

WACONIA CITY COUNCIL MEETING AGENDA



Monday, August 21, 2023
6:00 PM

VISION STATEMENT

A thriving, connected community with deep roots: a great place to live for a lifetime.

MISSION STATEMENT

A city that leads, serves, and governs to enhance the quality of life for all community members.

MAYOR: NICOLE WALDRON
COUNCIL MEMBER : RANDY SORENSEN
COUNCIL MEMBER: STEVE YETZER
COUNCIL MEMBER: NICK GLEASON
COUNCIL MEMBER: JEFF GRENGS

NOTE: TO ENSURE THAT YOU ARE PRESENT FOR ITEMS OF INTEREST, PLEASE BE PRESENT AT 6:00 P.M.

Those with items on the agenda should reach out to their staff contact. Others who wish to participate in the meeting, please contact the City Administrator at 952-442-3100 or sfineran@waconia.org to make certain that you are called upon during the meeting.

1. CALL MEETING TO ORDER AND ROLL CALL
2. PLEDGE OF ALLEGIANCE
3. ADOPT AGENDA
4. VISITOR'S PRESENTATIONS, PETITIONS, CORRESPONDENCE
5. ADOPT CONSENT AGENDA

The items listed on the Consent Agenda are considered routine and non-controversial by the Council and will be approved by one motion. There will be no separate discussion of these items unless a Councilmember, City Staff, or Citizen so requests; in which case, the item will be removed from the Consent Agenda and considered at the end of the Regular Agenda.

- 1) [City Council Meeting Minutes](#)
Approve August 7, 2023 City Council Meeting Minutes
- 2) [August 21, 2023 Expenditures](#)
Payment of August 21, 2023 Expenditures
- 3) [Kraus Anderson Contractor Pay Request - New Fire Station](#)
Motion to Approve Contractor Payment Request for the New Fire Station Project
- 4) [Horizon Commercial Pool Contractor Pay Request #1 - Safari Island Filter Pump Replacement Project](#)
Motion to Approve Contractor Payment Request for the Safari Island Filter Pump Replacement
- 5) [Contractor Pay Request #11 - New Fire Station](#)
Motion to Approve Contractor Payment Request for the New Fire Station Project

- 6) [Rink Management Services Corporation Waconia Ice Arena Expenditures Incurred July 2023](#)
Motion to Approve Rink Management Corporation Expenditures for Waconia Ice Arena Incurred in July 2023
- 7) [Rink Management Services Corporation Safari Island Community Center Expenditures Incurred July 2023](#)
Motion to Approve Rink Management Corporation Expenditures for Safari Island Community Center Incurred in July 2023
- 8) [Accept Resignation of Park Board Member](#)
Adopt Resolution 2023-184, Accepting Resignation of Park Board Member
- 9) [Appointment of Street Maintenance Worker](#)
Adopt Resolution 2023-185, Appointing Street Maintenance Worker
- 10) [Authorize Submission of Minnesota Board of Water and Soil Resources, \(BWSR\) Clean Water fund Grant](#)
Adopt Resolution 2023-186; Authorizing City Engineer to Submit on Behalf of the City of Waconia a Minnesota Board of Water and Soil Resources, (BWSR) Clean Water Fund Competitive Grant Application for FY 2024
- 11) [Use of Municipal Lot - House Fire Benefit](#)
Adopt Resolution 2023-187, Approving Use of Parking Lot for Waconia Brewing Company
- 12) [LED Lighting Upgrade - Waconia Ice Arena](#)
Adopt Resolution No. 2023-188, Approving Capital Project at the Waconia Ice Arena to Upgrade Facility Lighting to LED
- 13) [Donation Acceptance & Pass Thru Recommendation - Waconia Fire Relief Association](#)
Adopt Resolution 2023-189, Accepting Donation and Approving Pass Thru Recommendation from Waconia Fire Relief Association
- 14) [Acceptance of Quotes and Award Tree Removal Services](#)
Adopt Resolution 2023-190; Authorize Acceptance of Quotes and Award Tree Removal Services for Sudheimer Park Trail Connection
- 15) [Application for Exempt Permit for Church of St Joseph](#)
Adopt Resolution No. 2023-195, Approving Application for Exempt Permit, Church of St Joseph

6. COUNCIL BUSINESS

- 1) [Site Plan, Design Review & Variance - 219 Frontage Road East](#)
Adopt Resolution No. 2023-191 approving the Site Plan, Design Review, & Variance applications for the proposed addition to the Crusher Crossfit building located at 219 Frontage Road East.
- 2) [Comprehensive Plan Amendment â€“ 7845 County Road 10 North, Waconia Township](#)
Adopt Resolution 2023-192 denying the proposed Comprehensive Plan Amendment to re-guide the subject parcel as L, Low Density Residential versus the current guidance of R, Rural.
- 3) [Ordinance Amendment - Park Dedication](#)
Adopt Ordinance No. 763 amending Section 1000 of the City Code pertaining to park dedication.
Adopt Resolution No. 2023-193 approving Summary Publication of the Ordinance.
- 4) [Receive Feasibility Report and Call Hearing](#)
Adopt Resolution 2023-194; Receiving Feasibility Report & Calling Hearing on Improvements

7. ITEMS REMOVED FROM CONSENT AGENDA

8. STAFF REPORTS

9. BOARD REPORTS

- 1) Councilmember Sorensen
- 2) Councilmember Yetzer
- 3) Councilmember Gleason
- 4) Councilmember Grengs

5) Mayor Waldron

10. ANNOUNCEMENTS

11. ADJOURN REGULAR MEETINGOFFICE OF THE CITY ADMINISTRATOR

Shane Fineran

Work Session: Ordinance Amendments

UPCOMING CALENDAR OF EVENTS/MEETINGS:



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		City Council Meeting Minutes					
Originating Department:		Administration					
Presented by:		Ann Meyerhoff					
Previous Council Action (if any):							
Item Type (X only one):		Consent	X	Regular Session		Discussion Session	
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Approve August 7, 2023 City Council Meeting Minutes							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
<u>Attachments:</u> 1. 8-7-2023 Minutes.pdf							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses:							
Budget Information: _____ Budgeted _____ Non Budgeted _____ Amendment Required				Planning Commission			
				Parks and Recreation Board			
				Safari Island Advisory Board			
				Other			

CITY OF WACONIA

August 7, 2023

1) CALL MEETING TO ORDER AND ROLL CALL

Pursuant to due call and notice thereof, the regular meeting of the City Council of the City of Waconia was called to order by Mayor Waldron at 6:00 p.m. The following members were present: Nicole Waldron, Randy Sorensen, Steve Yetzer, Nick Gleason

Staff Present: Lane Braaten, Craig Eldred, Nicole Meyer, Justin Sorensen, Ann Meyerhoff.

2) PLEDGE OF ALLEGIANCE

3) ADOPT AGENDA

Motion by Sorensen, seconded by Gleason 3) ADOPT AGENDA

MOTION carried

4) VISITOR'S PRESENTATIONS, PETITIONS, CORRESPONDENCE

Stephanie Schnedler, 1692 Lenox Drive, addressed the Council asking that Waconia's noise ordinance be amended to mirror other surrounding communities due to one residence in the neighborhood that continually plays loud music all hours of the day which the current ordinance allows. She asked for an amendment to the wording to make the ordinance more inclusive.

Carol Laleman, 1330 Mockingbird Drive, Spoke to Council about receiving a water usage citation while her kids were playing in the sprinklers. She indicated that no one addressed the issue with her. She asked for clarification on why she received it and would like it removed.

Joe Wheatley, 1680 Lennox Drive, addressed Council to show support in amending the noise ordinance to update it to mirror surrounding communities.

5) PUBLIC HEARING

5.1 Adult Use Cannabis Moratorium and Use of Cannabis in Public Spaces

Cover Page

Ord 761 Interim Ordinance for Cannabis

Ord 762 CHAPTER 515

Christophe Morsschen of Melchert, Hubert, Sjodin explained that earlier this year the Minnesota State Legislature legalized cannabis use, possession, and manufacture to be effective on August 1, 2023. In the legislation the regulatory framework and the

participation of local governments in that framework is to be further developed by the Office of Cannabis Management of the State of Minnesota as it pertains to licensing and businesses participating in the cannabis market. The City will need to study the regulatory framework contained in the legislation as well as the guidance provided by the Office of Cannabis Management prior to enacting any other local ordinances or regulations as it pertains to the legalization of cannabis, businesses that are created to support the cannabis market, land use impacts, and the impacts to the health and well being of the community. Therefore, it is recommended that the City Council adopt a moratorium to last no later than January 1, 2025, unless rescinded by the City Council, in which time the City will study the topic and any ordinances it sees fit under the legislation.

Additionally, the recently passed legislation made the use of cannabis legal throughout the state unless otherwise prohibited lawfully locally. The City currently regulates the use of alcohol in public spaces such as parks, streets, and alleyways. Similar to those regulations, a proposed ordinance is provided that would prohibit the use of cannabis products in public places within the city and on private property where it is prohibited by the property owner. A violation of the adopted ordinance would be a petty misdemeanor.

Motion by Yetzer, seconded by Sorensen to Open the Public Hearing.

Motion by Sorensen, seconded by Gleason to Close the Public Hearing.

Motion by Yetzer, seconded by Gleason Adopt Ordinance 761 Prohibiting the sale, testing, manufacturing, cultivating, growing, transporting, delivery, and distribution of cannabis products in the City of Waconia

MOTION carried

Motion by Yetzer, seconded by Sorensen Adopt Ordinance 762 Creating Chapter 515 and prohibiting the use of cannabis products in public places in the City of Waconia

MOTION carried

6) [ADOPT CONSENT AGENDA](#)

6.1 July 17, 2023 City Council Meeting Minutes

[Cover Page](#)

[Minutes 7-17-2023.pdf](#)

6.2 August 7, 2023 Expenditures

[Cover Page](#)

[Council List - Expenditures 08.07.23_Regular.pdf](#)

[Council List - Expenditures 08.07.23_Purchasing Cards.pdf](#)

6.3 Contractor Pay Request #11 - Waconia Parkway South Improvements

[Cover Page](#)

[2023-07-20 WPS Payment #11.pdf](#)

6.4 Contractor Pay Request #10 - New Fire Station

[Cover Page](#)

[Waconia - Pay App #10 - June 2023.pdf](#)

6.5 Contractor Pay Request #3 - Waconia Downtown Reconstruction - Phase 1

[Cover Page](#)

[2023-08-01 Downtown Ph 1 Payment #3.pdf](#)

6.6 Approve Temporary Liquor License for Chumly's Bar

[Cover Page](#)

[23178res Temp On Sale Chumly's.doc](#)

6.7 Joint Powers Agreement - Minnesota BCA Criminal Justice Data Network

[Cover Page](#)

[23179res_BCA_CJDN_JPA.doc](#)

[Waconia Prosecution Attorney Master JPA.pdf](#)

[Waconia Prosecution Attorney Amendment.pdf](#)

6.8 Special Event Permit - Nickle Dickle Day

[Cover Page](#)

[23180res_Special_Event_Permit_NDD.doc](#)

[Special-Event-Permit-Application.NDD.pdf](#)

6.9 Authorize Obtain Quotes Well #5

[Cover Page](#)

[23181res_Quotes_Remove_Inspect_Well__5.doc](#)

6.10 Approval of High Service Pump Repair Invoice

[Cover Page](#)

[23182res_High_Service_Pump__2.doc](#)

[Final Invoice With Mark-ups HSP #2 2023.pdf](#)

Motion by Sorensen , seconded by Yetzer 6) ADOPT CONSENT AGENDA
MOTION carried

7) COUNCIL BUSINESS

7.1 Award of Construction Contract for 2023 Infrastructure Improvement Project

[Cover Page](#)

[23183res Award_Res_2023_Infrastructure_Improvements.doc](#)

[2023-08-01 2023 Infrastructure Improvements Award.pdf](#)

Craig Eldred stated that staff has been working with the City Engineer on three Capital Improvement Projects related to pavement resurfacing of Burandt Boulevard and Farmline Road, pedestrian and sidewalk link of Somerwood Drive and Interlaken Parkway North adjacent CSAH 10, and culvert crossings of Waconia Parkway North in advance of pavement resurfacing scheduled for Fiscal Year 2024.

August 1, 2023 Bids were received virtually. The lowest bid came in at \$891,066.10 from GMH Asphalt Corporation. Eldred shared that the bids received were 4% greater than the Engineer estimate. However, the bidding process was competitive with a high bid of \$1,332,847.91 and the low of \$891,066.10 or 33% less than the highest bid provided.

Each improvement was funded separately in the Capital Improvement Plan. Each improvement is funded through the following methods:

1. Re-surfacing Improvement by State Aid Funds since the payment segments are part of the City's Municipal State Aid Roadway System.
2. Highway 10 Interlaken Trail and Sidewalk was to be PIR Cash. However, it will be funded by State Aid Funds since it is within a Trunk Highway Corridor saving funds for future PIR Improvements.
3. Culvert Crossings are funded by Storm Water Cash.

Staff and City Engineer recommend approval of awarding a Construction Contract with GMH Asphalt Corporation for these much-needed improvements guided upon improving

the communities transportation systems and advanced sub-surface improvements for programmed asphalt re-surfacing improvements for 2024.

Council Member Yetzer questioned Eldred on why this was bid in the middle of summer verses spring. Discussion followed.

Motion by Sorensen, seconded by Waldron Adopt Resolution 2023-183; Authorizing Award of Construction Contract For 2023 Infrastructure Improvement Project to GMH Asphalt Corporation In The Amount of \$891,066.10

MOTION carried

7.2 Approve Temporary Liquor License for American Legion

Cover Page

23176res Temp On Sale American Legion.doc

23177res Temp On Sale American Legion.doc

Lane Braaten stated that the City received two applications for a Temporary Liquor License. One is for an event being held Labor Day weekend and the other for Nickle Dickle Day.

Motion by Yetzer, seconded by Gleason Adopt Resolution 2023-176, Approving Temporary On-Sale Liquor License Applications for American Legion

MOTION carried Council Member Sorensen abstained.

Motion by Gleason, seconded by Yetzer Adopt Resolution 2023-177, Approving Temporary On-Sale Liquor License Applications for American Legion

MOTION carried Council Member Sorensen abstained.

8) ITEMS REMOVED FROM CONSENT AGENDA

9) STAFF REPORTS

Sargent Tyler Stahn reported on June and July offenses.

Nicole Meyer shared Water Conservation reminders. Ordinance 410, Section 29.

Craig Eldred gave an update on the Downtown Improvement Project.

10) BOARD REPORTS

Council Member Sorensen: CIP meeting on August 15th and Park Board meeting on August 17th.

Council Member Yetzer: Gave a recap of the last Planning Commission meeting.

Council Member Gleason: Attended the School Board meeting in July.

Mayor Waldron: Will be attending the CIP meeting on the 15th.

Music in the Park the 10th and 17th.

Motion by Nick Gleason , seconded by Steve Yetzer 10) BOARD REPORTS

MOTION carried

6:52

11) ANNOUNCEMENTS

Music in the Park on August 10th and 17th.

12) ADJOURN REGULAR MEETING

Motion by Gleason, seconded by Yetzer 12) ADJOURN REGULAR MEETING at 6:52 p.m.

MOTION carried.

Work Session:

UPCOMING CALENDAR OF EVENTS/MEETINGS:

Nicole Waldron, Mayor

ATTEST: _____

Ann Meyerhoff, Office Assistant



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		August 21, 2023 Expenditures					
Originating Department:		Finance					
Presented by:		Nicole Meyer					
Previous Council Action (if any):							
Item Type (X only one):		Consent	X	Regular Session		Discussion Session	
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Payment of August 21, 2023 Expenditures							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
Attached is the claim and disbursements registers for the City of Waconia as of August 21, 2023. Payments are made to vendors via check, electric payment, and through the City's purchasing card program.							
<u>Attachments:</u>							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses:							
Budget Information: _____ Budgeted _____ Non Budgeted _____ Amendment Required				Planning Commission			
				Parks and Recreation Board			
				Safari Island Advisory Board			
				Other			



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Kraus Anderson Contractor Pay Request - New Fire Station					
Originating Department:		Finance					
Presented by:		Amanda Ortloff					
Previous Council Action (if any):							
Item Type (X only one):		Consent	☒	Regular Session	☐	Discussion Session	☐
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Motion to Approve Contractor Payment Request for the New Fire Station Project							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
Kraus-Anderson Construction Co. has requested payment in the amount of \$58,401.47 for construction management services through July 31, 2023.							
<u>Attachments:</u>							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses: PIR Fund							
Budget Information: ☒ Budgeted ☐ Non Budgeted ☐ Amendment Required				Planning Commission			
				Parks and Recreation Board			
				Safari Island Advisory Board			
				Other			



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Horizon Commercial Pool Contractor Pay Request #1 - Safari Island Filter Pump Replacement Project					
Originating Department:		Finance					
Presented by:		Amanda Ortloff					
Previous Council Action (if any):		Resolution #2023-32; Awarding Pool Filter Project					
Item Type (X only one):	Consent	☒ X	Regular Session	☐	Discussion Session	☐	
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Motion to Approve Contractor Payment Request for the Safari Island Filter Pump Replacement							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
Staff has reviewed the contractor pay request for the Safari Island Filtration and Pump Replacement and recommends payment of \$343,900.00. This payment represents approximately 72% of the total approved contract for the project. Retainage remains due until the project is complete and upon review of liquidated damages. <u>Attachments:</u>							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses: PIR Fund							
Budget Information: ☒ X Budgeted ☐ Non Budgeted ☐ Amendment Required				Planning Commission			
				Parks and Recreation Board			
				Safari Island Advisory Board			
				Other			



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Contractor Pay Request #11 - New Fire Station					
Originating Department:		Finance					
Presented by:		Amanda Ortloff					
Previous Council Action (if any):							
Item Type (X only one):	Consent	☒	X	Regular Session	☐	Discussion Session	☐
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Motion to Approve Contractor Payment Request for the New Fire Station Project							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
Kraus-Anderson Construction Co. has reviewed the contractor pay request #11 for the new fire station project. The contractors requesting payment are as follows: Ebert Construction \$188,828.83 Wells Concrete Products Company \$234,747.11 Kendell Doors & Hardware, Inc. \$66,499.98 Ford Metro, Inc. \$29,545.00 Gag Sheet Metal, Inc. \$16,967.76 Sentra-Sota Sheet Metal, Inc. \$52,820.00 Electrical Production Services, Inc. \$4,444.58 Parker Contracting, LLC \$205,383.84 The total amount of the contractor payments for this request is \$799,237.10. Retainage remains due for each contractor until the project is complete and upon review of liquidated damages. <u>Attachments:</u>							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses: PIR Fund							
Budget Information:				Planning Commission			
☒ Budgeted				Parks and Recreation Board			
☐ Non Budgeted				Safari Island Advisory Board			
☐ Amendment Required				Other			



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Rink Management Services Corporation Waconia Ice Arena Expenditures Incurred July 2023					
Originating Department:		Finance					
Presented by:		Amanda Ortloff					
Previous Council Action (if any):							
Item Type (X only one):	Consent	☒ X	Regular Session	☐	Discussion Session	☐	
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Motion to Approve Rink Management Corporation Expenditures for Waconia Ice Arena Incurred in July 2023							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
Rink Management Services Corporation has provided the attached report for expenditures paid in July 2023. Per the City's contract with Rink Management, these expenditures are paid by Rink Management for the City's operation of the Waconia Ice Arena.							
<u>Attachments:</u>							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses: Ice Arena Fund (678)							
Budget Information:				Planning Commission			
☒ Budgeted				Parks and Recreation Board			
☐ Non Budgeted				Safari Island Advisory Board			
☐ Amendment Required				Other			



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Rink Management Services Corporation Safari Island Community Center Expenditures Incurred July 2023					
Originating Department:		Finance					
Presented by:		Amanda Ortloff					
Previous Council Action (if any):							
Item Type (X only one):	Consent	☒ X	Regular Session	☐	Discussion Session	☐	
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Motion to Approve Rink Management Corporation Expenditures for Safari Island Community Center Incurred in July 2023							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
Rink Management Services Corporation has provided the attached report for expenditures paid in July 2023. Per the City's contract with Rink Management, these expenditures are paid by Rink Management for the City's operation of the Safari Island Community Center.							
<u>Attachments:</u>							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses: Safari Island Fund (231)							
Budget Information: ☒ X Budgeted ☐ Non Budgeted ☐ Amendment Required				Planning Commission			
				Parks and Recreation Board			
				Safari Island Advisory Board			
				Other			



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Accept Resignation of Park Board Member					
Originating Department:		Administration					
Presented by:		Shane Fineran					
Previous Council Action (if any):							
Item Type (X only one):	Consent	☒	X	Regular Session	☐	Discussion Session	☐
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED (Include motion in proper format.)							
Adopt Resolution 2023-184, Accepting Resignation of Park Board Member							
EXPLANATION OF AGENDA ITEM (Include a description of background, benefits, and recommendations.)							
Andrew Anauro has submitted his resignation from the Park Board. Andrew has served the Park Board since 2020 in alternate and full board member terms. We would like to thank Andrew for his service and commitment to the community. The seat term will expire at the end of 2023 and recruitment can be held during the fall months for appointment to begin at the start of a three year seat term at the beginning of 2024.							
Attachments:							
1. 23184res_Park_Board_Anauro_resignation.docx							
FINANCIAL IMPLICATIONS:			ADVISORY BOARD RECOMMENDATIONS:				
Funding Sources & Uses:							
Budget Information:			Planning Commission				
☐ Budgeted			Parks and Recreation Board				
☐ Non Budgeted			Safari Island Advisory Board				
☐ Amendment Required			Other				

**CITY OF WACONIA
RESOLUTION NO. 2023-184**

RESOLUTION ACCEPTING RESIGNATION OF PARK BOARD MEMBER

WHEREAS, Andrew Anaao has submitted his resignation from the Park Board.; and

WHEREAS, the term filled by Andrew Anaao will expire on December 31, 2023; and

WHEREAS, the term shall be filled by the Park Board Alternate until expiration and at such time a qualified candidate can be recruited.

NOW, THEREFORE, BE IT RESOLVED, That the City Council of the City of Waconia hereby accepts the resignation.

Adopted by the City Council of the City of Waconia this 21st day of August 2023.

Nicole Waldron, Mayor

ATTEST: _____
Jackie Schulze, City Clerk



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Appointment of Street Maintenance Worker					
Originating Department:		Administration					
Presented by:		Jackie Schulze					
Previous Council Action (if any):		June 20, 2023: Resolution 2023-142, Accept Resignation of Street Maintenance Worker and Authorize Recruitment					
Item Type (X only one):	Consent	☒ X	Regular Session	☐	Discussion Session	☐	
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Adopt Resolution 2023-185, Appointing Street Maintenance Worker							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
On June 20, the City Council accepted the resignation of a Street Maintenance Worker and authorized recruitment for this vacancy. City staff completed multiple rounds of interviews and recommend the hire of Matthew Littfin to this position. Matthew has been with Arrow Building Center since 2000, has his Class B CDL, and also has helped out the City of Winsted part-time with snow removal operations since 2001. Matthew is expected to start at Step 1 on the Street Maintenance Worker pay scale with standard PTO accruals. He has successfully completed the pre-employment contingencies of a physical, drug screen, background check, and driving record check. He will need to obtain his Class A CDL within two years of hire. We anticipate a start date after Labor Day. <u>Attachments:</u> 1. 23185res_Appointment_of_Street_Maintenance_Worker_August_23.docx							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses:				Personnel Committee: Recommend			
Budget Information:				Planning Commission			
_____ Budgeted				Parks and Recreation Board			
_____ Non Budgeted				Safari Island Advisory Board			
_____ Amendment Required				Other			

**CITY OF WACONIA
RESOLUTION NO. 2023 - 185**

**RESOLUTION AUTHORIZING
HIRE OF STREET MAINTENANCE WORKER**

WHEREAS, on June 20, 2023, the City Council authorized the recruitment for the vacant Street Maintenance Worker position; and

WHEREAS, the City completed recruitment for this position; and

WHEREAS, staff recommend the appointment of Matthew Littfin to this position;

WHEREAS, Matthew will start at Step 1 on the Maintenance Worker pay scale and accrue PTO at the standard accrual rate; and

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Waconia authorizes the hire of Matthew Littfin for the Street Maintenance Worker position with an anticipated start date of September 5, 2023.

Adopted by the City Council of the City of Waconia this 21st day of August, 2023.

Nicole Waldron, Mayor

ATTEST: _____
Jackie Schulze, City Clerk



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Authorize Submission of Minnesota Board of Water and Soil Resources, (BWSR) Clean Water fund Grant					
Originating Department:		Public Services					
Presented by:		Craig Eldred					
Previous Council Action (if any):		None					
Item Type (X only one):	Consent	X	Regular Session		Discussion Session		
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Adopt Resolution 2023-186; Authorizing City Engineer to Submit on Behalf of the City of Waconia a Minnesota Board of Water and Soil Resources, (BWSR) Clean Water Fund Competitive Grant Application for FY 2024							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
As we continue to seek outside funding opportunities to off-set local improvement costs; grants are one of our major sources and opportunities. Storm Water Reuse has been a focus for many reasons to reduce potable demand of drinking water for irrigation, assists in placing water back into the communities drinking water recharge areas, and assist in meeting and protecting storm water requirements for community wide improvements. We once again have the opportunity to seek outside funds for the Downtown Reuse Improvements through submission of a grant application available through the Minnesota Board of Water and Soil Resources, (BWSR). Focus of the grant funds are protection, enhance, and or restore surface waters and protection of ground water sources. Waconia's focus is protection of Lake Waconia from further water quality impairments. Staff are requesting authorization to have the City Engineer submit an application for clean water fund, competitive grants for fiscal year 2024 to assist in its Downtown Reuse Improvements. Applications are due August 24th, 2023. Since we submitted previously we intend to modify and add elements to the previous 2022 submission. Therefore meeting the application date shouldn't be a problem. There is a 10% Match, and our intended application submission is for \$250,000.00. Staff recommends approval of this request to submit the application for Clean Water Funds and authorize the Public Services Director to execute the grant for the City of Waconia for submission by the City Engineer.							
Attachments:							
1. 23186res 2023_BWSR_Grant_App_Res..doc 2. Grant Information Sheet Reuse Application.pdf							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses: Storm Water, Engineering							
Budget Information:				Planning Commission			
X Budgeted				Parks and Recreation Board			
Non Budgeted				Safari Island Advisory Board			
Amendment Required				Other			

**CITY OF WACONIA
RESOLUTION NO. 2023-186**

**RESOLUTION AUTHORIZING CITY ENGINEER TO SUBMIT ON BEHALF OF THE
CITY OF WACONIA A MINNESTOA BOARD OF WATER AND SOIL REOURCES,
(BWSR) CLEAN WATER FUND COMPETITIVE GRANT APPLICATION FOR FY
2024**

WHEREAS, one of the City’s Priorities is to “manage, maintain, and improve our current and future physical assets”; and

WHEREAS, staff and City Engineer continue to seek grant opportunities to off-set public costs for municipal improvements; and

WHEREAS, storm water reuse assist Waconia in meeting storm water requirements, reduces potable water demand for irrigation, and protects the communities Lakes and Streams; and

WHEREAS, reuse in the Downtown benefits reduction of these impacts and whereby grants and outside funding opportunities assist in off-set costs and goals established to reduce financial impacts; and

WHEREAS, the Public Services Director may execute the grant application on behalf of the City.

NOW, THEREFORE, BE IT RESOLVED That the City Council of the City of Waconia hereby authorizes City Engineer to submit on behalf of the City of Waconia a Minnesota Board of Water and Soil Resources, (BWSR) Clean Water Fund competitive grant application for FY 2024.

Adopted by the City Council of the City of Waconia this 21st day of August, 2023.

Nicole Waldron, Mayor

Attest: _____
Jackie Schulze, City Clerk

Funding

Clean Water Fund Competitive Grants– FY2024

Protect or restore water quality in lakes, rivers, or streams, or will protect groundwater or drinking water.

Agency: Minnesota Board of Water & Soil Resources (BWSR)

Amount Available: See Overview section below

Matching Requirement: 10%

Program Website: <https://bwsr.state.mn.us/apply>

Application Due: 08/24/2023

Funding Source: State

Type: Grant and Loan

Eligibility

Eligible Applicants: Soil and water conservation districts, watershed districts, watershed management organizations, counties, joint powers boards and municipalities with approved water management plans.

Eligible Project Types: Non-point source pollution prevention projects, consistent with an approved water management plan.

Prerequisites: Projects must implement practices covered in approved planning documents.

Overview

The FY2024 solicitation includes two grants: *Projects and Practices*, and the *Drinking Water subgrant*. Projects must implement practices to protect, enhance, and/or restore surface waters and protect ground and drinking water sources from degradation. Eligible activities can consist of structural practices and projects; non-structural practices, project support, grant management and reporting. Review the [FY2024 Clean Water Fund Competitive Grant Policy](#) for a full list of eligibility requirements.

Program	Amount	Example Projects	Required Match
Projects and Practices Grant	Up to \$6,960,800	Stormwater practices, lakeshore and stream bank stabilization, stream restoration, and SSTS upgrades.	10%
Projects and Practices - Drinking Water Subgrant	Up to \$1,740,200	Land treatment projects and practices that will protect or improve drinking water sources	10%

The following three high-level state priorities have been established for Clean Water Fund nonpoint implementation:

1. Restore waters that are closest to meeting state water quality standards.
2. Protect high-quality unimpaired waters at greatest risk of becoming impaired.
3. Restore and protect water resources for public use and public health, including drinking water.

Application Process

Applications must be submitted via [eLink](#) by 4:30 pm on Monday, August 24, 2023.

BWSR Board will authorize grant awards at their December 14, 2023 meeting.

Additional Resources

Bolton & Menk, Inc. Internal Resource: Timothy J. Olson, PE (MN, IA, ND, WI), CFM
Teresa J. Burgess, PE, (MN, IA, SD, TN), CPESC

Link to FY2024 CWF Competitive Grants RFP and FAQs:

[FY 2024 Clean Water Fund Competitive Grants Request for Proposal](#)

[FY2024 Clean Water Fund Frequently Asked Questions](#)



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Use of Municipal Lot - House Fire Benefit					
Originating Department:		Administration					
Presented by:		Shane Fineran					
Previous Council Action (if any):							
Item Type (X only one):		Consent	X	Regular Session		Discussion Session	
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Adopt Resolution 2023-187, Approving Use of Parking Lot for Waconia Brewing Company							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
Dee DeLange with Waconia Brewing Company has submitted a request to utilize a portion of Lot 1 adjacent to the brewery & tap room to host a benefit for a family recently displaced by a house fire in the community. The benefit would occur on Saturday, August 26th from 11:00 a.m. to 10:00 p.m.. Waconia Brewing Company is requesting to utilize a portion of Lot 1 outside of the permitted sidewalk café to host expanding capacity and a food truck. Alcohol will not be served or consumed outside of the licensed tap room or permitted sidewalk café. <u>Attachments:</u> 1. 23187res_WBC_Benefit.docx 2. Waconia Brewing Benefit							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses:							
Budget Information:				Planning Commission			
_____ Budgeted				Parks and Recreation Board			
_____ Non Budgeted				Safari Island Advisory Board			
_____ Amendment Required				Other			

**CITY OF WACONIA
RESOLUTION NO. 2023-187**

RESOLUTION APPROVING USE OF PARKING LOT FOR WACONIA BREWING COMPANY

WHEREAS, a use of parking lot request has been submitted by the Waconia Brewing Company for a benefit on August 26th, 2023 between the hours of 11:00 a.m. and 10:00 p.m.; and

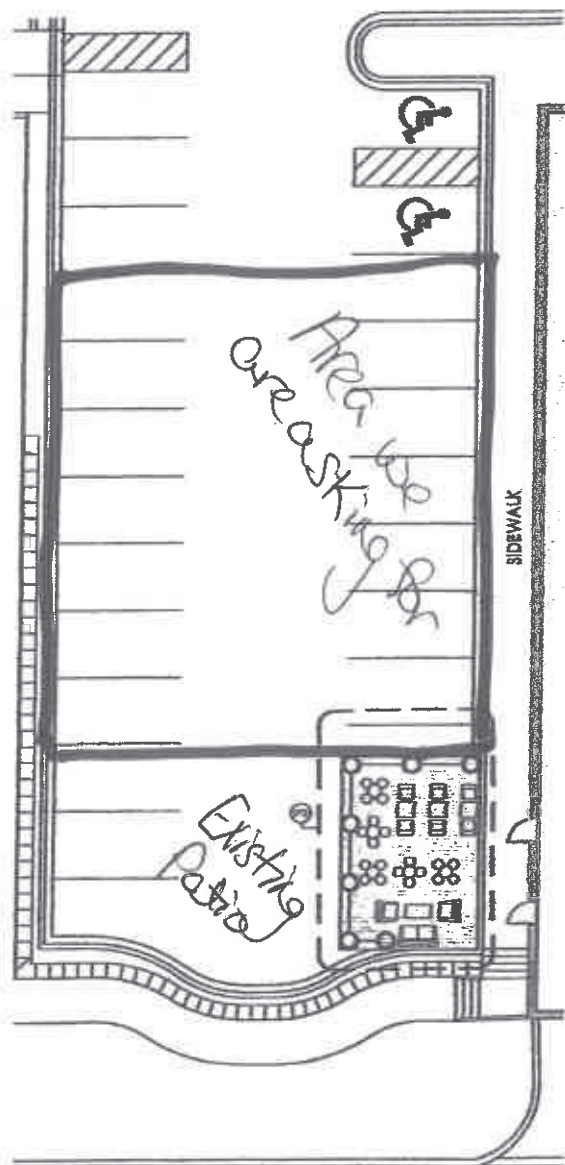
WHEREAS, Sale and consumption of alcoholic beverages will be limited to licensed tap room premises and the permitted sidewalk café area; and.

NOW, THEREFORE, BE IT RESOLVED, That the City Council of the City of Waconia hereby approves the use of parking lot 1 request.

Adopted by the City Council of the City of Waconia this 21st day of August 2023.

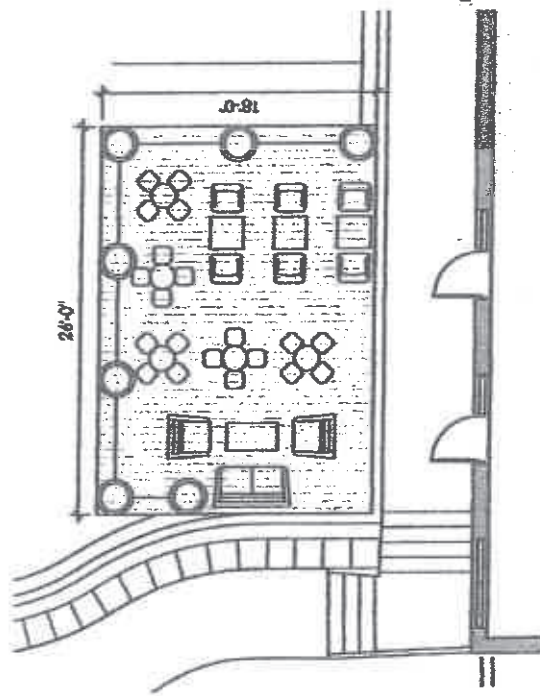
Nicole Waldron, Mayor

ATTEST: _____
Jackie Schulze, City Clerk



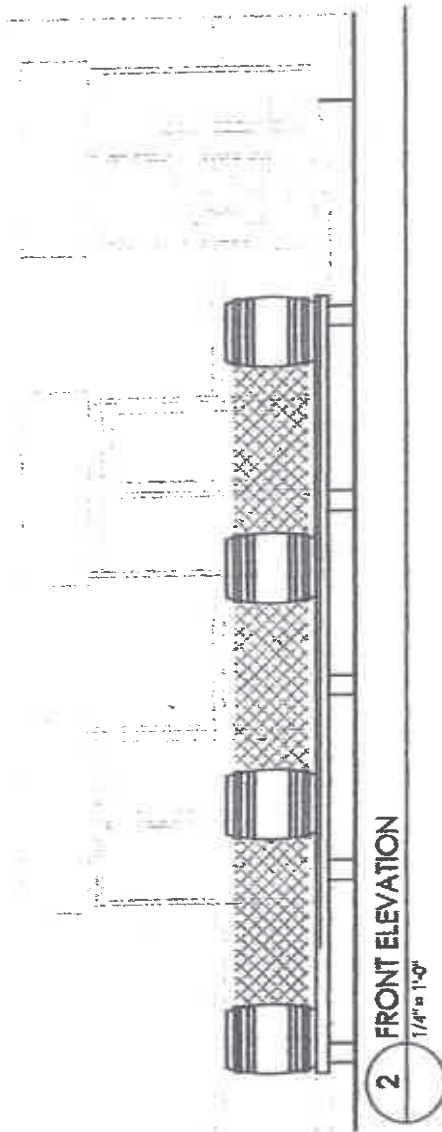
1 SITE REFERENCE PLAN

1/8" = 1'-0"



3 ENLARGED PLAN

1/8" = 1'-0"



2 FRONT ELEVATION

1/4" = 1'-0"

KAEDING
ARCHITECTURE
1885 OAKPONTE DRIVE
WACONIA, MN 55387
952.451.9763

PROJECT: WBC PATIO
DATE: 4/28/16
DRAWN BY: SP
CHECKED BY: JK

WACONIA BREWING COMPANY
PATIO ADDITION
255 W MAIN ST.
WACONIA, MN
55387



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023				
Item Name:		LED Lighting Upgrade - Waconia Ice Arena				
Originating Department:		Finance				
Presented by:		Nicole Meyer				
Previous Council Action (if any):						
Item Type (X only one):	Consent	X	Regular Session		Discussion Session	
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>						
Adopt Resolution No. 2023-188, Approving Capital Project at the Waconia Ice Arena to Upgrade Facility Lighting to LED						
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>						
City staff have identified a project in the 2024 capital improvement budget for LED lighting upgrades at the Waconia Ice Arena. The current facility lighting is the original lighting installed during the initial construction in 2007. The lighting is not LED or high efficiency. The project currently identified in the capital plan was budgeted at \$150,000 and the funding source is PIR Capital Improvement Cash (Fund 103). Staff was working to get updated quotes for this project in 2024. During this analysis, it was found that Xcel Energy has several LED rebate programs that expire in November 2023. These rebates will allow the City to complete this project for almost half of the costs being quoted by vendors. The Ice Arena Operating Fund (Fund 678) has fund balance available to complete this project yet this year, capture the rebates, and start saving money on energy costs with more efficient lighting. Staff have obtained quotes from two vendors that are able to assist with the Xcel Energy rebate programs and provide similar work and materials. Both companies offer a control board where we could dim the lights to save energy and turn them on/off from the wireless controller. ◦ Laketown Electric Corporation - Price for all new fixtures over the rink with wire cages, the entrance and replacement LED bulbs everywhere else and the additional option for additional foot candles was quoted at \$66,550. Rebate was quoted at \$30,825 for a total out of pocket cost of \$35,725. ◦ Noble Electric - Quote was \$68,720 with rebates coming in at \$29,261 for a total cost of \$39,459. This bid did not include the wire cages or additional foot candles that would be needed on the lights in the rink. The wire cages are required and would result in an additional \$2,000 expense on top of the total costs quoted by Noble Electric. Overall, Laketown Electric Corporation provided the lowest quote and highest rebate for the lighting upgrade. Staff is recommending approval of the LED lighting upgrade with Laketown Electric Corporation so work can start in 2023 and the rebates can be taken advantage of by the November 2023 deadlines. Staff recommends utilizing fund balance in the ice arena operating fund for this project; this allowing the capital project for 2024 to be cancelled. The cancellation of this project allows \$150,000 to be reviewed in the PIR Capital Project Fund for other future City projects.						
Attachments: 1. 23188res LED_Lighting_Project_Res_final.docx 2. Laketown Electric Proposal.pdf 3. Noble Electric Proposal.pdf						
FINANCIAL IMPLICATIONS:			ADVISORY BOARD RECOMMENDATIONS:			

Funding Sources & Uses:		
Ice Arena Operating Fund (678)		
Budget Information:	☒ Budgeted	Planning Commission
	☐ Non Budgeted	Parks and Recreation Board
	☐ Amendment Required	Safari Island Advisory Board
		Other

**CITY OF WACONIA
RESOLUTION NO. 2023-188**

**RESOLUTION APPROVING CAPITAL PROJECT AT THE WACONIA ICE ARENA
TO UPGRADE FACILITY LIGHTING TO LED**

WHEREAS, identified in the 2024 capital budget is a project at the Waconia Ice Arena for updates to LED lighting at the facility; and

WHEREAS, the current lighting is the original lights installed during construction of the facility in 2007 which is not LED or high efficiency; and

WHEREAS, quotes were solicited for the lighting project by staff; and

WHEREAS, two quotes were provided by vendors as listed and attached:

- Laketown Electric Corporation - Price for all new fixtures over the rink with wire cages, the entrance, and replacement LED bulbs everywhere else and the additional option for additional foot candles was quoted at \$66,550. Rebate was quoted at \$30,825 for a total out of pocket cost of \$35,725.
- Noble Electric - Quote was \$68,720 with rebates coming in at \$29,261 for a total cost of \$39,459. This bid did not include the wire cages or additional foot candles that would be needed on the lights in the rink. This would be an estimated expense of \$2,000 on top of the total costs quoted by Noble Electric.

WHEREAS, the lowest quote was provided by Laketown Electric Corporation with a total project cost of \$66,550 and total rebate of \$30,825; and

WHEREAS, staff is recommending approval of the project with Laketown Electric Corporation; and

WHEREAS, once approved City staff will work with the vendor to schedule work to start as soon as possible to ensure all the rebates offered by Xcel Energy can be applied for by the November 2023 deadlines.

NOW, THEREFORE, BE IT RESOLVED, the City Council of the City of Waconia hereby approves the capital project at the Waconia Ice Arena to upgrade facility lighting to LED fixtures with Laketown Electric Corporation.

Adopted by the City Council of the City of Waconia this 21st day of August, 2023.

