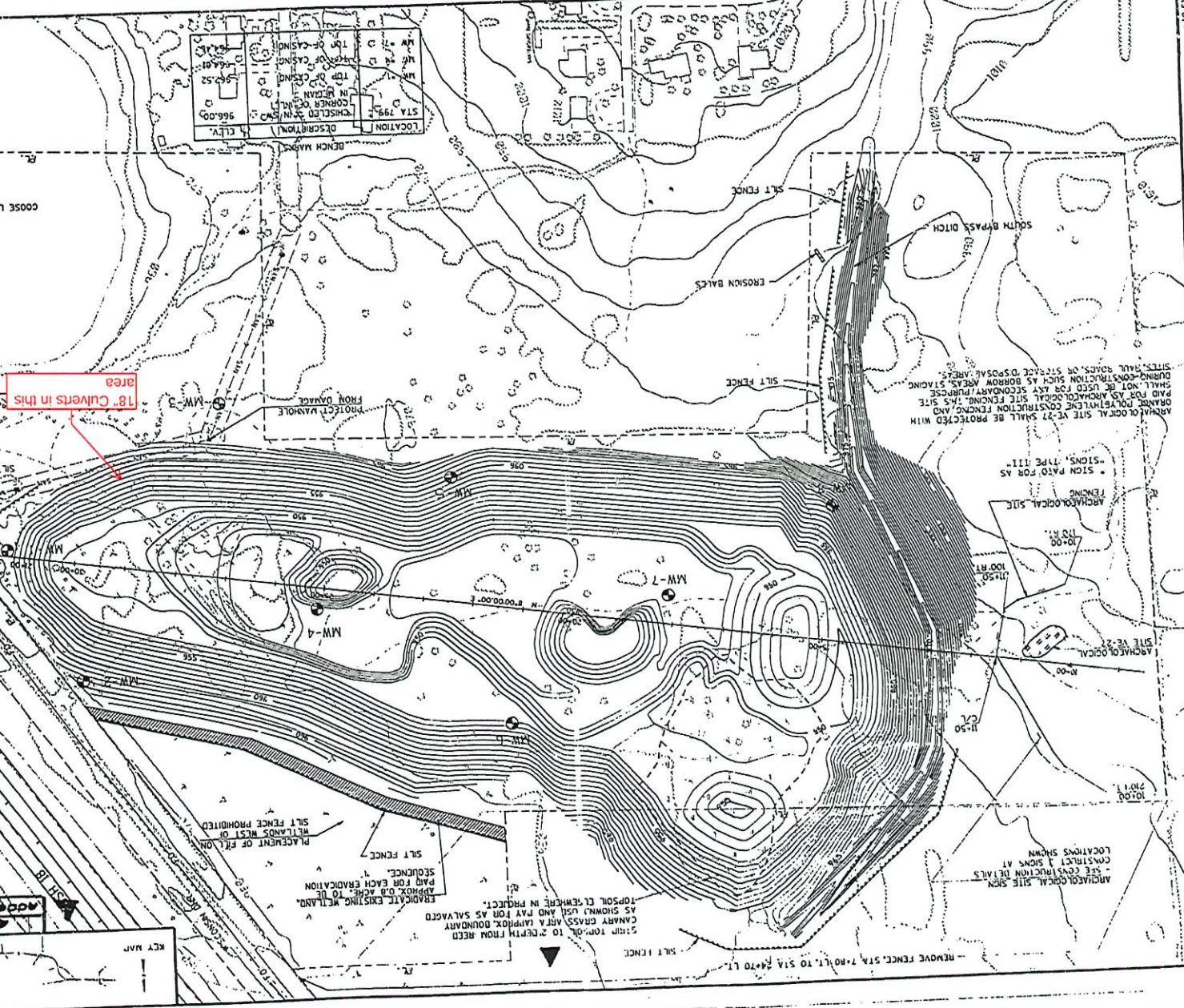
SHARGBARK COURT - PLAN VIEW

| | |
|-------------|----------|
| PROJECT NO. | 00378040 |
| SHEET | R1 |

PLOT DATE: 1/18/2024 9:54 AM, G:\0000278003\0000\CADD\CAD\03\Shargbark Plan View - Shargbark Court.dwg