Nicole Waldron, Mayor

ATTEST: _____
Jacqueline Schulze, City Clerk



**Remarkable efforts
deliver extraordinary
outcomes.**

Date: 07/25/2023
Project: Waconia Ice Arena

The following Proposal outlines the scope to furnish and install labor and materials for lighting retrofit throughout the Ice Arena Building

Payback is based on 8 hours a day 7 days a week

Ice Rink – Lamps Only

Replace lamps only in (72) high bay fixtures and (15) wall mounted fixtures

Total Proposed Amount: \$ 18,000.00

Estimated rebate \$ 7,380.00

Estimated energy savings \$ 5,150.00 yearly

Estimated payback – 2.1 years

Ice Rink – New Highbay Fixtures

Replace existing (72) high bay fixtures with (72) LED high bay fixtures and lamps only in (15) wall mounted fixtures

Total Proposed Amount: \$ 30,000.00

Estimated rebate \$ 15,520.00

Estimated energy savings \$ 3,685.00 yearly

Estimated payback – 3.9 years

Ice Rink – New Highbay Fixtures and Controls

Replace existing (72) high bay fixtures with (72) LED high bay fixtures and lamps only in (15) wall mounted fixtures

Highbay fixtures to have integrated wireless controls

(1) Control station in place of existing switches

Total Proposed Amount: \$ 38,000.00

Estimated rebate \$ 26,640.00

Estimated energy savings \$ 6,275.00 yearly

Estimated payback – 1.8 years

ADDER for wire cages on Highbay fixtures: \$ 5,000.00

8470 STATE HIGHWAY 5, WACONIA, MN 55387

WACONIA OFFICE: (952) 442-2740 • WWW.LAKETOWNELECTRIC.COM • MANKATO OFFICE: (507) 388-3288

Remainder of Interior – Lamps Only

Replace lamps only in:
Lower Viewing

Stairs
Entry

Restrooms

Utility Room
Concessions
Office and meeting rooms
Locker Rooms
Zamboni/Storage/Warming/Compressor
Elevator

14 – Vaportite fixtures
2 – 2x4 Fixtures
2 – Fixtures
6 – High bay style fixtures
9 – 2x4 hanging fixtures
16 – Wall wash fixtures
16 – Recessed can fixtures
14 – Wall wash fixtures
1 – Vanity style fixture
2 – Strip fixtures
6 – 2x4 Fixtures
20 – 2x4 Fixtures
74 – Vaportite Fixtures
30 – Strip fixtures
1 – 2 Lamp stril

Total Proposed Amount: \$ 11,000.00

Estimated Rebate \$ 3,895.00

Estimated energy savings \$ 2,660.00 yearly

Estimated payback – 2.7 years

Exterior Lamps Only

Replace lamps in (5) 100W fixtures and (7) 70W fixtures

Total Proposed Amount: \$ 2,000.00

Estimated Rebate \$ 290.00

Estimated energy savings \$ 360.00 yearly

Estimated payback – 4.7 years

Exterior New Fixtures

Replace existing fixtures with LED fixtures

Total Proposed Amount: \$ 4,500.00

Estimated Rebate \$ 330.00

Estimated energy savings \$ 340.00 yearly

Estimated payback – 12.2 years

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Alternate Lighting Options

These options may affect the rebate and payback of the base package

Increase lighting output on ice rink:

Option "B" – Increase to average output of 79 foot candles

Add to base price: \$ 9,000.00

Estimated rebate \$ 25,270.00

Estimated energy savings \$ 5,955.00 yearly

Estimated payback – 3.65 years

Option "C" – Increase to average output of 106 foot candles

Add to base price: \$ 15,750.00

Front Entry:

Replace (6) existing highbay style fixtures with new LED fixtures:

Add to base price: \$ 850.00

Replace (7) existing 2x4 style fixtures with new LED fixtures:

Add to base price: \$ 700.00

Inclusions

1. Permit
2. Lifts
3. Taxes

Exclusions

1. Utility Fees/Usage Charges
2. Overtime Labor or Weekend Work
3. HVAC Control Wiring
4. Additional Mechanical Equipment
5. Wiring of any plumbing fixtures
6. Prevailing wages
7. Bond
8. Unless noted otherwise in this proposal

Thanks,

Jerry Burich

Senior Estimator

Laketown Electric Corporation

8470 MN Highway 5, Waconia, MN 55387

(p) 952.442.2740 / (c) 320.444.8749 / (f) 952.442.2791

8470 STATE HIGHWAY 5, WACONIA, MN 55387

WACONIA OFFICE: (952) 442-2740 • WWW.LAKETOWNELECTRIC.COM • MANKATO OFFICE: (507) 388-3288

Waconia Ice Arena

Replacement of 131 fixtures with LED and

LED Retrofit of 222 fixtures



Lighting Proposal prepared for

Dan Montague

On Behalf of

David Swan

on

06/22/2023

NOBLE

ELECTRIC

LIGHTING
CONSTRUCTION
SERVICE

Waconia Ice Arena

Savings Summary

TOTAL ANNUAL SAVINGS	\$14,786
ANNUAL ENERGY SAVINGS*	\$9,403
ANNUAL EQUIPMENT SAVINGS*	\$5,037
AC SAVINGS*	\$346
EST. DEPRECIATION*	\$0
ANNUAL LABOR HOURS SAVED*	48.2

Cost Summary

TURNKEY PROJECT COST	\$68,720.93
LESS ESTIMATED REBATE	-\$29,261.51
NET INVESTMENT	\$39,459.43

Financing Option

Financed for 60 Months at 5%	
MONTHLY PAYMENT	-\$745
MONTHLY SAVINGS	\$1,232
MONTHLY CASH FLOW	\$488
YEARLY CASH FLOW (YEARS 1-5)	\$5,851
YEARLY CASH FLOW (YEARS 5-10)	\$14,786
FINANCIAL GAIN OVER 10 YEARS	\$103,185

Energy Savings

LIGHTING KWH PRIOR	152,484
LIGHTING KWH AFTER	58,249
ANNUAL KWH SAVINGS	94,235

Energy
Saved
61.8%

Simple Payback

2.67 Years

Monthly Cashflow

\$488

ENVIRONMENTAL IMPACT

15

CARS REMOVED FROM ROADS



38

TONS OF COAL NOT BURNED



1819

FOREST ACRES NOT CUT



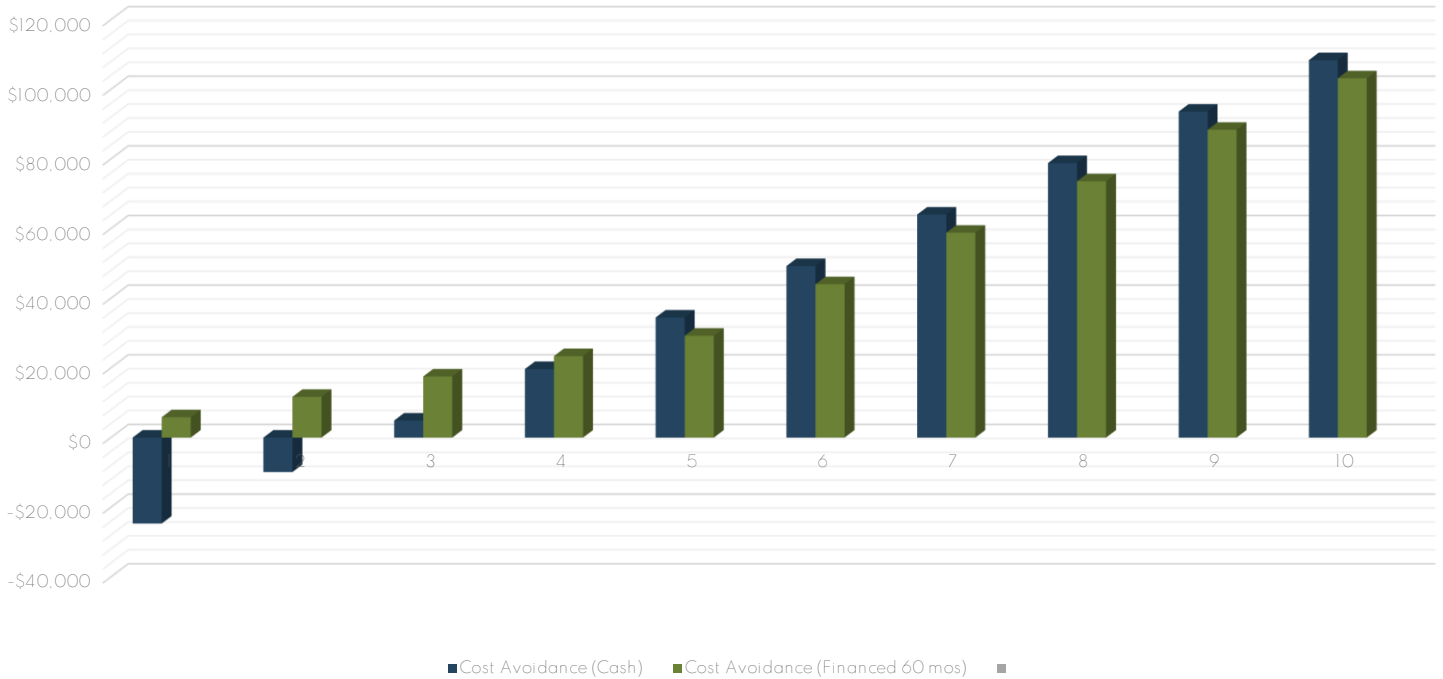
NOBLE

LIGHTING
CONSTRUCTION
SERVICE

ELECTRIC

Waconia Ice Arena

10-year Cash Flow



Payment Option	Initial Payment	Annual Payment	Annual Savings	Cost Avoidance Over 10 Years
CASH	\$39,459	\$0	\$14,786	\$108,404
FINANCED 60 MOS.	\$0	-\$8,936	\$14,786	\$103,185

Year	Cost Avoidance (Cash)	Cost Avoidance (Financed 60 mos)
1	-\$24,673	\$5,851
2	-\$9,887	\$11,701
3	\$4,900	\$17,552
4	\$19,686	\$23,402
5	\$34,472	\$29,253
6	\$49,259	\$44,039
7	\$64,045	\$58,826
8	\$78,831	\$73,612
9	\$93,618	\$88,398
10	\$108,404	\$103,185

Waconia Ice Arena

Replacement of 131 fixtures with LED and
LED Retrofit of 222 fixtures

Scope of Work Summary

- Includes labor and materials to add (8) new fixtures in locker rooms to match existing
- Includes labor and materials to add (3) new high bays over ice
- Includes labor and materials to add (1) new flood light on SE sign wall
- Includes two zones of dimming over ice
- Lines on Scope of Work Detail that include "Fixture Occ Sensor" in the Proposed Sensor Type column can be programmed to use occupancy sensing, daylight harvesting, scheduling if needed.

Noble Conservation Solutions agrees to perform the work detailed above and any work outlined in the Scope of Work Detail. Any work not detailed in the Scope of Work Summary or the Scope of Work Detail are not included in the package price and may be added to the scope of work via a change order for additional cost.

I understand and agree to these terms

Initial

Date

NOBLE

LIGHTING
CONSTRUCTION
SERVICE

ELECTRIC

Waconia Ice Arena

EQUIPMENT REPLACEMENT SUMMARY

	TOTAL QUANTITY	EXPECTED LIFE (HOURS)	EXPECTED FAILURE PER YEAR
T8 Lamps	899	14,400	162
Screw-In Lamps	0	12,000	0
HID Lamps	38	15,000	11
Ballasts	330	60,000	16

MATERIAL SUMMARY

	REPLACEMENT PRICE PER PIECE	EXPECTED FAILURE PER YEAR	REPLACEMENT COST PER YEAR
T8 Lamps	\$3.80	162	\$616.61
Screw-In Lamps	\$2.25	0	\$0.00
HID Lamps	\$31.00	11	\$343.98
Ballasts	\$27.00	16	\$422.52

LABOR SUMMARY

	LABOR PER PIECE (MINUTES)	LABOR PER PIECE (DOLLARS)	LABOR PER YEAR
T8 Lamps	9	\$15.88	\$2,577.36
Screw-In Lamps	6	\$4.50	\$0.00
HID Lamps	30	\$22.50	\$249.66
Ballasts	30	\$36.79	\$575.69

RECYCLING SUMMARY

	RECYCLING PER PIECE (DOLLARS)	RECYCLING PER YEAR
T8 Lamps	\$1.00	\$162.27
Screw-In Lamps	\$0.33	\$0.00
HID Lamps	\$0.99	\$10.99
Ballasts	\$5.00	\$78.24

ANNUAL MATERIAL SAVINGS	\$	1,383.11
ANNUAL LABOR SAVINGS	\$	3,402.71
ANNUAL RECYCLING SAVINGS	\$	251.50

ANNUAL SAVINGS	\$	5,037.32
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Scope of Work Detail

Waconia Ice Arena

	Area	Existing			Work Type	New Lamp/Fixt Type	Proposed		
		Wattage	Qty	Hours			Qty	Wattage	Proposed Sensor Type
1	Front Entry Vestibule	32	6	3850	New Rec Can	8" Commercial Downlight 12/16/22W 3/35/4K	6	16	None
2	Main Lobby	234	6	3850	New High Bay	100W Linear High Bay w/Z10	6	100	Fixture occ sensor
3	Main Lobby	58	7	3850	New Strip\Wrap	4' Linear Strip 32/38/45W 35/40/50K	7	38	None
4	Main Lobby Soffits	32	16	3850	Retrofit\Relamp	T8 4' 9.5W Tube 4K	16	9.5	None
5	Office Hall	58	4	3850	Retrofit\Relamp	T8 4' 9.5W Tube 4K	4	19	None
6	Large Mtg Rm	110	6	1040	Retrofit\Relamp	T8 4' 9.5W Tube 4K	6	38	None
7	Wha Rm	85	4	1040	Retrofit\Relamp	T8 4' 9.5W Tube 4K	4	28.5	None
8	Birthday Party Rm	110	3	1040	Retrofit\Relamp	T8 4' 9.5W Tube 4K	3	38	None
9	Office	85	5	3850	Retrofit\Relamp	T8 4' 9.5W Tube 4K	5	28.5	None
10	Office	58	2	3850	Retrofit\Relamp	T8 4' 9.5W Tube 4K	2	19	None
11	Custodial	58	1	260.714	Retrofit\Relamp	T8 4' 9.5W Tube 4K	1	19	None
12	Custodial	58	1	260.714	Retrofit\Relamp	T8 4' 9.5W Tube 4K	1	19	None
13	Mens Rr	32	7	2200	New Rec Can	8" Commercial Downlight 12/16/22W 3/35/4K	7	16	None
14	Mens Rr	32	6	2200	Retrofit\Relamp	T8 4' 9.5W Tube 4K	6	9.5	None
15	Fam Rr	58	1	2200	Retrofit\Relamp	T8 4' 9.5W Tube 4K	1	19	None
16	Womens Rr	32	8	2200	Retrofit\Relamp	T8 4' 9.5W Tube 4K	8	9.5	None
17	Womens Rr	32	9	2200	New Rec Can	8" Commercial Downlight 12/16/22W 3/35/4K	9	16	None
18	Concessions	85	6	1040	Retrofit\Relamp	T8 4' 9.5W Tube 4K	6	28.5	None
19	Concessions Rear Entry	58	1	1040	Retrofit\Relamp	T8 4' 9.5W Tube 4K	1	19	None
20	Hall	58	11	3850	Retrofit\Relamp	T8 4' 9.5W Tube 4K	11	19	None
21	Elevator Equip Room	0	1	260.714	DO NOT TOUCH	DO NOT TOUCH	1	0	None
22	Stair Hall	58	2	3850	Retrofit\Relamp	T8 4' 9.5W Tube 4K	2	19	None
23	Stairs Up	234	2	3850	New High Bay	100W Linear High Bay w/Z10	2	100	Fixture occ sensor
24	Arena	58	15	3360	Retrofit\Relamp	T8 4' 9.5W Tube 4K	15	19	None
25	Arena	358	74	3360	New High Bay	200W Linear High Bay w/Z10	77	210	Fixture occ sensor
26	Other Stairs	58	3	3850	Retrofit\Relamp	T8 4' 9.5W Tube 4K	3	19	None
27	Elevator	43	2	8760	Retrofit\Relamp	T8 3'-12W LED Tube Double End 40K	2	24	None
28	Entry To Locker Hall	58	1	3360	Retrofit\Relamp	T8 4' 9.5W Tube 4K	1	19	None
29	Locker Hall	58	20	3360	Retrofit\Relamp	T8 4' 9.5W Tube 4K	20	19	None
30	Locker 1	58	6	3360	Retrofit\Relamp	T8 4' 9.5W Tube 4K	6	19	None
31	Rr	58	3	2200	Retrofit\Relamp	T8 4' 9.5W Tube 4K	3	19	None
32	Girls Varsity	58	10	3360	Retrofit\Relamp	T8 4' 9.5W Tube 4K	12	19	None
33	Locker 2	58	4	3360	Retrofit\Relamp	T8 4' 9.5W Tube 4K	6	19	None
34	Hall To Ice	58	2	3360	Retrofit\Relamp	T8 4' 9.5W Tube 4K	2	19	None
35	Rrs (2)	58	2	2200	Retrofit\Relamp	T8 4' 9.5W Tube 4K	2	19	None
36	Ref Locker	58	1	1040	Retrofit\Relamp	T8 4' 9.5W Tube 4K	1	19	None
37	Ref Locker	58	1	1040	Retrofit\Relamp	T8 4' 9.5W Tube 4K	1	19	None
38	Locker 3	58	6	3360	Retrofit\Relamp	T8 4' 9.5W Tube 4K	6	19	None
39	Boys Varsity	58	8	3360	Retrofit\Relamp	T8 4' 9.5W Tube 4K	12	19	None
40	Locker 4	58	6	3360	Retrofit\Relamp	T8 4' 9.5W Tube 4K	6	19	None
41	Rr	58	3	2200	Retrofit\Relamp	T8 4' 9.5W Tube 4K	3	19	None
42	Locker Hall To Zam Room	58	3	3360	Retrofit\Relamp	T8 4' 9.5W Tube 4K	3	19	None
43	Storage Room	58	6	1040	Retrofit\Relamp	T8 4' 9.5W Tube 4K	6	19	None
44	Warming House	58	4	3850	Retrofit\Relamp	T8 4' 9.5W Tube 4K	4	19	None
45	Warming House Rr	58	1	2200	Retrofit\Relamp	T8 4' 9.5W Tube 4K	1	19	None
46	Zamboni Room	58	9	3850	Retrofit\Relamp	T8 4' 9.5W Tube 4K	9	19	None
47	Zamboni Room Storage	58	1	1040	Retrofit\Relamp	T8 4' 9.5W Tube 4K	1	19	None

Scope of Work Detail

	Area	Existing Wattage	Qty	Hours	Work Type	New Lamp/Fixt Type	Qty	Proposed Wattage	Proposed Sensor Type
48	Zam Storage 2	58	1	1040	Retrofit\Relamp	T8 4' 9.5W Tube 4K	1	19	None
49	Compressor Room	58	8	1040	Retrofit\Relamp	T8 4' 9.5W Tube 4K	8	19	None
50	Ext West Side	173	4	4380	New Exterior	40W, 5000K, LED Wall Pack 120-277V	4	40	None
51	Ext South Side	173	2	4380	New Exterior	40W, 5000K, LED Wall Pack 120-277V	2	40	None
52	Ext South Side	200	6	4380	Retrofit\Relamp	20W A21 Bulb 2,900lm Enclosed	6	40	None
53	Ext East Side	100	2	4380	New Rec Can	13W 6" Can Trim CCT	2	13	None
54	Ext East Side	173	1	4380	New Exterior	40W, 5000K, LED Wall Pack 120-277V	1	40	None
55	Ext North Side	173	2	4380	New Exterior	40W, 5000K, LED Wall Pack 120-277V	2	40	None
56	Ext North Side	200	5	4380	Retrofit\Relamp	20W A21 Bulb 2,900lm Enclosed	5	40	None
57	Ext North Side Main Entry	100	4	4380	New Rec Can	13W 6" Can Trim CCT	4	13	None
58	Door L Entry	100	1	4380	New Rec Can	13W 6" Can Trim CCT	1	13	None
59	Ext East Side	0	0	4380	New Exterior	Shoe Box 150W 4,000K SBN3	1	150	None

Noble Conservation Solutions agrees to perform the work detailed above and any work outlined in the Scope of Work Summary. Any work not detailed in the Scope of Work Summary or the Scope of Work Detail are not included in the package price and may be added to the scope of work via a change order for additional cost.

I understand and agree to these terms

Initial

Date



2343 135th Ln NW
Andover, MN 55304

Phone: 763-746-0982
www.NobleCS.com

Date 06/22/2023
THIS PROPOSAL VALID FOR 30 DAYS

Bill To: Waconia Ice Arena	Installation: Waconia Ice Arena
Address: 1250 Oak Ave	Address: 1250 Oak Ave
Address: Waconia	Address: Waconia
MN, 55387	MN, 55387
Contact: Dan Montague	Contact: Dan Montague
Phone: (952) 442-3101	Phone: (952) 442-3101
Email: dmontague@waconia.org	Email: dmontague@waconia.org

Presented By:
David Swan

QTY	DESCRIPTION	UNIT PRICE	TOTAL
1	Total Project Price for work detailed in scope	\$68,720.93	\$68,720.93
	*Includes: Project Material, Labor, Shipping, Tax, Lamp & Ballast Recycling and Permit.		
	**Emergency/Battery-Backup ballasts are not included in this project.		
	Estimated Utility Rebate		\$29,261.51

Terms:

50% down payment on gross project price (\$34,360.47) before the project begins
45% on completion of job or 95% complete
5% on the completion of the punch list items
1.5% monthly finance charge net 15 days

Proposal Subtotal	\$39,459.43
Shipping & Handling	Included
Tax	Included
TOTAL LESS REBATE	\$39,459.43
TOTAL BEFORE REBATE	\$68,720.93

Repair of any existing electrical system issues that affect standard LED performance or electrical code non-compliance (i.e. Faulty wiring, dirty power, surges, code violations, etc.) are not included in the project price and will be subject to an additional charge.	Initial
Utility rebate above has been estimated based on industry standard calculations and information obtained by NCS or provided by Customer. The estimate has been calculated in good faith but may change based on scope changes or utility review.	Initial
I elect to have Noble CS accept the REBATE RISK, bill me the TOTAL LESS REBATE amount above (rebate paid to Noble CS, amount may differ from estimate)	Initial
I elect to accept the REBATE RISK, bill me the TOTAL BEFORE REBATE amount above (rebate paid to customer, amount may differ from estimate)	Initial

All Change Orders will be signed by both parties before additional work will be scheduled or completed. Additional work requirements by any authority having jurisdiction not specifically stated in this Proposal, shall cost extra. All quotes may need to be re-priced after 30 days from Proposal date above, due to commodity and labor price increases. Any changes in the above specifications shall be made in writing, and as evidence of agreement, shall be signed by both parties, The contractor shall not be held responsible or liable for any loss, damage or delay due to causes beyond its control. It is assumed that all existing customer equipment has sufficient supply voltage to be operational. Unless specifically identified by the customer and documented by separate agreement, Noble Conservation Solutions is not obligated to correct the existing condition and make it operable. In such a case, an estimate will be provided to the customer to fix the issue. If the purchaser disposes of the property by sale or otherwise before this contract has been fulfilled, the full unpaid amount of the contract shall become due and payable at once.¶

PLEASE TAKE NOTICE:¶

(a) ANY PERSON OR COMPANY SUPPLYING LABOR OR MATERIALS FOR THIS IMPROVEMENT TO YOUR PROPERTY MAY FILE A LIEN AGAINST YOUR PROPERTY IF THAT PERSON OR COMPANY IS NOT PAID FOR THE CONTRIBUTIONS.
(b) UNDER MINNESOTA LAW YOU HAVE THE RIGHT TO PAY PERSONS WHO SUPPLIED LABOR OR MATERIALS FOR THIS IMPROVEMENT DIRECTLY AND DEDUCT THIS AMOUNT FROM OUR CONTRACT PRICE, OR WITHHOLD THE AMOUNTS DUE THEM FROM US UNTIL 120 DAYS AFTER COMPLETION OF THE IMPROVEMENT UNLESS WE GIVE YOU A LIEN WAIVER SIGNED BY PERSONS WHO SUPPLIED ANY LABOR OR MATERIAL FOR THE IMPROVEMENT AND WHO GAVE YOU TIMELY NOTICE.¶

Equipment Warranty - Customer understands and agrees that the manufacturers are warranting the actual Equipment pursuant to the terms and conditions of such manufacturer warranties. Such Equipment is warranted to work according to such manufacturers' warranties for the periods prescribed therein. The warranties and remedies of the manufacturers set forth in the respective manufacturers' documents provided are in lieu of all other warranties or conditions, either in fact or by operation of law, statutory or otherwise, including warranties or conditions of merchantability, and fitness for a particular purpose, all of which are expressly disclaimed. The warranty guidelines for the new Equipment are available upon request. Noble agrees to assist Customer with all Equipment Warranty claims; however, in the event that Noble is unable to assist, Customer has the right and responsibility to contact the respective manufacturers directly for warranty claims.

Signature _____
Title _____
Date _____

1.5% Finance Charge on
all Past Due Accounts



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Donation Acceptance & Pass Thru Recommendation - Waconia Fire Relief Association					
Originating Department:		Finance					
Presented by:		Nicole Meyer					
Previous Council Action (if any):							
Item Type (X only one):	Consent	☒ X	Regular Session	☐	Discussion Session	☐	
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Adopt Resolution 2023-189, Accepting Donation and Approving Pass Thru Recommendation from Waconia Fire Relief Association							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
The City received a donation from the Waconia Fire Department Gambling Board totaling \$650.00. The gambling board approved this donation as a pass thru for the following purpose: • Fire Tower Ground Training for Fire Explorers Program – Expense Payable to Scott County With the Council’s acceptance of the donation and recommended purpose for pass thru from the gambling board, City staff will recognize the donation revenue and off-setting expenditures in the General Fund - Fire Department 2023 budget.							
Attachments:							
1. 23189res Gambling_Donation_Resolution (6).doc							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses: General Fund - Fire (101)							
Budget Information: ☐ Budgeted ☒ Non Budgeted ☐ Amendment Required				Planning Commission			
				Parks and Recreation Board			
				Safari Island Advisory Board			
				Other			

CITY OF WACONIA
RESOLUTION NO. 2023-189
RESOLUTION ACCEPTING DONATION AND PASS THRU RECOMMENDATION

WHEREAS, the City of Waconia is generally authorized to accept contributions of real and personal property pursuant to Minnesota Statutes Sections 412.21 and 465.03 for the benefit of its citizens and is specifically authorized to accept gifts and requests for the benefit of recreational facilities, services and the development of programs to benefit residents pursuant to Minnesota Statutes Section 471.17; and

WHEREAS, the following persons and/or entities have offered to contribute the items set forth below to the City:

<u>Name of Donor</u>	<u>Item</u>	<u>Value</u>	<u>Department/Fund</u>
Waconia Fire Gambling Board	Check	\$650.00	General Fund - Fire

WHEREAS, these donations have been contributed for the benefit of residents within the City's corporate limits either alone or in cooperation with others, as allowed by law; and

WHEREAS, the City Council hereby finds that it is appropriate to accept the contributions offered.

WHEREAS, the Waconia Fire Department Gambling Board wishes to enhance the donation by passing the funds thru for the following purpose:

- Fire Tower Ground Training for Fire Explorers Program – Expense Payable to Scott County

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF WACONIA, MINNESOTA, AS FOLLOWS:

1. The contribution described above is hereby accepted and acknowledged with gratitude.
2. Said contribution shall be deposited to the appropriate funds and used for the designated purposes.
3. That the Finance Director is hereby directed to issue receipts to the donor acknowledging the City's receipt of the donor's contribution.

Adopted by the City Council of the City of Waconia this 21st day of August, 2023.

Nicole Waldron, Mayor

ATTEST: _____
Jacqueline Schulze, City Clerk



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Acceptance of Quotes and Award Tree Removal Services					
Originating Department:		Public Services					
Presented by:		Craig Eldred					
Previous Council Action (if any):		None					
Item Type (X only one):	Consent	☒	X	Regular Session	☐	Discussion Session	☐
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Adopt Resolution 2023-190; Authorize Acceptance of Quotes and Award Tree Removal Services for Sudheimer Park Trail Connection							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
As part of the 601 Industrial Boulevard Apartment Development Project, "The Otto" staff worked with the Developer on access easements and links to Sudheimer Park for vehicular and pedestrian accesses of Sudheimer Park and Highway 10 Regional Trail and new trail links fronting the The Otto in the boulevard of 601 Industrial Boulevard. Of these elements the trail link of the Highway 10 Regional Trail and Sudheimer Park was planned through the wooded areas east of the apartment building provided on the image in the packet. Goals of the Park Board were to secure access for Sudheimer Park, and staff have worked to obtain this trail easement. Vehicular access if necessary to the Park, and shared parking in an outside parking lot by agreement were items agreed upon. The trail improvements are proposed to be completed by winter of 2023. This trail segment will still need to be graded upon completion of the tree removal. A second quote process will occur with staff presenting those costs to City Council at a later date. The trail segment will not be paved as part of the grading plan. Our intentions are to place asphalt millings as a base material and determine if the trail should be paved in the future. Staff recommends approval of this request allowing for the tree removal to be completed and progress to the grading bid plans as detailed.							
Attachments:							
1. 23190res_Award_of_Tree_Removal.doc 2. Cover Sheet and Improvement Area Image.pdf 3. 2023-08-16 Apartment Tree Clearing Award - Revised.pdf 4. Castle Rock Quote.pdf 5. Tree Top Cleaning, Inc..pdf							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses:							
Park Budget, Contract Services							
Budget Information:				Planning Commission			
☒ Budgeted				Parks and Recreation Board			
☐ Non Budgeted				Safari Island Advisory Board			
☐ Amendment Required				Other			

**CITY OF WACONIA
RESOLUTION NO. 2023-190**

**RESOLUTION AUTHORIZE ACCEPTANCE OF QUOTES AND AWARD TREE
REMOVAL SERVICES FOR SUDHEIMER PARK TRAIL CONNECTION**

WHEREAS, one of the City’s Priorities is to “manage, maintain, and improve our current and future physical assets”; and

WHEREAS, part of the 601 Industrial Apartment Development, “The Otto” trail links were discussed and easements prepared; and

WHEREAS, the planned east easement consisted of work through the wooded area linking the Highway 10 Regional Trail System; and

WHEREAS, two quotes were received as noted below: and

1. Castle Rock Contracting & Tree Service, LLC. \$13,405.00
2. Tree Top Cleaning, Inc. \$24,271.25

WHEREAS, Castle Rock Contracting & Tree Service, LLC. provided the lowest cost for tree removal and staff are authorized to award said services.

NOW, THEREFORE, BE IT RESOLVED That the City Council of the City of Waconia hereby authorizes acceptance of quotes and award tree removal services for Sudheimer Park Trail connection.

Adopted by the City Council of the City of Waconia this 21st day of August, 2023.

Nicole Waldron, Mayor

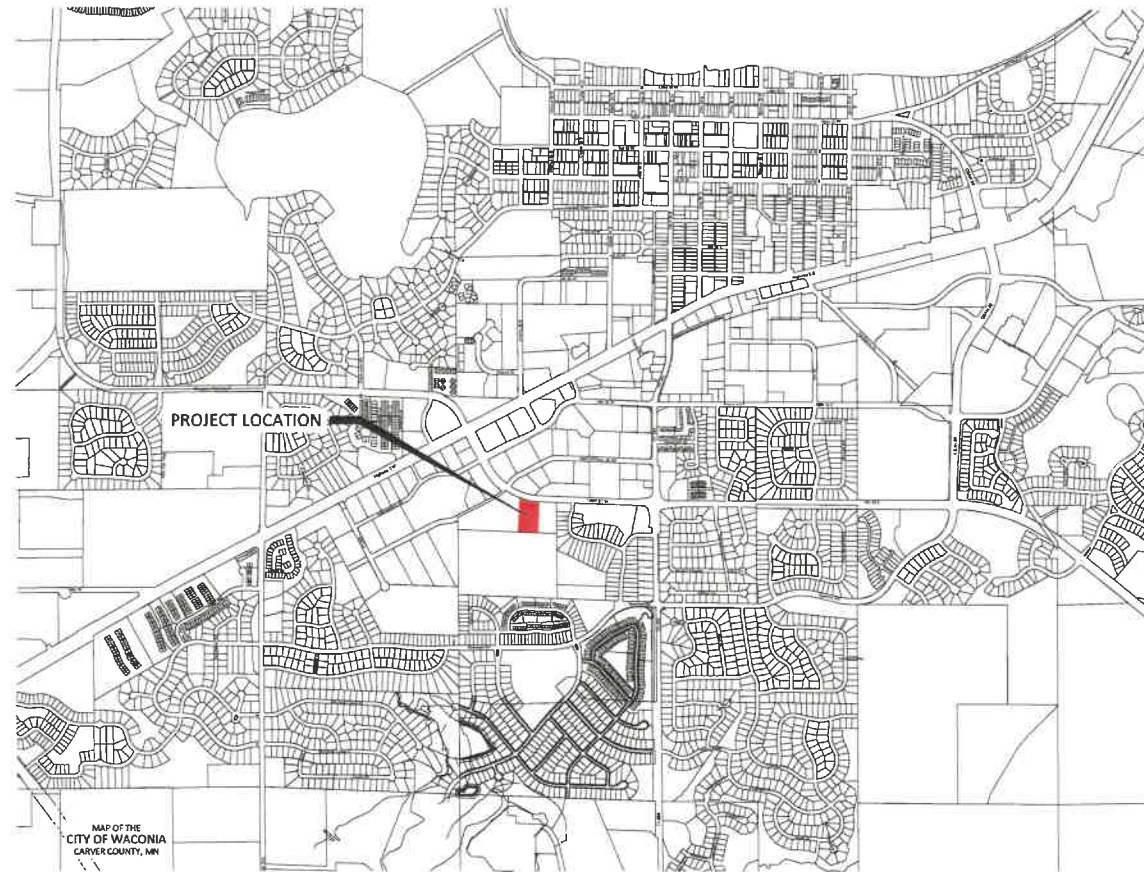
Attest: _____
Jackie Schulze, City Clerk

CITY OF WACONIA

CONSTRUCTION PLANS FOR

SUDHEIMER PARK TRAIL CONNECTION

AUGUST 2023



SHEET LIST

SHEET NUMBER

1
2
3
4

SHEET TITLE

TITLE SHEET
CONSTRUCTION NOTES & DETAILS
TRAFFIC CONTROL PLAN
CONSTRUCTION PLAN

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL, 1-800-252-1166 OR 651-454-0002.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D UNLESS OTHERWISE NOTED. THIS UTILITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

MAP OF THE
CITY OF WACONIA
CARVER COUNTY, MN

0 25 50
SCALE
FEET

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Jake S. Saulsbury
JAKE S. SAULSBURY
LIC. NO. 42713 07/27/2023



2638 SHADOW LANE, SUITE 200
CHASSA, MINNESOTA 55318
Phone: (952) 448-8838
Email: ChasLu@bolton-menk.com
www.bolton-menk.com

DESIGNED	JSS
DRAWN	SCD
CHECKED	JSS
CURATED BY	OC1131065

CITY OF WACONIA
SUDHEIMER PARK TRAIL CONNECTION
TITLE SHEET

SHEET
1

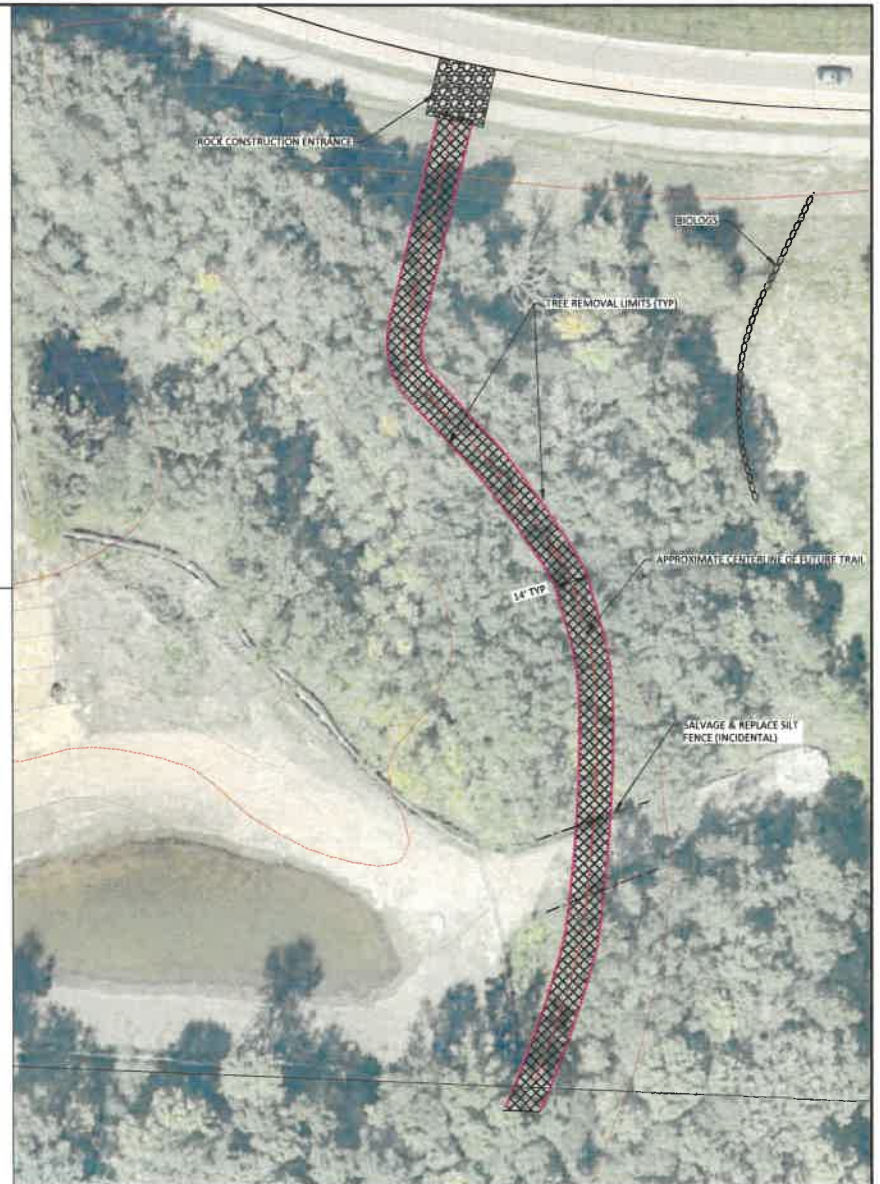


INSET
SCALE
0 100 200
FEET

LEGEND

- FUTURE TRAIL ALIGNMENT
- TREE CLEARING & GRUBBING LIMITS
- BIOLOGS
- ROCK CONSTRUCTION ENTRANCE

0 25 50
SCALE
HORIZ
FEET



Chasla & Menck Inc. 2023, All Rights Reserved
 2023-07-27 10:00:00 AM

I HEREBY CERTIFY THAT THE PLANS, SPECIFICATIONS OR REPORT WAS PREPARED
 BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
Jake S. Sanitsbury
 JAKE S. SANITSBURY
 LIC. NO. 42713
 07/27/2023



2636 SHADOW LANE, SUITE 200
 CHASKA, MINNESOTA 55318
 Phone: (952) 448-8838
 Email: Chasla@boltonmenck.com
 www.boltonmenck.com

DESIGNED	JSS
DRAWN	SCD
CHECKED	JSS
CUSTOMER NO.	2023-1117125

CITY OF WACONIA
 SUDHEIMER PARK TRAIL CONNECTION
 CONSTRUCTION PLAN

SHEET
 4



Real People. Real Solutions.

2638 Shadow Lane
Suite 200
Chaska, MN 55318-1172

Ph: (952) 448-8838
Fax: (952) 448-8805
Bolton-Menk.com

August 16, 2023

City of Waconia
Attn: Craig Eldred
310 10th Street E
Waconia, MN 55387

RE: Sudheimer Park Tree Removal Award

Honorable Mayor and City Council Members:

Quotes were received on August 16th for a project involving the removal of trees through the wooded area on the Otto Apartments site. This work was negotiated with the property owner in order to provide a trail connection to Sudheimer Park.

The proposed work includes all materials and labor necessary to remove approximately 120 trees between CSAH 10 and Sudheimer Park. Quotes were solicited from 3 contractors and were received from 2 of them. Below is a tabulation of the received quotes:

	Bidder / Contractor	Bid Price
1	Castle Rock Contracting & Tree Service	\$13,405.00
2	Tree Top Tree Clearing	\$24,271.25

Castle Rock has successfully completed projects of this type in the past and thereby have shown themselves to be a responsible contractor. Based on the items above, we recommend the City award the project in the amount of \$13,405.00 to Castle Rock Contracting & Tree Service from Castle Rock Township, MN (Dakota County).

I am available to answer any questions that you or the City Council may have.

Sincerely,

Bolton & Menk, Inc.

Jake S. Saulsbury, P.E.

**PROPOSAL FOR
SUDHEIMER PARK TRAIL CONNECTION - TREE REMOVAL
CITY OF WACONIA, MINNESOTA
August 2, 2023**

Date:

8-16-2023

City of Waconia, Minnesota
201 S. Vine Street
Waconia, MN 55387

The undersigned, Castle Rock Contracting & Tree Service LLC
as bidder, proposes and agrees to furnish all equipment, labor, materials, and supplies for the Sudheimer Prk Trail Connection - Tree Removal Project project which is located within the City of Waconia, MN, in accordance with the Plans as prepared by Bolton & Menk, Inc., 2638 Shadow Lane, Suite 200, Chaska, MN, for the following lump sum and unit prices.

BIDDER agrees to perform all of the work described in the CONTRACT DOCUMENTS for the following unit prices:
NOTE: BIDS shall include sales tax and applicable taxes and fees.

ITEM	BID ITEM	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1	MOBILIZATION	LUMP SUM	1	<u>2500.00</u>	<u>2500.00</u>
2	TRAFFIC CONTROL	LUMP SUM	1	<u>1000.00</u>	<u>1,000.00</u>
3	BIOLOG	LIN FT	135	<u>3.00 LF</u>	<u>405.00</u>
4	ROCK CONSTRUCTION ENTRANCE	EACH	1	<u>1000.00</u>	<u>1000.00</u>
5	TREE REMOVAL	LUMP SUM	1	<u>8500.00</u>	<u>8500.00</u>
TOTAL AMOUNT BID:					<u>13,405</u>

A bid bond will not be required. If this proposal is accepted, the bidder will enter into a contract and furnish a certificate of insurance within ten (10) days after this proposal is accepted. Bolton & Menk Inc. and the City of Waconia shall be listed as additional insureds.

If this proposal is accepted, bidder agrees to commence work as required after acceptance and to complete all work by October 1,

It is understood and agreed that this proposal may not be withdrawn within thirty (30) days after bid closing date and the Bidder acknowledges the right of the Owner to reject any or all bids, waive any irregularities or informalities therein and award the Contract to other than the lowest Bidder if, in its discretion, the interests of the Owner would be best served thereby.

After the quotes are received and prior to award of the Contract, the Owner, at its sole discretion, may revise the project scope. In this event, no payment will be made to the Contractor for the deleted work, nor shall any adjustment be made to the unit prices bid due to the reduction of the scope of the project of the reduced quantities of work items.

I, the undersigned, state that the organization which I represent will be in compliance with applicable Federal and State Statutes and the City of Waconia's adopted Affirmative Action Program concerning non-discrimination and equal opportunity employment.

BY: Mary Collins
TITLE: President
ADDRESS: Box 514
Castle Rock, MN 55010
TELEPHONE: 651-463-2268
EMAIL: castlerockcontractingllc@gmail.com

**PROPOSAL FOR
SUDHEIMER PARK TRAIL CONNECTION - TREE REMOVAL**

CITY OF WACONIA, MINNESOTA

August 2, 2023

Date: 8/15/2023

City of Waconia, Minnesota
201 S. Vine Street
Waconia, MN 55387

Tree Top Clearing, Inc

The undersigned, _____
as bidder, proposes and agrees to furnish all equipment, labor, materials, and supplies for the Sudheimer Prk Trail Connection - Tree Removal Project project which is located within the City of Waconia, MN, in accordance with the Plans as prepared by Bolton & Menk, Inc., 2638 Shadow Lane, Suite 200, Chaska, MN, for the following lump sum and unit prices.

BIDDER agrees to perform all of the work described in the CONTRACT DOCUMENTS for the following unit prices:

NOTE: BIDS shall include sales tax and applicable taxes and fees.

ITEM	BID ITEM	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1	MOBILIZATION	LUMP SUM	1	\$500.00	\$500.00
2	TRAFFIC CONTROL	LUMP SUM	1	\$680.00	\$680.00
3	BIOLOG	LIN FT	135	\$4.75	\$641.25
4	ROCK CONSTRUCTION ENTRANCE	EACH	1	\$780.00	\$780.00
5	TREE REMOVAL	LUMP SUM	1	\$21760.00	\$21760.00
TOTAL AMOUNT BID:					\$24,271.25

A bid bond will not be required. If this proposal is accepted, the bidder will enter into a contract and furnish a certificate of insurance within ten (10) days after this proposal is accepted. Bolton & Menk Inc. and the City of Waconia shall be listed as additional insureds.

If this proposal is accepted, bidder agrees to commence work as required after acceptance and to complete all work by October 1.

It is understood and agreed that this proposal may not be withdrawn within thirty (30) days after bid closing date and the Bidder acknowledges the right of the Owner to reject any or all bids, waive any irregularities or informalities therein and award the Contract to other than the lowest Bidder if, in its discretion, the interests of the Owner would be best served thereby.

After the quotes are received and prior to award of the Contract, the Owner, at its sole discretion, may revise the project scope. In this event, no payment will be made to the Contractor for the deleted work, nor shall any adjustment be made to the unit prices bid due to the reduction of the scope of the project of the reduced quantities of work items.

I, the undersigned, state that the organization which I represent will be in compliance with applicable Federal and State Statutes and the City of Waconia's adopted Affirmative Action Program concerning non-discrimination and equal opportunity employment.

BY: Paul Mielke

TITLE: President

ADDRESS: _____

4683 65th St SE Delano, MN 55389

TELEPHONE: 763-972-3988

EMAIL: paul@treetopclearing.com



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023			
Item Name:		Application for Exempt Permit for Church of St Joseph			
Originating Department:		Administration			
Presented by:		Ann Meyerhoff			
Previous Council Action (if any):					
Item Type (X only one):	Consent	X	Regular Session		Discussion Session
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>					
Adopt Resolution No. 2023-195, Approving Application for Exempt Permit, Church of St Joseph					
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>					
Church of St Joseph has submitted an application for an Exempt Permit to conduct a raffle at St. Joseph Education Center, 41 East First Street, September 16, 2023.					
Attachments:					
1. 23195res Church of St Joseph gambling.doc					
FINANCIAL IMPLICATIONS:			ADVISORY BOARD RECOMMENDATIONS:		
Funding Sources & Uses:					
Budget Information:			Planning Commission		
_____ Budgeted			Parks and Recreation Board		
_____ Non Budgeted			Safari Island Advisory Board		
_____ Amendment Required			Other		

**CITY OF WACONIA
RESOLUTION NO. 2023-195**

**A RESOLUTION APPROVING APPLICATION FOR EXEMPT PERMIT,
CHURCH OF ST JOSEPH**

WHEREAS, The City Council of the City of Waconia, Minnesota has received an Application for an Exempt Permit from the Church of St Joseph; and

WHEREAS, The Church of St Joseph has requested this application in order to conduct a Raffle at St. Joseph's Education Center, 41 East First Street, Waconia, Minnesota on Saturday, September 16, 2023 as stated on the application for said exemption: and

WHEREAS, The City Council of the City of Waconia has no objection to the said application.

NOW, THEREFORE, BE IT RESOLVED That the City Clerk is hereby instructed to provide a copy of this Resolution to be included with the permit application to the Department of Gaming, Gambling Control Division, State of Minnesota.