MONITORING WELL DATA

| MW # | AT MW OF CASING | DEPTH OF CASING | BOTTOM | GROUND WATER ELEV. |
|------|-----------------|-----------------|--------|--------------------|
| 1 | 959.6 | 21.5 | 938.1 | 951.1 |
| 2 | 958.0 | 25.0 | 933.0 | 952.4 |
| 3 | 961.4 | 25.0 | 936.4 | 951.9 |
| 4 | 961.4 | 25.0 | 936.4 | 951.9 |
| 5 | 961.4 | 25.0 | 936.4 | 951.9 |
| 6 | 961.4 | 25.0 | 936.4 | 951.9 |
| 7 | 961.4 | 25.0 | 936.4 | 951.9 |
| 8 | 961.4 | 25.0 | 936.4 | 951.9 |
| 9 | 961.4 | 25.0 | 936.4 | 951.9 |
| 10 | 961.4 | 25.0 | 936.4 | 951.9 |
| 11 | 961.4 | 25.0 | 936.4 | 951.9 |
| 12 | 961.4 | 25.0 | 936.4 | 951.9 |
| 13 | 961.4 | 25.0 | 936.4 | 951.9 |
| 14 | 961.4 | 25.0 | 936.4 | 951.9 |
| 15 | 961.4 | 25.0 | 936.4 | 951.9 |
| 16 | 961.4 | 25.0 | 936.4 | 951.9 |
| 17 | 961.4 | 25.0 | 936.4 | 951.9 |
| 18 | 961.4 | 25.0 | 936.4 | 951.9 |



18" Culverts in this area

ARCHAEOLOGICAL SITE VE-21 SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES. THE SITE SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES. THE SITE SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES.

ARCHAEOLOGICAL SITE VE-22 SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES. THE SITE SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES.

ARCHAEOLOGICAL SITE VE-23 SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES. THE SITE SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES.

ARCHAEOLOGICAL SITE VE-24 SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES. THE SITE SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES.

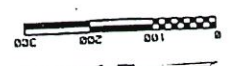
ARCHAEOLOGICAL SITE VE-25 SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES. THE SITE SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES.

ARCHAEOLOGICAL SITE VE-26 SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES. THE SITE SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES.

ARCHAEOLOGICAL SITE VE-27 SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES. THE SITE SHALL BE PROTECTED WITH PERMANENT CONSTRUCTION FENCING, AND SHALL NOT BE USED FOR ANY STORAGE, STAGING, OR OTHER PURPOSES.

BASE LINE LOCATION

| STL | N | E |
|-------|------------|--------------|
| 10+00 | 363,990.27 | 2,135,919.17 |
| 22+00 | 365,078.59 | 2,136,086.18 |