Adopted by the City Council of the City of Waconia this 21st day of August 2023.

Nicole Waldron, Mayor

ATTEST: _____
Jackie Schulze, City Clerk



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023				
Item Name:		Site Plan, Design Review & Variance - 219 Frontage Road East				
Originating Department:		Community Development				
Presented by:		Lane Braaten				
Previous Council Action (if any):						
Item Type (X only one):	Consent		Regular Session	X	Discussion Session	

RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED (Include motion in proper format.)

Adopt Resolution No. 2023-191 approving the Site Plan, Design Review, & Variance applications for the proposed addition to the Crusher Crossfit building located at 219 Frontage Road East.

EXPLANATION OF AGENDA ITEM (Include a description of background, benefits, and recommendations.)

BACKGROUND

Applicant: Kelsey Jarrett, HTG Architects
Owner: Adam Dittrich
Addresses: 219 Frontage Road East
PIDs#: 753050050 & 757750100
Zoning: B-1, Highway Business District
Design District: Highway District

REQUEST

The applicant, Kelsey Jarrett/HTG Architects, has submitted applications for Site Plan, Design Review and a Variance for the property located at 219 Frontage Road East. The applicant is proposing an addition to the Crusher Crossfit building. The applications include the following:

1. Site Plan and Design Review for the proposed addition to the structure.
2. Variance requests to allow the use of metal shipping containers as a building material and location of the addition within the 20 ft. rear yard setback.

APPLICABLE ORDINANCE PROVISIONS:

1. Section 900.05 - District Regulations, Subd. 2.F - B-1, Highway Business District
2. Section 900.06 - Supplementary Regulations, Subd. 9 - Architectural Design Standards
3. Section 900.07 - Landscaping and Fencing
4. Section 900.08 - Performance Standards
5. Section 900.09 - Off-Street Parking, Loading, and Access Regulations
6. Section 900.10 - Sign Regulations
7. Section 900.12 - Administration, Enforcement and Procedures
 - a. Subdivision 4. - Variances
 - b. Subdivision 10. - Site Plan Review

SITE PLAN REVIEW

City Ordinance requires Site Plan Review “in order to further promote the safe and efficient use of land and to further enhance the value of property in the City.” City Ordinance requires Site Plan Review for any construction for which a building permit is required, except for construction of detached, single-family residential structures or structures accessory thereto.

ZONING

The property is zoned B-1, Highway Business District and the fitness facility is a permitted use in the zoning district.

LOT REQUIREMENTS

The subject property is located in the B-1, Highway Business District. Section 900.05, Subd. 2.F of the City Ordinance states “The purpose of this district is to provide for an appropriate range of businesses that will be utilized by area residents as well as vehicular traffic generated from the surrounding area.”

Based on staff review the proposed project meets all hardcover, structure height, front yard and side yard setbacks. The applicant is seeking a variance for a rear yard setback of 17 ft. 8 inches versus the 20 ft. rear yard setback required in the zoning district.

SCREENING OF EQUIPMENT

The proposed plans do not indicate any rooftop mechanical equipment. Any future mechanical, rooftop or ground mounted, are required to be screened from view.

OFF-STREET PARKING

The off-street parking requirements used in the previous application for fitness/gym use are as follows: One (1) space for each 200 square feet of gross floor space.

Existing Conditions

North Building (office) requires 24 parking spaces

South Building (gym/fitness) requires 12 parking spaces

Proposed Addition

South Building Addition = 909 sq. ft./200 sq. ft. = 4.5 or 5 additional parking spaces required

The applicant, at the Planning Commission meeting on August 3rd, 2023, indicated that they planned to construct all 41 required parking spaces, which conforms to City Code requirements.

LANDSCAPING

Section 900.07, Subd. 2.B of the City Ordinance requires one (1) tree for every one thousand (1,000) square feet of total building floor area or one (1) tree for every fifty (50) feet of site perimeter, whichever is greater.

The applicant is proposing the installation of two (2) trees, which conforms to City Code requirements.

SIGNS

The applicant has not included any details regarding the proposed signage for the site. Based on a review of the submittal information a number of images include wall signage. All signage shall require a permit through the City and shall conform to Section 900.10.

LIGHTING

Section 900.08, Subd. 1.C provides standards for exterior lighting. The application does not include any proposed lighting. Any future lighting shall require the submittal of a lighting plan which conforms to Section 900.08, Subd. 1.C of the City Code.

VEHICULAR ACCESS

There are no proposed changes to the existing vehicular access to the property.

PEDESTRIAN ACCESS

There are no proposed changes to pedestrian access and/or circulation on site.

TRASH

City Ordinance requires “All trash and trash handling equipment to be stored within the principal structure, within an attached structure accessible from within the principal structure, or totally screened from eye-level view from public streets and adjacent residential properties. If accessory structures are proposed, they shall be constructed of

the same building material as the principal structure.”

The plan does not include any trash or trash handling equipment in the project description.

GRADING, DRAINAGE & UTILITIES

The City Engineer and Public Services Director have conducted an initial review of the grading, drainage and utilities. Any approval of the plan should include a condition requiring the applicant to work with the City Engineer to revise the utility and grading information to the satisfaction of the City prior to any work commencing on site.

SEWER AVAILABILITY CHARGE (SAC) AND CITY TRUNK FEES

New construction, a new business, a change in location or change in the use of space in a way that creates more potential demand on the wastewater system will require submission to the Metropolitan Council for a Sewer Availability Charge (SAC) determination. The SAC determination made by the Metropolitan Council informs the City sewer and water trunk fees associated with the potential development, redevelopment and/or remodeling of the subject property, location, or business. City Code requires that for every SAC unit determined by the Metropolitan Council, the project will require the payment of one City sewer trunk fee and one City water trunk fee. The SAC and City trunk fees are included below for convenience.

SAC Charge	\$2,485 per SAC unit determined by the Metropolitan Council
Sewer Trunk Fee	\$3,300 per SAC unit determined by the Metropolitan Council
Water Trunk Fee	\$5,100 per SAC unit determined by the Metropolitan Council
Stormwater Trunk Fee	\$11,050 per acre
Stormwater Access Fee	\$1,600 per acre

PLANNING & SITE PLAN ANALYSIS AND STAFF REVIEW COMMENTS:

1. The current site improvements include the principal office building (4,636 sq. ft.), a secondary gym/fitness structure (2,399 sq. ft.), and improved parking surfaces. The applicant is proposing an addition to the west side of the gym/fitness building.
2. The property consists of two parcels. Any recommendation of approval should require the two parcels to be combined into one parcel.

DESIGN REVIEW - HIGHWAY DISTRICT

City Ordinance requires Design Review with the understanding that “the visual character and historic resources of the City are important attributes of its quality of life.” City Ordinance requires Design Review to be conducted as part of the Site Plan Review process.

City Code indicates that “The standards shall apply only to the building and site elements being developed or altered. That is, a proposal for changes to a building would be required to meet only those standards that pertain to buildings, while changes to the parking area would be required to meet all standards for parking areas, but not for buildings.”

Based on a review of the plan set provided by the applicant for the Crusher Crossfit addition staff finds that the application meets the majority of the design requirements stated in the Highway Design District. The following design elements require additional review and consideration by the Planning Commission and City Council.

BUILDING MATERIALS

- a. Objective: To ensure that high-quality, authentic materials that evoke traditional downtown settings are used in new commercial development.
- b. Standard: Buildings should be constructed of high-quality materials such as brick, stone or textured, cast stone or tinted masonry units, or architectural metal panels. The following materials are prohibited:

- c. i. Unadorned plain or painted concrete block
- ii. Tilt-up concrete panels
- iii. Pre-fabricated steel or sheet metal panels
- iv. Reflective glass
- v. Aluminum, vinyl, fiberglass, asphalt or fiberboard siding
- vi. Wood siding

Accent materials may be used on up to 15% of the building's façade. These may include metal, glass block, spandrel glass or similar materials as approved by the Planning Commission.

c. Other Materials: The Planning Commission may also approve other materials that the Planning Commission, in its discretion, determines are compatible with any permitted materials if it finds that: 1) the quality and appearance of the proposed materials is consistent with the standard that has been set within the Highway District; and 2) the use of these materials will not have a detrimental effect upon adjacent property values or property values within the City.

The City Council should discuss the proposed metal shipping container addition to the existing building in association with the design standard stated above.

Please note that a Variance has been noticed from this Design Standard element as the applicant is proposing the use of a material not considered in past and current renditions of the design code.

SIDE AND REAR TREATMENTS

- a. Objective: To ensure continuity of materials and façade treatments on all visible facades.
- b. Standard: All building facades visible from a public street or walkway shall employ materials and design features similar to those of the front façade.

The proposed shipping container addition would be a significant departure from the existing building design on the subject property and in the area. The City Council should discuss if additional façade improvements should be required (i.e. painting, materials, etc.) on the Crusher Crossfit building or the principal structure on the property to meet this design standard.

VARIANCE REVIEW CRITERIA:

Waconia City Code Section 900.12, Subd. 4 and Minnesota State Statute 462.357, Subd. 6 establishes criteria to be considered when contemplating the issuance of a Variance in terms of "practical difficulty" as follows: "Variances shall only be permitted when they are in harmony with the general purposes and intent of the ordinance and when the terms of the Variance are consistent with the Comprehensive Plan." So a City evaluating a Variance application should make findings as to:

1. Is the Variance in harmony with the purposes and intent of the ordinance?
2. Is the Variance consistent with the Comprehensive Plan?
3. Does the proposal put the property to use in a reasonable manner?
4. Are there unique circumstances to the property not created by the landowner?
5. Will the Variance, if granted, alter the essential character of the locality?

State Statute specifically notes that economic considerations alone cannot create a practical difficulty. Whereas, practical difficulties exist only when the three statutory factors are met (1. Reasonableness, 2. Uniqueness, and 3. Essential character).

PUBLIC NOTICE/COMMENT

The notice was published in the WACONIA PATRIOT on July 20th, 2023 and posted at Waconia City Hall.

Individual notices were mailed to all property owners within 350 feet of the subject parcel. As of the date of this memo the staff have not received any public hearing comments.

CONCLUSION/RECOMMENDATION

The Planning Commission, at their regular meeting on August 3rd, 2023, held the public hearing, reviewed the pertinent information and recommended approval of the requests by Kelsey Jarrett, HTG Architects, for Site Plan,

Design Review, and Variance applications for construction of a building addition constructed of metal shipping containers located at 219 East Frontage Road via a 5-0 vote.

If the City Council chooses approve the land use applications stated above, the Planning Commission and staff would recommend the approval upon the following conditions:

1. The proposed improvements shall be completed as approved and as conditionally revised by the Planning Commission and the City Council.
2. All applicable permits are applied for by the applicant with all supporting documentation and issued prior to the start of construction.
3. The applicant shall work with the City Engineer and Public Services Director to revise the grading, drainage, and utility information to the satisfaction of the City prior to any work commencing on site.
4. The applicant shall provide the City with a letter of credit/ escrow funds to guarantee the proper installation and growth of the approved landscape plan. The letter of credit/escrow funds shall be submitted by the developer prior to obtaining a building permit that is equal to the amount of the required landscaping to be installed. The letter of credit/escrow funds shall be held by the City and must cover one full calendar year subsequent to the installation of said landscaping and must be conditioned upon complete and satisfactory implementation of the approved landscape plan.
5. All indirect costs with the building permit, review, and final plans associated with engineering and administrative costs shall be paid by the applicant/owner.
6. A sign permit shall be required for all signage and shall conform to Section 900.10.
7. The two properties shall be combined prior to the issuance of a building permit.
8. The property owner shall construct all forty-one (41) required parking spaces.
9. The applicant shall contact the City Planning Department for a final site inspection when all conditions of approval regarding this application have been completed.
10. Exterior storage is not allowed on the property and all items currently stored outside shall be removed prior to building permit issuance.

Attachments:

1. [23191res_Site_Plan_Design_Review_and_Variance.docx](#)
2. [Location Map.pdf](#)
3. [Applicant Statement.pdf](#)
4. [Variance Request Letter_Property Setback.pdf](#)
5. [Crusher Crossfit_Site Plan & Design Review_Plan Set.pdf](#)

<i>FINANCIAL IMPLICATIONS:</i>		<i>ADVISORY BOARD RECOMMENDATIONS:</i>	
Funding Sources & Uses:			
Budget Information: _____ Budgeted _____ Non Budgeted _____ Amendment Required	Planning Commission		
	Parks and Recreation Board		
	Safari Island Advisory Board		
	Other		

**CITY OF WACONIA
RESOLUTION 2023-191**

**A RESOLUTION APPROVING SITE PLAN & DESIGN REVIEW AND VARIANCE
FOR THE PROPERTY LOCATED AT 219 EAST FRONTAGE ROAD**

WHEREAS, Kelsey Jarrett with HTG Architects (the “**Applicant**”), has submitted Site Plan & Design Review and Variance applications for the property located at 219 East Frontage Road (the “**Property**”) pursuant to Section 900.12 of the City Zoning Code; and

WHEREAS, the subject parcels are identified as PID#s 753050050 and 757750100; and

WHEREAS, the property is zoned for B-1, Highway Business District and is located within the Highway Design Standards District; and

WHEREAS, the Applicant is proposing to construct a 909 sq. ft. addition to the south building on site, which is proposed to be constructed of metal shipping containers; and

WHEREAS, the City’s Highway Design Standards District does not include metal shipping containers as a permitted building material and the applicant has proposed a Variance to allow the material under the proposed conditions; and

WHEREAS, the Planning Commission, at their regular meeting on August 3rd, 2023, voted 5-0 to recommend approval of the Site Plan & Design Review and Variance applications for the property located at 219 East Frontage Road with the following conditions:

1. The proposed improvements shall be completed as approved and as conditionally revised by the Planning Commission and the City Council.
2. All applicable permits are applied for by the applicant with all supporting documentation and issued prior to the start of construction.
3. The applicant shall work with the City Engineer and Public Services Director to revise the grading, drainage, and utility information to the satisfaction of the City prior to any work commencing on site.
4. The applicant shall provide the City with a letter of credit/ escrow funds to guarantee the proper installation and growth of the approved landscape plan. The letter of credit/escrow funds shall be submitted by the developer prior to obtaining a building permit that is equal to the amount of the required landscaping to be installed. The letter of credit/escrow funds shall be held by the City and must cover one full calendar year subsequent to the installation of said landscaping and must be conditioned upon complete and satisfactory implementation of the approved landscape plan.
5. All indirect costs with the building permit, review, and final plans associated with engineering and administrative costs shall be paid by the applicant/owner.
6. A sign permit shall be required for all signage and shall conform to Section 900.10.
7. The two properties shall be combined prior to the issuance of a building permit.
8. The property owner shall construct all forty-one (41) required parking spaces.
9. The applicant shall contact the City Planning Department for a final site inspection when all conditions of approval regarding this application have been completed.
10. Exterior storage is not allowed on the property and all items currently stored outside shall be removed prior to building permit issuance.

WHEREAS, the City Council further finds and concludes:

1. The Site Plan is consistent with the City’s regulations as stated above with the recommended conditions of approval.

2. The proposed building material is compatible with the surrounding area and will not cause a detrimental effect upon adjacent property values.
3. The variance setback request is reasonable as the existing building is located within the 20-foot rear yard setback and the proposed addition would be a continuation of the existing condition.
4. The proposed use is permitted in the B-1 zoning district and construction within the setback and the use of metal shipping containers as a building material will not alter the essential character of the neighborhood.
5. The use is consistent with the comprehensive plan as the property is guided commercial and the reasonable expansion of the building with an alternate quality building material puts the property to use in a reasonable manner.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Waconia hereby approves the Site Plan & Design Review and Variance applications submitted by HTG Architects for the property located at 219 East Frontage Road subject to the conditions, findings and recommendations of the Waconia Planning Commission stated above.

Adopted by the City Council of the City of Waconia this 21st day of August, 2023.

Nicole Waldron, Mayor

ATTEST: _____
Jackie Schulze, City Clerk

LOCATION MAP—219 EAST FRONTAGE ROAD





City of Waconia
Community Development Department

Variance Application Letter For:
Crusher Crossfit – Building Addition
219 E Frontage Rd
Waconia, MN 55387

Zoning: B-1 Highway Business District, The Highway District Design Standards
Parcel ID: 753050050 / 757750100

Dear Planning & Zoning Members,

We are requesting a variance for the above address to seek the relief of the required Architectural Materials Regulations.

Previously, it has been discussed that the City Code does not specifically prohibit shipping containers, neither addressing them one way or the other. The City of Waconia's position is that by prohibiting the shipping containers exterior material the overall building construction of intermodal containers are not allowed. HTG believes literal interpretation and enforcement of the development code regulations relating to building material standards would deprive our client of rights commonly enjoyed by other properties located in the same zoning district, and would work unnecessarily against our client and apply undue hardship.

HTG believes the variance requested is reasonable and does not apply any special privileges to this property. As illustrated in Section 900.06 subd. 9, the document mentions that the approval of additional building material can be approved if they are compatible with the permitted materials. Approval of additional materials can be done if it is found that the quality and appearance of the proposed material is consistent with the standard set, and the use of the material will not have a detrimental effect upon adjacent property values.

In reference to the first two stipulations mentioned in the previous section, the exterior building system provided on a shipping container is Corten steel. The appearance of the shipping container / Corten Steel is like an architectural metal panel which is a permitted material within our zoning district, B-1 Highway. The Corten steel panel consists of a concealed fastening system which provides a flush appearance with no visible seams unlike a sheet metal panel which is a prohibited material per the city code.

In reference to the third stipulation outlined above, the use of Corten steel does not have any detrimental effects on the adjacent property values, as local nearby properties already consist of sheet metal products which are now considered prohibited based on the newly approved ordinance in 2022. Notable examples would be Frattallone's Hardware & Garden, Eldok docks, and Excel Energy (see exhibit EX5). Also, the proposed location of the two-story shipping container will be nestled in the rear of the property with limited visibility as you approach from the frontage road. Therefore, the granting of this variance is in harmony with the intent of the development code.

So, after our discovery it is HTG's position that if the variance is granted, the proposed shipping container will not impair an adequate supply of light and air to adjacent property, unreasonably diminish/impair established property values within the surrounding area, or in any other respect impair the public health/safety/welfare of residents in the City of Waconia.

Thank you for your consideration,

Sincerely,

Adam Dittrich
Property owner

Prepared and Presented by:
HTG Architects
Architect for Crusher Crossfit Addition



City of Waconia
Community Development Department

Variance Application Letter For:
Crusher Crossfit – Building Addition
219 E Frontage Rd
Waconia, MN 55387

Zoning: B-1 Highway Business District, The Highway District Design Standards
Parcel ID: 753050050 / 757750100

Dear Planning & Zoning Members,

We are requesting a variance for the above address to seek relief of the rear property setback located at 219 East Frontage Road. The rear setback requirements per B-1 Highway Business District is 20'-0" and we are currently demonstrating 17'-8" similar to the existing structure.

Adam Dittrich purchased the two properties back in June 2013 and the existing detached garage built in 1996 was non-conforming to the setbacks at the time of purchase. The existing structure currently sits on half of parcel ID #757750100 and half on parcel ID #53050050. HTG is requesting a setback building variance to match the existing rear setback of the structure that already remains.

The placement of the existing building is causing undue hardships as it provides substantial limitations on the size of the newly proposed addition. Many challenges are constraining the new addition such as the existing building, nearby fire hydrant and existing utilities. The placement of the new addition is fitting as it provides an ideal location for the link between the two structures without major internal reconfiguration of spaces. Also, by moving the building back to align with the existing structure it will allow us to get a formal concrete stoop at the main entry condition without impeding on the required parking needed and provide a true entry condition that this unique structure deserves.

HTG Architects believes the variance requested is reasonable and does not have any detrimental effects on the adjacent property values as the existing structure has not caused any hardships for the last 25+ years. We ask that you help invest in the growth of this small business, Crusher CrossFit, as the property owner has every intent to stay fully vested within the local community.

Thank you for your time and consideration,

Sincerely,

Kelsey Jarrett
Project Manager
Designer for Crusher Crossfit

Prepared and Presented on behalf of:
Adam Dittrich
Crusher Crossfit

- ALL SITE GRADING TO BE DONE PER CIVIL DRAWINGS.
- VERIFY & LOCATE ALL UNDERGROUND PHONE & UTILITY LINES PRIOR TO ANY EXCAVATION.
- SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING EXISTING UTILITIES.
- BARRICADE OFF CONSTRUCTION AREA AS REQUIRED KEEP CONSTRUCTION AREA TO MINIMUM.
- MATCH NEW CONSTRUCTION WITH EXISTING WHEREVER NECESSARY (i.e., CURBS, CURBS, CURBS, WALKS, PAVING, etc.).
- MATCH/NEW GRADING INTO EXISTING GRADING.
- CUT & PATCH EXISTING BITUMINOUS PAVING, CURBS & SIDEWALKS TO MATCH EXISTING.
- PARKING STRIPES TO BE PAINTED WHITE 4" WIDE AT 9'-0" O.C. x 20'-0".
- FURNISH & INSTALL POSTED HANDICAP SIGNS AS REQUIRED BY 515 C.G.C.
- CURB, SIDEWALK WIDTHS TO BE 5'-0" WIDE W/ CONTROLS JOINTS @ 5'-0" SIM.
- INSTALL CONDUIT PRIOR TO GEOTECHNICAL/GRAVEL, COORDINATE WITH G.G. & EARTHWORK SUBCONTRACTOR.

- ① FURNISH & INSTALL POSTED HANDICAP SIGNS AS REQD. BY STATE CODE. FOLLOW HANDICAP REGULATIONS PER CHAPTER 1341 FOR THE MINNESOTA ACCESSIBILITY CODE.
- ② VAN ACCESSIBLE AISLE SHALL BE SIMILARLY SIGNED AT LOCATION NOTED.
- ③ NOT USED

SURVEY DATA WAS TAKEN FROM
ANDERSON ENGINEERING OF MINNESOTA
DOCUMENT FILE 16887. DATE JUNE, 21,
2023 BY DANIEL GREENWALD #52132 HTG
ARCHITECTS IS NOT RESPONSIBLE FOR
ACCURACY OR OMISSIONS, IF ANY.
CONTRACTOR SHALL VERIFY ALL EXISTING
CONDITIONS.

 EXISTING BUILDING
 CONCRETE/PRECAST

LOT ZONING:
B-1 HIGHWAY BUSINESS DISTRICT
RETAIL BUSINESS PERMITTED USE, COMMERCIAL RECREATION FACILITIES PERMITTED USE.

ADDITION MAIN LEVEL SQFT :	584 S.F.
ADDITION UPPER LEVEL SQFT :	320 S.F.
ADDITION UPPER LEVEL PATIO SQFT :	160 S.F. (PRIVATE PATIO, NOT ACCESSIBLE).
TOTAL PROPOSED BLDG. SQFT :	904 S.F. EXCLUDES PATIO.

PARKING REQUIRED NEW BLDG. (1:200 S.F.)	5 STALLS REQUIRED.
PARKING SHOWN NEW BLDG. (9'x20')	5 STALL SHOWN
EXISTING PARKING SHOWN	36 STALL SHOWN
TOTAL PARKING SHOWN	41 STALL SHOWN

LOT AREA	40,336 SQFT.
LANDSCAPED AREA (GREEN SPACE)	15,549 SQFT. (38%)
EXTG. IMPERVIOUS SURFACE COVERAGE	24,198 SQFT.
NEW IMPERVIOUS SURFACE COVERAGE	589 SQFT.
TOTAL IMPERVIOUS SURFACE COVERAGE	24,787 SQFT. (62%)

BUILDING SETBACKS	FRONT- 25',	SIDE- 15',	REAR- 20'
PARKING SETBACKS	FRONT- 10',	SIDE- 0',	REAR- 0'

REQUIREMENTS: ONE TREE FOR EVERY ONE THOUSAND SQUARE FEET OF TOTAL BUILDING AREA.

TREES REQUIRED: 2 TREES REQUIRED (INCLUDING PATIO)
TREES SHOWN: 2 TREES PROPOSED.

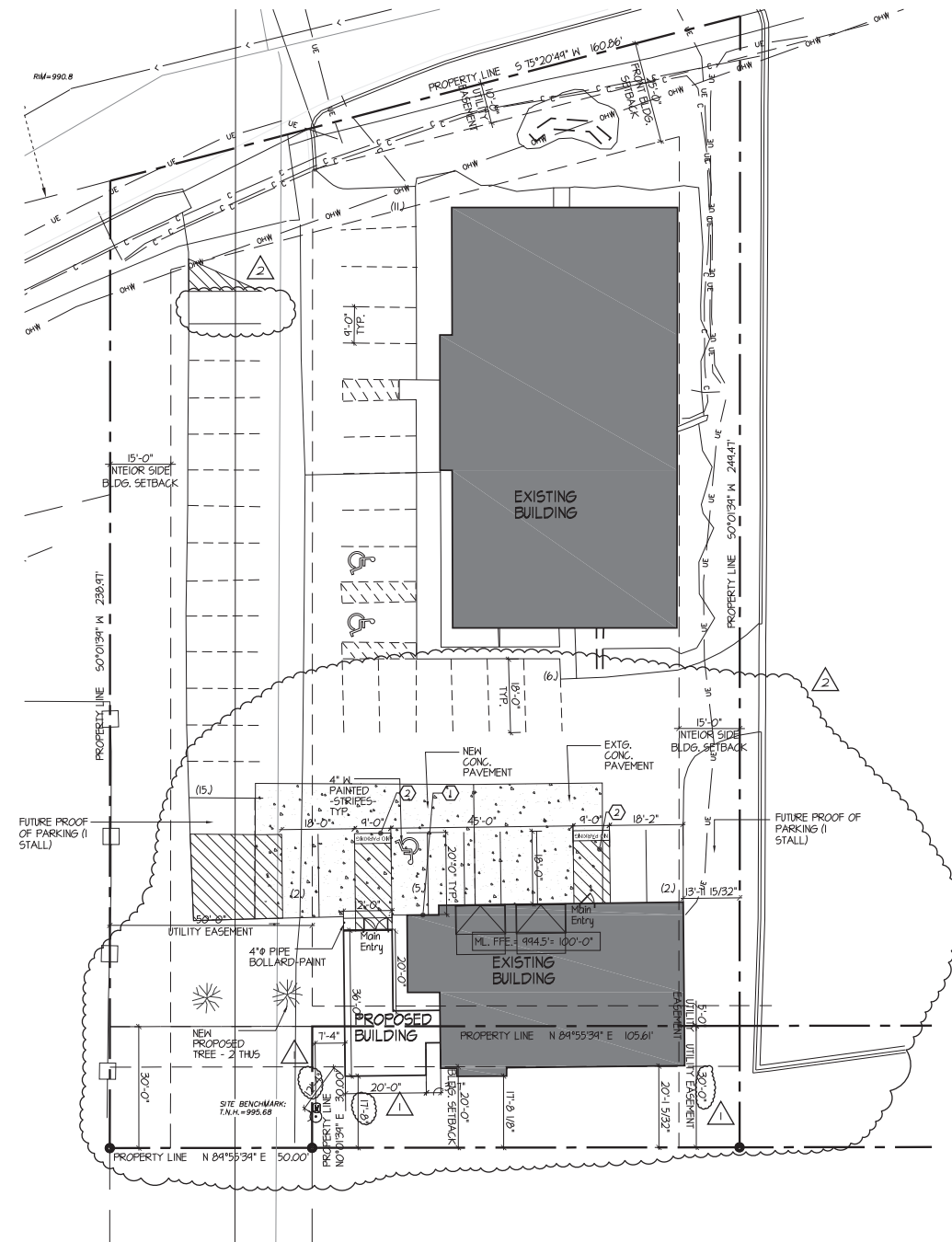
** EXISTING LANDSCAPING TO REMAIN. PATCH & REPAIR SOD AS REQUIRED

MINIMUM PLANT SIZING

- DECIDUOUS TREES - 2.5 INCHES IN DIAMETER AS MEASURED SIZE INCHES ABOVE GROUND
- CONIFEROUS TREES - 6 FEET IN HEIGHT
- MAJOR SHRUB / BERM PLANTINGS - 5 GALLON.

GENERAL NOTES:

1. REFER TO CITY ORDINANCES, 900.07 LANDSCAPING AND SCREENING REGULATIONS FOR ADDITIONAL INFORMATION.



Al.I $1''=30'-0''$

www.htg-architects.com
Minneapolis Bismarck

1010 Mainstreet, Suite 100
Hopkins, MN. 55343
Tel: 952.278.8880

**CRUSHER
CROSSFIT**

NEW ADDITION

WACONIA, MINNESOTA

ISSUED SET JULY 6, 2023

REVISIONS

DATE NO.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION
OR REPORT WAS PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION, AND THAT I AM A DULY
LICENSED ARCHITECT UNDER THE LAWS OF THE
STATE OF

_____ -
REG. NO. _____ DATE _____

SITE PLAN

—

DRAWN BY: KMJ

CHECKED BY: KMJ

A1.1

221101

COPYRIGHT © BY HTG ARCHITECTS

PROJECT

**CRUSHER
CROSSFIT**

SITE PLAN / DESIGN REVIEW

NEW ADDITION

WACONIA, MINNESOTA

[illegible]

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION
OR REPORT WAS PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION, AND THAT I AM A DULY
LICENSED ARCHITECT UNDER THE LAWS OF THE
STATE OF

REG. NO. _____ DATE _____

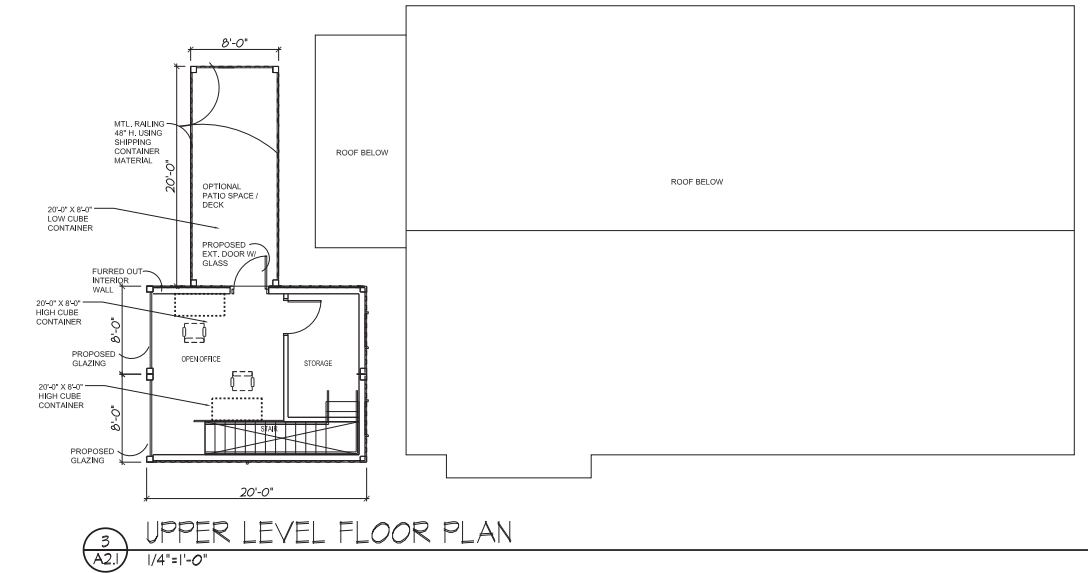
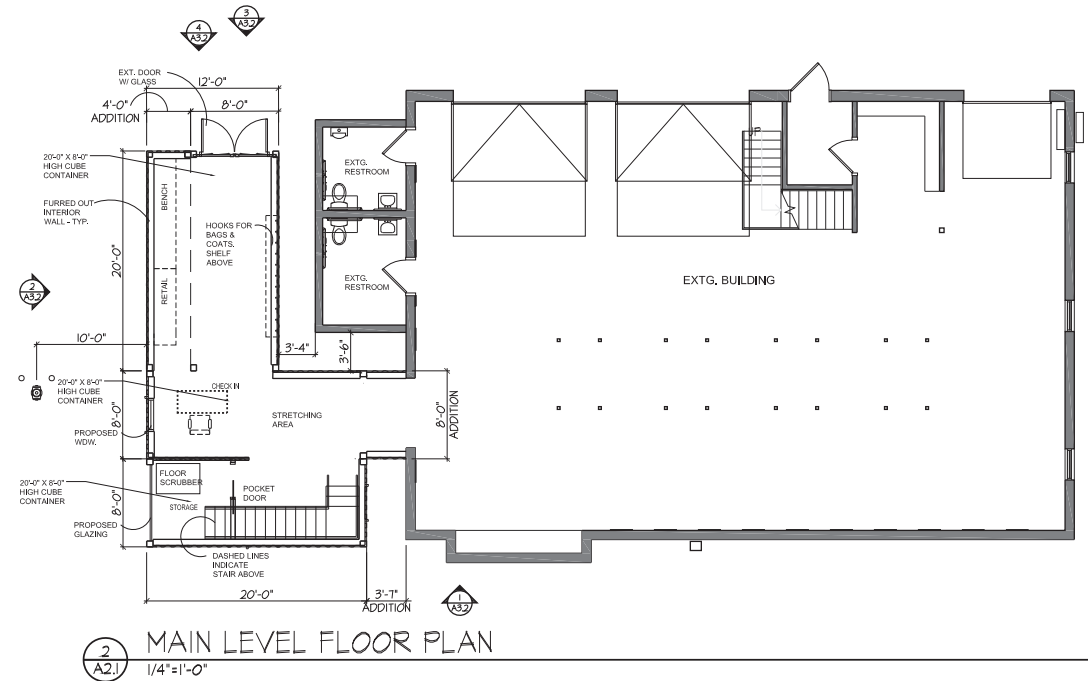
MAIN LEVEL FLOOR PLAN
UPPER LEVEL FLOOR PLAN

DRAWN BY: KMJ CHECKED BY: KMJ

A2.1

L-221101

COPYRIGHT © BY HTG ARCHITECTS



PROJECT

CRUSHER
CROSSFIT

SITE PLAN / DESIGN REVIEW
NEW ADDITION

WACONIA, MINNESOTA

ISSUED SET	JULY 6, 2023
REVISIONS	
DATE	NO.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION
OR REPORT WAS PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION, AND THAT I AM A DULY
LICENSED ARCHITECT UNDER THE LAWS OF THE
STATE OF

#	REG. NO.	DATE

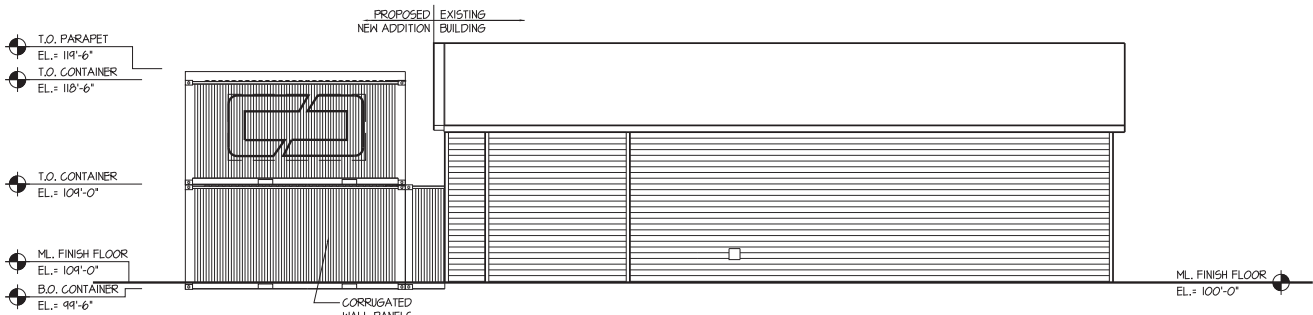
EXTERIOR ELEVATIONS

DRAWN BY: KMJ CHECKED BY: KMJ

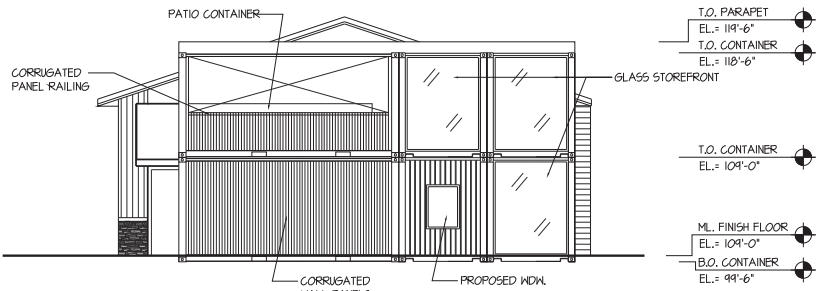
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EE-221101

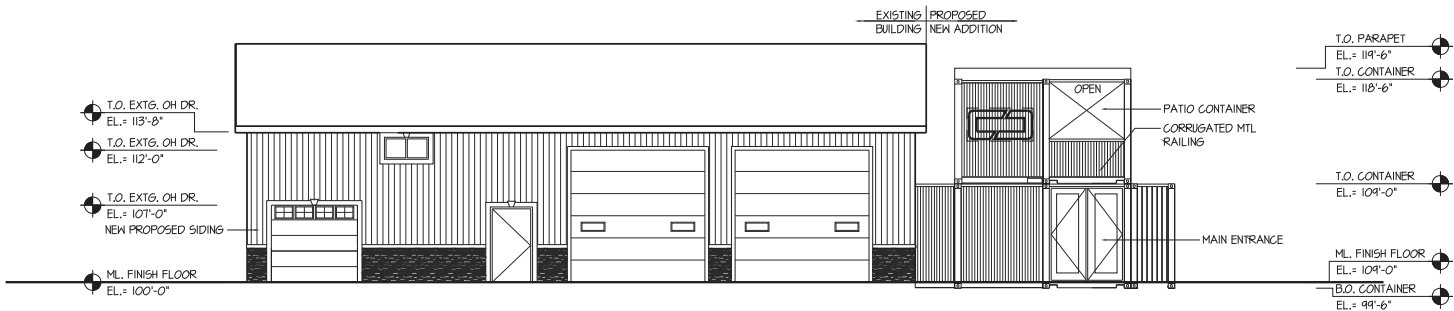
COPYRIGHT © BY HTG ARCHITECTS



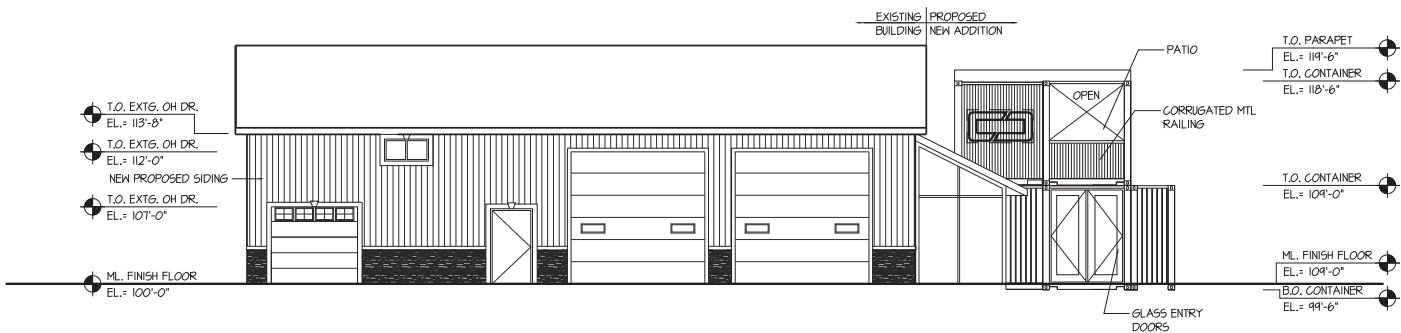
1 SOUTH EXTERIOR ELEVATIONS
A3.2 1/4"=1'-0"



2 WEST EXTERIOR ELEVATIONS
A3.2 1/4"=1'-0"



3 NORTH EXTERIOR ELEVATIONS
A3.2 1/4"=1'-0"



4 NORTH EXTERIOR ELEVATIONS
A3.2 1/4"=1'-0"



PROPOSED SIGNAGE AREA: 75 SQFT.
BUILDING FACE AREA: 1,260 SQFT. (NEW & EXTG.)

- EXISTING. BANNER IS PERMITTED. ONE BANNER PERMITTED PER PREMISES WITH ONE TENANT. BANNER TO BE 40 SQUARE FEET IN AREA OR LESS. (NO CHANGE EXISTING CONDITION)
- NEW PROPOSED WALL SIGNAGE
 - TWO WALL SIGNS COVERING A MAX. OF 10% OF BUILDING FACE IN WHICH ITS LOCATED ON.

1. ALL EXTERIOR SIGNAGE TO BE SUBMITTED FOR SEPARATE PERMIT - NIG. SIGNAGE TO COMPLY WITH CITY CODE REGULATIONS. SIGNAGE ILLUSTRATED FOR PRELIMINARY USE ONLY.
2. EXTERIOR BUILDING MATERIALS TO REMAIN AS IS UNLESS OTHERWISE NOTED. ANY MODIFICATION OF EXISTING BUILDING MATERIALS TO COMPLY WITH ARCHITECTURAL MATERIALS REGULATIONS / CITY CODE.



WEST ELEVATION
NEW BUILDING:

- PROPOSED CORRUGATED METAL PANEL: 433 SQFT. (69%)
- REFLECTIVE GLASS: 192 SQFT. (31%)

TOTAL BUILDING AREA FACE: 625 SQFT.



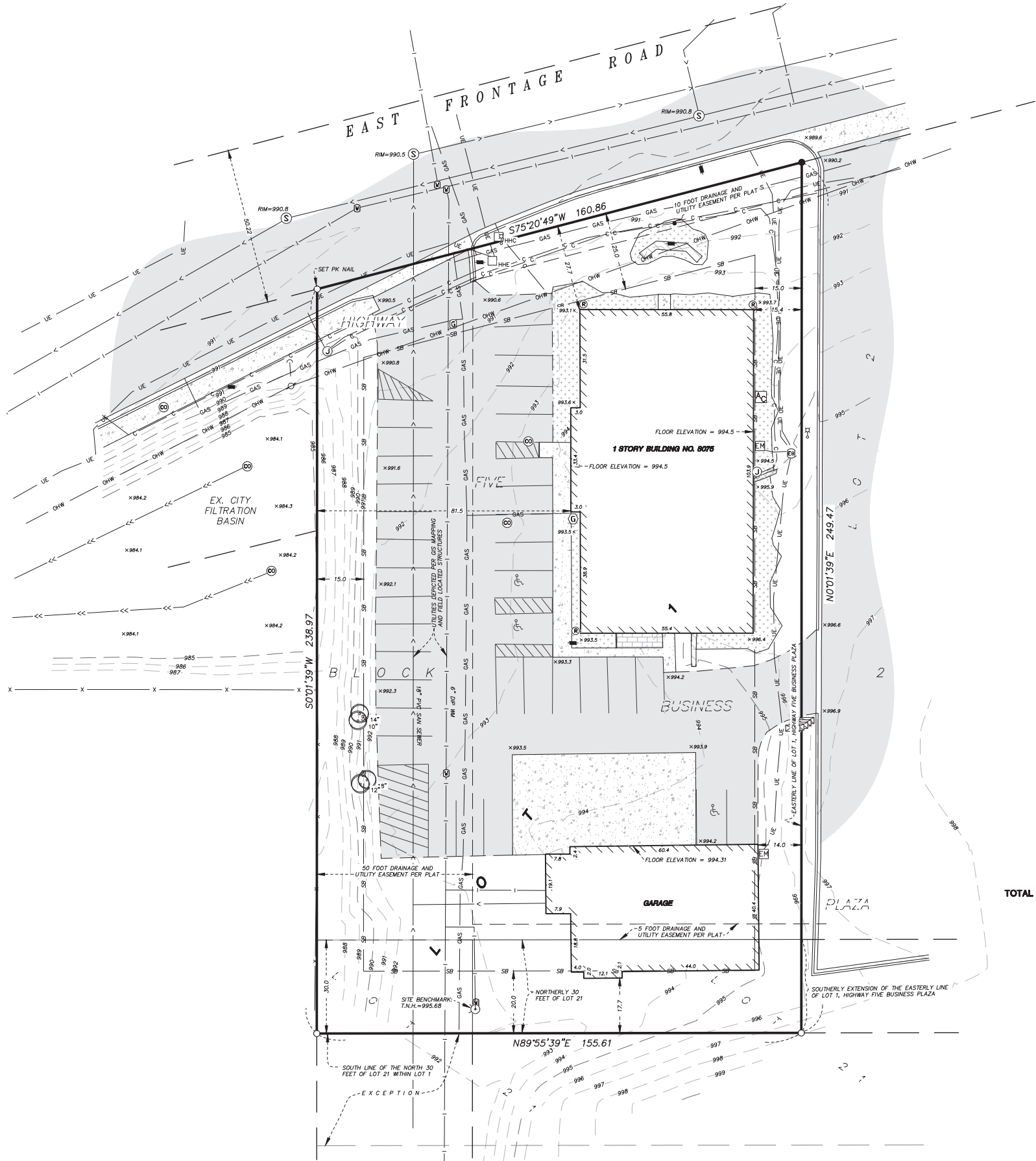
PROPOSED SIGNAGE AREA: 18 SQFT.
BUILDING FACE AREA: 1,215 SQFT. (NEW & EXTG.)