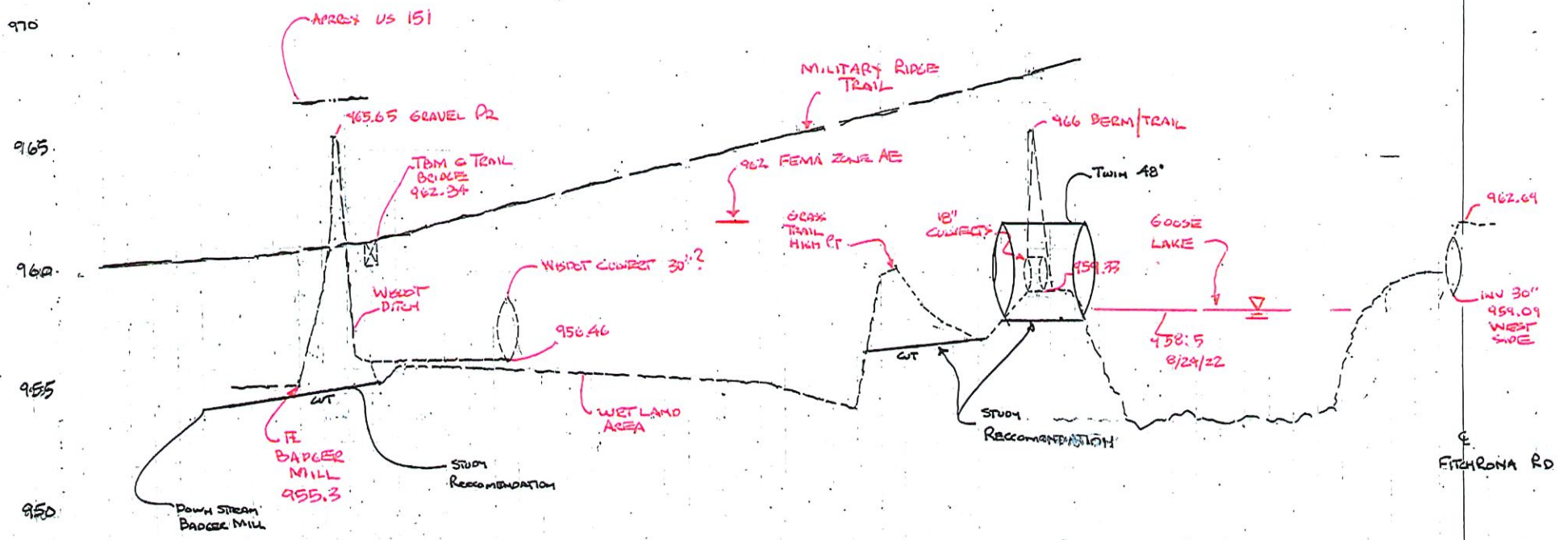
APPENDIX 2 3-8-94 TRAIL & GROUND WATER

| REVISION | DATE | REMARKS |
|----------|--------|----------------------|
| 1 | 3-8-94 | TRAIL & GROUND WATER |

WETLAND MITIGATION SITE

| STATE PROJECT NUMBER | 1201-04-72 |
|----------------------|------------|
| SHEET NUMBER | 2-59 |

US 151 BRIDGE



PROFILE FITCH-RONA ROAD
TO BADGER MILL CREEK
9-1-22 TO 9-15-22
WCB

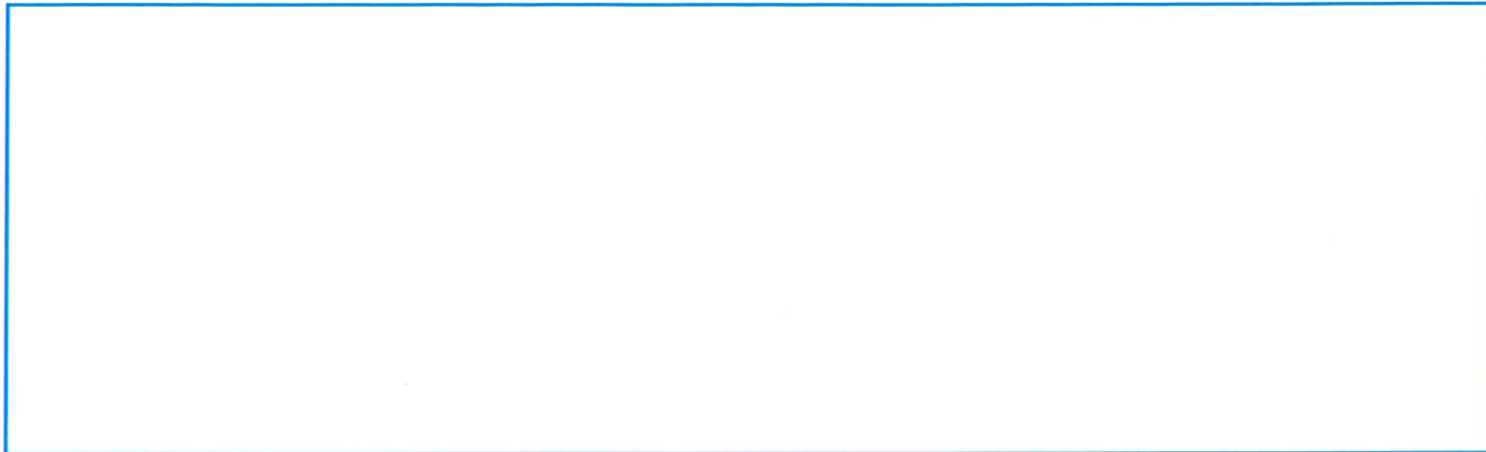
1" = 600' HORIZ
1/2" = 4' VERT

Lower Badger Mill Creek Interceptor Phase 6 approx Proposed Route

0 200 400
Feet

Lower Badger Mill Creek Interceptor Phases 5 & 6

[Home < https://www.madsewer.org/>](https://www.madsewer.org/) / [What We Do < https://www.madsewer.org/what-we-do/>](https://www.madsewer.org/what-we-do/) / [Current Construction Projects < https://www.madsewer.org/what-we-do/current-construction-projects/>](https://www.madsewer.org/what-we-do/current-construction-projects/) / Lower Badger Mill Creek Interceptor Phases 5 & 6



Project Background and Overview

Phases 5 and 6 of the Lower Badger Mill Creek Interceptor (LBMCI) will complete a regional sanitary sewer interceptor that was more than 20 years in the making. Representatives from the District, Town of Verona, City of Verona, and City of Madison met in 2001 to discuss planning for sewerage service in the Lower Badger Mill Creek drainage basin. This basin includes parts of the far west side of Madison, the town of Middleton, the town of Verona, and the City of Verona. It was determined that the best way to serve the basin was with a regional gravity sanitary sewer interceptor pipe.

The initial design of the entire 39,000 feet of interceptor pipe was started in 2004 and completed in 2006. Phase 1 included 8,000 feet of pipe at the downstream end of the sewershed and was constructed from Pump Station 17 to Edward Street by the City of Verona and the District in 2006. Phases 2, 3, and 4 of the LBMCI from Edward Street to County Highway PD included approximately 10,000 feet of pipe that was built from 2008 to 2018. The upper 12,000 feet of the regional interceptor was constructed by the City of Madison in 2012, 2015, and 2016. Phases 5 & 6 will complete the final 9,000 feet of interceptor pipe and will connect the District Phase 4 pipe north of County Highway PD to the pipe installed by the City of Madison in 2012 at Midtown Road. When complete the new Phase 5 & 6 interceptor pipe will convey an average sewage flow of approximately 3 million gallons per day and enable the decommissioning of a temporary City of Madison sanitary sewage pump station (also called a lift station) at Midtown Road. The Phase 5 & 6 designs use the initial 2006 design as a starting point and incorporate deviations from the initial design as appropriate.

Final design of Phase 5 is complete, the project has been bid and awarded, and construction has begun as described below. Final design of Phase 6 continues as described below with construction scheduled to begin in 2024.

WHAT ARE INTERCEPTORS AND PUMP STATIONS?

An interceptor is a sewer pipe that receives wastewater from smaller local sewer pipes that serve neighborhoods or municipalities. Interceptors are the largest pipes in the sewage system and convey wastewater by gravity to pump stations or

treatment facilities.

A pump station sits at a low point within a sewer service area basin (or drainage basin). Wastewater flows by gravity to the pump station and from there it is pumped through a pressurized pipe called a force main over hills and ridges to a higher elevation where it can again flow by gravity on its way toward the regional treatment plant.

LBMCI Phase 5

Phase 5 of the Lower Badger Mill Creek Interceptor (LBMCI) is currently under construction north of County Highway PD between Shady Oak Lane and CountryView Road. The Phase 5 project will include 3,550 feet of new 30-inch diameter sanitary sewer interceptor pipe and 10 new manholes. The project is being constructed in coordination with the widening of County Highway PD and with the Ardent Glen development on the Marty Farm property.

The construction contract for Phase 5 was advertised for bids on June 15, 2023 and bids were opened on July 13, 2023. The construction project was awarded to Integrity Grading and Excavating (IGE) on July 27, 2023. IGE began construction on October 10, 2023. Construction will take place in the Phase 1 area of the Ardent Glen development and in the Marty Farm corn fields.

The soils underlying the Marty Farm topsoil are mostly sand and gravel outwash from the Johnstown Moraine. This terminal moraine marks the furthest extent of the [Laurentide Ice Sheet - Green Bay Lobe](https://wgnhs.wisc.edu/catalog/publication/000185/resource/es0362011) < <https://wgnhs.wisc.edu/catalog/publication/000185/resource/es0362011> > between approximately 30,000 and 20,000 years ago. The 30-inch diameter interceptor pipe will be installed between 13 to 18 feet below the ground surface.