NORTH ELEVATION
NEW BUILDING:
• PROPOSED CORRUGATED METAL PANEL: 360 SQFT.
(93%)
• REFLECTIVE GLASS: 30 SQFT. (7%)

TOTAL BUILDING AREA FACE: 390 SQFT.



EE-221101
COPYRIGHT © BY HTG ARCHITECTS



EXISTING CONDITIONS SURVEY

LEGAL DESCRIPTION:

Lot 1, Block 2, HIGHWAY FIVE BUSINESS PLAZA, Except that part lying southerly of the south line of the north 30 feet of Lot 21, VOLDENANT'S SECOND ADDITION, Carver County, Minnesota,
And

That part of the northerly 30 feet of Lot 21, VOLDENANT'S SECOND ADDITION, which lies between the westerly line thereof and the southerly extension of the easterly line of Lot 1, HIGHWAY FIVE BUSINESS PLAZA, Except the part lying within Lot 1 of said HIGHWAY FIVE BUSINESS PLAZA, Carver County, Minnesota,

CERTIFICATION:

I hereby certify that this survey was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Dated: June 21, 2023

Anderson Engineering of Minnesota, LLC

by: Daniel Greenwald
Daniel Greenwald
Minnesota License No. 52134

SURVEY NOTES:

The horizontal datum and bearings are based on the Carver County Coordinate System NAD83(2011).

The vertical datum is NAVD 88. The site benchmark is the top-nut-hydrant located approximately 30 feet southwest of the garage on the south side of the subject property (depicted hereon). Elevation = 995.68 feet.

The area of the property described hereon is 40,336 square feet or 0.9260 acres (both Lots added together).

The location and extent of underground utilities, if shown, are based upon existing drawings provided by the utility companies, above ground evidence and Gopher State One Call markings per ticket number 231502044. Exclusive of excavation, there is no guarantee as to the accuracy or the completeness of this information. The size and location should be considered approximate. Additional underground utilities may be present. Verification of the existence and location of all utilities should be obtained from the utility owners prior to any planning or design. In accordance with State Statute, the location of utilities shall be confirmed prior to any demolition or construction.

The tree information shown hereon was collected during the field survey by non-forestry trained Anderson Engineering of Minnesota survey personnel. Tree sizes are estimates and locations are accurate to plus or minus three feet.

No title work was provided for the preparation of this survey to verify the legal description or the existence of any easements or encumbrances.

The field work was completed on June 6, 2023.

According to the City of Waconia, the subject property is zoned B-1 Highway Business District and has the building setback requirements listed below. It is recommended that the property owner obtain a zoning letter from the City to verify all conditions that affect the property through the city zoning ordinance. This survey does not purport to describe all conditions contained in said ordinance.

BUILDING SETBACKS	
Front=	25 feet
Rear =	20 feet
Side =	15 feet

According to the City of Waconia, there is a maximum hardcover surface area of 80%.

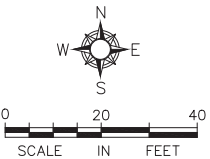
IMPERVIOUS SURFACES

EXISTING ASPHALT	=	12,903 SQUARE FEET
EXISTING CONCRETE	=	2,659 SQUARE FEET
EXISTING BUILDING	=	5,877 SQUARE FEET
EXISTING GARAGE	=	2,611 SQUARE FEET
EXISTING WALLS	=	79 SQUARE FEET
EXISTING PAVERS	=	69 SQUARE FEET
TOTAL	=	24,198 SQUARE FEET

TOTAL IMPERVIOUS SURFACES = 24,198 SQUARE FEET OR 0.60%

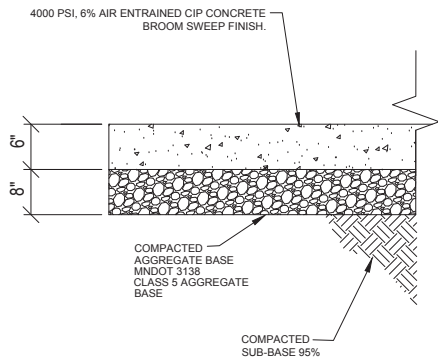
LEGEND

	AIR CONDITIONER		BUILDING SETBACK LINE
	CLEAN OUT		COMMUNICATION
	COMMUNICATION PEDESTAL		FENCE
	ELECTRIC BOX		GAS MAIN
	ELECTRIC METER		OVERHEAD WIRES
	GAS METER		SANITARY SEWER
	GAS VALVE		STORM SEWER
	HANDICAP PARKING		UNDERGROUND ELECTRIC
	HANDHOLE COMMUNICATIONS		WATER MAIN
	HANDHOLE ELECTRIC		BITUMINOUS SURFACE
	HYDRANT		CONCRETE SURFACE
	LIGHT BOLLARD		LANDSCAPE ROCK
	LIGHT POLE		DEPRESSION CONTOUR
	MAILBOX		WALL
	POWER POLE		
	POWER POLE ANCHOR		
	ROOF DRAIN		
	SANITARY MANHOLE		
	SIGN		
	WATER VALVE		
	FOUND IRON MONUMENT		
	SET 1/2"x14" IRON PIPE MARKED L.S. NO. 52134		
	DECIDUOUS TREE		



GENERAL NOTES

- ALL CONSTRUCTION SHALL COMPLY WITH CITY OF WACONIA ENGINEERING STANDARDS AND THE 2020 EDITION OF MNDOT SPECIFICATIONS, UNLESS DIRECTED OTHERWISE.
- ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE MUNICIPAL, WATERSHED DISTRICT, COUNTY, MPCA, DEPT. OF HEALTH, AND MNDOT PERMITS. VERIFY RECEIPT OF ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR, IN COOPERATION WITH THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY, IS RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND DEPTH OF ALL UNDERGROUND UTILITIES.
- ALL CONSTRUCTION SHALL COMPLY WITH RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER AND PER THE GEOTECHNICAL REPORT IF A REPORT IS AVAILABLE UNLESS DIRECTED OTHERWISE.
- EXISTING TOPOGRAPHIC AND UTILITIES INFORMATION PROVIDED BY OWNER ON A SURVEY PREPARED BY ANDERSON ENGINEERING. BE ADVISED THAT THE LOCATION AND TYPE OF EXISTING UTILITIES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE INFORMATION IS NOT WARRANTED TO BE ACCURATE OR COMPLETE. THE CONTRACTOR IN COOPERATION WITH THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY IS RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE AND DEPTH OF ALL UNDERGROUND UTILITIES.
- CONTRACTOR SHALL HIRE PRIVATE UTILITY LOCATOR AS NECESSARY TO VERIFY UNDERGROUND UTILITIES. UTILITIES SHOWN ON PLANS MAY VARY FROM EXISTING CONDITIONS, AND CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO UTILITY LINES SHOWN, NOT SHOWN, OR SHOWN INCORRECTLY.
- UTILITIES MUST BE LOCATED PRIOR TO EXCAVATION OR GRADING ON ANY SITE. CALL GOPHER SATE ONE CALL AT 1-800-252-1166 AS SOON AS POSSIBLE TO SCHEDULE UTILITY LOCATIONS FOR THIS SITE.
- PROPOSED SPOT ELEVATIONS ARE TO TOP OF FINISHED SURFACE UNLESS OTHERWISE NOTED IN LEGEND.
- ALL CONSTRUCTION OF HANDICAP STALLS, ROUTES, & CURB RAMPS TO COMPLY WITH THE 2020 MN ACCESSIBILITY CODE.
- CONTRACTION JOINTS SHALL BE CONSTRUCTION ALONG ALL GRADE BREAKS. ALL GRADE BREAKS SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL.
- ALL SLOPES ARE ABSOLUTE, RATHER THAN RELATIVE TO SIDEWALK/ROADWAY GRADES.

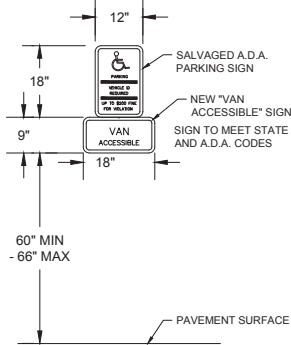


NOTES:

- CONCRETE MIX SHALL CONFORM TO MNDOT SPEC. 2461
MIX NO. 3Y22A FOR SLIPFORM PLACEMENT
MIX NO. 3Y32A FOR MANUAL PLACEMENT
- CONCRETE PLACEMENT SHALL CONFORM TO MNDOT SPEC 3201

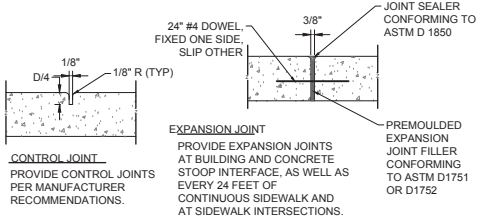
1 CONCRETE PAVEMENT SECTION

SCALE: N.T.S.



2 HANDICAP SIGN DETAIL

SCALE: N.T.S.



NOTES:

- INSTALL EXPANSION JOINTS AT ALL FIXED OBJECTS (BUILDING, UTILITY STRUCTURES, ETC.)
- CONTRACTION / CONTROL JOINTS IN SIDEWALK AREAS ARE TO BE TOOLED (NO SAWCUTS ALLOWED). PAVEMENT JOINTS MAY BE SAW CUT. CURB TO HAVE JOINTS AS SHOWN OR EVERY 10' MATCHING WALK SCORING OR ADJACENT PAVEMENT SCORING.
- CONTRACTION JOINTS WILL BE PERMITTED AT CONTRACTION JOINT LOCATIONS AS APPROVED BY ENGINEER.
- SIDEWALK JOINT SPACE = 5'
- ALL JOINTS SHALL BE PARALLEL WITH AND/OR PERPENDICULAR TO BUILDING AND CURB LINES UNLESS APPROVED BY ENGINEER.
- ON CURB & GUTTER INSTALL EXP. JOINTS AT ALL PTS & PCs OR CURVES & AT 50' INTERVALS ON STRAIGHT SECTIONS.

3 JOINTING DETAIL

SCALE: N.T.S.

KEY NOTES

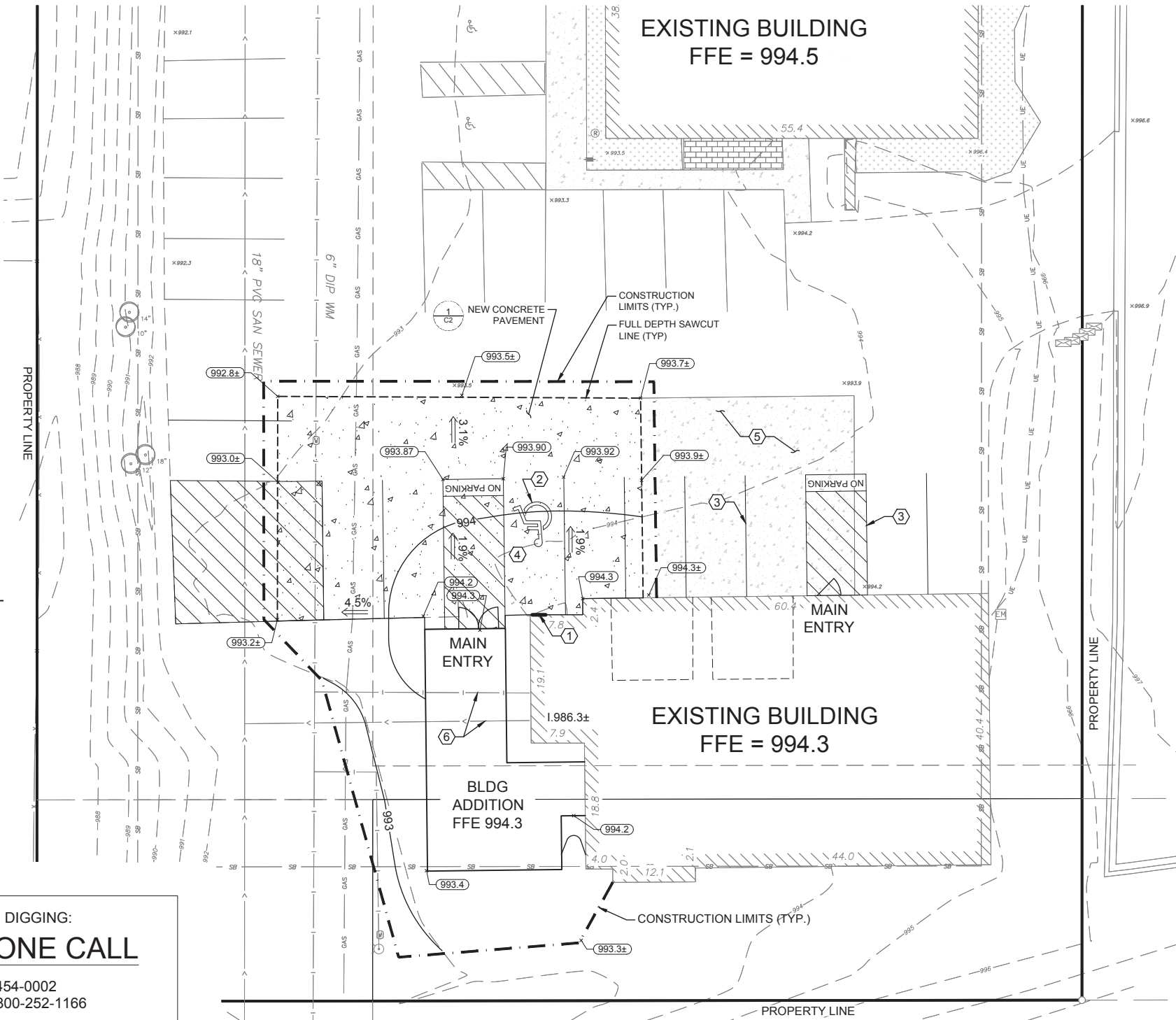
- WALL MOUNTED HANDICAP STALL SIGN TO COMPLY WITH 2020 MINNESOTA ACCESSIBILITY CODE 502.7. (SEE DETAIL 3/C2)
- WHITE REFLECTIVE PAINT RECTANGLE CENTERED AROUND ACCESSIBILITY PARKING SYMBOL. LINE TO BE 3" WIDE. OVER A WIDTH OF 36" AND HEIGHT OF 41" PER 2009 MUTCD CODE FIGURE 3B.20.
- RE-STRIPE PARKING STALLS. SEE ARCHITECTURAL SITE PLAN FOR MORE INFORMATION.
- SLOPES WITHIN HANDICAP STALLS AND LOADING AREAS NOT TO EXCEED 2.0% IN ANY DIRECTION.
- EXISTING CONCRETE PAVEMENT TO REMAIN.
- EXISTING UTILITY SERVICES LOCATIONS AND DEPTHS NOT VERIFIED. CONTRACTOR TO LOCATE WATER AND SANITARY SERVICE PRIOR TO CONSTRUCTION. PROTECT UTILITIES IN-PLACE.

LEGEND

	PROPERTY LIMITS
	CONSTRUCTION LIMITS
	EXISTING MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING SPOT ELEVATION
	PROPOSED MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	FULL DEPTH SAWCUT LINE
	PROPOSED DRAINAGE ARROW
	PROPOSED CONCRETE PAVEMENT



0 10' 20'



CALL 48 HOURS BEFORE DIGGING:
GOPHER STATE ONE CALL

TWIN CITY AREA (651)454-0002
MINNESOTA TOLL FREE 1-800-252-1166



ANDERSON

13605 1st Avenue N. #100
Plymouth, MN 55441 | ae-mn.com
P 763.412.4000 | F 763.412.4090
Anderson Engineering of Minnesota, LLC

CRUSHER CROSSFIT
ADDITION

8075 SCANDIA ROAD
WACONIA, MN 55387

CRUSHER CROSSFIT

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: BRIAN J. FIELD, PE

SIGNATURE: NOT FOR CONSTRUCTION

DATE: 07/06/2023 LICENSE NO. 57224

REVISION LOG

NO.	DATE	DESCRIPTION OF REVISIONS

SITE PLAN APPROVAL

JULY 6, 2023

DESIGNED: BF	DRAWN: KA	CHECKED BY: BF
-----------------	--------------	-------------------

DRAWING TITLE

GRADING, DRAINAGE
& PAVING PLAN

DRAWING NO.

C2

PLOTTED:
6/28/2023

COMM. NO.
16887



STARBUCKS
NORTHGLENN, COLORADO



UNIT CAFE
KYIV, UKRAINE



COFFEE SHOP
CIRQUE COFFEE ROASTERS, TULSA, OK



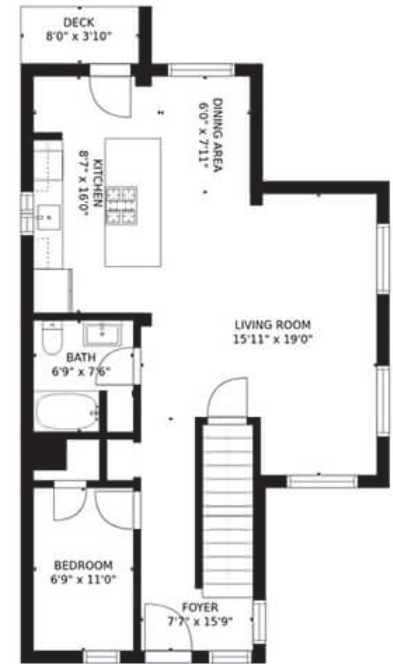
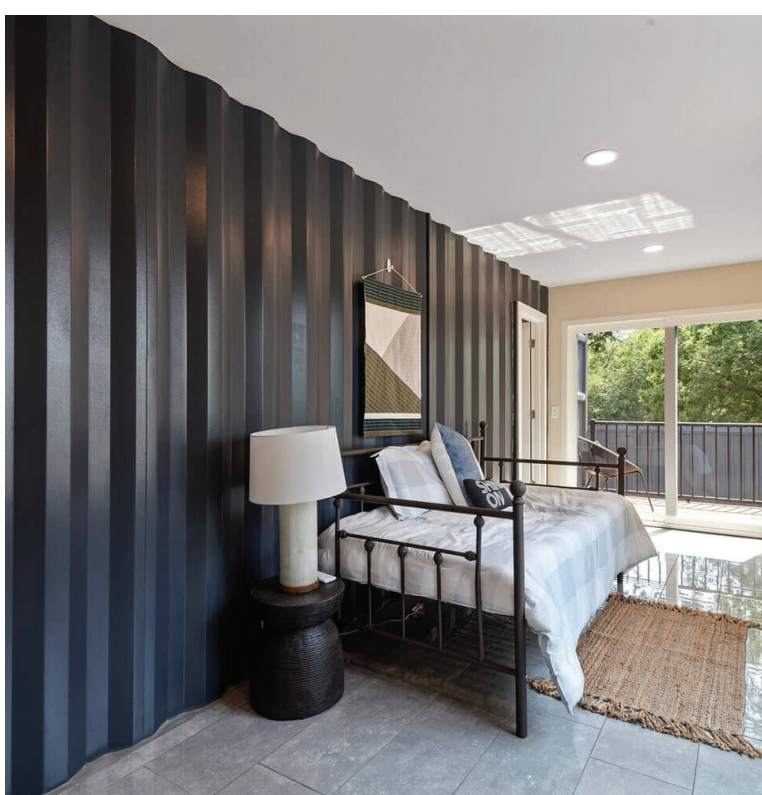
RESTAURANT & BEER HALL
DETROIT SHIPPING COMPANY



RESTAURANT & BEER HALL
DETROIT SHIPPING COMPANY

INSPIRATIONAL PHOTOGRAPHS - SHIPPING CONTAINERS

CRUSHER CROSSFIT - ADDITION
WACONIA, MINNESOTA
07/06/23



GROSS INTERNAL AREA
 FLOOR 1: 729 sq. ft, FLOOR 2: 729 sq. ft
 FLOOR 3: 573 sq. ft, EXCLUDED AREAS:
 DECK: 31 sq. ft, GARAGE: 463 sq. ft
 TOTAL: 2031 sq. ft
 SIZES AND DIMENSIONS ARE APPROXIMATE, ACTUAL MAY VARY.

LOCAL RESIDENTIAL PROPERTY
 LOCATION: 2434 IRVING AVE, MINNEAPOLIS
 CONTRACTOR : PARAGON DESIGNS

INSPIRATIONAL PHOTOGRAPHS - SHIPPING CONTAINERS

CRUSHER CROSSFIT - ADDITION
 WACONIA, MINNESOTA
 07/06/23





EXISTING SITE CONDITIONS

CRUSHER CROSSFIT - ADDITION
WACONIA, MINNESOTA
07/06/23



EXISTING SITE CONDITIONS

CRUSHER CROSSFIT - ADDITION
 WACONIA, MINNESOTA
 07/06/23



EGG-CETERA CAFE
241 E FRONTAGE RD



ALPHABET JUNCTION CHILD CARE
240 E FRONTAGE RD



ALPHABET JUNCTION CHILD CARE
240 E FRONTAGE RD



WACONIA INN & SUITES
301 E FRONTAGE RD



FRATTALLONE'S HARDWARE & GARDEN
121 E MN-5



EKLOF DOCK
747 S PINE ST



WACONIA INN & SUITES
301 E FRONTAGE RD



WACONIA VETERINARY CLINIC
113 MN-5



NEW BIRTH MIDWIFERY
300 E FRONTAGE RD



**CORRUGATED METAL PANELS
/ CORTEN STEEL**



ALUMINUM WINDOWS



**STEEL PROPOSE RAILING W/ WOOD
POST CAP**



ALUMINUM ENTRY DOORS



STANDING SEAM METAL ROOF

PROPOSED MATERIAL BOARD

CRUSHER CROSSFIT - ADDITION
WACONIA, MINNESOTA
07/06/23



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:	August 21, 2023
Item Name:	Comprehensive Plan Amendment – 7845 County Road 10 North, Waconia Township
Originating Department:	Community Development
Presented by:	Lane Braaten

Previous Council Action (if any):

Item Type (X only one):	Consent		Regular Session	X	Discussion Session	
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RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED (Include motion in proper format.)

Adopt Resolution 2023-192 denying the proposed Comprehensive Plan Amendment to re-guide the subject parcel as L, Low Density Residential versus the current guidance of R, Rural.

EXPLANATION OF AGENDA ITEM (Include a description of background, benefits, and recommendations.)

BACKGROUND:

Applicant: John Klinkner
Owner: John Klinkner
Address: 7845 County Road 10 North, Waconia Township
P.I.D. #: 090102100
Comprehensive Plan Designation: R, Rural

REQUEST:

The City has received a Comprehensive Plan Amendment application from John Klinkner (the “Applicant”) to reguide the property located at 7845 County Road 10 North as L, Low Density Residential versus the current guidance of R, Rural.

APPLICABLE ORDINANCE PROVISIONS:

1. Section 900.12, Subd. 6 - Amendments

EXISTING CONDITIONS:

The approximately 81.5-acre subject parcel, which is bisected by County Road 10, is generally agricultural use in nature with an old farmhouse and multiple outbuildings on the eastern portion of the property.

COMPREHENSIVE PLAN AMENDMENT:

The applicant has requested the City of Waconia amend the City’s Land Use Plan and reguide the subject property L, Low Density Residential versus its current guidance of R, Rural. Table 1.1 below identifies the existing and proposed guidance and the applicable zoning districts if the property guidance were amended.

Table 1.1 - LAND USE PLAN CATEGORIES AND PROPOSED ZONING MAP DISTRICTS:

<u>CATEGORY</u>	<u>LAND USES</u>	<u>ZONING DISTRICTS</u>
EXISTING COMP PLAN GUIDANCE R - Rural	Includes farming and very low-density housing (not exceeding one house per 40 acres). Locations shown as Rural are not planned to be annexed to the City of Waconia.	A, Agricultural District

PROPOSED COMP PLAN GUIDANCE L - Low Density Residential	Single-family, detached housing on parcels with a minimum size of 10,500 square feet. The density range should be from 2 to 4 units per acre.	R-1, Single-Family Residential District R-2, Single-Family Residential District
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*Information above taken from Table 3-10 of the City of Waconia Comprehensive Plan

The Comprehensive Plan identifies the following criteria to consider when reviewing Comprehensive Plan changes/amendments:

1. *The change is consistent with the goals and objectives or other elements of the Waconia Comprehensive Plan.*
2. *The change does not create an adverse impact on the public facilities and services that cannot be mitigated. Public facilities and services include roads, sewers, water supply, drainage, schools, police, fire and parks.*
3. *Development resulting from the change does not create undue impact on surrounding properties. Such development should be consistent with the physical character of the surrounding neighborhood or would upgrade and improve its viability.*
4. *The change allows a more viable transition to the planned uses on adjacent properties than the current land use.*
5. *The change does not have a significant adverse impact on the natural environment including trees, slopes and groundwater, or the impact could be mitigated by improvements on the site or in the same vicinity.*
6. *There is a change in City policies or neighborhood characteristics that would justify a change.*
7. *The change corrects an error made in the original plan.*
8. *There is a community or regional need identified in the comprehensive plan for the proposed land use or service.*
9. *The change helps the City meet its life-cycle and affordable housing objectives.*
10. *The change does not adversely impact any landmarks or other historically significant structures or properties unless mitigated through relocation.*

The Planning Commission should consider the criteria stated above and determine if the proposal meets enough of the criteria to warrant a modification to the City's Comprehensive Plan.

COMPREHENSIVE PLAN AMENDMENT CONSIDERATIONS:

1. The 81.5-acre parcel is located north of the Waconia Landing single-family residential neighborhood and is bisected by County Road 10. The neighboring properties to the north are a mix of agricultural and residential in nature. The properties to the west are all generally agricultural in nature and Lake Waconia is directly to the east.
2. Bolton & Menk, the City Engineering firm, provided a memorandum dated March 22, 2023, which indicates that there is some remaining sanitary sewer capacity that could serve the subject parcel. The Sewer Capacity Evaluation was commissioned by the property owner to determine if the application in front of you this evening was a viable request.
3. Traffic access to the portion of the property lying east of County Road 10 may require some additional property acquisition to align with County Road 30. This will need to be evaluated and coordinated with Carver County if the property is ultimately developed.
4. The Land Use Plan indicates a goal to "Protect and enhance the major natural features of Waconia such as woods, wetlands, floodplains and waterfronts."
5. Land Use Plan - Objective 3 – Sustainable Growth, Policy 5. Rural Area states "Locations designated as R, Rural on the Land Use Plan map are not currently planned for annexation by the City of Waconia. However, the City urges Carver County to continue its plan of zoning those locations as agriculture areas. Waconia understands and supports the notion of preserving highly productive soils for farming, and therefore, intends to develop in a compact pattern and encourage infill and selective redevelopment to higher densities. At the same time, it is recognized that some of the R, Rural areas that abut Waconia may someday beyond the 2040 planning horizon be converted to urban uses."
6. Land Use Plan – Objective 3 – Sustainable Growth, Policy 11. Environmental Protection states "Protect or

restore through regulation and/or City investment sensitive or unique natural resources such as floodplains, major wooded areas, streams, wetlands, steep slopes, water quality and shorelines.”

7. The City Council may also want to consider planning for only a portion of the proposed property, namely the lake side, and retaining any additional sewer capacity for possible future extensions to the east of County Road 10 and north of the subject property (i.e. lake adjacent properties).
8. Taylor Huinker, DNR Area Hydrologist, provided the following comments in response to environmental concerns regarding possible residential development versus agricultural use. “For residential, you would get more impervious surface and runoff, but the stormwater would have to be managed unlike agriculture. MPCA might be a good resource if you want to dive into the topic more. Maybe if development is considered, then look at ways to protect land immediately adjacent to the lake, i.e. creation of a park or other open space to protect the particularly sensitive shoreline area?”
9. Additionally, Ms. Huinker commented that she is not aware of any boat traffic assessments completed for Lake Waconia. This comment resulted from staff asking about boat traffic on Lake Waconia, which was one concern noted at the public hearing on August 3rd, 2023.
10. Bill Cole, Environmental Scientist, Water Quality at Minnesota Pollution Control Agency (MPCA) stated, “The question as to which has more of an impact on water quality between row crop agriculture and urban development depends, at least in part, depends on how each activity is actually practiced. Based on your description of the current farming practice (corn/soy/ little or no buffer), I would expect a higher loading of nutrients (phosphorus, nitrogen), suspended solids, and likely pesticides compared to an urban development designed and maintained to ensure minimal impacts to water quality.”
11. Jason Mielke, Carver County Land Use Manager, responded to my inquiries about residential development within the township and environmental impacts by stating, and I summarize, the subject parcel could be subdivided into a maximum of 3 lake lots on the east side and the 1 per 40 acres rule would allow for one housing site on the west side of County Road 10. Additionally, he agreed with Taylor Huinker’s comments on surface water runoff and added that lakeshore lots pursuant to the county platting/subdivision process would be reviewed by the Carver County Water Management Organization (CCWMO) for Best Management Practices (BMPs), etc.

PUBLIC NOTICE/COMMENT

The notice was published in the WACONIA PATRIOT on July 20th, 2023 and posted at Waconia City Hall.

Individual notices were mailed to all property owners within 350 feet of the subject parcel. The public hearing comments received have been attached for review and consideration.

Procedurally we are also required to notify all affected jurisdictions in relation to all comprehensive plan amendments. Staff notified Carver County, Waconia Public Schools and Waconia Township. To date staff received a “no comment” statement from Waconia Public Schools and a comment from Waconia Township that the portion east of County Road 10 seemed appropriate, but not the agricultural property west of County Road 10.

CONCLUSION/RECOMMENDATION

The Planning Commission, at their regular meeting on August 3rd, 2023, held the public hearing, reviewed the pertinent information, and recommended the City Council deny the proposed Comprehensive Plan Amendment for 7845 County Road 10 North via a 4-1 vote.

Attachments:

1. [23192res_Denying_Comp_Plan_Amend_7845_Cnty_Rd_10_N.docx](#)
2. [Location Map.pdf](#)
3. [Comp Plan Letter_Klinkner.pdf](#)
4. [Klinkner Sewer Eval.pdf](#)
5. [Public Hearing Notice.pdf](#)
6. [Public Hearing Comments_Comp Plan Amend.pdf](#)

FINANCIAL IMPLICATIONS:

Funding Sources & Uses:

ADVISORY BOARD RECOMMENDATIONS:

Budget Information:

Planning Commission

☐ Budgeted	Parks and Recreation Board	
☐ Non Budgeted	Safari Island Advisory Board	
☐ Amendment Required	Other	

**CITY OF WACONIA
RESOLUTION NO. 2023-192**

**RESOLUTION DENYING A COMPREHENSIVE PLAN AMENDMENT
FOR 7845 COUNTY ROAD 10 NORTH**

WHEREAS, John Klinkner (the "**Applicant**") has submitted a Comprehensive Plan Amendment application pursuant to Section 900.12, Subd. 6 of the Waconia City Code; and

WHEREAS, the subject parcel is located at 7845 County Road 10 North and identified as PID# 090102100 (the "**Property**"); and

WHEREAS, the 2040 Comprehensive Plan currently guides the Property as R, Rural; and

WHEREAS, the Applicant has requested an amendment to the Comprehensive Plan to re-guide the property L, Low Density Residential to allow the future development of the Property as residential; and

WHEREAS, the Planning Commission reviewed the pertinent information and held a public hearing on August 3rd, 2023 and received all public comment; and

WHEREAS, the Planning Commission, at their regular meeting on August 3rd, 2023, voted 4-1 to recommend denial of the Comprehensive Plan Amendment to re-guide the property L, Low Density Residential.

WHEREAS, the City Council further finds and concludes:

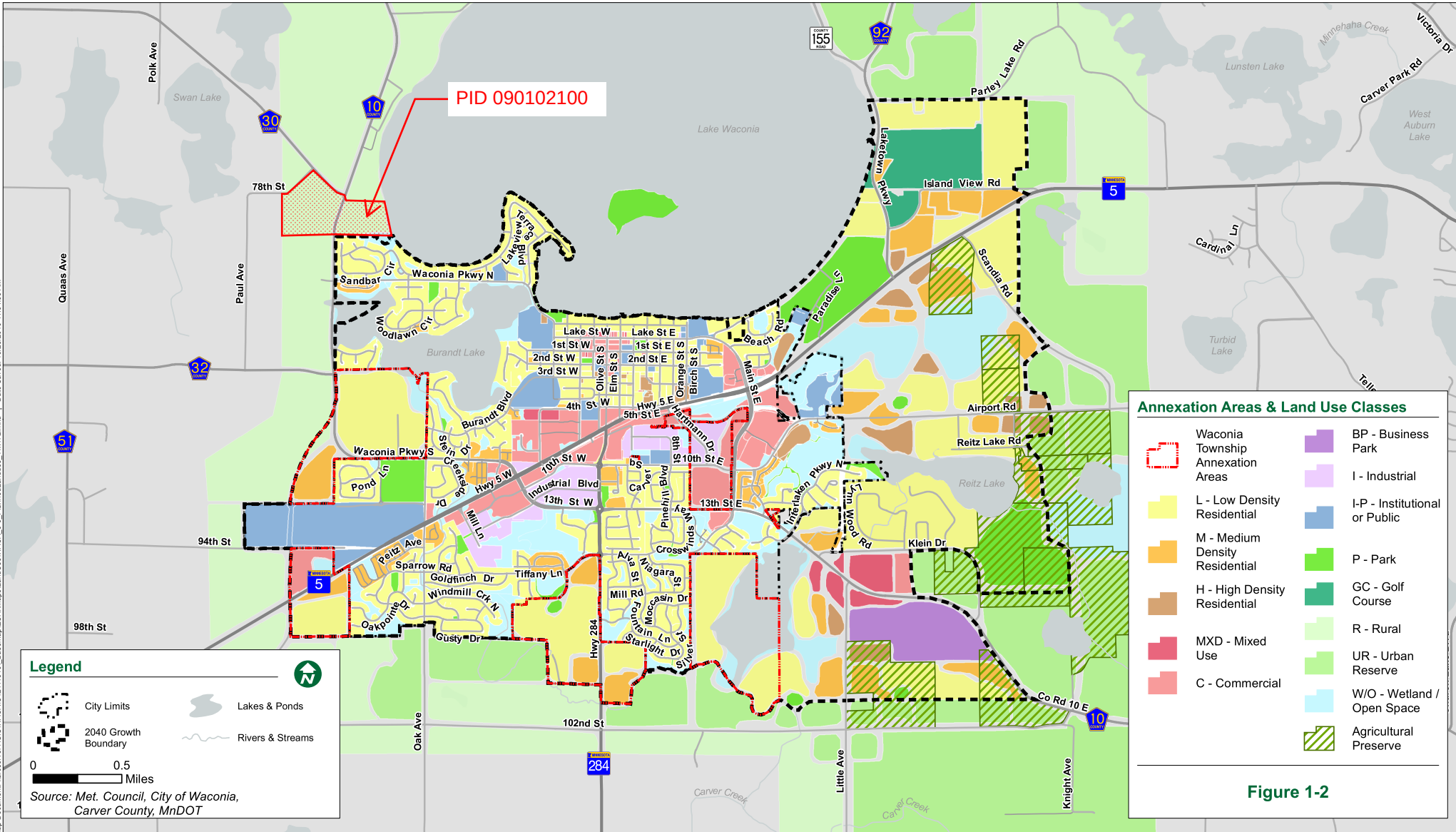
1. The proposed amendment is inconsistent with the 2040 Comprehensive Plan, which identifies the property would remain rural in nature.
2. The amendment request includes additional sewer capacity information which should be further studied and considered when considering serving any additional properties in the northwest region of the community, which would be best done at the time of the next comprehensive plan update.
3. There is no existing community need for the proposed land use as the city has a number of properties identified as L, Low Density Residential and a number of large single-family residential projects currently under construction within the city limits.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Waconia hereby denies the Comprehensive Plan Amendment submitted by John Klinkner for the property located at 7845 County Road 10 North.

Passed and adopted by the City Council of the City of Waconia this 21st day of August, 2023.

Nicole Waldron, Mayor

ATTEST: _____
Jackie Schulze, City Clerk



John & Kathryn Klinkner

PO Box 16108
St Louis Park, MN 55416

City of Waconia
201 South Vine Street
Waconia, MN 55387

June 30th, 2023

RE: Comprehensive Land Use Plan Amendment
Parcel ID: 090102100
Waconia, Carver County, Minnesota

Dear City of Waconia:

Enclosed is our Comprehensive Plan Amendment request. We ask that it be considered and seek your guidance to bring the parcel into your Comprehensive Plan. We believe the property is in a reasonable growth area and its development would provide benefit to the City. The parcel is contiguous to the City limits (Waconia Landing is directly south). The inclusion of this land would meet the Comp Plan's Land Use Objectives of accommodating urban growth and market flexibility, expanding along major roadway corridors, providing a variety of housing styles, and improving environmental resources. The land is bordered by two major roadways: County Road 10 and County Road 30. It is also bordered on the east by Lake Waconia.

Currently, agricultural runoff is flowing directly into Lake Waconia. Development of the property would provide water quality enhancement to the lake and wetland fringes from the current condition. The City Engineer's sewer study states that the property is able to be served by the existing sanitary sewer system. Due to its close proximity to the lake, development using City sewer is highly desired over septic systems. Septic systems along lakes have proven to be an issue over time. Privately-owned sewer systems have more potential for groundwater and surface water contamination than publicly-owned and maintained sewers. This property is one of the few parcels left with shoreland access so there would be an opportunity to provide lakeshore amenities/enhancement and convert exposed cropland into residential lots.

We feel that direct city involvement guiding the parcel is preferred over township/county due to the proximity. Growth projections indicate a future need for move-up (forever) housing along with housing for extended family wishing to be closer (grandparents) and multi-generational homes. This would free up other stock as well. We look forward to accommodating future needs with input and guidance from the city.

Sincerely,

John Klinkner
Owner

**MEMORANDUM**

Date: March 22, 2023
To: Lane Braaten, Community Development Director
From: Jake Saulsbury, City Engineer
Subject: Klinkner Property – Sewer Capacity Evaluation

Pursuant to your request we have evaluated the capacity of the sanitary sewer system that would convey wastewater from the Klinkner property. The following is a summary of our analysis.

Klinkner Property: The subject property has a gross area of approximately 81.5 acres. The estimated peak flows for the subject property are as follows:

3.0 Units/gross acre = 245 units and a peak flow of 182 gpm

3.5 Units/gross acre = 285 units and a peak flow of 210 gpm

An analysis of buildable area on the property was not completed.

Gravity sewer: The gravity sewer that would convey flows from the subject property to the L-52 lift station is generally located along Waconia Parkway North to Lakeview Terrace Blvd (west leg), then along Dana Circle to the lift station. In general, the 10" gravity sewer has capacity to convey the projected flows noted above. The 10" sewer would be approximately 80% full over the majority of the alignment.

It should be noted the critical section of the sewer line is a section of pipe that, according to as-builts, is at a slightly flatter slope than desired. This section of pipe would be over 90% full with the added flows. Considering this, the 10" would have limited remaining capacity after the addition of Klinkner flows. The pipe would essentially be full.

L-52 Lift Station: This lift station was recently upgraded as a city project. Considering current inflow and the projected flows, the new/existing lift station pumps were evaluated and are capable of conveying the additional flow from the Klinkner property.

Summary: The Klinkner property is able to be served by the existing sanitary sewer system. However, the full build-out of this property would essentially use the remaining capacity within the system, and no additional development could occur without significant upgrades. Also, the subject property was not evaluated, but it is assumed a lift station would be needed within the property in order to convey the wastewater from the site to the City's gravity system. Finally, the proposed access to the site is not the subject of this memo, but is a concern. Coordination with Carver County is recommended to occur early in the process as access will be required from CSAH 10 and/or CSAH 30.

We are available to discuss this potential development and the contents of this memo at your convenience.

Cc: Craig Eldred, Public Services Director
John Swanson, Bolton & Menk
Don Krause, Buffalo Lake Partners

CITY OF WACONIA, MN
NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the Planning Commission of the City of Waconia, MN, will hold a public hearing on August 3rd, 2023 at 6:30 p.m., at the Waconia City Hall, 201 South Vine Street, Waconia, MN, to consider a Comprehensive Plan Amendment application submitted by John Klinkner for the property located at 7845 Counrty Road 10 North, Waconia Township, MN and legally identified as follows:

PID # 090102100, CARVER COUNTY, MN

The property includes approximately 81.5 acres which is bisected by County Road 10 and located just north of the Waconia Landing residential subdivision. The existing land use, as designated in the 2040 Comprehensive Plan, indicates the subject property guidance as R- Rural. The amendment proposes to guide the subject parcel as L – Low Density Residential.

Pertinent information pertaining to this request is available at City Hall. Interested persons may submit written or oral comments pertaining to this matter any time prior to the hearing, or at the hearing on August 3rd, 2023. Written comments will be distributed to the Planning Commission for review and consideration. Please submit written comments by mail, email or in person as follows:

Mail/in person: Attention: Lane L. Braaten, 201 South Vine Street, Waconia, MN 55387
Email: lbraaten@waconia.org

By: WACONIA PLANNING COMMISSION

ATTEST: Lane L. Braaten, Community Development Director

(Published in the Waconia Patriot on July 20th, 2023)



Comprehensive Plan Amendment

Adjacent and Affected Jurisdiction Review and Comment Form

Date: July 6th, 2023

To: Waconia Public Schools ISD110

Attn: Brian Gersich, Superintendent

Per Minnesota Statute 473.858 Subd. 2 and the Metropolitan Council, we are distributing the proposed Amendment to the City of Waconia Comprehensive Plan for your review and comment. The Comprehensive Plan Amendment has been attached for your review and consideration.

The applicant, John Klinkner, has requested an amendment to the City of Waconia's 2040 Comprehensive Plan. Specifically, the applicant has requested the property located at 7845 County Road 10 North (PID# 090102100) be included in the future growth area of the City and guided L, Low Density Residential versus the current R, Rural guidance.

It is respectfully requested that you review the proposed Comprehensive Plan Amendment and send any comments or indication of no comment to Lane Braaten, Community Development Director (email: lbraaten@waconia.org) by September 4th, 2023. With regard to review of the Comprehensive Plan Amendment, we ask that you provide feedback as timely as possible within the requested 60-day comment period.

Please note that any comments would be appreciated prior to the City's Public Hearing, which is tentatively scheduled for August 3rd, 2023.

In the event that there are questions regarding the Comprehensive Plan Amendment, or if additional information is needed, please contact my office at your earliest convenience.

On behalf of the City of Waconia we would like to thank you in advance for your assistance and prompt response.

Lane L Braaten
Community Development Director
City of Waconia
201 South Vine Street
Waconia, MN 55387
Office: 952-442-2184
Direct: 952-442-3106
www.waconia.org

Adjacent or Affected Jurisdiction Name: **Waconia Public Schools ISD110**

Please check the appropriate box:

- ☒ We have reviewed the proposed Plan Amendment, do not have any comments, and are therefore waiving further review.
- ☐ We have reviewed the proposed Plan Amendment and offer the following comments (attach additional sheets if necessary)

Name of Reviewer Brian Gosich Date 7/11/2023
Signature of Reviewer BW Gosich

Adjacent or Affected Jurisdiction Name: **Waconia Township**

Please check the appropriate box:

- ☐ We have reviewed the proposed Plan Amendment, do not have any comments, and are therefore waiving further review.
- ☐ We have reviewed the proposed Plan Amendment and offer the following comments (attach additional sheets if necessary)

Waconia Township prefers that the land west of city Rd 10 remain zoned agricultural.

The property to the east of city Rd 10 could be rezoned as development

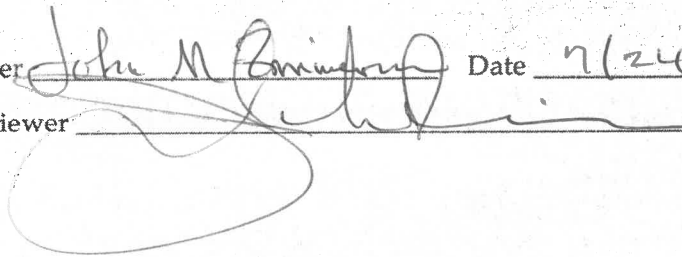
Name of Reviewer

John M. Brinkman

Date

7/24/2023

Signature of Reviewer



Lane Braaten

From: Travis Radel <tdradel@hotmail.com>
Sent: Wednesday, July 26, 2023 8:03 AM
To: Lane Braaten
Subject: PID #090102100 - Comments

Lane & The Waconia Planning Commission,

RE: PID #090102100

We appreciate that the city of Waconia changes, grows, and adjusts. We've felt that you and the Waconia Planning Commission have done a great job communicating your 20-year plan.

As a nearly life-long resident of Waconia, my family and I are disappointed that the Waconia Planning Commission may consider going against its 20-year comprehensive plan. If the current property owner wishes to pursue a re-zoning AND the commission is aligned to this type of decision, it would only be appropriate for the city to make the land part of a future 20-year comprehensive plan, with changes effective 2040 or later.