Several of the interceptor manholes will be temporarily left from 3 to 7 feet above the existing ground surface. The 6-foot diameter manholes are being left elevated to match the planned surface elevation of future paved paths and roads in the Ardent Glen neighborhood. As the Ardent Glen neighborhood continues to develop, fill will be placed around the manholes and the manhole castings and covers will be adjusted so that only the cover is visible. Until then the manholes sticking up out of the ground will look rather odd. Phase 5 will end near the shoulder of Shady Oak Lane approximately 500 feet northwest of the Marty Farm silos.

[View a map of Phase 5 Route and planned Ardent Glen development](https://www.madsewer.org/wp-content/uploads/2023/10/ENG-2023-LBMCI-Phase5-ArdentGlen.pdf) < <https://www.madsewer.org/wp-content/uploads/2023/10/ENG-2023-LBMCI-Phase5-ArdentGlen.pdf> >

LBMCI Phase 6

Phase 6 of the Lower Badger Mill Creek Interceptor (LBMCI) will be approximately 5,300 feet long starting where Phase 5 left off at the downstream end. The pipe will run up Shady Oak Lane approximately 1,200 feet to the bridge between Shady Hill Drive (no street sign) and Nor-Del-Hill Road. East of the bridge, on the Shady Hill Drive side, the interceptor will veer north through private property and up a ravine that cuts through the Johnstown Moraine. [A Guide to the Glacial Landscapes of Dane County, Wisconsin](https://wgnhs.wisc.edu/catalog/publication/000206) < <https://wgnhs.wisc.edu/catalog/publication/000206> >, Mickelson, 1983 (page 40 - mile 17) describes the ravine as follows (driving towards Midtown Road):

“Meltwater cut through the moraine to your right at this location and water flowed through this channel as the glacier margin retreated from the Johnstown Moraine. Richardson Cave, a small cave in the Platteville-Galena dolomite is present a few hundred yards up this drainageway. Continuing on Shady Oak Lane, you now climb onto the Johnstown Moraine.”

The depth of the pipe along the initial 2006 proposed alignment in the ravine ranged from 8 to 25 feet below ground surface (bgs). With input from private property owners, our design consultant raSmith, and the District project engineer, the proposed alignment has been updated to follow the channel of the ephemeral stream that runs along the bottom of the ravine. The depth to the bottom of the pipe along the new proposed alignment will range from 8 to 15 feet bgs.

Glacial meltwater rushing through the ravine 20,000 to 30,000 years ago carried lighter soil particles such as clay, silt, sand, and gravel to the outwash plain below the moraine. Larger cobbles and boulders settled out of the meltwater earlier and it is likely that many were left in the ravine. In fact, several very large boulders are visible on the surface of the ravine bottom today. Excavating large cobbles and boulders is more difficult than excavating smaller, more uniform soil particles. Another potential issue is the depth to bedrock in the channel. Soil borings and a seismic survey along the original proposed alignment during the initial design effort in 2006 determined that bedrock is likely below the bottom of the proposed pipe. The bedrock profile may be different along the new proposed pipe alignment in the ravine.

The Wisconsin Geological and Natural History Survey (WGNHS) has been hired by the District, through our consultant raSmith, to perform a geophysical investigation along the entire proposed alignment of Phases 5 and 6. The last fieldwork for the study will take place in the ravine and is nearly complete. The results of the geophysical investigation in the ravine will inform the District's decision regarding the feasibility of the new proposed route along the channel. Data from the geophysical investigation will be shared when it is available.

The proposed alignment exits the ravine approximately 250 feet southwest from an impoundment of the ephemeral stream. The purpose of the impoundment is to prevent upstream stormwater runoff from entering nearby Richardson's Cave. After exiting the ravine, the pipe will run east and then north in farmland up to Midtown Road. Any manholes in active farm fields will be left several feet bgs so that farming may continue on the land above. At Midtown Road the pipe will cross to the north side of the road and then run east to the City of Madison Midtown Lift Station. Once connected to existing pipe installed in 2012 by the City of Madison, the entire Lower Badger Mill Creek Interceptor will be complete. Assuming improvements to the District's Pump Station 17 and associated force main are complete, gravity sewer flow from the entire Badger Mill Creek sewershed will be possible and the temporary Midtown Lift Station can be abandoned.