As you know, changes like this impact neighborhoods and families, home values, safety, traffic flows, and noise levels. We kindly request that if a motion is considered or approved to move the land in question to low-density residential, it be placed in the next 20-year plan and be effective no earlier than 2040, your last communicated comprehensive plan end date. Any more immediate decision breaks the integrity of what has been a very professional City Planning team and commission process.

Regards,
Travis Radel & family
1890 Sandbar Circle
Waconia, MN
952-210-5583

To: Mr. Lane Braaten & Planning Committee Members

From: James & Brigit Cousin

11875 78th Street

Waconia MN 55387

Re: 2040 Comprehensive Plan Proposed Amendment

John Klinkner property

We are Jim and Brigit Cousin, residing at 11875 78th Street. We are one of three homes and one buildable lot sitting on the hill to the west overlooking the Klinkner agricultural land, affording our property with wonderful views of Lake Waconia.

Before we purchased our property, in August of 2004, we contacted the County and the city of Waconia. We wanted to know if there were any plans to annex our property and the property to our east anytime in the near future as our property has beautiful views of the lake. We were told there were no plans in the 2020 Comprehensive Plan to annex any such land. We purchased the property.

In 2015, we had the opportunity to purchase the one acre buildable lot to our south. Again, we contacted the City of Waconia and the County to get an update of any future plans for annexation. We were assured that the Township properties to the west of County Road 10 were not even on the radar. That all planned Waconia growth would be to the south and to the east of Waconia, and that there was no desire to trunk infrastructure across County Road 10. This property also has beautiful lake views and was purchased at a relatively high price for this amenity.

The current 2040 Comprehensive Plan reflects what we were told in 2015, that this land is not desired for development by the City of Waconia.

People move to the County for varied reasons. One of those reasons is not to have a development in their backyard. We trust that the City will follow the current 2040 Comprehensive Plan and deny the proposed amendment.

Respectfully,

Jim and Brigit Cousin

Lane Braaten

From: Bruce Dahlke <bdahlke@hughes.net>
Sent: Monday, July 31, 2023 2:31 PM
To: Lane Braaten
Subject: 2040 Comprehensive plan change for John Klinkner land.

Lane

Thank you for taking time this morning to discuss and updating me on a number of topics.

Both you and I have been under the impression for years that there was no additional sewer capacity for additional development on the west side of Waconia.

Based on a more recent study it has been determined the city of Waconia indeed has additional capacity, for about 200 plus connections.

Our property of 51 acres already touches the city of Waconia boundary on the eastern portion of our land. Plus city water, gas, and other utilities run right next to my land along County Road 10.

In light of there is now additional sewer capacity for future development on the west side of Waconia, I like to understand what would be required to have 40 to 45 of the 200 plus connections allocated to my 51 acres for future development?

Please let me know if you need anything else from me before the meeting?

Sincerely
Bruce & Chris Dahlke

If you could confirm receipt of this e-mail I sure would appreciate it.

Lane Braaten

From: Dan DeMarce <dan_demarce@me.com>
Sent: Monday, July 31, 2023 7:11 PM
To: Lane Braaten
Cc: Mary DeMarce
Subject: Subject property 7845 CR 10

Hello my name is Dan DeMarce.

My wife and I have lived for over 21 years in Waconia Landings.

The property in question at the hearing is located right behind my back yard.

Before the hearing on Thursday, my wife and I would like to voice our concerns about allowing that property to become a neighborhood full of homes.

When we bought our lot, it was our understanding that the Waconia city limits would stop in our backyard and that it would not be developed. One of the draws of our lot is its views of the lake and the farm fields. I feel that our property value will go down when the views turn into seeing other houses and not nature.

I also worry about the wildlife that inhabit this area. We have pheasants, bald eagles, owls, fox and coyotes. They will lose habitat if the fields are developed.

Another concern I have is the docks that might be put in. That property is very close to the rock dock. Many birds use that as summer habitat. The shores also contains bull rushes that provide habitat. I'd be interested in what the DNR would say about developing that.

Lastly, traffic on highway 10 is extremely busy as it is. Adding a development of this size will make it even worse and more congested and dangerous.

Thank you for representing Waconia and for your time.

Dan and Mary DeMarce
1775 Braunwarth Circle
Waconia

Sent from my iPhone

Lane Braaten

From: Jaimee McPadden <jaimee.mcpadden@gmail.com>
Sent: Monday, July 31, 2023 10:03 PM
To: Lane Braaten
Subject: Public Comment for Rezoning Application for PID #090102100

July 31, 2023

To: Lane Braaten, Community Development Director

RE: PID #090102100 Change from Rural/Agricultural to Residential

I am writing to the Waconia Planning Commission to vote against the change of property #090102100 from rural/agricultural zoning to residential zoning.

My name is Jaimee McPadden and I am the owner of 1680 Sandbar Circle. I moved into my home 5 years ago. I am a lifelong member of Carver County born at Ridgeview Medical Center. The Waconia Landing association was not popular to move into at the time I bought my home because of the dock issues.

I moved here because I loved the wetlands behind my home abutting up to Lake Waconia. My father was a long time member of Carver County Pheasants Forever and my grandfather farmed on Highway 284 which has still not been developed. They have instilled within me the values of conservation and preservation. I have been able to see pheasants, ducks, geese, turkeys, and deer behind my home often along with numerous birds including eagles. It concerns me that the wetland region may be developed and the wildlife will be lost. There is also not much shoreline of Lake Waconia undeveloped. I think it is important to preserve our natural resources as much as possible.

Our association has had trouble with our docks for many years including this past summer. Looking at the map of the property, I am concerned that our docks may be in jeopardy again. Our association has a community dock and my property has a boat slip on a second adjoining dock. If the proposed property area was rezoned, it concerns me that this may lead to continued dock problems.

The traffic on County Road 10 has increased significantly. With the placement of the high school and easy access to highway 5, it is a very busy road. Making a lefthand turn from Waconia Parkway North onto County Road 10 is very dangerous. I understand that a roundabout is in progress, but adding more residential property is only going to increase the volume of traffic on both roads.

There are numerous properties in Waconia that are still being developed for homes. There have been several apartment buildings built. Our growth is rapid! Our schools are full, the recent referendum narrowly passed, and there is a significant budget deficit! Our medical facilities are frequently full. I would urge you to continue your current projects and continue working with our local businesses regarding expansion. I feel that we don't need to rezone another property at this time.

In summary, I would encourage you to vote against the rezoning of property #090102100 from rural/agricultural to residential because of the above concerns.

Thank you for your consideration,

Jaimee McPadden

Lane Braaten

From: Mark Kupfer <mckupfer@gmail.com>
Sent: Monday, July 31, 2023 11:25 AM
To: Lane Braaten
Subject: Comment on PUBLIC HEARING - Comprehensive Plan Amendment - 7845 County Road 10 North, Waconia Township

Comment on PUBLIC HEARING - Comprehensive Plan Amendment - 7845 County Road 10 North, Waconia Township

Hi Lee,

While we will be out of town for the August 3rd meeting I wanted to add a comment to the agenda.

We live at 1763 Sandbar Circle, part of the Waconia Landing neighborhood. We are one of the few homes in our neighborhood that were notified of the 7845 County Road 10 amendment and have 2 concerns.

1. You may be familiar with the past legal issues regarding our neighborhood dock location conflicting with another permanent dock on Lake Waconia. The result of this conflict led our neighborhood dock to be significantly altered in order to give boat access to the lake. Our concern is that this amendment could further limit our beach and dock access. If this amendment were to pass, is there any way something could be included to guarantee that our HOA maintains a right of way to clearly access the lake out to a depth where boats can be launched?

We have hundreds of people in our neighborhood who enjoy our community beach and it was a significant factor in the purchase of our home and I imagine many others who moved to the area. attached is a picture of the area we are concerned about.



2. We want to be sure the commission is aware that the majority of our neighbors were not notified about this amendment even though our shared association beach is within 350 feet of the proposed amendment, and therefore will not also be able to share their concerns at this meeting.

Thank you for your consideration.

--

Mark Kupfer
(m) 612-237-3469

Memo

To: Lane Braaten, Community Development Director, City of Waconia
From: Adriana Atcheson, Planning and Water Management
Date: August 1, 2023
Re: City of Waconia 2040 Comprehensive Plan Amendment (7845 County Road 10 North)
CC: Paul Moline, Jack Johansen

Enclosures: none

Carver County has the following comments relating to the City of Waconia's 2040 Comprehensive Plan amendment to include the property located at 7845 County Road 10 North in the future growth area of the city and guided to be low density residential.

Public Works

1. Parcel ID: 090102100 has land adjacent to, or bisected by, CSAH 30 and CSAH 10. The County's [2040 Comprehensive Plan](#) has both road segments designated as *Minor Arterials* and their Access Spacing being *Rural, Exurban & Bypass Arterial* with *½ mile full intersection spacing* for full turning movement accesses and *¼ mile secondary intersection spacing* where access may have restricted turning movements. Please examine Access Spacing table 4.11 on page 4.52 and Access Spacing figure 4.14 on page 4.55 of the [2040 Comprehensive Plan](#).
2. If the subject property is to be developed, coordination with Carver County Public Works over the access is required for access guidance.

Carver County Water Management Organization

As the project continues to move forward, opportunities should be considered to minimize impacts on water resources by meeting WMO requirements. Carver County encourages the City of Waconia to consider the following as the project moves forward:

- Meeting stormwater and wetland requirements of the Carver County WMO will be required.

- Involving CCWMO staff early in the site planning process can help streamline the permitting process.
- Lake setbacks and buffers will need to be followed.

Thank you for considering Carver County's comments. You are welcome to contact me for further clarification.

Sincerely,

A handwritten signature in black ink that reads "A Atcheson". The signature is written in a cursive, flowing style.

Adriana Atcheson, Planner
Carver County Planning & Water Management

From: [Cheri](#)
To: [Lane Braaten](#)
Subject: Proposed developement
Date: Tuesday, August 1, 2023 4:24:12 PM

The beauty of living in Waconia is amazing and a great reason for that is keeping our green spaces and enjoying the country in this town. The wild life is abundant because of this green space and I think the proposed development would be a grave threat to this.

Please do NOT approve the proposed development and let us enjoy the wonders of this community. We have chosen to live in a more spacious area and our opinion of this city would definitely change for the worse.

I fear the lake would become too crowded to enjoy and the wildlife would find somewhere else to live.

Cheri Hansen from Waconia Landing.

Lane Braaten

From: David Thun <davidethun@gmail.com>
Sent: Tuesday, August 1, 2023 2:52 PM
To: Lane Braaten
Subject: Public Hearing 81.5 acres

Lane:

I oppose the development of 81.5 acres East of my property. My comment are listed below:

1. Why does this individual get most of the additional sewer capacity in that area? It does not seem fair.
2. He bought the land knowing the plan was to develop this area around 2030 to 2040. Why the change?
3. I totally oppose development west of 10. When I asked about development years ago I was always told 2030 to 2040. This is rural and it should stay rural.

Regards,

David E. Thun

Lane Braaten

From: Kurt Schutte <kjschutte2000@gmail.com>
Sent: Tuesday, August 1, 2023 12:21 PM
To: Lane Braaten
Subject: 2040 Plan Amendment

Good afternoon Lane,

My name is Kurt Schutte, and I am one of the homeowners affected by the proposed amendment in the 2040 plan that would allow a large housing development behind my house. Understandably, for personal reasons I would not be in favor of this change due to the effect it would have on our property value and losing that "country feel" we currently enjoy.

I have some other concerns that would affect our community. Adding a large development on an already busy road has me concerned about public safety. Accessing county road 10 from County road 32, Waconia Parkway and County road 30 can be extremely difficult and dangerous in the mornings and afternoons. It is especially more concerning during school months with young drivers coming from different areas of the county.

Also, can you provide me with the number of developments currently underway and the number of houses that are going to be built in these developments? Of these, how many are under contract? I have heard the number of permits is down considerably from what was projected for 2023. Considering the current housing environment and the threat of more interest rate hikes, would there be enough buyers considering the current market conditions?

Your help is greatly appreciated. I will plan on attending Thursday night and I look forward to meeting you.

Sincerely,
Kurt Schutte

Lane Braaten

From: paul paulehanseninc.com <paul@paulehanseninc.com>
Sent: Thursday, August 3, 2023 3:34 PM
To: Lane Braaten
Cc: mbdemarce@gmail.com; dan_demarce@me.com; Cheri Hansen
Subject: Subject Property: 7845 County Road 10 North, Waconia Township

Attention: Lane L. Braaten

Subject: Comments on development of the above subject property.

Prepared by Paul Hansen, 1779 Braunwarth Circle, Waconia

The above property abuts our property. I have read the comments by Dan and Mary Demarce, our next door neighbors, and agree with their comments that are attached below. I would like to add two concerns.

1. There is an easement for utilities next to our property on the west. I am assuming that the city will be responsible for any damage and repair work caused by any development to the north of our property. We are not aware that the sanitary sewer, water lines or other utilities currently buried there are sufficient to service any new development.
2. The property also contains an old road bed. I assume that it was once CR 10. That road bed also crosses into our property. Unfortunately, anything planted on that old line, such as trees, have difficulty surviving. We have lost 3 trees in 20 years. There are metal and gravel buried in our yard less than 1 foot below the surface. The field north of us also shows signs of incomplete removal of the road. There are old Excel Energy (NSP) cable lines still sticking out of the ground and the growth pattern of the current corn field shows a distinct old road curve. It travels from the west of the old Chaska brick house on CR 10 to the middle of our back yard. The current corn growth is half height. I would be concerned of the consequences of developing this property and leaving the future owners with these and possibly other problems caused by that road bed.

I apologize for the delay in responding. We left the country on July 19 and missed the posting and mailing.

Thank you for your time, Paul E Hansen, Trustee, Paul E Hansen Trust

Attachment

Dan and Mary Dmarce comments:

Hello my name is Dan DeMarce.

My wife and I have lived for over 21 years in Waconia Landings.

The property in question at the hearing is located right behind my back yard.

Before the hearing on Thursday, my wife and I would like to voice our concerns about allowing that property to become a neighborhood full of homes.

When we bought our lot, it was our understanding that the Waconia city limits would stop in our backyard and that it would not be developed. One of the draws of our lot is its views of the lake and the farm fields. I feel that our property value will go down when the views turn into seeing other houses and not nature.

I also worry about the wildlife that inhabit this area. We have pheasants, bald eagles, owls, fox and coyotes. They will

lose habitat if the fields are developed.

Another concern I have is the docks that might be put in. That property is very close to the rock dock. Many birds use that as summer habitat. The shores also contains bull rushes that provide habitat. I'd be interested in what the DNR would say about developing that.

Lastly, traffic on highway 10 is extremely busy as it is. Adding a development of this size will make it even worse and more congested and dangerous.

Thank you for representing Waconia and for your time.

Dan and Mary DeMarce
1775 Braunwarth Circle
Waconia

Lane Braaten

From: David Thun <davidethun@gmail.com>
Sent: Thursday, August 10, 2023 2:55 PM
To: Lane Braaten
Subject: Re: Public Hearing 81.5 acres

Lane:

A couple of comments to add regarding the 81.5 acres. Not my comments:

1. The land East of 10 use to be a wetland. 1000's of loads of fill were added many years ago. One of the contractor who dumped loads in the area is located in Mayer. I use to walk down there as a kid to fish, I had to go to cattail and water to reach the lake. Maybe, the wetland should be restored.
2. The owner feels there will be less phosphates going in the lake with housing. Wrong. Can you imagine if you end up with 40 to 250 homes how much phosphates will reach the lake. The whole watershed travels to the lake.
3. Imagine if the flu goes through Waconia that 20% can be used up quickly.

Please pass this on.

Thanks,

David



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Ordinance Amendment - Park Dedication					
Originating Department:		Community Development					
Presented by:		Lane Braaten					
Previous Council Action (if any):							
Item Type (X only one):	Consent		Regular Session	X	Discussion Session		
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Adopt Ordinance No. 763 amending Section 1000 of the City Code pertaining to park dedication. Adopt Resolution No. 2023-193 approving Summary Publication of the Ordinance.							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
In 2000 the City of Waconia amended Section 1000, Subd. 7 of the Waconia City Code, specifically in reference to public land dedication and open space requirements in relation to property subdivisions/plats. In summary, the ordinance amendment established findings for the required park dedication, identified a land dedication of presumably 10% for parks and open space, and included a payment in lieu of land dedication in the amount of \$4,000 per gross acre for each acre of land in a residential subdivision and \$3,000 per gross acre of land in each commercial, industrial or other land use classification. Since the initial adoption of the payment in lieu language the per acre fee has been updated from time to time in the City's annual fee resolution. The current per acre fees of \$6,000 per gross acre of land in a residential subdivision and \$5,000 per gross acre of land in each commercial, industrial or other land use classification subdivision, were adopted in 2004. The Park Board discussed the payment in lieu fees at their regular meeting on November 17th, 2022, and recommended the City Code pertaining to payment in lieu be updated. Specifically, the Park Board recommended the per acre fee be based upon the fair market value of the land to be subdivided. As such, staff drafted an ordinance amendment, which was reviewed by the Planning Commission earlier this year. The Planning Commission reviewed the proposed Ordinance Amendment, held the required public hearing, and took all public comments. They recommended approval of the amendment via a 5-0 vote at their regular meeting on August 3rd, 2023.							
CONCLUSION/RECOMMENDATION							
Staff recommends approval of the proposed ordinance amendment, which is consistent with the recommendation of the Planning Commission and Park Board. Attached is a copy of the proposed ordinance and a resolution approving summary publication of said ordinance amendment.							
Attachments:							
1. Ord 763 Amendment to Park Ordinance (1).docx 2. 23193res Summary_Publication_Resolution.docx							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses:							
Budget Information:				Planning Commission			
_____ Budgeted				Parks and Recreation Board			
_____ Non Budgeted				Safari Island Advisory Board			
_____ Amendment Required				Other			

CITY OF WACONIA
ORDINANCE NO. 763

AN ORDINANCE AMENDING CHAPTER 1000 REGARDING PARK DEDICATION REQUIREMENTS
AND CHAPTER 1100 REGARDING RELATED FEES

The City Council of the City of Waconia ordains:

FINDINGS AND PURPOSE

Section 1000.06, Subdivision 7, of the Waconia City Code (Code) currently requires anyone that subdivides land to set aside and dedicate a portion of such land for parks, schools, playgrounds, trails, or open space. When dedication of land for such purposes is not suitable or desirable, Section 1000.06, Subdivision 7, Paragraph D, allows the City of Waconia (City) to require a cash payment in lieu of land dedication.

The purpose of this ordinance is to: i) amend Section 1000.06, Subdivision 7, Paragraph D, of the Code to update the formula for determining the amount of a cash payment made in lieu of land dedication; and ii) update corresponding fee provisions in Chapter 1100 of the Code.

The City Council finds this amendment is needed because economic changes globally, nationwide, in Minnesota, and locally have increased the cost of providing parks, playgrounds, open space, and trails within the community. The City Council further finds it is in the best interests of the City and its residents to amend the formula for calculating cash payments made in lieu of land dedication to accurately reflect current costs and land values. Moreover, the City Council finds it is appropriate to revise the fee schedule found in Chapter 1100 of the Code to coordinate the language of the fee schedule with such amendments.

The City has previously relied on a Park Dedication Fees Study made by Hoisington Koepler Group to plan for and accommodate the City's future growth by providing parks, playgrounds, open space, trails, community centers, and other recreational amenities within the community. The City Council finds the information provided by such report is still relevant and provides support for the amendment made by this Ordinance.

AMENDMENTS TO CHAPTER 1000

Chapter 1000, Section 1000.06, Subdivision 7, Paragraph D, of the Waconia City Code is amended, in its entirety, to read as follows:

D. Payment in Lieu of Land.

1. Preliminary plats shall be submitted to the Waconia Park Board for review and comment. If, after considering the Park Board's input, the City Council determines any portion of the land proposed for dedication as parks, schools, playgrounds,

trails or open space (collectively, "Park Land") is not suitable or desirable because of location, size, or any other reason, the City Council shall require a payment of cash in lieu of receiving Park Land, which payment shall be calculated as described immediately below.

2. If a cash payment in lieu of Park Land is required, the City Council shall take the percentage of land in the subdivision required for dedication, as determined under subsection C above (assumed to be 10% unless the City Council determines otherwise) and multiply it by the fair market value of the total land in the subdivision to determine the "Total Dedication Value". If the City Council determines that none of the Park Land is suitable or desirable, the subdivider shall make a cash payment to the City equal to the Total Dedication Value. If the City Council determines the City will accept a portion of the Park Land and that another portion is not suitable or desirable, the developer shall convey the Park Land the City is willing to accept and, in addition, make a cash payment to the City equal to the Total Dedication Value, proportionally reduced to reflect the Park Land accepted by the City. The subdivider shall pay any amount due to the City via wire transfer or cashier's check prior to, and as a condition of, the City releasing the final plat for the subdivision.
3. For the purposes of this subsection D, "fair market value" means the amount mutually agreed to by the City and the subdivider. If an agreement is not reached within a reasonable amount of time, as determined by the City's Zoning Administrator, the following procedure shall apply:
 - a. The subdivider, at its expense, shall have the fair market value of the total land in the subdivision appraised using a certified general real property appraiser approved by the City's Zoning Administrator, which is referred to below as the "appraised value".
 - b. The subdivider shall provide the City Zoning Administrator with all documentation required for the City to determine the compensation last paid to acquire the land in the subdivision (whether in one or more transactions and including the value of 1031 exchange transactions). The aggregate amount of the compensation last paid for the total land in the subdivision is the "last sales price."
 - c. The "fair market value" shall equal the higher of the appraised value and the last sales price.

AMENDMENTS TO CHAPTER 1100

Chapter 1100 of the Waconia City Code, *Fees*, is amended to revise the “Park Dedication” section under “Planning and Zoning” to read as follows:

Planning & Zoning

Park Dedication

<u>Fee Description</u>	<u>Current Rate</u>	<u>Unit</u>	<u>Related Code</u>	<u>Additional Information</u>
Residential Development	Presumed 10%	Fair Market Value	1000.06	Determined by City Council based on development’s impact on community need for parks and other amenities
Commercial/Industrial/ Other Land	Presumed 10%	Fair Market Value	1000.06	Determined by City Council based on development’s impact on community need for parks and other amenities

EFFECTIVE DATE

This ordinance is effective upon publication.

Passed and adopted by the City Council of the City of Waconia this 21st day of August, 2023.

Nicole Waldron, Mayor

ATTEST: _____
Jacqueline Schulze, City Clerk

CITY OF WACONIA
RESOLUTION NO. 2023-193

A RESOLUTION APPROVING SUMMARY PUBLICATION OF ORDINANCE NO. 763

WHEREAS, the City Council of the City of Waconia, Minnesota (the “City”) adopted Ordinance No. 763 on August 21st, 2023 (the “Ordinance”); and

WHEREAS, pursuant to Minnesota Statutes §412.191, the City may publish the title and a summary of an Ordinance instead of its full text if the summary informs the public of the intent and effect of the Ordinance and the summary is approved by a four-fifths vote of the City Council; and

WHEREAS, the City Council finds: i) the summary set forth below informs the public of the intent and effect of the Ordinance; and ii) the title and summary of the Ordinance should be published instead of the full text of the Ordinance;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Waconia, Minnesota, as follows:

1. The above recitals and findings are incorporated as resolutions of the City Council.
2. The following official summary of Ordinance No. 763 is hereby approved:

ORDINANCE NO. 763, AN ORDINANCE AMENDING CHAPTER 1000 REGARDING PARK DEDICATION REQUIREMENTS AND CHAPTER 1100 REGARDING RELATED FEES, amends Section 1000.06, Subdivision 7, Paragraph D, of the Waconia City Code (Code) to update the City’s procedure for determining the cash payment required in lieu of park land dedication and amends the provisions found in Chapter 1100 of the Code that related to park dedication fees.

The full text of the Ordinance is available for public inspection during regular office hours at the office of the City Clerk, City Hall, 201 South Vine Street, Waconia, and will also be posted at City Hall. Further, any person may request the City to send the full text of the Ordinance via standard or electronic mail by calling City Hall at (952) 442-2184.

3. The City Administrator shall submit the Ordinance title and summary to a qualified newspaper for publication using bold type no smaller than eight points in size.

Passed and adopted by the City Council of the City of Waconia this 21st day of August, 2023.

Nicole Waldron, Mayor

ATTEST: _____
Jacqueline Schulze, City Clerk

[https://mhslaw.sharepoint.com/sites/1/41908/draftdocs/ordinances/part 10 subdivision/park dedication/summary publication resolution \(draft 06-20-2023\).docx](https://mhslaw.sharepoint.com/sites/1/41908/draftdocs/ordinances/part%2010%20subdivision/park%20dedication/summary%20publication%20resolution%20(draft%2006-20-2023).docx)



REQUEST FOR CITY COUNCIL ACTION

Meeting Date:		August 21, 2023					
Item Name:		Receive Feasibility Report and Call Hearing					
Originating Department:		Public Services					
Presented by:		Craig Eldred					
Previous Council Action (if any):		May 1, 2023 Authorizing Approval to Prepare Downtown Reconstruction, Phase II Design & Feasibility Report & Benefit Analysis for 2024 Improvement Project					
Item Type (X only one):	Consent	☐	Regular Session	☒	Discussion Session	☐	
RECOMMENDATIONS/COUNCIL ACTION/MOTION REQUESTED <i>(Include motion in proper format.)</i>							
Adopt Resolution 2023-194; Receiving Feasibility Report & Calling Hearing on Improvements							
EXPLANATION OF AGENDA ITEM <i>(Include a description of background, benefits, and recommendations.)</i>							
On May 1st, 2023 Council authorized the preparation of the Design and Feasibility Report for the 2024 Improvement Project. On August 7th, 2023 Council reviewed the Engineering layouts and provided comments on the design and layouts of the programmed improvement areas. From the recommendations and comments, the City Engineer revised the design and prepared the Feasibility Report as directed. Attached Council and the public will find the Feasibility Report as directed noting the design layouts and cost associated for the 2024 Improvement Project. These areas are as follows: • Main Street West from Olive Street to Elm Street • Main Street East from Elm Street to Spruce Street • Elm Street South from Main Street East to First Street • Pine Street South from Main Street East to First Street • Spruce Street South from Main Street East to First Street A short presentation will be prepared on the proposed improvements and the City Engineer and city staff will be available for questions on the report as attached. Staff recommends approval of this request allowing for continued work on the plans and opportunity to hold a Public Hearing on September 18th, 2023 at City Hall at 6:00 p.m. as part of the regularly held City Council Meeting. <u>Attachments:</u> 1. 23194res_Feasibility_and_Call_Hearing.doc 2. 2023-08-15 Downtown Recon Ph 2 Feasibility Report - reduced.pdf							
FINANCIAL IMPLICATIONS:				ADVISORY BOARD RECOMMENDATIONS:			
Funding Sources & Uses: 429 Bonds							
Budget Information:				Planning Commission			
☒ Budgeted				Parks and Recreation Board			
☐ Non Budgeted				Safari Island Advisory Board			
☐ Amendment Required				Other			

**CITY OF WACONIA
RESOLUTION NO. 2023-194**

**RESOLUTION RECEIVING FEASIBILITY REPORT & CALLING HEARING ON
IMPROVEMENT**

WHEREAS, pursuant to resolution of the council adopted May 1, 2023 a report has been prepared by the City Engineer with reference to the proposed 2024 Infrastructure Improvement project, the street, drainage, and utility improvements of the following:

- Main Street West from Olive Street to Elm Street
- Main Street East from Elm Street to Spruce Street
- Elm Street South from Main Street East to First Street
- Pine Street South from Main Street East to First Street
- Spruce Street South from Main Street East to First Street

WHEREAS, the report provides information regarding whether the proposed improvement is necessary, cost effective, and feasible, whether it should best be made as proposed or in connection with some other improvement, the estimated cost of the improvement as recommended, and a description of the methodology used to calculate individual assessments for affected parcels.

NOW, THEREFORE, BE IT RESOLVED That the City Council of the City of Waconia.

1. The council will consider the improvement of such improvements in accordance with the report and the assessment of abutting property for all or a portion of the cost of the improvement pursuant to Minnesota Statutes, Chapter 429 at an estimated total cost of \$8,554,300.
2. A public hearing shall be held on such proposed improvements on September 18, 2023, in the council chambers of city hall at 6:00 p.m. and the clerk shall give mailed and published notice of such hearing and improvement as required by law.

Adopted by the City Council of the City of Waconia this 21st day of August, 2023.

Nicole Waldron, Mayor

Attest: _____
Jackie Schulze, City Clerk

FEASIBILITY STUDY

FOR

DOWNTOWN RECONSTRUCTION, PHASE 2

PROJECT

CITY OF WACONIA, MN



AUGUST 2023

PREPARED BY:
BOLTON & MENK, INC.
2638 SHADOW LANE SUITE 200
CHASKA, MN 55318



Real People. Real Solutions.

2638 Shadow Lane
Suite 200
Chaska, MN 55318-1172

Ph: [952] 448-8838
Fax: [952] 448-8805
Bolton-Menk.com

August 15, 2023

City of Waconia
Attn: Shane Fineran
201 South Vine Street
Waconia, MN 55387

RE: Downtown Reconstruction, Phase 2 Project

Honorable Mayor and City Council Members:

Pursuant to your request we have prepared a Feasibility Study for project components to be included in the Downtown Reconstruction, Phase 2 Project. These components include the following:

- Street reconstruction, sidewalk reconstruction, sanitary sewer, watermain, and storm sewer replacements of Main Street from Olive Street to Spruce Street and of Elm Street, Pine Street and Spruce Street from Main Street to First Street.
- Constructing a new stormwater reuse system consisting of an underground storage chamber on Vine Street north of Main Street and associated drainage and distribution systems.

This report includes maps and drawings indicating the proposed improvements and a proposed method of financing and funding. I am available to discuss this report and this proposed project at your convenience.

Respectfully Submitted,

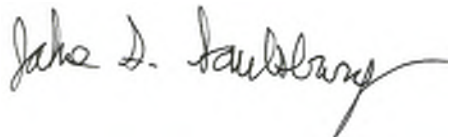
Bolton & Menk, Inc.

Jake S. Saulsbury, P.E.

Enclosure

FEASIBILITY STUDY
FOR
DOWNTOWN RECONSTRUCTION, PHASE 2 PROJECT
CITY OF WACONIA, MINNESOTA

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.



Jake S. Saulsbury, P.E.

Date: August 15, 2023

Registration No. 42713

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SUMMARY & CONCLUSIONS

A. STUDY SCOPE

It is proposed that improvements to the infrastructure be constructed or reconstructed to provide the public with a sustainable system of roads, utilities, and pedestrian facilities to augment the City with good water quality, greater connectivity among residents, safer traveling for vehicles and pedestrians, and a healthier quality of life. This study investigates the feasibility of the proposed improvements, provides related project cost estimates, and recommends a proposed method for financing and funding the project. The location of these improvements is shown on Figure No. 1.1 and consists of the following project components:

1. Reconstruction of Main Street (from South Olive Street to South Spruce Street), South Elm Street, South Pine Street, South Spruce Street (from Main Street to First Street), and the parking lot in the southwest corner of Elm Street and First Street:
 - Removal and reconstruction of the entire 80-foot road right-of-way of Main Street and the entire 66-foot road right-of-way of Elm Street, Pine Street, and Spruce Street.
 - Reconstruction of Main Street and Elm Street to the City's truck route section.
 - Reconstruction of Pine Street and Spruce Street to City's residential section.
 - Replacement of the sanitary sewer system, including service laterals.
 - Replacement, upsizing, and expansion of the water system, including replacement of hydrants, gate valves, and services.
 - Replacement and expansion of the existing storm sewer system, including the addition of stormwater treatment.
 - Reconstruction of the existing sidewalks along Main Street, Elm Street, and Pine Street.
 - Construction of a stormwater reuse system on Vine Street with distribution mains located along Main Street, Elm Street, Pine Street, and Spruce Street.

The City Council requested two alternatives to be reviewed for Main Street between Elm Street and Pine Street. The contents of this Feasibility Study and the widths of the roadway, parking areas, and sidewalks contained herein reflect the City Council's direction.

B. ESTIMATED COSTS, FUNDING, AND FINANCING

Estimated project costs for each of the project components are provided in Appendix A. The project costs are summarized as follows:

1.) Option A Street Reconstruction	\$4,242,600
2.) Option B Street Reconstruction	\$4,225,800
3.) Parking Lot Reconstruction	\$299,800
4.) Utility Reconstruction	\$1,325,000
5.) Storm Water Reuse System	\$2,703,700

Option A Total Project Cost - **\$8,571,100**

Option B Total Project Cost - **\$8,554,300**

The proposed method of financing for the Downtown Reconstruction, Phase 2 Project is through the sale of a combined bond consisting of a Chapter 429 General Obligation Bond, a Chapter 115 Sanitary Sewer Revenue Bond, and a Chapter 444 Water and Storm Water Revenue Bond. The Chapter 429 Bond would be used for the street/storm sewer reconstruction. The Chapter 115 Bond would be used for the sanitary sewer reconstruction. The Chapter 444 Bond would be used for the watermain reconstruction and miscellaneous drainage improvements. PIR Capital Improvement cash would be used for the sidewalk improvements. This proposed method will be discussed further with the Finance Director and the City's Financial Consultant.

C. OVERALL FEASIBILITY AND COST EFFECTIVENESS

All improvements addressed within this report are feasible from a technical standpoint. This study addresses issues with failing or non-existent infrastructure including street pavement, storm sewer, watermain, sanitary sewer, storm water reuse, and sidewalk facilities. The improvements are necessary to provide safe and adequate infrastructure and represent cost effective solutions for doing so. Detailed cost estimates for all project components have been completed and are located in Appendix A.

SECTION 1 - INTRODUCTION

A. IMPETUS

The impetus for this report is a request from the City of Waconia to evaluate the feasibility of planned improvements for the upcoming year. Figure No. 1.1 shows the proposed project location for the Downtown Reconstruction, Phase 2 Project.

B. REPORT ORGANIZATION

To address the various projects in an orderly manner, this report is organized into four (4) sections, shown below:

- Section 1 - Introduction
- Section 2 - Street and Utility Reconstruction
- Section 3 - Stormwater Reuse Improvements
- Section 4 - Financing / Funding



SECTION 2 - STREET AND UTILITY RECONSTRUCTION

A. STREET IMPROVEMENTS

Figure No. 2.1 indicates the two proposed options for Main Street between Elm Street and Pine Street and the proposed improvements on Pine Street and Spruce Street. The street improvements include removal of the existing road sections on each of the highlighted roads and rebuilding them to current city standards, including replacement of existing curb and gutter sections. Options the City Council requested to be reviewed are outlined below:

1. Main Street (Olive Street to Elm Street)

The proposed street section for Main Street from Olive Street to Elm Street consists of a 62-foot-wide street with curb and gutter, matching the adjacent street section to the west that was reconstructed as part of the Phase 1 project. The proposed sidewalk on Main Street between Olive Street and Elm Street would be 9-feet wide on both sides of the roadway. The 9-foot sidewalk would increase the sidewalk width by approximately 1-foot on each side. Parking on Main Street between Olive Street and Elm Street would remain 60-degree parking on the north side of the road and parallel parking on the south side. The parking stall count would remain approximately the same as existing on this block of Main Street.

2. Main Street (Elm Street to Pine Street) - Option A

The proposed street section for Option A consists of a 62-foot-wide street with curb and gutter increasing the street width by approximately 8 feet. The 8 feet of increased street width would come from widening both the north and south sides of the roadway by 4 feet. Increasing the street width allows for 60-degree angled parking on the north side of Main Street which gains 8 parking stalls over the existing condition. Parking on the south side of Main Street would remain parallel parking. Option A would also increase the sidewalk width from 5 feet to 9 feet on both sides of Main Street.

3. Main Street (Elm Street to Pine Street) - Option B

The proposed street section for Option B consists of a 62-foot-wide street with curb and gutter through the commercial section of the block and 52-foot-wide street with curb and gutter through the residential section of the block. This option would increase the street width by approximately 8 feet through the commercial section of the block. The increase in street width would be approximately 4 feet on both the north and south sides of the road. Parking on the commercial section of the block would be 60-degree angled parking on the north side of the road and parallel on the south side. The parking on the north side of the road would switch to parallel parking through the residential section of the block. The south side of the road would remain parallel parking throughout the entire block. Option B's parking arrangement would result in an increase of 4 parking stalls over the existing condition. Option B would increase the sidewalk width to 9 feet in the commercial section of the block and taper into a 6-foot sidewalk with an 8-foot grass boulevard in the residential section of the block.

4. Main Street (Pine Street to Spruce Street)

The proposed street section for Main Street from Pine Street to Spruce Street consists of a 52-foot-wide street with curb and gutter. This results in no width change. Parking on the north and south sides of the road would remain parallel parking. The sidewalk on the north side of the road is proposed to be widened to 6 feet and to have a 4-foot grass boulevard.

5. Elm Street

The proposed street section for Elm Street consists of a 52-foot-wide street with curb and gutter, which matches the existing street width. Elm Street is proposed to have 7-foot sidewalks on both the east and west sides of the roadway. The parking arrangement on Elm Street would consist of 19-foot, 60-degree angled parking on the west side of the street and 9-foot parallel parking on the east side. With this parking layout there would be 12-foot drive lanes and approximately the same number of parking stalls as the existing condition.

6. Pine Street

The proposed street section for Pine Street consists of a 45-foot-wide street with curb and gutter, which matches the existing street width. Pine Street is proposed to have a 6-foot-wide sidewalk with a 3-foot grass boulevard on the west side of the roadway. The existing sidewalk on the east side of the roadway in City Square Park will be left as is, except for the reconstruction of the pedestrian ramps at the intersections. Parking on Pine Street will remain parallel parking, and the parking stall count shall remain similar to the existing condition.

7. Spruce Street

The proposed street section for Spruce Street also consists of a 45-foot-wide street with curb and gutter, decreasing the street width by less than 1-foot. Spruce Street is not proposed to have any sidewalk on the east side of the roadway. The existing sidewalk on the west side of the roadway in City Square Park will be left as is, except for the reconstruction of the pedestrian ramps at the intersections. Parking on Spruce Street will remain parallel parking, and the parking stall count shall remain similar to the existing condition.

8. Off Site Park Lot Improvements

With this project the City reviewed and evaluated the possibility of additional parking areas close to the downtown area. Figure No. 2.3 illustrates one of the potential locations near the intersection of Elm Street and First Street. This site would require coordination with the property owner and reserving some parking stalls for tenants. With the preliminary layout shown in Figure No 2.3 it would create a paved and striped lot with 30 to 35 parking stalls in the downtown area. The parking lot would be constructed with a typical section of 2 lifts of bituminous pavement (4.5”) and an aggregate base depth of 9.0”.

Construction of a standard truck route section includes three lifts of bituminous pavement (6.5”), aggregate base (12.0”), and select granular borrow (12.0”) underlain by geotextile fabric. The typical residential street section includes 2 lifts of bituminous pavement (4.5”), aggregate base (8.0”), and select granular borrow (12.0”). Both street sections are constructed on top of a compacted subgrade and both also contain daintile behind the curb. The typical section for the City standard truck route and residential section are

shown on Figure No. 2.2. The results of the soils investigation indicate poor soils could be encountered near the middle of the block on Pine Street. To provide a suitable subgrade, a layer of stabilizing aggregate will likely be needed in these areas. The 12" of select granular borrow and these additional materials are considered extra section items and are therefore not considered to be assessable.

The staging for construction will generally fall into three or four construction stages. These stages will be determined determine the final design phase of the project to help keep adequate parking, pedestrian access, and business access available at all times. The stages will be continually changing as the work progresses from utilities to street construction and will be adjusted as necessary.

B. STORM SEWER IMPROVEMENTS

The existing storm sewer systems on Main Street and Elm Street will be removed and reconstructed as shown on Figure No. 2.4. New storm sewer is proposed to be constructed on Spruce Street for future connection with storm sewer on First Street. The existing drainage patterns will primarily be maintained.

Additional stormwater treatment will be required in order to meet the Carver County Watershed Management Organization's rules. Due to the limited amount of green space in the right-of-way, underground treatment options will be evaluated during the final design phase of the project.

The total estimated cost for the proposed street and storm sewer reconstruction improvements is \$3,744,600. Of this amount, \$564,000 is considered assessable. Itemized cost estimates are provided in Appendix A of this report. Financing and funding for the entire project is discussed in Section 4.

C. SIDEWALK IMPROVEMENTS

The proposed sidewalk reconstruction locations and alternates are also shown on Figure No. 2.1. The two proposed options for the Main Street sidewalk are for the block between Elm Street and Pine Street. The current sidewalk on Main Street from Elm Street to Pine Street will be reconstructed and the width of sidewalk/boulevard will vary depending on which street width is selected. The current sidewalk along both sides of Main Street from Olive Street to Elm Street are proposed to be reconstructed to a width of 9-feet. Elm Street sidewalk is proposed to be reconstructed in the same location to a width of 7-feet

depending on building locations. The current 5-foot sidewalk on Pine Street is proposed to be reconstructed to a width of 6 feet with a 3-foot boulevard. The current sidewalk on the north side of Main Street from Pine Street to Spruce Street is proposed to be reconstructed to a width of 6 feet with a 4-foot boulevard. All existing and proposed pedestrian ramps will be constructed to Americans with Disabilities Act (ADA) standards to provide adequate access to all users.

The total estimated cost of the sidewalk improvements is \$498,000 which is not considered an assessable cost. An itemized cost is provided in Appendix A of this report. Financing and funding for the entire project is discussed in Section 4.

D. SANITARY SEWER IMPROVEMENTS

The sanitary sewer improvements consist of reconstruction of sewer main, manholes, and sewer services on Main Street and Elm Street as shown on Figure No. 2.5. The sewer reconstruction consists of replacing the old and deteriorated, clay sewer system with an 8-inch PVC sewer main and with sewer services from the main to the property line. Sanitary manholes will be reconstructed, and new sewer will be stubbed out of the intersections and connected to the existing pipes north and east of the Main Street and Spruce Street intersection.

The total estimated cost for all of the sanitary sewer improvements is \$411,500. Of this amount, \$181,100 is considered assessable. Itemized cost estimates are provided in Appendix A. Financing and funding is discussed in Section 4.

E. WATERMAIN IMPROVEMENTS

Figure No. 2.6 indicates the proposed watermain improvements. The existing watermain consists of 4-inch main on Elm Street and 6-in main on Main Street. The existing system is aging and is susceptible to breakages and leaks. Breakages and leaks result in high maintenance and repair costs, service disruptions, and saturation of the street subgrade. Therefore, the proposed improvements include removing and replacing the entire watermain system within the street right-of-way and upsizing to an 8-inch main. Replacement includes the mainline, gate valves, hydrants, and services. The watermain reconstruction will stop short of the intersection of Elm Street and First Street in order to not impact that intersection. The proposed work includes adding watermain on Spruce Street between Main Street and First Street to create a loop. This loop will improve water quality and will assist with operations by allowing for smaller isolation zones in the

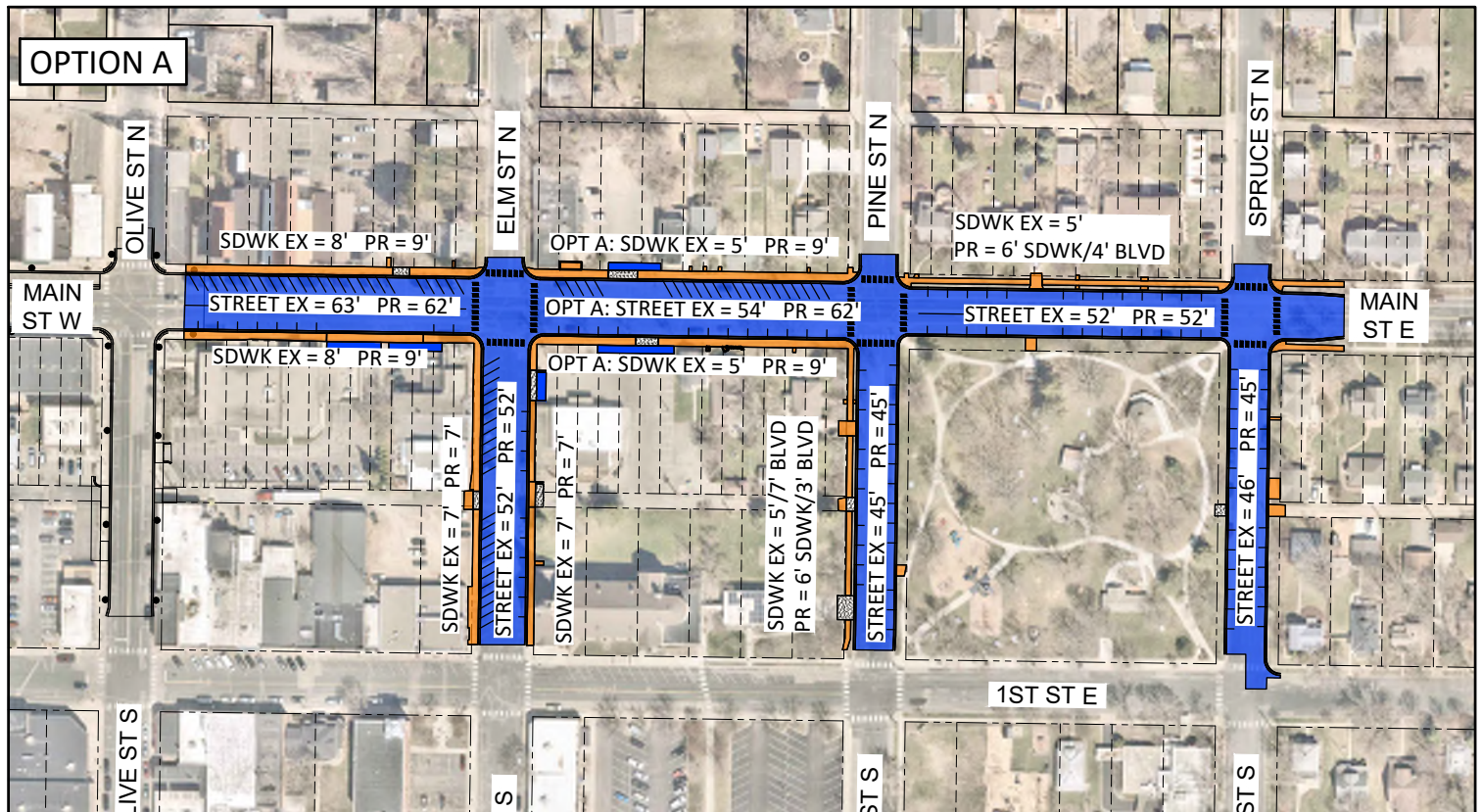
downtown area. The watermain looping is considered an extra item and is therefore not considered assessable. The new watermain will be stubbed out to the north and the east of the Main Street and Spruce Street intersection and connected to the existing pipes so the intersection will not need to be reconstructed again with future adjacent projects.