[View a map of the proposed Phase 6 alignment < https://www.madsewer.org/wp-content/uploads/2023/10/ENG-2023-LBMCI-Phase6-Ali.pdf>](https://www.madsewer.org/wp-content/uploads/2023/10/ENG-2023-LBMCI-Phase6-Ali.pdf)

HYDROGEOLOGY AND PRIVATE WELLS

The District and our consultant have gathered publicly available well records within and beyond a 1,000 foot corridor along the proposed pipe alignment. A 3-dimensional visualization model was created from these well records and other existing regional information. Review of this data indicates that the shallow bedrock layer is a [dolomite karst formation < https://home.wgnhs.wisc.edu/wisconsin-geology/karst-sinkholes/>](https://home.wgnhs.wisc.edu/wisconsin-geology/karst-sinkholes/). Karst formations are characterized by interconnected

solution cavities and crevices that can allow rapid transmission of water similar to pipe flow. Therefore, groundwater in karst formations is susceptible to impacts from sources and activities at the surface. Because the construction of Phase 6 will disturb the ground surface, local impacts in the karst formation may occur as the new pipe is installed. Private well owners in the area have expressed concerns about possible construction impacts on their well water and the integrity of their wells. Recognizing these concerns, the District, with assistance from raSmith and AECOM, is developing a plan to address potential risks and impacts that may occur during construction.

Private well capture areas are relatively small. Based on the local hydrogeology and typical well use, the potential for impacts to private wells more than 500 feet away from the construction is expected to be limited. In addition, private wells cased through the karst formation that draw water from the underlying deep sandstone formations are much less likely to be impacted by surface activities. Deep sandstone formations have slower groundwater flow and provide more filtration, whereas the shallow karst formation, with its interconnected cavities and crevices, has faster groundwater flow with less filtering capability.

The plan that the District is developing is focused on private wells located within a 1,000 foot corridor, 500 feet on each side of the proposed pipe. Existing well records are being reviewed to assess the susceptibility of those private wells to impacts based on the depth of their casing and the bedrock from which the well is drawing its water. Owners of wells within 500 feet of the proposed pipe alignment will receive letters to confirm information on their private wells and to establish communications regarding the planned construction, potential impacts, and steps to take if their wells are impacted during construction. More details on the District's plan will be made available once the private well information is confirmed.

Project Documents

[2004 Map of Lower Badger Mill Creek Basin and Proposed Interceptor](#)

[2006 Initial Plans from CTH PD and Midtown Road](#)

Newsletters

- [Newsletter 1: June 7, 2005 < https://www.madsewer.org/wp-content/uploads/2022/12/2005-06-07_LBMC-Newsletter-Issue-1-Split.pdf >](https://www.madsewer.org/wp-content/uploads/2022/12/2005-06-07_LBMC-Newsletter-Issue-1-Split.pdf)
- [Newsletter 2: February 7, 2006](#)
- [Newsletter 3: February 23, 2006](#)
- [Newsletter 4: November 23, 2022](#)

Public Involvement

The District will coordinate with private and government stakeholders and will hold public information meetings for this project.

Meeting #2, In-Person - Open House & Formal Presentation:

- December 7, 2023, 5:30-7:30 pm
- Town of Verona Town Hall, 7669 County Highway PD
- Open House format from 5:30-6:00 p.m. followed by a formal presentation and Q&A.

Public Information Meeting (PIM) #1 was held almost exactly one year prior on December 8, 2022. The meeting was an open house format held at the Town of Verona Town Hall. Since PIM #1, the proposed alignment of Phase 5 was changed based on coordination with the Ardent Glen development and the proposed alignment of Phase 6 was changed based on input from private property owners.

PROJECT DETAILS

Project Type:

Regional Interceptor

Location:

Phase 5: County Highway PD to Shady Oak Lane

Phase 6: Shady Oak Lane to Midtown Road

Schedule:

Phase 5: Fall 2023 to Spring 2024

Phase 6: Fall 2024 to Spring 2025

Status:

Phase 5: Construction

Phase 6: Design

Project Contact:

Eric Hjellen

608-222-1201 x348

SIGN UP FOR PROJECT UPDATES

* indicates required fields

Name *

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