Water services along Main Street and Elm Street will be constructed into the buildings that are adjacent to the road. This will involve connecting inside the buildings and extra work to bore through the foundation walls and make any necessary adjustments to interior connections. Curb stops will be constructed within the city right-of-way for future operation and maintenance needs as standard practice.

The proposed pipe material is polyvinyl chloride pipe (PVC). This pipe is more resistant to corrosion from the in-place clay soils. Previous geotechnical evaluations on adjacent projects included soil resistivity testing to determine how corrosive the in-place soils are. These tests resulted in resistivity values showing the in-place soil to be moderately corrosive. To protect the watermain against corrosion, the following steps will be taken during construction:

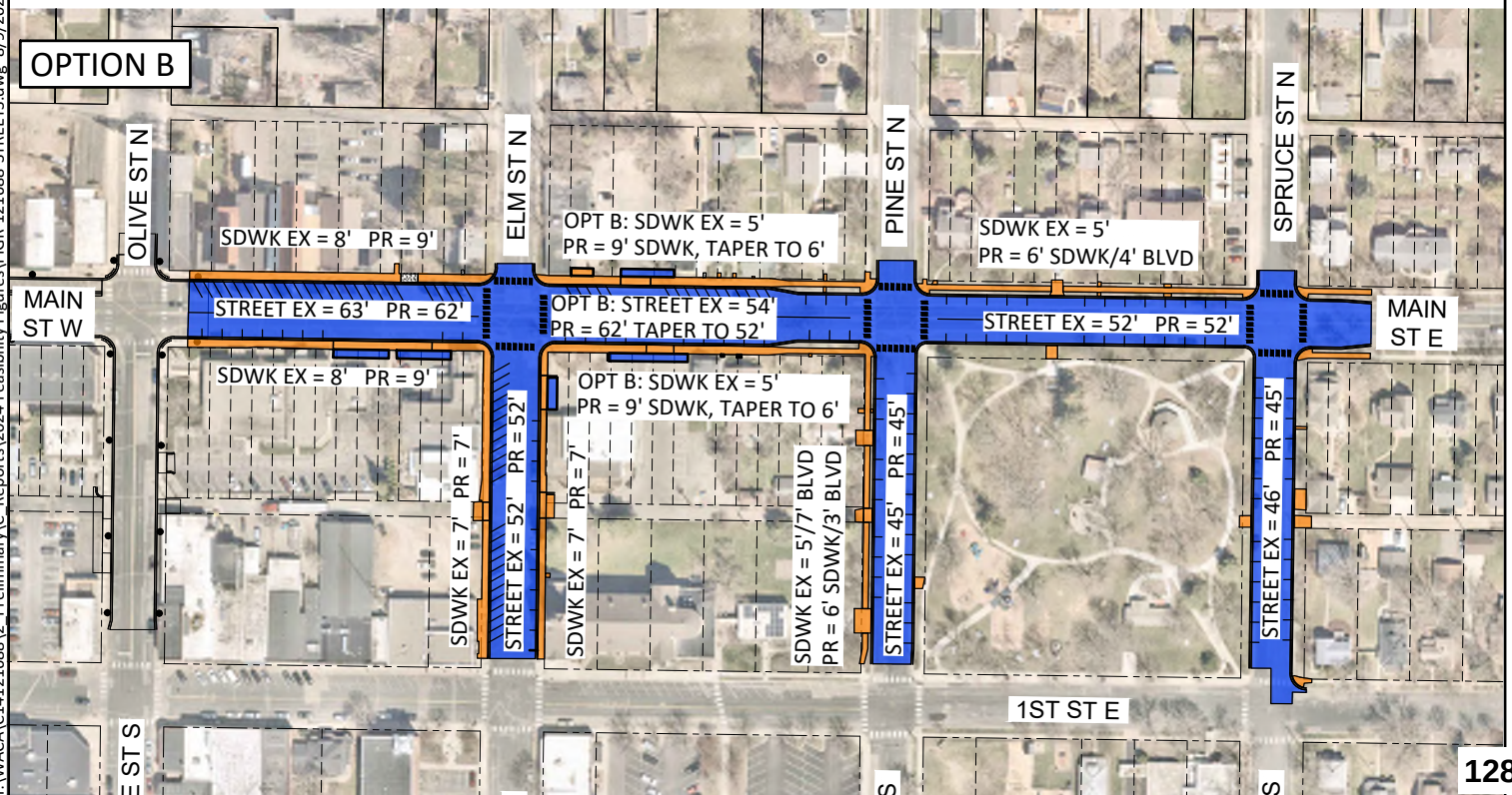
- All hydrants and gate valves will be manufactured and secured utilizing stainless steel bolts.
- All fittings will be coated with fusion bonded epoxy.
- All ductile iron pipe, fittings, valves, valve boxes, and hydrant risers will be wrapped in polyethylene encasement material and provided with cathodic protection.

The total estimated cost for all of the watermain improvements is \$913,400. Of this amount, \$351,900 is considered assessable. Itemized cost estimates are provided in Appendix A. Financing and funding is discussed in Section 4.

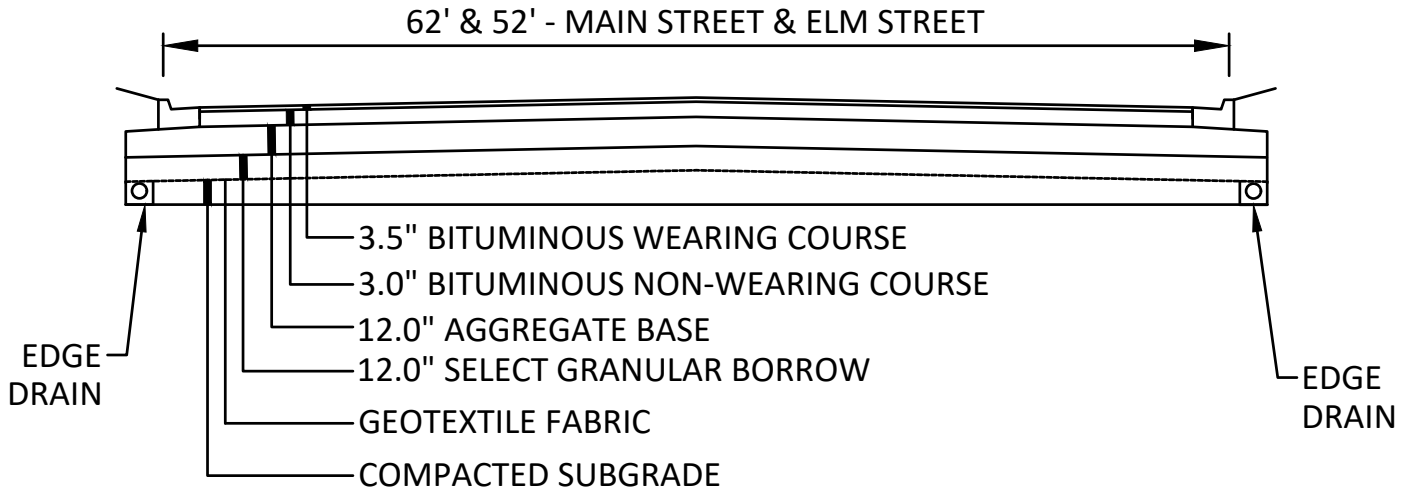


LEGEND

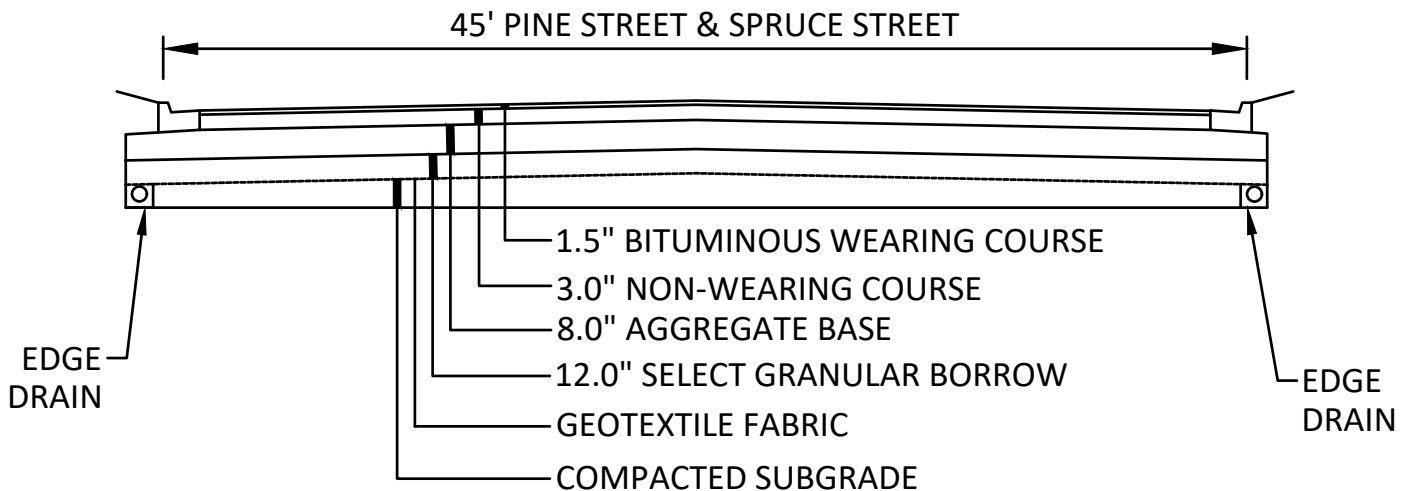
-  PROPOSED STREET RECONSTRUCTION
-  PROPOSED SIDEWALK RECONSTRUCTION

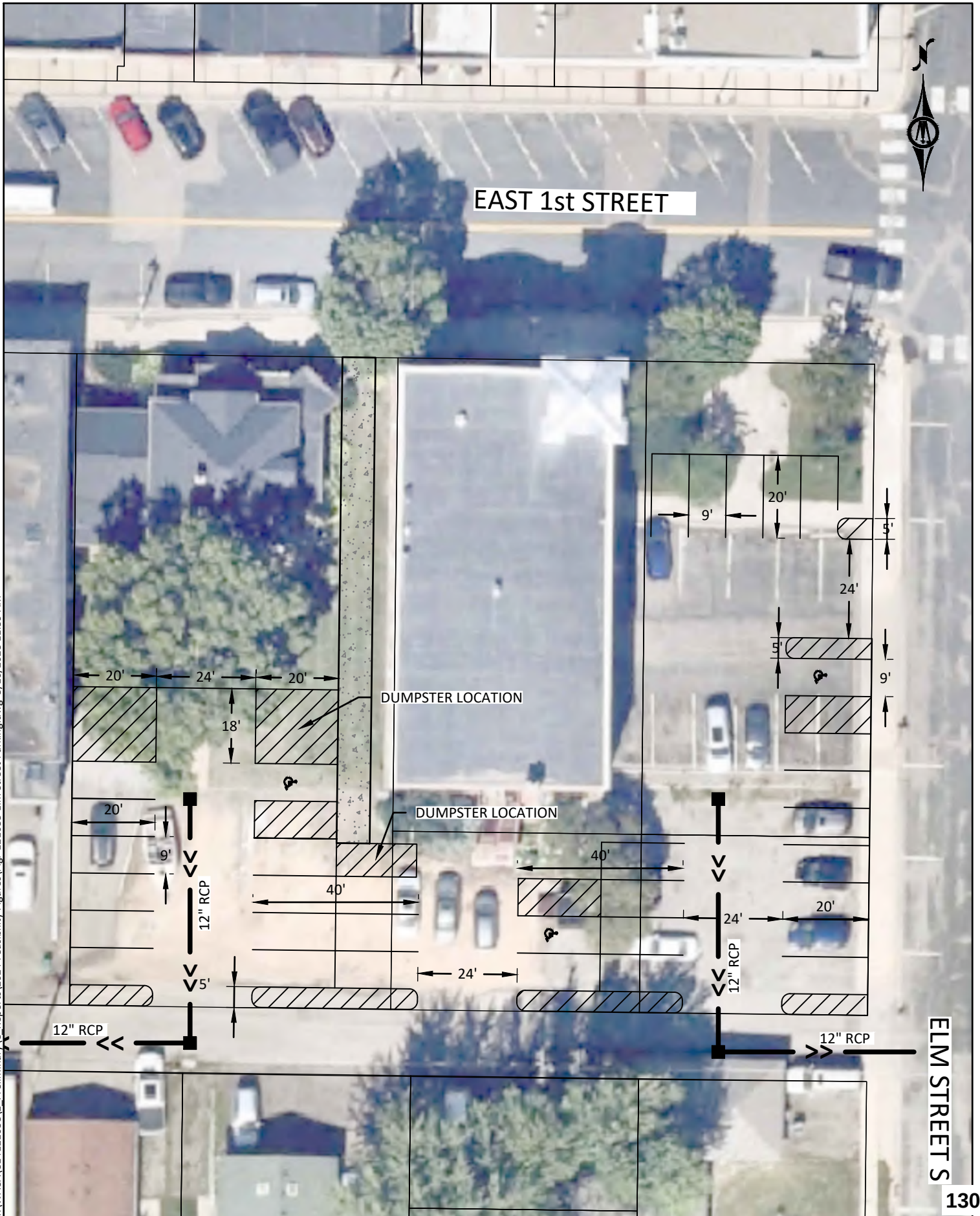
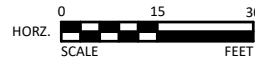


STREET SECTION (TRUCK SECTION)
NOT TO SCALE

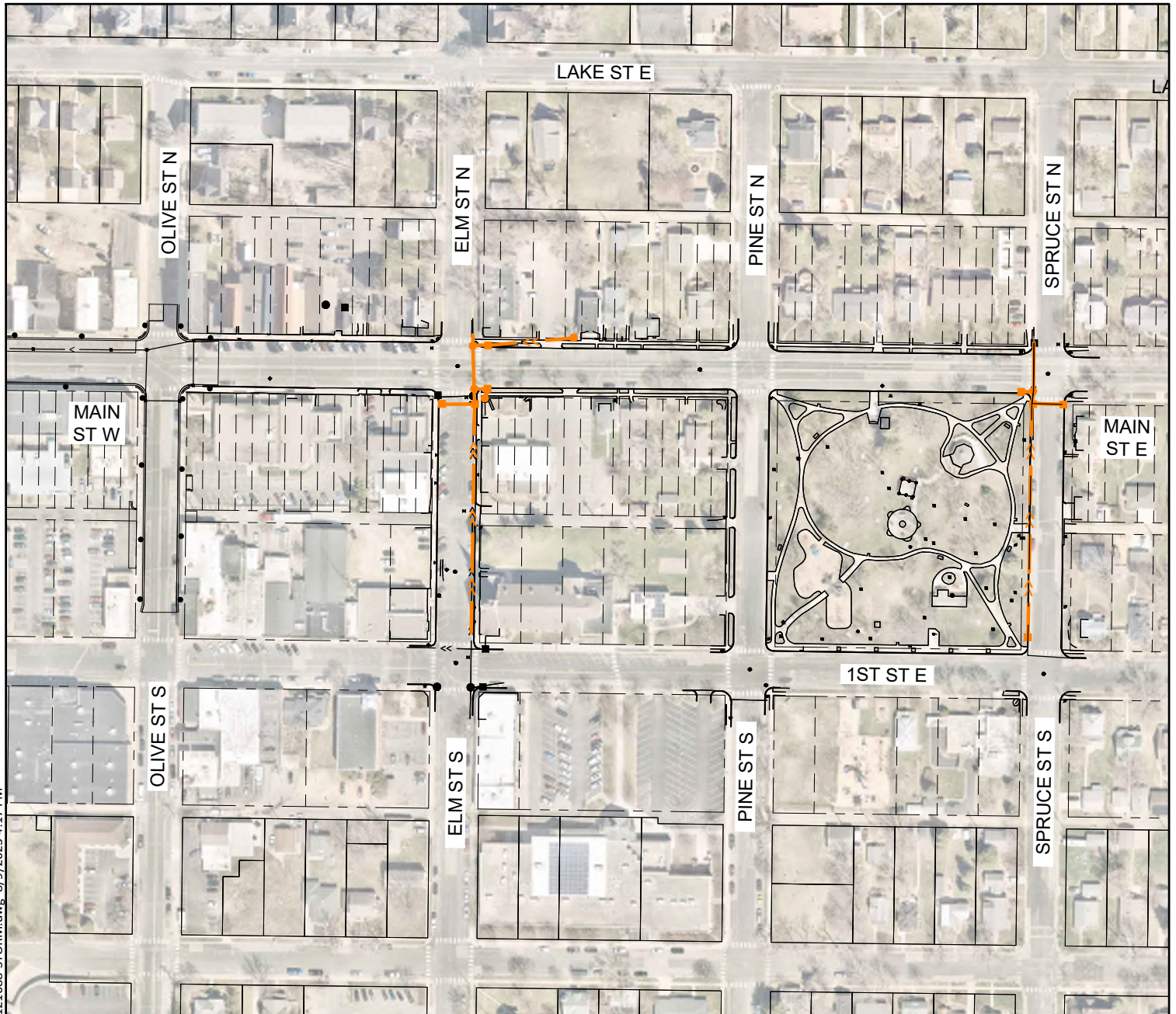
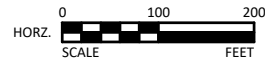


STREET SECTION (RESIDENTIAL SECTION)
NOT TO SCALE





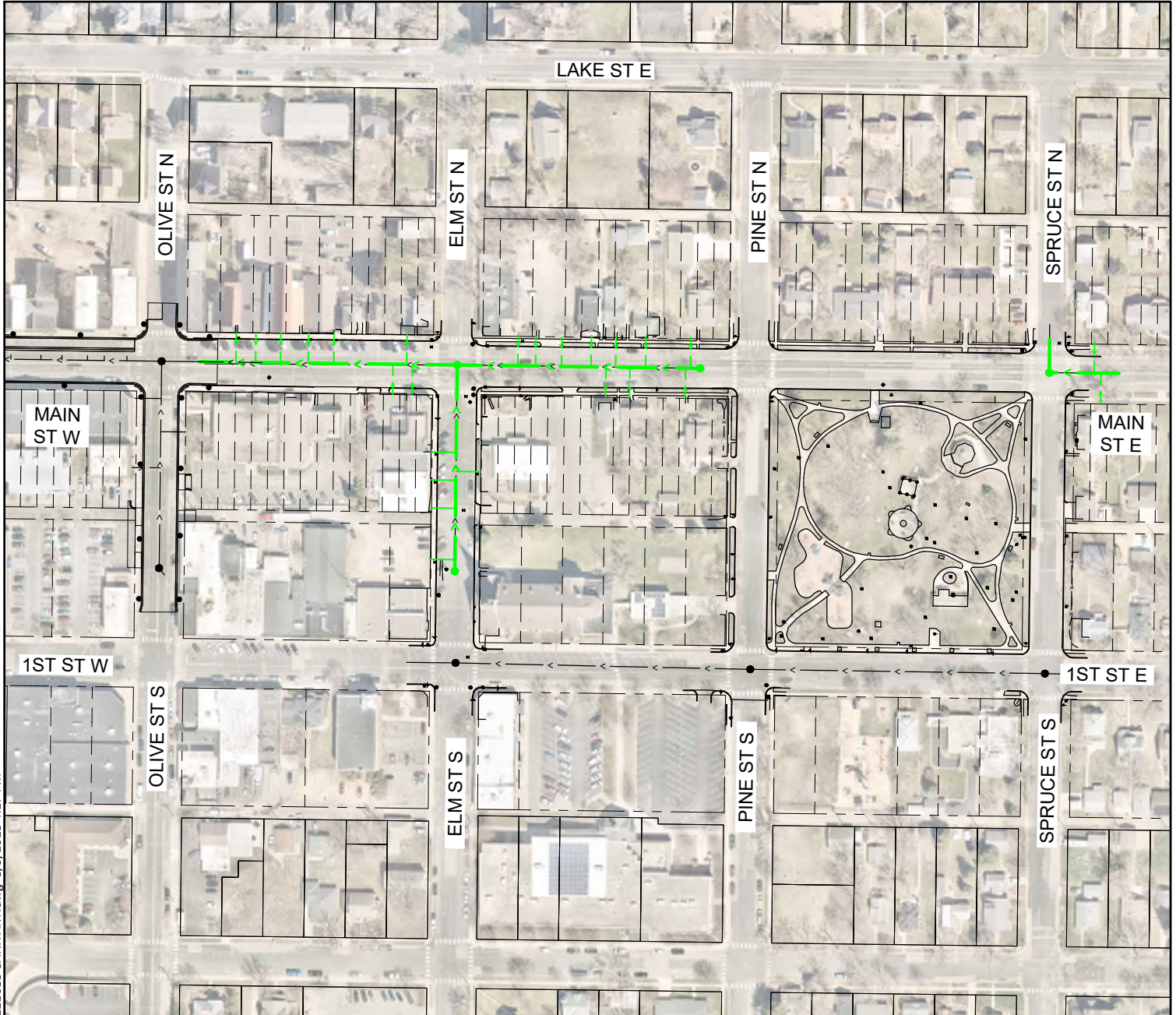
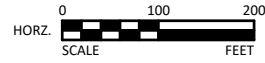
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LEGEND

- << — << — EXISTING STORM SEWER
- << — << — CONSTRUCT STORM SEWER
- CONSTRUCT MANHOLE
- CONSTRUCT CATCH BASIN

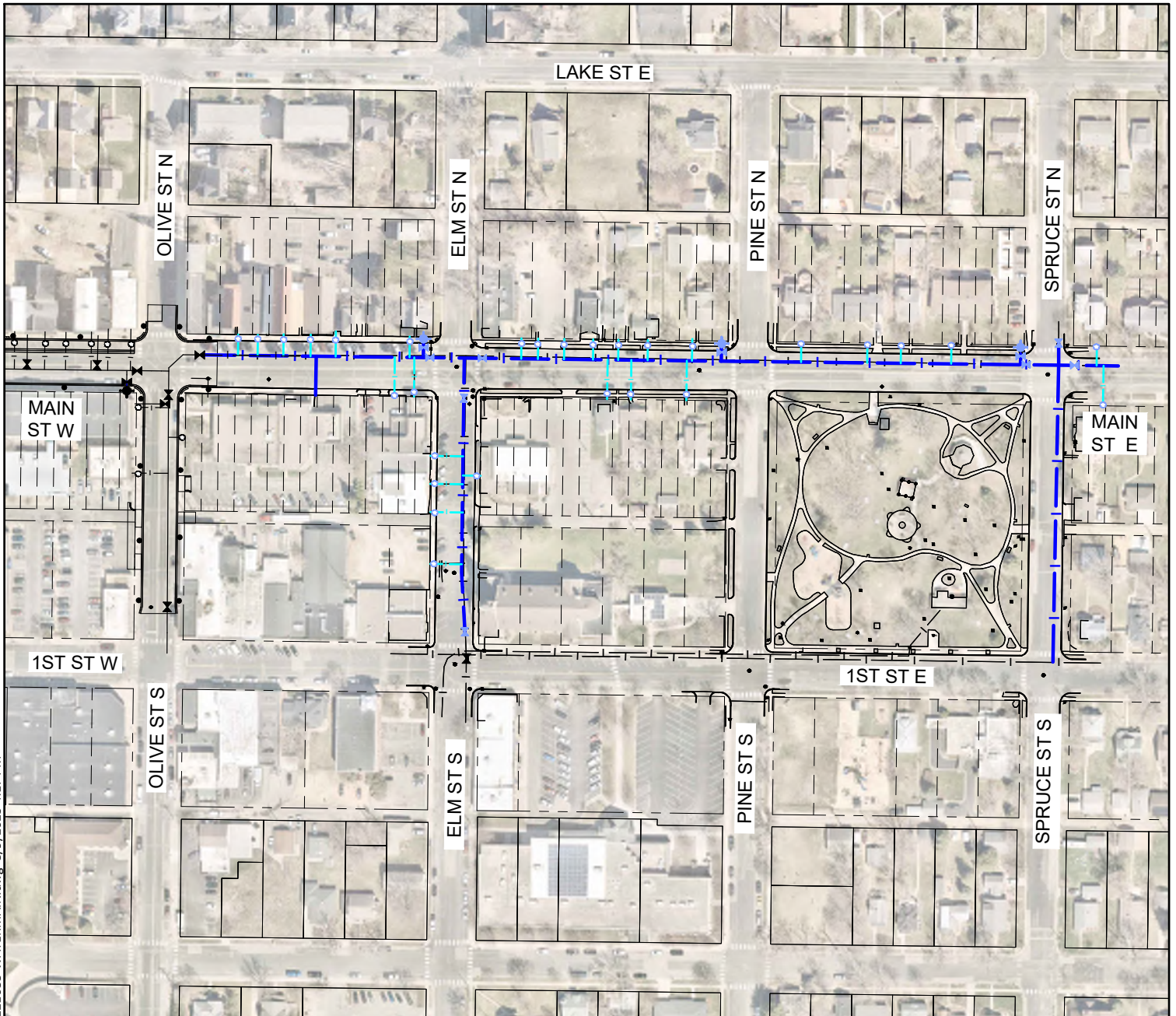
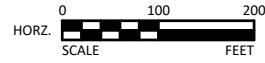




LEGEND

- < — < — EXISTING SANITARY SEWER
- < — < — REPLACE SANITARY SEWER
- < — < — REPLACE SANITARY SEWER SERVICE
- < — < — REPLACE SANITARY SERVICE
- REPLACE MANHOLE





LEGEND

- | — | — | — EXISTING WATERMAIN
- | — | — | — REPLACE WATERMAIN
- - - | - - - | - - - REPLACE WATER SERVICE
- ★ ✕ HYDRANTS AND VALVES



SECTION 3 - STORMWATER REUSE IMPROVEMENTS

A. STORMWATER REUSE SYSTEM

Figure No. 2.7 and 2.8 indicate the proposed improvements to the stormwater reuse system.

The purpose of this proposed reuse system is to reduce the volume of stormwater runoff allowed to discharge untreated to Lake Waconia while also reducing the volume of potable water currently being utilized for irrigation. This will be done by capturing runoff from a 13.5-acre drainage area, that consists of 12.8 acres of impervious surface, and storing it in an underground chamber system to be utilized for irrigation in green spaces such as the Downtown Area, the City Park, and the townhomes on the old county road corridor. The stored water will receive UV (ultraviolet) treatment prior to being utilized for irrigation. UV treatment will be used over chlorination as there is no detention time required which allows for a smaller storage tank and a more cost-effective system. The main areas to be irrigated with the reuse water will have a large amount of human contact so the storm water will need to be treated to a level of 2.2 Most Probable Number(MPN)/100ml.

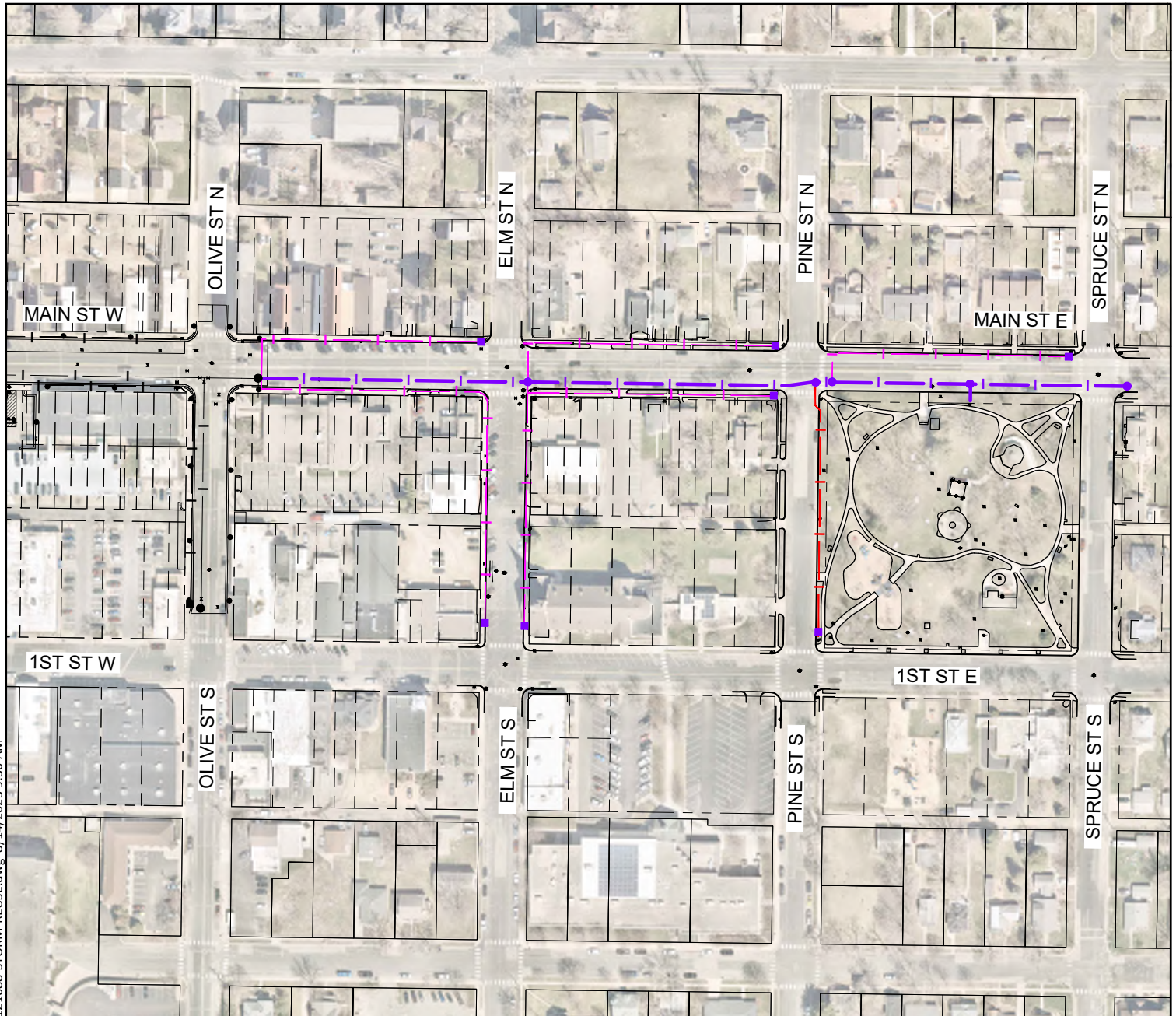
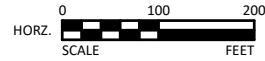
The storage tank is proposed to be located on Vine Street just south of the alley between Main Street and Lake Street. The holding tank is proposed to be half under Vine Street and half on the property in the northeast corner of Main Street and Vine Street (Parcel ID: 750503740). The City is still in communication with the owner of the property to acquire the easement for the proposed location. The pumping and treatment building is proposed to be located in the northeast corner of the HEI parking lot (Parcel ID: 750503740) and have exterior dimensions of 36'x15'. The proposed storage tank would have a sump at the upstream end to catch sediment. This system will use a single pump system to pump the stored water from the underground system to the areas to be irrigated.

To connect the storage tank to the storm sewer system a 36" storm pipe will be placed from the Downtown Reconstruction, Phase 1 stub to the tank. The storage tank will have an overflow outlet on the north side that connects into the existing storm system for when the tank is at capacity and there is still flow coming into the tank.

Lake Waconia is currently listed on the MPCA impaired waters list for mercury in fish tissue and fish bioassessment. This project will improve water quality for Lake Waconia.

The project will also provide a benefit to the aquifers utilized for the city's drinking water by reducing the usage of potable water for irrigation.

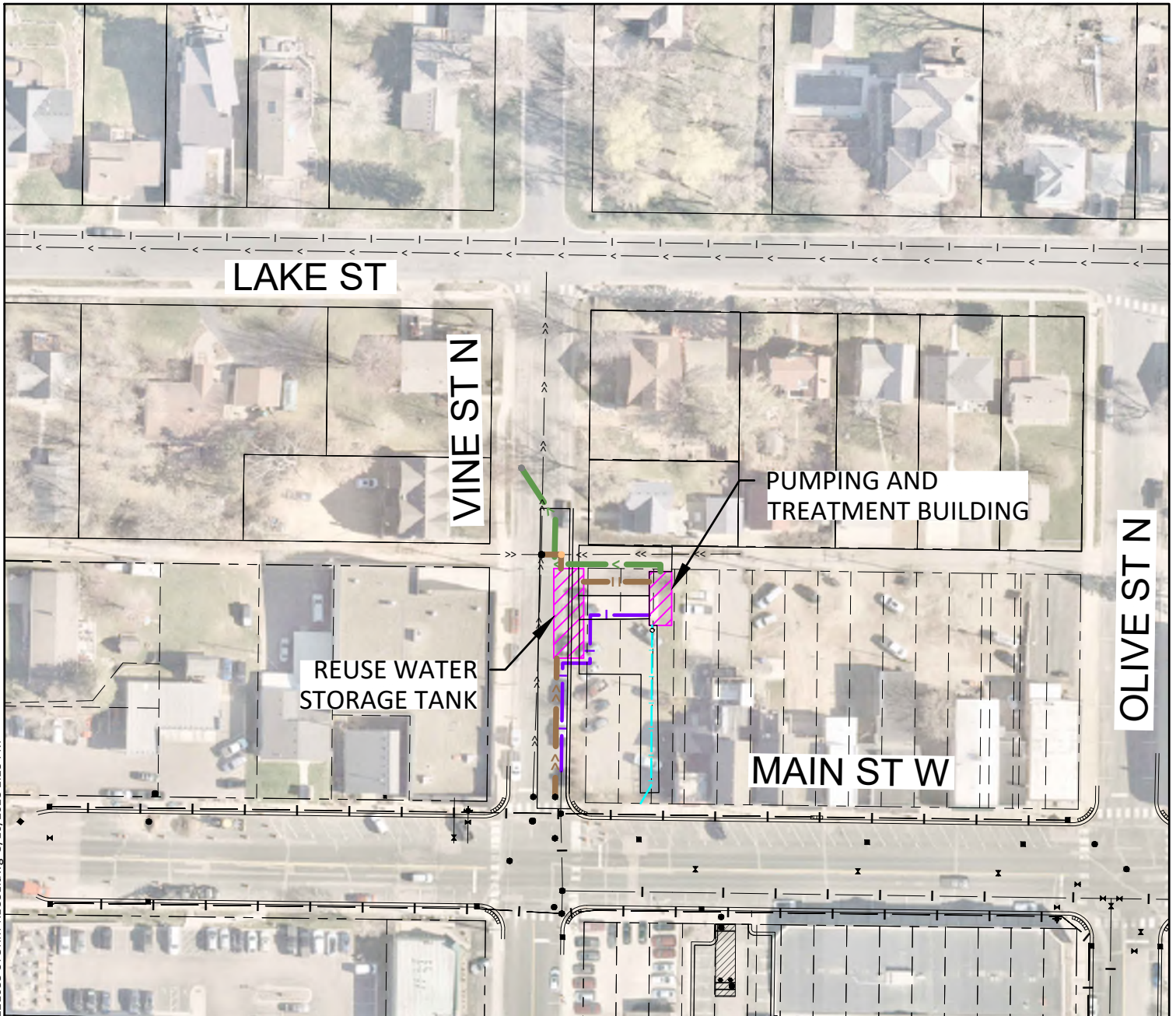
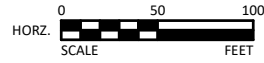
The total estimated cost for all of the reuse system is \$2,703,700 which is not considered an assessable cost and does not include a potential cost for easement. An itemized cost estimate is provided in Appendix A. Financing and funding is discussed in Section 4.



LEGEND

-  4" WATER REUSE PIPE
-  2" WATER REUSE PIPE
-  1" WATER REUSE PIPE
-  ACCESS MANHOLE
-  BLOWOFF IN CONCRETE MANHOLE
-  EX 4" WATER REUSE PIPE (2023)
-  EX 1" WATER REUSE PIPE (2023)





LEGEND

-  4" WATER REUSE PIPE
-  1" WATER SERVICE PIPE
-  SANITARY SEWER PIPE
-  STORM SEWER PIPE
-  STORM STRUCTURE



SECTION 4 - FINANCING / FUNDING

A. FINANCING

The proposed method of financing for the Downtown Reconstruction, Phase 2 Project is through the sale of a combined bond consisting of a Chapter 429 General Obligation Bond, a Chapter 115 Sanitary Sewer Revenue Bond, and a Chapter 444 Water and Storm Water Revenue Bond. The Chapter 429 Bond would be used for the street/storm sewer reconstruction. The Chapter 115 Bond would be used for the sanitary sewer reconstruction. The Chapter 444 Bond would be used for the watermain reconstruction and miscellaneous drainage improvements. PIR Capital Improvement cash would be used for the sidewalk improvements.

It is recommended that the City discuss financing options in more detail with their Financial Consultant. Combining the financing of this project with other possible planned improvements or planned equipment purchases should also be evaluated and discussed.

The total estimated project cost for Option A is \$8,571,100, and if Option B is selected overall project costs would be reduced. The detailed cost estimates for individual project components are located in Appendix A. The estimates consist of the estimated construction cost based on recent construction bid prices, a 10% allowance for contingencies, and a 30% allowance for bidding, surveying, engineering, construction staking, construction administration, and inspection costs.

B. FUNDING

There are different funding sources proposed to be used to service the bond debt including: special assessments, new special debt levy, stormwater funds, sewer funds, water funds, and PIR funds. The City has funds available in the various fund accounts to service the debt. And if necessary, the City also has funds available in the general fund to service the debt.

The following sections provide a cost apportionment and funding source summary for the various project components.

Also, to date the following grant funds have been received or are being pursued:

- \$10,000 2022 CCWMO Cost Share Grant (Approved)
- \$50,000 2023 CCWMO Cost Share Grant (Approved)
- \$75,000 2024 CCWMO Cost Share Grant (Pending)
- \$200,000 2023 Watershed-Based Implementation Funding (Approved)
- \$250,000 2024 Clean Water Fund Grant (Pending, Amount TBD)
- \$300,000 MN Department of Health / Public Facilities Authority Lead Water Service Line Replacements (Pending, \$10,000 per Found Lead Water Service)

C. STREET / STORM / SIDEWALK RECONSTRUCTION

The total project costs are apportioned as follows:

Item	Cost / FF	City Cost or Assessment	Recommended Funding Source
Sidewalk Construction Cost			
Sidewalk Construction Cost	\$498,000	City	PIR Funds
Total Project Cost:	\$498,000		
Street / Storm Reconstruction Costs			
Extra Section Depth / Width Cost	\$2,169,100	City	New Special Debt Levy
Street / Storm Reconstruction Cost	\$1,575,500		
Total Street / Storm Reconstruction Cost:	\$3,744,600		
Assessment Calculations			
Standard Street Section Cost	\$1,575,500		
City Contribution (50%)	\$787,800	City	New Special Debt Levy
Assessable Eligible Portion (50%)	\$787,800		
Total Front Footage	3,984.0		
Corner Lot Front Footage (Feet)	583.5		
Assessment Basis Front Footage (Feet)	3,400.50		
Assessable Cost Per Front Foot	\$231.66		
Non-Assessable Front Footage (Feet)	965.7		
Non-Assessable Cost	\$223,700	City	New Special Debt Levy
City Front Footage (Feet)	495.00		
City Front Footage Cost	\$114,700		
Assessment Front Footage (Feet)	2,434.8		
Total Assessed Amount	\$564,000	Assessment	Special Assessments
Total City Cost:	\$3,678,600		
Total Assessed Amount:	\$564,000		
Total Project Cost:	\$4,242,600		

D. SANITARY SEWER

The sanitary sewer proposed for reconstruction services commercial and residential properties. Commercial and multi-family properties are converted to equivalent residential units (ERUs) based on water usage. Four properties exceed the normal water usage for a typical single-family home. These properties and their ERU calculations are as follows:

Property Owner	Property Address	Annual Water Usage (gal)	Daily Water Usage (gal)	Daily Usage / ERU (gal)	*ERUs
4Main LLC	4 Main Street E	63,385	484	275	1.5
First Natl Bank of Waconia	53 Main Street W	317,000	868	275	3.0
CQ Rental LLC	1 Main Street W	155,000	425	275	1.5
16 South Elm Street LLC	16 Elm Street S	301,000	825	275	3.0

* ERUs are rounded down to the nearest 0.5 units

On previous projects the portion of the sanitary sewer cost that was assessed consisted of 50 percent of the typical project sanitary sewer cost. Costs related to soil corrections, bypass pumping, and vibration monitoring are isolated as City costs and not included in the assessment calculations.

Based on the information and recommendations above, the total project costs for the sanitary sewer component of the proposed project are apportioned as follows:

Item	Cost / Units	City Cost or Assessment	Recommended Funding Source
Total Sanitary Sewer Project Costs			
Typical Sanitary Sewer Project Cost	\$362,200		
City Contribution Cost	\$49,300	City	Sewer Fund
Total Project Cost:	\$411,500		
Assessment Calculations			
Assessment Eligible Portion	\$362,200		
City Contribution (50%)	\$181,100	City	Sewer Fund
Assessable Eligible Portion (50%)	\$181,100		
Sanitary Sewer Units	27.0		
Assessment Per Unit	\$6,708.87		
Assessable Units	27.0		
Non-Assessable Units	0		
Non-Assessable Cost	\$0	City	Sewer Fund
Total Assessed Amount	\$181,100	Assessment	Special Assessments
Total City Cost:	\$230,400		
Total Assessed Amount:	\$181,100		
Total Project Cost:	\$411,500		

E. WATERMAIN

The watermain proposed for reconstruction services commercial and residential properties. Same as with the sanitary sewer, commercial and multi-family properties are converted to equivalent residential units (ERUs) based on water usage. Five properties exceed the normal water usage for a typical single-family home. These properties and their ERU calculations are as follows:

Property Owner	Property Address	Annual Water Usage (gal)	Daily Water Usage (gal)	Daily Usage / ERU (gal)	*ERUs
4Main LLC	4 Main Street E	63,385	484	275	1.5
The Mitchell Ranch LLP	140 Main Street E	404,000	1,107	275	4.0
First Natl Bank of Waconia	53 Main Street W	317,000	868	275	3.0
CQ Rental LLC	1 Main Street W	155,000	425	275	1.5
16 South Elm Street LLC	16 Elm Street S	301,000	825	275	3.0

* ERUs are rounded down to the nearest 0.5 units

On previous projects, the portion of the watermain cost that was assessed consisted of 50 percent of the standard water system cost. Costs related to soil corrections, looping, vibration monitoring, boring, and cathodic protection are isolated as City costs and not included in the assessment calculations.

The total project costs for this component of the proposed project are apportioned as follows:

Item	Cost / Units	City Cost or Assessment	Recommended Funding Source
Total Watermain Project Costs			
City Contribution Cost	\$209,600	City	Water Fund
Standard Water System Costs	\$703,800		
Total Project Cost:	\$913,400		
Assessment Calculations			
Assessment Eligible Portion	\$703,800		
City Contribution (50%)	\$351,900	City	Water Fund
Assessable Eligible Portion (50%)	\$351,900		
Watermain Units	34.0		
Assessment Per Unit	\$10,349.25		
Assessable Units	34.0		
Non-Assessable Units	0		
Non-Assessable Cost	\$0	City	Water Fund
Total Assessed Amount	\$351,900	Assessment	Special Assessments
Total City Cost:	\$561,500		
Total Assessed Amount:	\$351,900		
Total Project Cost:	\$913,400		

F. STORMWATER REUSE IMPROVEMENTS

The costs associated with the Stormwater Reuse improvements are non-assessable costs and are proposed to be funded with various City funds. The total estimated project cost is \$2,703,700.

Itemized cost estimates are provided in Appendix A of this report.

G. OVERALL COST SUMMARY

In summary, a portion of the street and utility reconstruction work will be assessed to benefitting property owners and the remaining work is recommended to be paid by the City. The overall costs for all project components are summed as follows:

Item	Cost	Recommended Funding Source
Assessed Amount (Per Policy)	\$1,097,000	Special Assessments
Street & Utility Reconstruction (City Cost)	\$4,770,400	Combined Bond Funds & PIR Capital Improvement Funds
Stormwater Reuse Improvements	\$2,703,700	Stormwater Funds & Grant Funds
Total Overall Project Cost:	\$8,571,100	

Note – If street layout Option B is selected overall project costs would be reduced

H. ASSESSMENTS

The assessable portion of the street and utility reconstruction work is proposed to be assessed to the benefitting properties in accordance with current City policy as follows:

- Street Reconstruction - 50% Assessed on a Front Footage Basis of Standard City Residential Street
- Storm Sewer Reconstruction - 50% Assessed on a Front Footage Basis
- Sanitary Sewer Reconstruction - 50% Assessed on a Unit Basis
- Watermain Reconstruction - 50% Assessed on a Unit Basis

Some of the project components would not be assessed. These project components include the following:

- Extra Depth and Width of Street Reconstruction
- Sidewalk Reconstruction

- Stormwater Treatment
- Sanitary Sewer & Watermain Non-Standard Construction Items

The current estimated assessable percentage of the street and utility reconstruction project is 18.7%. The current estimated assessable percentage of the total project, including the reuse system is 12.8%. The minimum required assessable percentage for a Chapter 429 bond is 20.0%. Consistent with City policy and previous assessment projects, appraisals will be conducted to determine the special benefit amounts. The assessments will be capped at these amounts as determined by the appraisal process. This process is anticipated to considerably lower the assessments and reduce the assessable percentage of the project. Therefore, as discussed in the previous section, a combined bond approach is recommended in order meet all statutory requirements.

A copy of the current City assessment policy is included in Appendix B of this report for reference. To follow is an assessment area map (Figure 3.1), a preliminary assessment roll (Table 4.1) for the street reconstruction project area, and debt service and proposed funding sources (Tables 4.2).



Prop. No.	Property Address	Owner	PID
1	48 MAIN ST W	DAVIS R III & PEGGY C PHILIP	750503860
2	44 MAINST W	SHAPE IT UP FITNESS LLC	750503850
3	36 MAINST W	SS JENSEN PROPERTIES LLC	750503830
4	20 MAIN ST W	DANIEL R NEUBAUER TRUST	750503820
5	16 MAIN ST W	BETH ANN & JOSEPH SCHRUPP	750503813
6	4 MAIN ST W	ALLEN LUETH	750503812
7	4 MAIN ST E	4MAIN LLC	750503990
8	MAIN ST W	4MAIN LLC	750503980
9	MAIN ST W	4MAIN LLC	750503970
10	24 MAIN ST E	BRIDEN PROPERTIES LLC	750503960
11	32 MAIN ST E	SOLTIS PROPERTIES LLC	750503950
12	40 MAIN ST E	JUSTIN YOUNG & MARIAH KETCHER	750503940
13	52 MAIN ST E	JEFFREY & JILL SCHMITT	750503930
14	104 MAIN ST E	JOHN S & KRISTINE DVORAK	750504070
15	116 MAIN ST E	JAMES K & JANALEE KITE	750504060
16	128 MAIN ST E	TIMOTHY L & RHONDA K TESCH	750504050
17	140 MAIN ST E	THE MITCHELL RANCH LLP	750504040
18	200 MAIN ST E	THERESA L HAMER & PAMELA L LEACH	750504170
19	53 MAIN ST W	FIRST NATL BANK OF WACONIA	750502720
20	MAIN ST W	CQ RENTAL LLC	750502741
21	1 MAIN ST W	CQ RENTAL LLC	750502730
22	8 ELM ST S	APG REAL PROPERTIES LLC	750502740
23	16 ELM ST S	16 SOUTH ELM STREET LLC	750502750
24	26 ELM ST S	16 SOUTH ELM STREET LLC	750502630
25	40 ELM ST S	EMBARQ CORP	750502640
26	32 MAIN ST E	CHURCH OF ST JOSEPH	750503550
27	9 MAIN ST E	CHURCH OF ST JOSEPH	750502560
28	29 MAIN ST E	THE CHURCH OF SAINT JOSEPH OF WACONIA	750502570
29	37 MAIN ST E	STEVEN J YETZER	750502580
30	4 PINE ST S	ROSEMARY PETERSON	750502600
31	MAIN ST E	WACONIA CITY (PARK)	750502540
32	201 MAIN ST E	THOMAS J MATHWIG & ANDREA SICHENEDER	750502480
33	200 1ST ST E	MARTHA LAYBOURN	750502470

TABLE 4.1 - PRELIMINARY ASSESSMENT ROLL
DOWNTOWN RECONSTRUCTION, PHASE 2 PROJECT
8/15/2023

PROP. NO.	P.I.D.	OWNER	PROPERTY ADDRESS	OWNER ADDRESS		F/F	*STREET ASSESSMENT	WATERMAIN UNITS	WATERMAIN ASSESSMENT	SANITARY SEWER UNITS	SANITARY SEWER ASSESSMENT	TOTAL ASSESSMENT	**ANNUAL ASSESSMENT PAYMENT
1	750503860	DAVID R III & PEGGY C PHILP	48 MAIN STREET W	10720 NORTH SHORE RD	WACONIA, MN 55387	44.00	\$10,193.15	1.0	\$10,349.25	1.0	\$6,708.87	\$27,251.27	\$3,615.37
2	750503850	SHAPE IT UP FITNESS LLC	44 MAIN STREET W	408 FIRST STREET W	WACONIA, MN 55387	33.40	\$7,737.53	1.0	\$10,349.25	1.0	\$6,708.87	\$24,795.65	\$3,289.58
3	750503830	SS JENSEN PROPERTIES LLC	36 MAIN STREET W	36 MAIN STREET W	WACONIA, MN 55387	54.60	\$12,648.77	1.0	\$10,349.25	1.0	\$6,708.87	\$29,706.89	\$3,941.15
4	750503820	DANIEL R NEUBAUER TRUST	20 MAIN STREET W	252 SUNSET BLVD	WACONIA, MN 55387-1227	44.00	\$10,193.15	1.0	\$10,349.25	1.0	\$6,708.87	\$27,251.27	\$3,615.37
5	750503813	BETH ANN & JOSEPH R SCHRUPP	16 MAIN STREET W	16 MAIN STREET W	WACONIA, MN 55387-1020	62.00	\$14,363.08	1.0	\$10,349.25	1.0	\$6,708.87	\$31,421.19	\$4,168.58
6	750503812	ALLEN LUETH	4 MAIN STREET W	10820 COUNTY ROAD 33	NORWOOD YOUNG AMERICA, MN 55397	35.00	\$8,108.19	1.0	\$10,349.25	1.0	\$6,708.87	\$25,166.31	\$3,338.76
7	750503990	4MAIN LLC	4 MAIN STREET E	13911 RIDGEDALE DR STE 243	MINNETONKA, MN 55305	22.00	\$5,096.58	1.5	\$15,523.87	1.5	\$10,063.31	\$30,683.75	\$4,070.74
8	750503980	4MAIN LLC	NA	13911 RIDGEDALE DR STE 243	MINNETONKA, MN 55305	44.00	\$10,193.15	0.0	\$0.00	0.0	\$0.00	\$10,193.15	\$1,352.30
9	750503970	4MAIN LLC	NA	13911 RIDGEDALE DR STE 243	MINNETONKA, MN 55305	43.50	\$10,077.32	0.0	\$0.00	0.0	\$0.00	\$10,077.32	\$1,336.94
10	750503960	BRIDEN PROPERTIES LLC	24 MAIN STREET E	35 WILLOW WOOD DR	EXCELSIOR, MN 55331	32.50	\$7,529.03	1.0	\$10,349.25	1.0	\$6,708.87	\$24,587.15	\$3,261.92
11	750503950	SOLTIS PROPERTIES LLC	32 MAIN STREET E	32 MAIN STREET E	WACONIA, MN 55387-1113	34.00	\$7,876.53	1.0	\$10,349.25	1.0	\$6,708.87	\$24,934.64	\$3,308.02
12	750503940	JUSTIN YOUNG & MARIAH KETCHER	40 MAIN STREET E	40 MAIN STREET E	WACONIA, MN 55387	44.00	\$10,193.15	1.0	\$10,349.25	1.0	\$6,708.87	\$27,251.27	\$3,615.37
13	750503930	JEFFREY & JILL SCHMITT	52 MAIN STREET E	52 MAIN STREET E	WACONIA, MN 55387	44.00	\$10,193.15	1.0	\$10,349.25	1.0	\$6,708.87	\$27,251.27	\$3,615.37
14	750504070	JOHN S & KRISTINE H DVORAK	104 MAIN STREET E	104 MAIN STREET E	WACONIA, MN 55387	33.00	\$7,644.86	1.0	\$10,349.25	0.0	\$0.00	\$17,994.11	\$2,387.24
15	750504060	JAMES K & JANALEE R KITE	116 MAIN STREET E	116 MAIN STREET E	WACONIA, MN 55387-1115	88.00	\$20,386.30	1.0	\$10,349.25	0.0	\$0.00	\$30,735.55	\$4,077.62
16	750504050	TIMOTHY L & RHONDA K TESCH	128 MAIN STREET E	128 MAIN STREET E	WACONIA, MN 55387-1115	44.00	\$10,193.15	1.0	\$10,349.25	0.0	\$0.00	\$20,542.40	\$2,725.31
17	750504040	THE MITCHELL RANCH LLP	140 MAIN STREET E	BOX 174	CORTEZ, CO 81321-0174	66.00	\$15,289.73	4.0	\$41,396.99	0.0	\$0.00	\$56,686.71	\$7,520.50
18	750504170	THERESA L HAMER & PAMELA J LEACH	200 MAIN STREET E	312 THIRD STREET W	JORDAN, MN 55352-1426	33.00	\$7,644.86	1.0	\$10,349.25	1.0	\$6,708.87	\$24,702.98	\$3,277.29
19	750502720	FIRST NATL BANK OF WACONIA	53 MAIN STREET W	PO BOX 80615	INDIANAPOLIS, IN 46280	110.00	\$25,482.88	3.0	\$31,047.74	3.0	\$20,126.61	\$76,657.23	\$10,169.94
20	750502741	CQ RENTAL LLC	NA	1570 OAKPOINTE DR	WACONIA, MN 55387-4522	54.00	\$12,509.78	0.0	\$0.00	0.0	\$0.00	\$12,509.78	\$1,659.64
21	750502730	CQ RENTAL LLC	NA	1570 OAKPOINTE DR	WACONIA, MN 55387-4522	44.70	\$10,355.31	1.5	\$15,523.87	1.5	\$10,063.31	\$35,942.49	\$4,768.41
22	750502740	APG REAL PROPERTIES LLC	8 ELM STREET S	39088 AIRPARK DR	EASTON, MD 21601-7000	49.60	\$11,490.46	1.0	\$10,349.25	1.0	\$6,708.87	\$28,548.58	\$3,787.48
23	750502750	16 SOUTH ELM STREET LLC	16 ELM STREET S	9990 ORCHARD RD	COLOGNE, MN 55322-9083	52.00	\$12,046.45	3.0	\$31,047.74	3.0	\$20,126.61	\$63,220.81	\$8,387.36
24	750502630	16 SOUTH ELM STREET LLC	26 ELM STREET S	9990 ORCHARD RD	COLOGNE, MN 55322	86.00	\$19,922.98	0.0	\$0.00	0.0	\$0.00	\$19,922.98	\$2,643.14
25	750502640	EMBARQ CORP	40 ELM STREET S	1025 ELDORADO BLVD	BROOMFIELD, CO 80021	35.50	\$8,224.02	0.0	\$0.00	0.0	\$0.00	\$8,224.02	\$1,091.06
26	750502550	CHURCH OF ST JOSEPH	32 FIRST STREET E	41 FIRST STREET E	WACONIA, MN 55387-1526	157.00	\$36,371.02	0.0	\$0.00	0.0	\$0.00	\$36,371.02	\$4,825.26
27	750502560	CHURCH OF ST JOSEPH	9 MAIN STREET E	41 FIRST STREET E	WACONIA, MN 55387-1526	155.50	\$36,023.52	1.0	\$10,349.25	1.0	\$6,708.87	\$53,081.64	\$7,042.22
28	750502570	THE CHURCH OF SAINT JOSEPH OF WAC	29 MAIN STREET E	41 FIRST STREET E	WACONIA, MN 55387	33.00	\$7,644.86	1.0	\$10,349.25	1.0	\$6,708.87	\$24,702.98	\$3,277.29
29	750502580	STEVEN J YETZER	37 MAIN STREET E	PO BOX 51	WACONIA, MN 55387	43.00	\$9,961.49	1.0	\$10,349.25	1.0	\$6,708.87	\$27,019.61	\$3,584.63
30	750502600	ROSEMARY PETERSON	4 PINE STREET S	4 PINE STREET S	WACONIA, MN 55387-1533	128.50	\$29,768.63	1.0	\$10,349.25	1.0	\$6,708.87	\$46,826.75	\$6,212.40
31	750502540	WACONIA CITY	NA	201 VINE STREET S	WACONIA, MN 55387-1337	495.00	\$114,672.95	0.0	\$0.00	0.0	\$0.00	\$114,672.95	\$15,213.40
32	750502480	THOMAS MATHWIG & A SICHENEDER	201 MAIN STREET E	201 MAIN STREET E	WACONIA, MN 55387-1119	111.50	\$25,830.37	1.0	\$10,349.25	1.0	\$6,708.87	\$42,888.49	\$5,689.92
33	750502470	MARTHA LAYBOURN	200 FIRST STREET E	200 FIRST STREET E	WACONIA, MN 55387-1528	78.50	\$18,185.51	1.0	\$10,349.25	1.0	\$6,708.87	\$35,243.63	\$4,675.69
						2,434.80							

*Cost per FF = \$231.66 (Original Calculation)

**Based on a 5.50% Interest Rate and a 10 Year Term.

TOTALS:	564,051.91
TOTAL FRONT FOOTAGE:	3,984.00
CORNER LOT CREDIT:	583.50
ASSESSMENT BASIS FRONT FOOTAGE:	3,400.50
NON-ASSESSABLE FRONT FOOTAGE:	965.70
ASSESSMENT FRONT FOOTAGE:	2,434.80

TABLE 4.2
DEBT SERVICE & PROPOSED FUNDING SOURCES
FOR
DOWNTOWN RECONSTRUCTION, PHASE 2 PROJECT
8/15/2023

PROPOSED PROJECTS	TOTALS				DEBT SERVICE / FUNDING SOURCE							RECOMMENDED FINANCING OPTION
	TOTAL PROJECT COST	TOTAL ASSESS. AMOUNT	TOTAL CITY COST	TOTAL ASSESS. %	TOTAL DEBT SERVICE	DEBT SVC ASSMT REVENUE	DEBT SVC GENERAL/ PIR FUND	DEBT SVC STM WTR FUND	DEBT SVC SEWER FUND	DEBT SVC WATER FUND	TOTAL REVENUE	
STREET & UTILITY RECONSTRUCTION	\$5,867,378	\$1,097,000	\$4,770,378	18.7%	\$741,512	\$138,638	\$452,244	\$50,552	\$29,118	\$70,962	\$741,512	\$8,600,000 Combined Bond
STORMWATER REUSE	\$2,703,717	\$0	\$2,703,717	0.0%	\$341,693	\$0	\$0	\$341,693	\$0	\$0	\$341,693	
TOTALS:	\$8,571,096	\$1,097,000	\$7,474,096	12.8%	\$1,083,205	\$138,638	\$452,244	\$392,244	\$29,118	\$70,962	\$1,083,205	

Notes:

- 1.) All Debt Service Projections are Based on a 10-Year Bond At 4.5%.
- 2.) Actual Assessment Revenue Debt Service Will Be Based On Interest Rate 1.0% Above Bonding Cost (=4.5% + 1.0% = 5.5%) With a 10-Year Term.
- 3.) Amounts Shown Do Not Include Any Grant Funds Which May Reduce the Required Payment Amounts.

APPENDIX A

ITEMIZED COST ESTIMATES

**ESTIMATED PROJECT COST
FOR
Downtown Reconstruction Phase 2
8/15/2023**

STREET RECONSTRUCTION (ASSESSABLE)

ITEM NO.	BID ITEM	UNIT	EST QTY	UNIT PRICE	TOTAL
1	MOBILIZATION	LUMP SUM	1	\$56,000.00	\$56,000.00
2	CLEAR & GRUB TREE	EACH	30	\$650.00	\$19,500.00
3	REMOVE CONCRETE CURB & GUTTER	LIN FT	4,392	\$6.00	\$26,352.00
4	REMOVE BITUMINOUS PAVEMENT	SQ YD	12,515	\$4.00	\$50,060.00
5	REMOVE CONCRETE DRIVEWAY/WALK	SQ FT	20,183	\$3.00	\$60,549.00
6	REMOVE BITUMINOUS DRIVEWAY	SQ FT	5,015	\$1.75	\$8,776.25
7	REMOVE PAVER DRIVEWAY	SQ FT	257	\$5.00	\$1,285.00
8	REMOVE DRAINAGE STRUCTURE	EACH	8	\$750.00	\$6,000.00
9	REMOVE DRAINAGE PIPE	LIN FT	639	\$18.00	\$11,502.00
10	COMMON EXCAVATION (EV)	CU YD	5,598	\$27.00	\$151,146.00
11	GEOTEXTILE FABRIC	SQ YD	9,607	\$2.00	\$19,214.00
12	AGGREGATE BASE CLASS 5 (CV) - 8" DEPTH	TON	4,524	\$28.50	\$128,934.00
13	CONCRETE CURB & GUTTER (B618)	LIN FT	4,537	\$28.75	\$130,438.75
14	BITUMINOUS NON-WEAR COURSE - 3.0" DEPTH	TON	1,390	\$84.00	\$116,760.00
15	BITUMINOUS WEAR COURSE - 1.5" DEPTH	TON	694	\$107.00	\$74,258.00
16	3" BITUMINOUS DRIVEWAY	SQ FT	4,748	\$6.25	\$29,675.00
17	6" CONCRETE DRIVEWAY	SQ FT	5,273	\$16.00	\$84,368.00
18	PAVER DRIVEWAY	SQ FT	197	\$25.00	\$4,925.00
19	CONSTRUCT DRAINAGE STRUCTURE DES G	EACH	2	\$1,500.00	\$3,000.00
20	CONSTRUCT DRAINAGE STRUC. DES 2'X3'	EACH	4	\$2,000.00	\$8,000.00
21	CONSTRUCT DRAINAGE STRUC. DES 4020-48	EACH	5	\$2,750.00	\$13,750.00
22	CONSTRUCT DRAINAGE STRUC. DES 4022-48	EACH	9	\$2,750.00	\$24,750.00
23	15" RC PIPE SEWER DES 3006 CL V	LIN FT	757	\$88.00	\$66,616.00
24	18" RC PIPE SEWER DES 3006 CL V	LIN FT	405	\$95.00	\$38,475.00
25	CASTING ASSEMBLY (STORM)	EACH	14	\$1,100.00	\$15,400.00
26	ADJUST CASTING (STORM)	EACH	3	\$680.00	\$2,040.00
27	CONNECT TO EXISTING STORM PIPE	EACH	3	\$2,000.00	\$6,000.00

SUBTOTAL: \$1,101,774.00
 CONTINGENCIES (10%): \$110,177.40
 ESTIMATED CONSTRUCTION COST: \$1,211,951.40
 ADMINISTRATION, ENGINEERING, SURVEYING, INSPECTION (30%): \$363,585.42
TOTAL ESTIMATED PROJECT COST: \$1,575,536.82

**ESTIMATED PROJECT COST
FOR
Downtown Reconstruction Phase 2
8/15/2023**

STREET RECONSTRUCTION (EXTRA WIDTH - NON-ASSESSABLE)

ITEM NO.	BID ITEM	UNIT	EST QTY	UNIT PRICE	TOTAL
1	COMMON EXCAVATION (EV)	CU YD	112	\$27.00	\$3,024.00
2	SUBGRADE EXCAVATION (EV)	CU YD	5	\$29.00	\$145.00
3	GEOTEXTILE FABRIC	SQ YD	121	\$2.00	\$242.00
4	AGGREGATE BASE CLASS 5 (CV) - 12" DEPTH	TON	79	\$28.50	\$2,251.50
5	STABILIZING AGGREGATE (CV)	CU YD	5	\$35.00	\$175.00
6	SELECT GRANULAR BORROW (CV) - 12" DEPTH	CU YD	45	\$29.00	\$1,305.00
7	BITUMINOUS NON-WEAR COURSE - 3.0" DEPTH	TON	22	\$84.00	\$1,848.00
8	BITUMINOUS WEAR COURSE - 3.5" DEPTH	TON	26	\$107.00	\$2,782.00

	SUBTOTAL:	\$11,772.50
	CONTINGENCIES (10%):	\$1,177.25
	ESTIMATED CONSTRUCTION COST:	\$12,949.75
	ADMINISTRATION, ENGINEERING, SURVEYING, INSPECTION (30%):	\$3,884.93
	TOTAL ESTIMATED PROJECT COST:	\$16,834.68

**ESTIMATED PROJECT COST
FOR
Downtown Reconstruction Phase 2
8/15/2023**

STREET RECONSTRUCTION (EXTRA SECTION - NON-ASSESSABLE)

ITEM NO.	BID ITEM	UNIT	EST QTY	UNIT PRICE	TOTAL
1	MOBILIZATION	LUMP SUM	1	\$72,000.00	\$72,000.00
2	TRAFFIC CONTROL	LUMP SUM	1	\$50,000.00	\$50,000.00
3	REMOVE CONCRETE STAIRS	SQ FT	173	\$12.00	\$2,070.00
4	REMOVE SIGN	EACH	32	\$350.00	\$11,200.00
5	COMMON EXCAVATION (EV)	CU YD	5,595	\$27.00	\$151,065.00
6	SUBGRADE EXCAVATION (EV)	CU YD	931	\$29.00	\$26,999.00
7	GEOTEXTILE FABRIC	SQ YD	4,982	\$2.00	\$9,964.00
8	AGGREGATE BASE CLASS 5 (CV) - 12" DEPTH	TON	2,690	\$28.50	\$76,665.00
9	AGGREGATE BASE CLASS 5 (CV) - 4" DEPTH	CU YD	1,447	\$28.50	\$41,239.50
10	STABILIZING AGGREGATE (CV)	CU YD	931	\$35.00	\$32,585.00
11	SELECT GRANULAR BORROW (CV) - 12" DEPTH	CU YD	5,245	\$29.00	\$152,105.00
12	BITUMINOUS NON-WEAR COURSE - 3.0" DEPTH	TON	887	\$84.00	\$74,508.00
13	BITUMINOUS WEAR COURSE - 2.0" DEPTH	TON	645	\$84.00	\$54,180.00
14	BITUMINOUS WEAR COURSE - 3.5" DEPTH	TON	863	\$107.00	\$92,341.00
15	4" SOLID DOUBLE YELLOW LINE	LIN FT	949	\$1.50	\$1,422.95
16	4" SOLID LINE WHITE	LIN FT	2,542	\$1.25	\$3,177.50
17	PAVEMENT MARKINGS	EACH	4	\$275.00	\$1,100.00
18	CONCRETE STAIRS	SQ FT	173	\$175.00	\$30,187.50
19	SUMP PUMP SERVICE CONNECTION	EACH	10	\$315.00	\$3,150.00
20	STORMWATER TREATMENT / RAIN GARDENS	LUMP SUM	1	\$35,000.00	\$35,000.00
21	4" PERFORATED EDGE DRAIN	LIN FT	4,291	\$23.00	\$98,693.00
22	4" HDPE DRAIN TILE CLEANOUT	EACH	15	\$300.00	\$4,500.00
23	ROCK CONSTRUCTION ENTRANCE	EACH	1	\$1,000.00	\$1,000.00
24	SOD TYPE LAWN	SQ YD	3,515	\$14.00	\$49,210.00
25	FURNISH & INSTALL SIGN	EACH	32	\$350.00	\$11,200.00
26	2 1/2" CALIPER DECIDUOUS TREE	EACH	30	\$250.00	\$7,500.00
27	BUSINESS SIGNAGE	ALLOWANCE	1	\$10,000.00	\$10,000.00
28	STREET LIGHTING & WAYFINDING SIGNAGE	LUMP SUM	1	\$400,000.00	\$400,000.00
29	CONSTRUCTION TRAILER MOBILIZATION & SETUP	LUMP SUM	1	\$2,000.00	\$2,000.00

	SUBTOTAL:	\$1,505,062.45
	CONTINGENCIES (10%):	\$150,506.24
	ESTIMATED CONSTRUCTION COST:	\$1,655,568.69
ADMINISTRATION, ENGINEERING, SURVEYING, INSPECTION (30%):		\$496,670.61
TOTAL ESTIMATED PROJECT COST:		\$2,152,239.30

**ESTIMATED PROJECT COST
FOR
Downtown Reconstruction Phase 2
8/15/2023**

PARKING LOT RECONSTRUCTION (NON-ASSESSABLE)

ITEM NO.	BID ITEM	UNIT	EST QTY	UNIT PRICE	TOTAL
1	MOBILIZATION	LUMP SUM	1	\$7,000.00	\$7,000.00
2	TRAFFIC CONTROL	LUMP SUM	1	\$1,500.00	\$1,500.00
3	ROCK CONSTRUCTION ENTRANCE	EACH	1	\$1,000.00	\$1,000.00
4	REMOVE CONCRETE CURB & GUTTER	LIN FT	123	\$6.00	\$738.00
5	CLEAR & GRUB TREE	EACH	4	\$650.00	\$2,600.00
6	REMOVE BITUMINOUS PAVEMENT	SQ YD	1,313	\$4.00	\$5,252.00
7	REMOVE CONCRETE DRIVEWAY/WALK	SQ FT	1,927	\$3.00	\$5,781.00
8	COMMON EXCAVATION (EV)	CU YD	867	\$27.00	\$23,409.00
9	SUBGRADE EXCAVATION (EV)	CU YD	73	\$29.00	\$2,117.00
10	GEOTEXTILE FABRIC	SQ YD	2,198	\$2.00	\$4,396.00
11	AGGREGATE BASE CLASS 5 (CV) - 9" DEPTH	TON	877	\$28.50	\$24,994.50
12	STABILIZING AGGREGATE (CV)	CU YD	73	\$35.00	\$2,555.00
13	BITUMINOUS NON-WEAR COURSE - 3.0" DEPTH	TON	391	\$84.00	\$32,844.00
14	BITUMINOUS WEAR COURSE - 1.5" DEPTH	TON	197	\$107.00	\$21,079.00
15	CONSTRUCT DRAINAGE STRUCTURE DES G	EACH	4	\$1,500.00	\$6,000.00
16	12" RC PIPE SEWER DES 3006 CL V	LIN FT	311	\$82.00	\$25,502.00
17	CASTING ASSEMBLY (STORM)	EACH	4	\$1,100.00	\$4,400.00
18	CONNECT TO EXISTING STORM STRUCTURE	EACH	2	\$2,000.00	\$4,000.00
19	STORM DRAIN INLET PROTECTION	EACH	8	\$150.00	\$1,200.00
20	BIOROLL	LIN FT	330	\$3.50	\$1,155.00
21	4" CONCRETE WALK (w/ AGG. CL 5 BASE)	SQ FT	2,336	\$9.25	\$21,608.00
22	6" CONCRETE DRIVEWAY	SQ FT	163	\$16.00	\$2,608.00
23	4" SOLID LINE WHITE	LIN FT	3,589	\$1.25	\$4,486.25
24	PAVEMENT MARKINGS	EACH	3	\$275.00	\$825.00
25	SOD TYPE LAWN	SQ YD	128	\$14.00	\$1,792.00
26	TOPSOIL BORROW (LV)	CU YD	17	\$45.00	\$765.00

SUBTOTAL:	\$209,606.75
CONTINGENCIES (10%):	\$20,960.68
ESTIMATED CONSTRUCTION COST:	\$230,567.43
ADMINISTRATION, ENGINEERING, SURVEYING, INSPECTION (30%):	\$69,170.23
TOTAL ESTIMATED PROJECT COST:	\$299,737.65

**ESTIMATED PROJECT COST
FOR
Downtown Reconstruction Phase 2
8/15/2023**

SIDEWALK (NON-ASSESSABLE)

ITEM NO.	BID ITEM	UNIT	EST QTY	UNIT PRICE	TOTAL
1	REMOVE CONCRETE WALK	SQ FT	20,183	\$2.80	\$56,512.40
2	REMOVE RAILING	LIN FT	53	\$15.00	\$787.50
3	4" CONCRETE WALK (w/ AGG. CL 5 BASE)	SQ FT	24,929	\$9.25	\$230,593.25
4	BUSINESS ENTRANCE MODIFICATIONS	ALLOWANCE	1	\$7,500.00	\$7,500.00
5	PEDESTRIAN RAMP	EACH	13	\$3,000.00	\$39,000.00
6	CONSTRUCT RETAINING WALL	SQ FT	263	\$30.00	\$7,890.00
7	METAL RAILING	LIN FT	53	\$20.00	\$1,050.00
8	CROSSWALK EXPOXY	SQ FT	1,644	\$3.00	\$4,932.00

SUBTOTAL:	\$348,265.15
CONTINGENCIES (10%):	\$34,826.52
ESTIMATED CONSTRUCTION COST:	\$383,091.67
ADMINISTRATION, ENGINEERING, SURVEYING, INSPECTION (30%):	\$114,927.50
TOTAL ESTIMATED PROJECT COST:	\$498,019.16

**ESTIMATED PROJECT COST
FOR
Downtown Reconstruction Phase 2
8/15/2023**

SANITARY SEWER RECONSTRUCTION (ASSESSABLE)

ITEM NO.	BID ITEM	UNIT	EST QTY	UNIT PRICE	TOTAL
1	MOBILIZATION	LUMP SUM	1	\$13,000.00	\$13,000.00
2	REMOVE SANITARY MANHOLE	EACH	4	\$825.00	\$3,300.00
3	REMOVE SANITARY PIPE	LIN FT	1,134	\$7.00	\$7,938.00
4	REMOVE SANITARY SERVICE PIPE	LIN FT	1,037	\$5.00	\$5,185.00
5	EXTERNAL CHIMNEY SEAL	EACH	4	\$400.00	\$1,600.00
6	8" PVC PIPE SEWER SDR 35	LIN FT	1,102	\$72.00	\$79,344.00
7	6" PVC PIPE SEWER SERVICE SDR 26	LIN FT	1,037	\$50.00	\$51,850.00
8	8" X 6" SERVICE WYE	EACH	25	\$625.00	\$15,625.00
9	CONSTRUCT SANITARY MANHOLE	EACH	4	\$6,500.00	\$26,000.00
10	CASTING ASSEMBLY (SANITARY)	EACH	4	\$1,500.00	\$6,000.00
11	CONNECT TO EXISTING SANITARY SEWER PIPE	EACH	3	\$2,000.00	\$6,000.00
12	CONNECT TO EXISTING SANITARY SERVICE	EACH	25	\$1,500.00	\$37,500.00

SUBTOTAL:	\$253,342.00
CONTINGENCIES (10%):	\$25,334.20
ESTIMATED CONSTRUCTION COST:	\$278,676.20
ADMINISTRATION, ENGINEERING, SURVEYING, INSPECTION (30%):	\$83,602.86
TOTAL ESTIMATED PROJECT COST:	\$362,279.06

**ESTIMATED PROJECT COST
FOR
Downtown Reconstruction Phase 2
8/15/2023**

SANITARY SEWER RECONSTRUCTION (NON-ASSESSABLE)

ITEM NO.	BID ITEM	UNIT	EST QTY	UNIT PRICE	TOTAL
1	MOBILIZATION	LUMP SUM	1	\$2,000.00	\$2,000.00
2	BYPASS PUMPING	LUMP SUM	1	\$15,000.00	\$15,000.00
3	VIBRATION MONITORING	LUMP SUM	1	\$17,500.00	\$17,500.00

	<i>SUBTOTAL:</i>	<i>\$34,500.00</i>
	<i>CONTINGENCIES (10%):</i>	<i>\$3,450.00</i>
	<i>ESTIMATED CONSTRUCTION COST:</i>	<i>\$37,950.00</i>
	<i>ADMINISTRATION, ENGINEERING, SURVEYING, INSPECTION (30%):</i>	<i>\$11,385.00</i>
	<i>TOTAL ESTIMATED PROJECT COST:</i>	<i>\$49,335.00</i>

**ESTIMATED PROJECT COST
FOR
Downtown Reconstruction Phase 2
8/15/2023**

WATERMAIN RECONSTRUCTION (ASSESSABLE)

ITEM NO.	BID ITEM	UNIT	EST QTY	UNIT PRICE	TOTAL
1	MOBILIZATION	LUMP SUM	1	\$24,000.00	\$24,000.00
2	REMOVE WATERMAIN	LIN FT	1,760	\$7.00	\$12,320.00
3	REMOVE WATERMAIN SERVICE	LIN FT	1,108	\$3.00	\$3,324.00
4	REMOVE GATE VALVE & BOX	EACH	5	\$325.00	\$1,625.00
5	REMOVE HYDRANT	EACH	3	\$500.00	\$1,500.00
6	6" DIP WATERMAIN	LIN FT	59	\$88.00	\$5,192.00
7	8" PVC WATERMAIN	LIN FT	1,702	\$78.00	\$132,756.00
8	3 LB ANODE	EACH	14	\$150.00	\$2,100.00
9	9 LB ANODE	EACH	4	\$250.00	\$1,000.00
10	WATERMAIN FITTINGS	POUND	1,650	\$16.00	\$26,400.00
11	6" GATE VALVE & BOX	EACH	3	\$2,500.00	\$7,500.00
12	8" GATE VALVE & BOX	EACH	9	\$3,450.00	\$31,050.00
13	1" CURB STOP & BOX	EACH	30	\$1,100.00	\$33,000.00
14	1" CORPORATION STOP	EACH	30	\$900.00	\$27,000.00
15	1" SERVICE PIPE (OPEN CUT)	LIN FT	1,190	\$46.00	\$54,740.00
16	1" SERVICE PIPE (DIRECTIONALLY DRILLED)	LIN FT	175	\$175.00	\$30,625.00
17	HYDRANT	EACH	3	\$7,700.00	\$23,100.00
18	WATER SERVICE CASTING ASSEMBLY	EACH	30	\$450.00	\$13,500.00
19	TRACER WIRE ACCESS BOX	EACH	3	\$300.00	\$900.00
20	TEMPORARY WATER SYSTEM	LUMP SUM	1	\$30,000.00	\$30,000.00
21	CONNECT TO EXISTING WATER SERVICE	EACH	30	\$750.00	\$22,500.00
22	CONNECT TO EXISTING WATERMAIN	EACH	4	\$2,000.00	\$8,000.00

	SUBTOTAL:	\$492,132.00
	CONTINGENCIES (10%):	\$49,213.20
	ESTIMATED CONSTRUCTION COST:	\$541,345.20
ADMINISTRATION, ENGINEERING, SURVEYING, INSPECTION (30%):		\$162,403.56
	TOTAL ESTIMATED PROJECT COST:	\$703,748.76

**ESTIMATED PROJECT COST
FOR
Downtown Reconstruction Phase 2
8/15/2023**

WATERMAIN RECONSTRUCTION (NON-ASSESSABLE)

ITEM NO.	BID ITEM	UNIT	EST QTY	UNIT PRICE	TOTAL
1	MOBILIZATION	LUMP SUM	1	\$7,000.00	\$7,000.00
2	8" PVC WATERMAIN	LIN FT	408	\$78.00	\$31,824.00
3	6" DIP WATERMAIN	LIN FT	55	\$88.00	\$4,804.80
4	3 LB ANODE	EACH	3	\$150.00	\$450.00
5	WATERMAIN FITTINGS	LB	408	\$16.00	\$6,528.00
6	8" GATE VALVE & BOX	EACH	2	\$3,450.00	\$6,900.00
7	6" GATE VALVE & BOX	EACH	1	\$2,500.00	\$2,500.00
8	CONNECT TO EXISTING WATERMAIN	EACH	1	\$2,000.00	\$2,000.00
9	BORE FOUNDATION WALL/REMOVE & REPLACE FLOOR	EACH	14	\$2,600.00	\$36,400.00
10	RESET WATER METER & ADJUST PIPING	EACH	14	\$800.00	\$11,200.00
11	MOVE ELECTRICAL GROUND FROM WATER SERVICE	EACH	14	\$500.00	\$7,000.00
12	HAND EXCAVATION TO CONNECT WATER SERVICE (IN CRAWL SPACE)	EACH	14	\$750.00	\$10,500.00
13	CATHODIC PROTECTION TEST STATION	EACH	1	\$2,000.00	\$2,000.00
14	VIBRATION MONITORING	LUMP SUM	1	\$17,500.00	\$17,500.00

	SUBTOTAL:	\$146,606.80
	CONTINGENCIES (10%):	\$14,660.68
	ESTIMATED CONSTRUCTION COST:	\$161,267.48
ADMINISTRATION, ENGINEERING, SURVEYING, INSPECTION (30%):		\$48,380.24
TOTAL ESTIMATED PROJECT COST:		\$209,647.72

**ESTIMATED PROJECT COST
FOR
Downtown Reconstruction Phase 2
8/15/2023**

STORM WATER REUSE (NON-ASSESSABLE)

ITEM NO.	BID ITEM	UNIT	EST QTY	UNIT PRICE	TOTAL
1	MOBILIZATION	LUMP SUM	1	\$100,000.00	\$100,000.00
2	CLEAR & GRUB TREE	EACH	2	\$650.00	\$1,300.00
3	REMOVE CONCRETE CURB & GUTTER	LIN FT	190	\$6.00	\$1,140.00
4	REMOVE BITUMINOUS PAVEMENT	SQ YD	1,005	\$4.00	\$4,020.00
5	REMOVE CONCRETE DRIVEWAY/WALK	SQ FT	175	\$3.00	\$525.00
6	REMOVE PAVERS	SQ FT	700	\$5.00	\$3,500.00
7	GEOTEXTILE FABRIC	SQ YD	1,040	\$2.00	\$2,080.00
8	SELECT GRANULAR BORROW (CV) - 12" DEPTH	CU YD	382	\$29.00	\$11,078.00
9	AGGREGATE BASE CLASS 5 (CV) - 8" DEPTH	TON	456	\$28.50	\$12,996.00
10	BITUMINOUS NON-WEAR COURSE - 3.0" DEPTH	TON	186	\$84.00	\$15,624.00
11	BITUMINOUS WEAR COURSE - 1.5" DEPTH	TON	96	\$107.00	\$10,272.00
12	CONCRETE CURB & GUTTER (B618)	LIN FT	190	\$28.75	\$5,462.50
13	4" CONCRETE WALK (w/ AGG. CL 5 BASE)	SQ FT	100	\$9.25	\$925.00
14	6" CONCRETE DRIVEWAY	SQ FT	75	\$16.00	\$1,200.00
15	SALVAGE & INSTALL PERVIOUS PAVERS WITH NEW ROCK SECTION	SQ FT	850	\$200.00	\$170,000.00
16	8" PVC PIPE SEWER (DRILLED)	LIN FT	50	\$150.00	\$7,500.00
17	8" PVC PIPE SEWER SDR 35	LIN FT	100	\$72.00	\$7,200.00
18	CONNECT TO EXISTING SANITARY SEWER STRUCTURE	EACH	1	\$2,000.00	\$2,000.00
20	1" CURB STOP & BOX	EACH	1	\$1,100.00	\$1,100.00
21	1" SERVICE PIPE (OPEN CUT)	LIN FT	130	\$46.00	\$5,980.00
22	CONNECT TO EXISTING WATER SERVICE	EACH	1	\$750.00	\$750.00
23	SCADA	LUMP SUM	1	\$60,000.00	\$60,000.00
24	PUMP & FILTER SKID	LUMP SUM	1	\$135,000.00	\$135,000.00
25	ELECTRICAL	LUMP SUM	1	\$55,000.00	\$55,000.00
26	REUSE WATER TREATMENT (UV)	LUMP SUM	1	\$135,000.00	\$135,000.00
27	UNDERGROUND STORAGE TANK	LUMP SUM	1	\$400,000.00	\$400,000.00
28	HUFFCUTT PRECAST WALLS	LUMP SUM	1	\$115,000.00	\$115,000.00
29	REUSE BUILDING	LUMP SUM	1	\$300,000.00	\$300,000.00
30	HVAC EQUIPMENT	LUMP SUM	1	\$10,000.00	\$10,000.00
31	CONTROL VALVES & SYSYEM CONTROLLER	LUMP SUM	1	\$10,000.00	\$10,000.00
32	12" PVC STORM PIPE	LIN FT	50	\$65.00	\$3,250.00
33	36" RC PIPE SEWER DES 3006 CL V	LIN FT	105	\$400.00	\$42,000.00
34	CONSTRUCT DRAINAGE STRUC. DES 4020-84	EACH	1	\$30,000.00	\$30,000.00
35	CASTING ASSEMBLY (STORM)	EACH	1	\$1,100.00	\$1,100.00
36	4" CONDUIT FOR REUSE MAIN	LIN FT	2,855	\$11.00	\$31,405.00
37	1" REUSE MAIN HDD	LIN FT	2,475	\$10.00	\$24,750.00
38	2" REUSE MAIN HDD	LIN FT	380	\$13.00	\$4,940.00
39	4" REUSE MAIN HDD	LIN FT	1,388	\$28.00	\$38,864.00
40	4" GATE VALVE & BOX (REUSE SYSTEM)	EACH	2	\$1,850.00	\$3,700.00
41	CONNECT TO EXISTING REUSE MAIN	EACH	1	\$750.00	\$750.00
42	REUSE WATER METER BOX	EACH	1	\$3,500.00	\$3,500.00
43	STORM WATER REUSE ACCESS MANHOLE CASTING	EACH	5	\$1,300.00	\$6,500.00
44	STORM WATER REUSE BLOWOFF STRUCTURE CASTING	EACH	7	\$1,250.00	\$8,750.00
45	DUCTILE IRON FITTINGS (REUSE)	LUMP SUM	1	\$8,000.00	\$8,000.00
46	BLOWOFF IN PRECAST CONCRETE HANDHOLE (60")	EACH	7	\$7,500.00	\$52,500.00
47	ACCES MANHOLE WITH BLOWOFF (60")	EACH	1	\$8,750.00	\$8,750.00
48	ACCESS MANHOLE (60")	EACH	4	\$8,200.00	\$32,800.00
49	LANDSCAPING ALLOWANCE	ALLOWANCE	1	\$4,500.00	\$4,500.00

	SUBTOTAL:	\$1,890,711.50
	CONTINGENCIES (10%):	\$189,071.15
	ESTIMATED CONSTRUCTION COST:	\$2,079,782.65
ADMINISTRATION, ENGINEERING, SURVEYING, INSPECTION (30%):		\$623,934.80
	TOTAL ESTIMATED PROJECT COST:	\$2,703,717.45

APPENDIX B

CITY ASSESSMENT POLICY

Section Extracted from City of Waconia Financial Policy & Guidelines
Last Amended June 19, 2017

Special Assessments

The financing for reconstruction projects is through the sale of General Obligation 429 Improvement Bonds. Minnesota State Statute requires a minimum assessed percentage of 20% for projects financed with 429 bonds.

With each reconstruction project, a feasibility study is completed and approved by the City Council. Once a draft of the feasibility study is complete, City staff will share the information with a qualified appraiser to determine the special benefit to each property in the reconstruction area. The City Council will use this appraisal information as a basis for finalizing the special assessments due by property owners for reconstruction projects.

Assessment Policy Summary:

- The portion of the project costs assessed to the abutting property owner shall be based on a linear front footage basis of the parcel or unit basis.
- The City pays 50% of the total project cost of a standard local street section and 100% of the cost of extra width and extra depth above the city standard local street section.
- Storm sewer costs are to be included in the total project cost of a city standard local street, assessed 50% (and City pays 50%), in accordance with the Street Assessment Policy.
- All or some of the following improvements may be incorporated in a reconstruction project. Costs for these improvements will be included in the overall project cost, with a contribution from the City: storm water ponding, street lights, relocation of overhead power lines, street signs, sidewalks and trails, and boulevard trees.
- Corner lots and parcels with multiple frontages shall be assessed 50% of the front footage on each side.
- A minimum assessment shall be levied to parcels identified within the project area having neither direct primary nor non-primary access to affected streets. The assessment shall be equal to 75% of the typical front footage identified within the project area. Parcels abutting county roads are exempt from this provision.
- Assessments will not be levied for seal coat and overlay operations.
- Assessments may be pre-paid to the City by benefiting properties
- Assessments will be billed to the benefiting property owner by the City; typically over a ten (10) year period, at an interest rate of one percent (1%) over the bond interest rate. Other terms of the assessment receivable may be available to the benefiting property owners.
 - For any project, where all the benefiting property owner(s) are governmental entities (school district, county, state, etc.), the City will assess the benefiting property owner(s) the actual bond interest rate, typically over a ten (10) year period.
- In the case where a benefiting property owner is delinquent in their assessment payment, assessments may be certified to real estate taxes over a ten (10) year period, at an interest rate one percent (1%) over the bond interest rate.
- Partial pre-payments for assessments exceeding \$100,000.00 may be accepted by the City.

Infrastructure Improvement Cost Breakdown & Methodology

Improvement	Type of Construction	Method
Curb & Gutter	New Development	100% of the cost assessed to abutting property owner on linear front footage OR unit basis.
	Reconstruction (Complete)	The portion of the project costs assessed to the abutting property owner shall be based on a linear front footage basis of the parcel.
	Reconstruction (Spot repair)	100% of cost to be included in overall cost of project prior to assessment apportionment in accordance with policy.
Local Street	New Development	100% of the cost assessed to abutting property owner on linear front footage OR per unit basis.
	Reconstruction	50% of the cost to be assessed to abutting property owner on linear front footage OR per unit basis. 50% of the cost to be paid by City.
	Maintenance (Seal coat & overlay)	100% Paid with City funds.
Collector Street as defined by the City's Transportation Plan	New Development	100% of the construction cost of a city standard local street assessed to abutting property owner based on linear front footage OR per unit basis.
	Reconstruction	The portion of the project costs assessed to the abutting property owner shall be based on a linear front footage OR per unit basis. City pays 50% of the cost of the construction of city standard local street and 100% of the cost of construction above a city standard local street.
	Maintenance (Seal coat & overlay)	100% Paid with City funds.
Intersection	New Development	100% of the cost to be included as part of street project and apportioned according to appropriate street construction category.
	Reconstruction	100% of cost to be included in overall cost of project prior to assessment apportionment in accordance with policy.
Multiple Fronted Parcels - Corner Lot - Double Fronted Lot - Large Parcels - Etc.	Reconstruction	Front footage to be used in assessment methods described herein shall be calculated as follows: - 50% of the front footage on all sides of the parcel. 50% of the cost to be paid with City funds.

Table continues on next page

Improvement	Type of Construction	Method
Parcels with no driveway access to primary and non-primary streets.	Reconstruction	A minimum assessment shall be levied to parcels identified within the project area having no direct driveway access to neither primary nor non-primary streets, i.e. alley access. The assessment shall be equal to 75% of the typical front footage identified within the project area. Parcels abutting county roads are exempt from this provision.
Alley	New Development	100% of the cost assessed to abutting property owner on linear front footage OR per unit basis.
	Reconstruction	50% of the cost to be assessed to abutting property owner on linear front footage OR per unit basis. 50% of the cost to be paid with City funds.
Sanitary Sewer Trunk/Lateral	New Development	100% of the cost assessed to benefited area on unit basis.
	Reconstruction	50% of the cost assessed to benefited area on unit basis. 50% of the cost to be paid with City funds.
	Maintenance	100% of the cost to be paid with City funds.
Sanitary Sewer Service	New Development	100% of cost assessed to property owner.
	Reconstruction (Including main)	50% of the cost assessed to benefited area on a unit basis. 50% of the cost to be paid with City funds.
	Reconstruction (Stand alone service replacement)	100% of cost assessed to property owner.
Sanitary Sewer Oversizing	New Development	100% paid with City funds. (Materials cost above 8-inch pipe plus 20% for handling and installation.)
	Reconstruction	100% paid with City funds. (Materials cost above 8-inch pipe plus 20% for handling and installation.)
Lift Station	New Development	100% of the cost assessed to benefited area on a per unit basis.
Water Trunk/Lateral	New Development	100% of the cost assessed to benefited area on unit basis.
	Reconstruction	50% of the cost assessed to benefited area on unit basis. 50% of cost to be paid with City funds.
	Maintenance	100% of the cost to be paid with City funds.
Water Service	New Development	100% of cost assessed to property owner.
	Reconstruction (Including main)	50% of the cost assessed to benefited area on a unit basis. 50% of the cost to be paid with City funds.
	Reconstruction (Stand alone service replacement)	100% of cost assessed to property owner.
Water Oversizing	New Development	100% paid with City funds. (Materials cost above 8-inch pipe plus 20% for handling and installation.)
	Reconstruction	100% paid with City funds. (Materials cost above 8-inch pipe plus 20% for handling and installation.)
Storm Sewer Trunk/Lateral	New Development	100% of the cost assessed to benefited area on unit basis.
	Reconstruction	50% of the cost to be assessed to abutting property owner on linear front footage OR per unit basis. 50% of the cost to be paid with City funds.
	Maintenance	100% of the cost to be paid with City funds.
Storm Water Ponding	New Development	100% assessed to development.
	Reconstruction	Cost to be included in overall cost of project prior to assessment apportionment in accordance with policy. City makes contribution to the project.
	Maintenance	100% of the cost to be paid with City funds.

Table continues on next page

Improvement	Type of Construction	Method
Overhead Power Lines	Relocation	Cost to be included in overall cost of project prior to assessment apportionment in accordance with policy. City makes contribution to the project.
Street Lights	New Development	100% of material and installation cost on a unit basis paid by developer.
	Reconstruction	Cost to be included in overall cost of project prior to assessment apportionment in accordance with policy. City makes contribution to the project.
	Maintenance	100% of the cost to be paid with City funds.
Street Signs	New Development	100% of material and installation cost on a unit basis paid by developer.
	Reconstruction	Cost to be included in overall cost of project prior to assessment apportionment in accordance with policy. City makes contribution to the project.
	Maintenance	100% of the cost to be paid with City funds.
Sidewalks & Trails	New Development	100% of cost assessed on a unit basis to development.
	Reconstruction	Cost to be included in overall cost of project prior to assessment apportionment in accordance with policy. City makes contribution to the project.
	Maintenance	100% of the cost to be paid with City funds.
Boulevard Trees	New Development	100% of cost paid by developer.
	Reconstruction	Cost to be included in overall cost of project prior to assessment apportionment in accordance with policy. City makes contribution to the project.
	Maintenance	100% of the cost to be paid with City funds.

Deferred Special Assessments

Hardship Assessment Deferral for Senior Citizens, People with Disabilities, or Members of the National Guard or other Reserves Ordered to Active Military Service.

Pursuant to the authority for deferring special assessments as provided in Minnesota State Statute Section 435.193 through 435.195, the City Council may, in its discretion, defer the payment of special assessments for any homestead property owned by a person 65 years of age or older, one retired by virtue of a permanent and total disability, or a member of the National Guard or other reserves ordered to active military service for whom it would be a hardship to make the payments.

Eligibility

Any person 65 years of age or older, permanently and totally disabled (as determined by the Social Security Administrator), or a member of the National Guard or other reserve ordered to active military service may request deferment of special assessments levied against real property for public improvements if the following conditions are met.

1. **Ownership.** The applicant must be the fee simple owner of the property or must be a contract vendee for fee simple ownership. An applicant must provide either a recorded deed or contract for deed with the application to establish a qualified ownership interest as required here.
2. **Homestead.** The property must be the applicant's principal place of domicile and classified on the City's and County's real estate tax rolls as the applicant's homestead.

3. Income. The income threshold for eligibility of those applicants 65 years of age and older or disabled be established by the most recent U.S. Census Bureau Poverty Threshold compilations. Income eligibility would be determined by the submittal of the most recent federal tax filing form.

Interest on Deferred Assessment

Interest on the deferred assessment shall be forgiven until December 31st of the year before the first installment is payable.

Deferment Period

The deferment shall be granted for as long a period of time as the hardship exists and the conditions aforementioned have been met. However, it shall be the duty of the applicant to notify the City Administrator of any change in status that would affect eligibility or deferment.

The entire amount of deferred special assessments shall be due within sixty (60) days after loss of eligibility by the applicant. If the special assessment is not paid within the sixty (60) days, the City Administrator shall add thereto interest at a per annum interest rate of one percent (1%) above the bond interest rate and the total amount of principal and interest shall be certified to the County Auditor for collection with taxes the following year. Should the applicant demonstrate to the satisfaction of the City Council that full repayment of the deferred special assessment would cause the applicant particular undue financial hardship, the Council may order that the applicant pay within sixty (60) days a sum equal to the number of installments of deferred special assessments outstanding and unpaid to date, including principal and interest, with the balance thereafter paid according to the terms and conditions of the original special assessments.

Termination of Deferral Status

The option to defer the payment of special assessment shall terminate and all amounts accumulated plus applicable interest shall become due upon the occurrence of any one of the following events:

1. Sale of Property. The subject is sold, transferred, or subdivided in whole or in part.
2. Death of Owner. The death of the fee owner qualified for deferral status unless a surviving joint tenant, tenant in common, or contract vendee is eligible for the deferral benefit provided hereunder.
3. Nonhomestead Property. The subject property loses its homestead status for any reason.
4. No Hardship. The City Council determines that there would be no hardship to require an immediate or partial payment of the deferred special assessment.

Filing for Federal Status/Fee

An eligible applicant must file an application not later than thirty (30) days after the assessment is adopted by the City Council.

All deferral applications must be made on forms approved by the City and submitted to the City Administrator. The applicant will be charged an administrative filing fee, based on the current fee schedule.

Nothing herein shall be construed to prohibit the determination of hardship on the basis of exceptional and unusual circumstances not covered by the above noted requirements where the determination is made in a nondiscriminatory manner and does not give the applicant an unreasonable preference or advantage over other applicants.

Deferred Assessment Procedures

- Deferred Assessment Application form is provided to applicant/property owner by the City Administrator's Office.
- Applicant fills out the application form and provides the relevant information to document qualification for deferred assessment. Applicant then returns form to City Administrator's Office.
- City Administrator forwards the application to the Finance Director for review of qualifications. Finance Director makes recommendation to City Council to approve or deny the application.
- An approved application may be forwarded to the Carver County Recorder's office for recording and to the Carver County Taxpayer Services Division.
- The deferral information is entered into the City's property records data base.
- At such time the property no longer qualifies for the deferred assessment (upon a transfer of the property, loss of homestead status, or death, no hardship as determined by the Council), the County Auditor/Recorder's office will notify the City of the termination of the deferral status, and direct the party to the City Administrator's office to pay balance on the outstanding deferred assessment amount.

7. That my social security number is _____ Spouse _____
8. That on January 2, 20____ or December 1, 20____ I owned and occupied the above property as my homestead and such occupancy began on _____.
9. That the payments for improvements on the special assessments duly adopted by the City of Waconia as of _____ which have been allocated against the subject property would create undue personal hardship on my behalf and I respectfully request that payment be delayed and that such payments be so deferred for the years 20____ to 20____.

Owner Signature

Owner Signature

=====

I, _____, City Clerk of the City of Waconia, Carver County, State of Minnesota, do hereby certify that the application of _____, above named, has been duly reviewed and that in accordance with the minutes of official record was duly
 _____ **APPROVED** _____ **DENIED** as of _____, 20____.

That in accordance with approval granted, that the payment for special assessments on the applicant's subject property in the amount of \$_____ for the year (s) _____ should be so deferred with interest at the annual rate of $\frac{1}{2}\%$, until such time as it is deemed the applicant no longer qualifies or the property loses its eligibility.

Dated _____ 20____

City Clerk

10/2/2008

APPENDIX C

GEOTECHNICAL REPORT



CONSULTANTS

- ENVIRONMENTAL
- GEOTECHNICAL
- MATERIALS
- FORENSICS

**REPORT OF
GEOTECHNICAL EXPLORATION**
2022 and 2023 Infrastructure Improvements
Projects
Waconia, Minnesota

AET No. 20-23155

Date:

March 10, 2021

Prepared for:

City of Waconia
310 East 10th Street
Waconia, Minnesota 55387





CONSULTANTS
• ENVIRONMENTAL
• GEOTECHNICAL
• MATERIALS
• FORENSICS

March 10, 2021

City of Waconia
310 East 10th Street
Waconia, Minnesota 55387

Attn: Mr. Craig Eldred – Public Services Director

RE: Geotechnical Exploration
2022 and 2023 Infrastructure Improvements Projects
Waconia, Minnesota
AET No. 20-23155

Dear Mr. Eldred:

American Engineering Testing, Inc. (AET) is pleased to present the results of our subsurface exploration program and geotechnical engineering review for the City of Waconia's 2022 and 2023 Infrastructure Improvements projects. These services were performed according to our proposal to you dated September 15, 2020.

We are submitting an electronic (pdf) copy of the report to you. Additional copies are being sent on your behalf as noted below.

Please contact me if you have any questions about the report. I can also be contacted for arranging construction observation and testing services.

Sincerely,
American Engineering Testing, Inc.

A handwritten signature in black ink, appearing to read 'D.S. Van Heuveln', is written over the company name.

Derek S. Van Heuveln, PE

Senior Engineer

Phone: (651) 789-4656

dvanheuveln@amengtest.com

cc: Mr. Jake Saulsbury, PE – Bolton & Menk, Inc.

550 Cleveland Avenue North | St. Paul, MN 55114
Phone 651-659-9001 | Toll Free 800-972-6364 | Fax 651-659-1379 | www.amengtest.com | AA/EEO
This document shall not be reproduced, except in full, without written approval from American Engineering Testing, Inc.

Report of Geotechnical Exploration

2022 and 2023 Infrastructure Improvements Projects; Waconia, Minnesota
March 10, 2021
Report No. 20-23155

AMERICAN
ENGINEERING
TESTING, INC.

SIGNATURE PAGE

Prepared for:

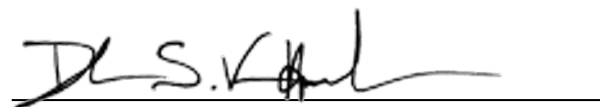
City of Waconia
310 East 10th Street
Waconia, Minnesota 55387

Attn: Mr. Craig Eldred – Public Services Director

Prepared by:

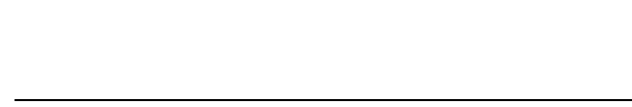
American Engineering Testing, Inc.
550 Cleveland Avenue North
St. Paul, Minnesota 55114
(651) 659-9001/www.amengtest.com

Authored by:



Derek S. Van Heuveln, PE
Senior Engineer

Reviewed by:



Gregory R. Reuter, PE, PG, D.GE
Principal Engineer/Vice President

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under Minnesota Statute Section 326.02 to 326.15

Name: Derek S. Van Heuveln

Date: March 10, 2021 License #: 45922

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Unauthorized use or copying of this document is strictly prohibited by anyone other than the client for the specific project.

Report of Geotechnical Exploration

2022 and 2023 Infrastructure Improvements Projects; Waconia, Minnesota

March 10, 2021

Report No. 20-23155

AMERICAN
ENGINEERING
TESTING, INC.**TABLE OF CONTENTS**

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AASHTO Classification System

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Report of Geotechnical Exploration

2022 and 2023 Infrastructure Improvements Projects; Waconia, Minnesota

March 10, 2021

Report No. 20-23155

AMERICAN
ENGINEERING
TESTING, INC.**1.0 INTRODUCTION**

The City of Waconia (City) is planning future infrastructure improvements projects for 2022 and 2023. To assist planning and design, you have authorized American Engineering Testing, Inc. (AET) to conduct a subsurface exploration program at the site, conduct soil laboratory testing, and perform a geotechnical engineering review for the project. This report presents the results of the above services, and provides our engineering recommendations based on this data.

2.0 SCOPE OF SERVICES

AET's services were performed according to our proposal to you dated September 15, 2020, which you authorized on September 17, 2020. The authorized scope consists of the following.

- Drilling 13 standard penetration test borings to depths ranging from 10 to 25 feet below grade.
- Performing soil laboratory testing, including water content, sieve analysis, and electrical resistivity testing on select samples.
- Conducting a geotechnical engineering review based on the data and preparing this report.

These services are intended for geotechnical purposes only. The scope is not intended to explore for the presence or extent of environmental contamination in the soil or groundwater.

3.0 PROJECT INFORMATION

The following information was provided to us by the City and their designer, Bolton & Menk. The proposed 2022 Infrastructure Improvements project has two work areas. One project area consists of the replacement of retaining walls along the east and west sides of Oak Avenue at the lake channel outlet culvert. The west wall is one tier and the east wall consists of two tiers. These walls, which are located south of Pietz Avenue, are currently segmental block retaining walls, and have deteriorated due to road salt and erosion from the outlet channel; apart from this the walls have performed satisfactorily. Design for these walls has not begun; however, we understand that it is planned to replace these walls with new retaining walls constructed of large wet cast retaining wall blocks, that is, prefabricated modular block wall (PMBW) without soil reinforcement (e.g. a gravity PMBW), per MnDOT nomenclature. The bottom elevation of the

Report of Geotechnical Exploration

2022 and 2023 Infrastructure Improvements Projects; Waconia, Minnesota
March 10, 2021
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TESTING, INC.

new walls will closely match the existing walls, and wall heights of 3 to 5 feet (similar to the existing walls) are anticipated. We have been provided with the Retaining Wall Details plan for the existing walls, dated October 14, 1996, as part of our review.

The second part of the 2022 project and the 2023 project includes utility replacement and street reconstruction in downtown Waconia. The project area generally includes Main Street West from Maple Street North to Spruce Street North, and portions of the cross streets within one block south of Main Street. The 2022 project will be from Maple Street to Olive Street, and the 2023 project will be from Olive Street to Spruce Street.

The sanitary sewer is planned to be replaced along Main Street between Maple Street and Pine Street, with smaller replacement areas along Olive Street and Elm Street south of Main Street. Following utility work, street reconstruction will be performed on Main Street and along portions of Olive Street, Elm Street, Pine Street, and Spruce Street.

The above stated information represents our understanding of the proposed construction. This information is an integral part of our engineering review. It is important that you contact us if there are changes from that described so that we can evaluate whether modifications to our recommendations are appropriate.

4.0 SUBSURFACE EXPLORATION AND TESTING

4.1 Field Exploration Program

The subsurface exploration program conducted for the project consisted of 13 standard penetration test borings. The number of borings, boring locations, and boring depths were determined by the City and Bolton & Menk. The logs of the borings and details of the methods used appear in Appendix A. The logs contain information concerning soil layering, soil classification, geologic origins, and moisture condition. A density description or consistency is also noted for the natural soils, which is based on the standard penetration resistance (N-value).

The boring locations are shown on Figure 1 in Appendix A. The borings were located in the field by Bolton & Menk. Final boring locations were offset based on underground utilities identified as part of the Gopher State One Call utility clearance. Surface elevations at the boring locations

Report of Geotechnical Exploration

2022 and 2023 Infrastructure Improvements Projects; Waconia, Minnesota

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were recorded in the field by AET personnel using a GPS unit with $\pm\frac{1}{2}$ -foot (0.15 meter) accuracy.

4.2 Laboratory Testing

The laboratory test program included water content testing on fine grained (clayey) soils, sieve analysis (gradation only) testing on select samples, and electrical resistivity testing on samples taken from Borings B-12 and B-19. The test results appear in Appendix A on the individual boring logs adjacent to the samples upon which they were performed, on the data sheets following the logs, or presented in the report text below.

5.0 SITE CONDITIONS**5.1 Pavement and Aggregate Base Thickness**

The bituminous pavement at our boring locations varied from approximately $2\frac{1}{4}$ inches (Boring B-22) to $8\frac{1}{4}$ inches (Borings B-11) thick, with an average of about $5\frac{3}{4}$ inches as measured from the augered boreholes. The varying pavement thickness could be due to overlays.

Apparent aggregate base materials were encountered at each boring location in a thickness that generally varied from approximately 4 to 18 inches. The base soils generally consisted of crushed limestone and silty sands with varying amounts of gravel. At Boring B-20, the possible aggregate base material consisted of a mixture of clayey sands and silty sands. Pieces of geotextile fabric were observed beneath the aggregate base at Borings B-10 to B-12. Please refer to table A for summary information.

Table 5.1– Pavement and Base Thickness

Soil Boring No.	Bituminous Thickness (inches)	Aggregate Base Thickness (inches)	Aggregate Base Type and AASHTO Classification
B-10	$7\frac{1}{2}$	12	Silty sand with gravel (A-1-b)
B-11	$8\frac{1}{4}$	12	Crushed limestone (A-1-b)
B-12	$7\frac{1}{2}$	15	Silty sand with gravel (A-1-b)

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2022 and 2023 Infrastructure Improvements Projects; Waconia, Minnesota

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Report No. 20-23155

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Soil Boring No.	Bituminous Thickness (inches)	Aggregate Base Thickness (inches)	Aggregate Base Type and AASHTO Classification
B-13	6½	8½	Crushed limestone (A-1-b)
B-14	6¾	4	Silty sand with gravel (A-1-b)
B-15	6½	>12	Silty sand with gravel (A-1-b)
B-16	5¾	18	Silty sand (A-2-4)
B-17	4¾	4	Crushed limestone and silty sand (A-1-b)
B-18	5½	18	Gravelly silty sand (A-1-b)
B-19	7¼	17	Silty sand (A-2-4)
B-20	2½	9½	Clayey sand and silty sand (A-2-6)
B-21	5	12	Silty sand (A-2-4)
B-22	2¼	10	Silty sand with gravel (A-1-b)

5.2 Subsurface Soils/Geology**5.2.1 Oak Avenue Area (Borings B-10 and B-11)**

Below the pavement and aggregate base, the Oak Avenue borings encountered fill to depths of 7 to 9¼ feet below grade. The fill could be roadway embankment, retaining wall backfill, or utility trench backfill. The fill consisted mainly of organic clays, lean clays, sandy lean clays, clayey sands, and silty sands with varying amounts of gravel. The N-values in the fill ranged from 4 to 15. The water content ranged from 13% to 38%.

Below the fill, the borings generally encountered naturally-deposited soft to very stiff sandy lean clays and clayey sands (A-6). Boring B-11 encountered a swamp deposit layer below the fill from 7 to 9½ feet below grade consisting of firm organic clay. The water content in the naturally-deposited soils ranged from 17% to 30%.

Report of Geotechnical Exploration

2022 and 2023 Infrastructure Improvements Projects; Waconia, Minnesota

March 10, 2021

Report No. 20-23155

AMERICAN
ENGINEERING
TESTING, INC.**5.2.2 Main Street Area (Borings B-12 to B-22)**

At the boring locations in the Main Street project areas, the borings encountered fill or possible fill to depths of 1 to 12 feet below grade. The fill could be roadway embankment or utility trench backfill. The fill consisted mainly of sandy lean clays, clayey sands, silty sands, and sands with silt with varying amounts of gravel. We observed pieces of bituminous in portions of the fill. Cinders were observed in the fill from 2 to 4½ feet at Boring B-19. The N-values in the fill ranged from 1 to 28. The water content in the clayey soils ranged from 11% to 28%.

Below the fill, the borings generally encountered naturally-deposited fine alluvium and till soils to the termination depths. A layer of firm organic clay (swamp deposit) was encountered at Boring B-12 from 12 to 14½ feet below grade. The water content of the organic clay was 26%.

The fine alluvial soils consist of lean clays and sandy lean clays. The N-values ranged from 6 to 17. The water content ranged from 24% to 33%. The till soils consist of sandy lean clays, clayey sands, and silty sands. The N-values in these soils ranged from 5 to 54. The water content in the clayey soils ranged from 14% to 23%. An apparent boulder was encountered in boring B-15 at a depth of approximately 5 feet.

5.3 Groundwater

We did not encounter groundwater in the majority of the boring locations at the time of our exploration. Groundwater was measured at a depth of 13.7 feet below grade at Boring B-14 and 21.4 feet below grade at Boring B-16. The majority of the site soils are relatively slow draining silty and clayey soils and an extended period of time would be required for groundwater to appear and stabilize in an open borehole; therefore, the absence of groundwater in our borings should not be taken to mean that groundwater would not be encountered in an excavation. Perched water levels can occur in sand and clay matrixes and groundwater may be encountered in some utility excavations. A discussion of the water level measurement methods is presented in Appendix A.

Groundwater levels fluctuate due to varying seasonal and annual rainfall and snow melt amounts, as well as other factors.

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Bituminous pavements are “flexible” systems, and require a high level of strength/stability from the upper subgrade zone. Generally, the upper 4 feet of the subgrade is considered the critical subgrade zone. At the test locations, the fill soils in the critical subgrade zone encountered have moderate strength and stability, unless further disturbed.

The soils found in the upper 4 feet range from moderately fast draining sands with silt to slow draining lean clay, sandy lean clay, and clayey sand. These soils have a moderate to high susceptibility to frost heaving and freeze thaw weakening.

The soils in the upper 4 feet of the subgrade had water contents varying from near optimum for compaction, based on our experience with these soils and the standard Proctor test (ASTM D 698), to above optimum moisture, with some water contents as high as 38%. In general, the inorganic soils more than 4 feet below subgrade elevation had water contents that varied from 14% to as high as 33%. The water content in the organic clays encountered in Borings B-11 and B-12 ranged from 26% to 30%. A larger percentage of these soils would be considered above “optimum” water content, and it may be difficult to obtain proper compaction for utility trench backfill.

6.0 UTILITY RECOMMENDATIONS**6.1 Approach Discussion**

The natural soils encountered in our borings were primarily clayey till and fine alluvial soils. These soils would generally be judged suitable to support the new utility pipes at depth. However, these till and alluvial soils can include cobbles and boulders, such as at encountered in Boring B-15. This may make excavating procedures somewhat more difficult than normal if they are encountered.

It should be noted that layers of organic clay were encountered at some of the boring locations. Utility pipe support and bedding will be significantly different in those zones than would be required in the alluvial and till soils encountered at our boring locations.

Groundwater was encountered at 2 of the 13 boring locations at depths ranging from approximately 13½ to 21½ feet below grade at the time of our exploration. Excavations for new

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utilities are planned to extend to depths of 14 to 17 feet below grade. The soils at our borings were predominately cohesive (lean clays, sandy lean clays, and clayey sand till and fine alluvium, and organic clay swamp deposits); however sandier seams in the cohesive soil matrix can be waterbearing, as well as layers of silty sands such as encountered at Boring B-22. The project contractor should consider groundwater control, which will need to be carefully planned and executed, as part of their installation process. If dewatering is required, it is the responsibility of the contractor to design the dewatering system. We anticipate groundwater control may be possible by using sump pits and pumps due to the relatively low permeability sandy lean clays and clayey sands.

Please refer to the following sections for additional information.

6.2 Bedding and Backfilling

We judge the natural soils encountered at our boring locations should provide acceptable utility foundation support. Where clayey or silty soils are present at pipe grade in open excavations, a 4-inch thick granular bedding layer should be placed beneath pipes to improve support uniformity. In organic soils, this bedding layer should be increased to at least 12 inches. If the soils are soft and susceptible to disturbance, or if organic soils are present, we recommend placing a geotextile separator fabric between the subgrade and the pipe bedding to reduce mixing of the subgrade and the bedding. We also recommend that the contractors remove any cobbles/boulders in the utility line trenches prior to utility line installation. This will reduce the potential for the development of point loads on the pipe that would not be accounted for in the pipe design.

6.2.1 Pipe Bedding

For pipe bedding material, we recommend a sand or sand and gravel mix, such as MnDOT 3149.2B2, with less than 12% of the particles (by weight) passing the No. 200 sieve. Imported fill will be required for the pipe bedding.

Pipe bedding should be carefully placed and hand-compacted under the haunches of the pipe, around the pipe, and to a minimum of 6 inches above the crown. As backfill is placed in the trenches, special caution must be given to the densification of the soil around and over the pipe. The contractor may have to use special manual techniques to properly compact the backfill under the haunches of the pipe, in order to prevent voids and prevent lateral movement of the pipe.

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The bedding must be in direct contact with the pipe before the trench is backfilled. This will also help prevent having dissimilar materials contact the metallic pipes and setting up potential corrosion cells.

6.2.2 Trench Backfill

The excavated non-organic soils can be used as backfill for new utility line trenches. The existing soils should be evaluated at the time of excavation to determine if these soils are suitable for use as trench backfill. Soils containing construction debris are generally not recommended for use as backfill, as the debris can make it difficult to adequately compact the entire lift thickness.

Utility trench backfill beneath pavements should be placed per the requirements of MnDOT Specification 2105.3F1 (Specified Density Method). The backfill soils should be placed in a maximum lift thickness of 1 foot or less for the granular soils and 8 inches or less for the cohesive soils. This specification requires soils placed within an excavation trench be compacted to a minimum of 100% of the *standard maximum dry unit weight* defined in ASTM: D698 (Standard Proctor test), at a water content 65% to 102% of the *standard optimum water content*.

The silty and clayey soils found at our borings are sensitive to changes in moisture content and could be difficult to compact at their natural moisture content and/or if they become wet and/or dry of optimum water content after they are excavated. Soils will need to be placed within a certain range of water (moisture) contents to attain desired compaction levels. Moisture conditioning to within this range can be time consuming, labor intensive, and requires favorable weather. Failure to compact the trench backfill to the recommended densities could result in excessive settlement of pavements constructed over this material. If it is not feasible to dry the soils then the backfill should be compacted in thin lifts, with a lower density anticipated and possibly some additional trench settlement. This is the “Quality Compaction Method,” MnDOT Specification 2105.3F.2. However, the top 3 feet of trench backfill should be dried to meet the recommend compaction specifications, as this is in the “critical” subgrade zone. Please refer to the enclosed standard sheets titled “Utility Excavation Backfilling” for additional information.

One method to mitigate differential utility trench backfill is to delay paving of the final wearing course of the pavement until the next construction season to allow settlement to occur and corrective grading/paving to be performed on areas of excessive differential settlement. The

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base course of pavement can be sawcut and removed, the subgrade and aggregate base can be regraded/compacted, and the bituminous base course replaced prior to final paving.

In “green” areas, backfill soils should be placed in reasonable lift thicknesses (about 1 foot or less) and compacted to a minimum of 90% of the Standard Proctor density (ASTM: D698) and/or per the MnDOT “Quality Compaction Method.” If lower compaction levels are attained, more noticeable subsidence at the surface can occur.

6.2.3 Utility Pipe Corrosion Potential

The soils encountered in the soil borings were predominately lean clays, sandy lean clays, and clayey sands, with occasional zones of organic clays, silty sands, and sands with silt. We performed soil resistivity on soil samples at Boring B-12 and B-19. The resistivity values were as follows:

Table 6.2.3 – Resistivity Values

Soil Boring No.	Depth of Sample Tested (ft.)	Natural Moisture (ohm-cm)	Water Added (ohm-cm)	Soil Type
B-12	7-11½	1210	1200	Fill - Sandy Lean Clay (CL)
B-19	7-9	1080	1010	Sandy Lean Clay (CL)

The above resistivity values, when compared to American Water Work Association (AWWA) charts and other sources, indicate that the clayey soils are considered corrosive. Organic soils are also considered corrosive. Silty sands are considered to be moderately corrosive. Corrosion can occur to buried metallic pipes that are not coated or protected from soils that are considered corrosive, or where fluctuating groundwater levels occur, or where dissimilar backfill has been placed.

In our opinion, the new watermain should have coated (or wrapped) pipes backfilled with a uniform sand bedding placed completely around the pipes so that clayey or organic soils are not

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touching the pipes. The entire system should be designed to be electrically continuous. HDPE pipes installed for directional drilled utilities are not considered corrosive.

7.0 PAVEMENTS**7.1 Definitions**

The italicized words used in this section have specific definitions. These definitions are presented on the attached Standard Sheet entitled “Definitions Relating to Pavement Construction” or in ASTM Standards or MnDOT Specifications. Some of these definitions are also noted in section 6.2 of this report.

7.2 Subgrade Preparation**7.2.1 Standard City Pavement Sections**

The current City pavement sections incorporate the use of a drained *sand subbase* layer of *Select Granular Material* beneath the aggregate base layer for bituminous pavement systems. The purpose of the *sand subbase* is to provide improved drainage for the aggregate base and upper zone of the subgrade which better controls frost heaving and thaw weakening effects. The appropriate *sand subbase* thickness is usually a function of the underlying soil’s frost and strength properties, and the traffic loadings.

The pavement sections, which also include geotextile fabric below the aggregate base, are as follows:

- Residential Section - 4½ inches bituminous, 6 inches aggregate base, and 12 inches of Select Granular Material (MnDOT 3149.2B.2).
- Truck Route Section - 6½ inches bituminous, 10 inches aggregate base, and 12 to 18 inches of Select Granular Material (MnDOT 3149.2B.2).

It is our opinion that for these project areas, a 1-foot thick *sand subbase* layer would suffice. Where there is a need to vary the thickness of the *sand subbase*, we recommend the thickness have a taper of no steeper than 10H:1V. The subcut and sand layer placement should extend slightly beyond the back of the curb to maintain frost uniformity.

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Because the underlying subgrade soils are generally clayey, and will not allow infiltrating water to percolate quickly, the *sand subbase* layer should be provided with a proper means of subsurface drainage. At the bottom of the *sand subbase*, we recommend the installation of finger drains tied into catch basins. The subsurface drains should be properly engineered and installed per MnDOT Specification 2502 Subsurface Drains, (MnDOT Standard Specifications for Construction, 2018 Edition, pages 394 to 401).

7.2.2 Stability Improvement

The final subgrade should have proper stability within the critical subgrade zone. When clayey soils or higher silty content soils are present, stability should be evaluated using the *test roll* procedure. Where unstable soils are found using the *test roll* process, then these soils should be improved by means of scarification, drying, and recompaction; or by subcutting and replacement. We recommend the final soils remaining in place be capable of passing a *test roll* prior to placing the *sand subbase* and/or aggregate base. It is our judgement that a *test roll* should not be necessary on the *sand subbase* material, or where the roadway subgrade consists of sands and sands with silt; in this case, the *test roll* process should be performed at the top of the aggregate base material prior to pavement construction.

We caution that instability of soils present beneath the soils being reworked and compacted may limit the ability to compact the upper soils. In this case, greater depths of subcutting and stability improvement may be needed.

7.2.3 Geosynthetic Use

A Type V geotextile fabric can be used for separation purposes below the *sand subbase*. A geotextile fabric (or a geogrid) can be used as reinforcement to aid in off-setting subgrade instability. For stability improvement, the geotextile fabric should be placed on top of the subgrade, below a *sand subbase* layer, which better uses the tensile properties of the fabric. However, you should recognize that the use of a geotextile stabilization fabric over *unstable soils* may not necessarily provide an equivalent off-set (compared to proper soil stabilization). Geotextile fabric use and installation should meet the requirements of MnDOT Specification 3733. A Type V geotextile is judged appropriate for separation purposes. However, if you wish to provide subgrade reinforcement, then a stronger geotextile should be used (Type VI).

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Following the subcutting and stabilization of existing soils as needed, fill can be placed as needed to re-attain subgrade elevation. Fill should be placed per the requirements of MnDOT Specification 2105.3.F.1 (Specified Density Method). This specification generally requires soils placed within the *critical subgrade zone* be compacted to a minimum of 100% of the *standard maximum dry unit weight* defined in ASTM: D698 (Standard Proctor test), at a water content 65% to 102% of the *standard optimum water content*. A reduced minimum compaction level of 95% of the *standard maximum dry unit weight* can be used below the *critical subgrade zone*. The moisture content below the upper 3-foot zone shall be from 65% to 115% of the *standard optimum moisture content*. The *sand subbase* can be considered part of a composite subgrade; and the top of the subbase can be figured as the top of the 3-foot subgrade zone needing the 100% compaction level. However, the lower (dry) end of the water content range requirement does not need to apply to the sand subbase.

7.3 Subgrade R-value

The limiting on-site subgrade soils are the lean clay, sandy lean clay, and clayey sand soils. Based on the laboratory classification, we recommend using a design R-value of 12.

7.4 Aggregate Base

New aggregate base imported for pavement support should meet the gradation and quality requirements for Class 5, 5Q, or 6 per MnDOT Spec. 3138. Aggregate base placement and compaction should be performed according to MnDOT Spec. 2211. All aggregate base material (including existing, imported, or reclaimed) should be tested for compaction using the Penetration Index Method per MnDOT Spec. 2211.3.D.2.c.

7.5 Bituminous Pavement Comments

The bituminous materials should meet appropriate MnDOT 2360 specifications. The mix designs presented previously meet minimum requirements. We recommend limiting RAP within the upper wear course to a maximum of 10% and in lower courses to a maximum of 20% to reduce thermal cracking. Minimizing the number of mixes and binder oils (PG grades) used on a project is generally more economical. Other mix design alternatives include the following options:

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- Size-A aggregate ($\frac{1}{2}$ -inch minus) can be used instead of the Size-B aggregate ($\frac{3}{4}$ -inch minus). Size-A aggregate generally provides a “finer” pavement surface and therefore tighter longitudinal joints. Size-B aggregate will generally accommodate Recycled Asphalt Pavement (RAP) more readily than size-A aggregate.
- The use of an F-binder oil (PG 58V-34) in the wear layers will reduce rutting caused by turning movements, slow speeds, and starting/stopping traffic. It will also result in less thermal cracking of the pavement and subsequently less maintenance and better long-term pavement performance.

Regardless of the improvement approach selected, all bituminous pavements require on-going maintenance to reach their design life. Even if placed and compacted properly over stable subgrade conditions, bituminous pavements typically experience cracking in 1 to 3 years, primarily due to temperature-related expansion and shrinkage. We recommend that a regularly scheduled maintenance program consisting of patching of cracks and local distressed areas be implemented. Seal coating of the pavement surface after 3 to 5 years also helps prolong the pavement life.

8.0 RETAINING WALLS

8.1 Approach Discussion

We understand your desired wall type is a prefabricated modular block wall (PMBW) without soil reinforcement (e.g. a gravity PMBW). We recommend that the walls be designed and constructed per MnDOT Special Provision S-2411. As noted, no drawings or plans have been provided to us for the new retaining walls. The City has provided us with a topographic plan view of the area showing that the replacement walls will be placed on the east and west sides of Oak Avenue at the lake outlet culvert. The culvert consists of a 72-inch diameter corrugated metal pipe. You indicated that the walls will be constructed in approximately the same lengths as the existing walls (120 feet for the east wall and 190 feet for the west wall). Exposed wall heights are anticipated to be approximately 3 to 5 feet, similar to the existing walls. Based on the site survey provided, we assume the proposed ground surface elevation along the wall alignment will match the existing walls, which range from 958 to 963 feet on the east wall and 958 to 965 feet on the west wall. It is in our experience that an exposed height of 8 feet is the normal limit using the MnDOT Special Provision for PMBW's without soil reinforcement.

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Our recommended approach to prepare the retaining wall foundation is to excavate the fill and swamp deposited soils below the retaining wall to the underlying naturally-deposited sandy lean clay till at about elevation 951 feet, and placing engineered fill in lifts to re-attain bottom of leveling pad elevation. Excavations to elevation 951 feet will be near the invert elevation of the culvert, and would likely require damming of the outlet channel (e.g. coffer dams) and bypass pumping or other water control to allow earthwork to occur in dry conditions.

If the City is willing to accept an increased risk of greater than normal settlement and wall movement, the walls could be reconstructed in a similar configuration, supported on the in-place foundation soils. The existing walls have performed satisfactorily in regard to settlement and lateral movement, and future wall performance would be anticipated to be similar as long as a similar geometry (grades, exposed heights, alignments) was used for the replacement walls. Geometry changes, such as replacing the current two-tiered east wall with a single wall or increasing wall heights, would result in additional settlement and risk for the City with this approach.

To reduce the risk of greater than normal wall settlement with either the approach of reconstructing the walls in a similar configuration, or with geometry changes, consideration could be given to using compaction grouting to strengthen the existing fill and swamp deposited soils in place, and constructing the new walls on these compaction grouted soils. Compaction grouting is performed by a specialty contractor and consists of inserting a ported probe to the design treatment depth and injecting grout under pressure in lifts as the probe is retracted. The grout is injected in a series of overlapping bulbs, which work to increase the stiffness of the surrounding soils. This approach would be performed to increase the bearing capacity of the in-place soils, reduce foundation settlement, and reduce the required excavation depths, which should result in a lesser need for groundwater/outlet channel control measures. Design of compaction grouting is performed by a specialty contractor based on the conditions encountered at a project site. One local contractor that performs compaction grouting services is Veit & Company, Inc.

Our scope of services did not include global stability analysis, internal stability analysis, or external stability analysis items of sliding, overturning, and compound failure of the walls. We understand that these analyses will be performed by others.

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Based on our geotechnical review, we recommend the wall designer utilize the soil parameters in Table 8.2-1 to design the wall and evaluate stability. Please refer to the attached MnDOT Figure 2411-1 “Gravity PMBW Material Definitions/Typical Cross Sections” for additional information.

Table 8.2-1. Soil Parameters for PMBW External Stability Evaluation

Soil Description	Unit Weight (pcf)	Drained Friction Angle (degrees)	Undrained Cohesion (psf)
Backfill Soils	125	34	0
Retained Soil	120	28	0
Foundation Soils*	120	28	1,000

*Assuming soil correction is performed.

We recommend the retained soil parameters based on the existing mixed fill soils, including lean clays, sandy lean clays, clay sands, and silty sands. The foundation soils are assumed to consist of the underlying stiff sandy lean clay till. Additional borings or test pit excavations could be performed to provide additional information on the strength of the retained soil.

We recommend the bottom of the leveling pad be embedded at least 4 feet (i.e. minimum 4 feet of cover for the bottom of the wall) for frost protection, and that a minimum 6-inch thick unreinforced concrete leveling pad be utilized, which is consistent with the PMBW special provisions.

Gravity PMBW's are not allowed to support traffic within a 1V:1H horizontal distance measured from the front face bottom corner of the bottom block per MnDOT standards. For example, assuming the anticipated maximum exposed wall height of 5 feet and assuming the lowest block course is 3½ feet below grade (on top of the leveling pad) results in the roadway being no closer than 8½ feet behind the top of the wall to satisfy the design standard. A thicker leveling pad could be used to raise the lowest course of block and reduce the roadway set back distance.

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To prepare the retaining wall area for foundation support, we recommend the excavation of all fill and swamp deposited soils from within the retaining wall footprint to the underlying naturally-deposited stiff sandy lean clay till. Excavations should extend at least 6 inches below the proposed bottom of wall elevation for the placement of a leveling pad (typically unreinforced concrete per the MnDOT PMBW special provisions). This would result in excavation depths at the boring locations as shown in Table 8.3.1.

Table 8.3.1 – Recommended Excavation Depths

Boring Location	Surface Elevation (ft)	Excavation Depth (ft)	Approximate Excavation Elevation (ft)
B-10	962.8	12	951
B-11	962.9	12	951

The depth/elevation indicated in Table 8.3.1 is based on the soil condition at the specific boring location. Since conditions will vary away from the boring location, it is recommended that AET geotechnical personnel observe and confirm the competency of the soils in the entire excavation bottom prior to new fill or leveling pad placement.

Where the excavation extends below foundation grade, the excavation bottom and resultant engineered fill system must be oversized laterally beyond the planned outside edges of the foundations to properly support the lateral loads exerted by that foundation. This excavation/engineered fill lateral extension should at least be equal to the vertical depth of fill needed to attain foundation grade at that location (i.e., 1H:1V lateral oversize).

8.3.2 Excavations Adjacent to Existing Utilities, Roadways, and Culvert

Extreme care should be exercised when excavating adjacent to the existing culvert, pavements, and utilities, as these activities could possibly undermine foundations, or other grade supported improvements. Excavations should not extend below any existing slabs, pavements, or utilities. Excavation slopes adjacent to the existing structures or utilities should be cut in a benched pattern which should exhibit an overall slope of approximately 2H:1V or flatter and individual benches should not be taller than 2 feet. If this cannot be accomplished, underpinning or soil stabilization may be needed for proper support of the existing structure.

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Groundwater and outlet channel water control may be required to allow excavations and earthwork operations adjacent to the culvert to be performed under dry conditions. If groundwater is encountered, the level of drawdown should be achieved before the excavation reaches the planned elevation and maintained at least 2 feet below the lowest anticipated subgrade or subcut elevation. The water table should not be lowered more than necessary to provide a dry excavation, to reduce the risk of settlement of adjacent structures, pavements, and sewers. It is the responsibility of the designers of the dewatering system to assess the effects of lowering the groundwater on adjacent structures, pavements, or sewers.

8.3.3 Subgrade Fill Placement and Compaction

Fill placed to attain grade for foundation support (i.e. to backfill any excavations that may be needed below the leveling pad) should be compacted in thin lifts, such that the entire lift achieves a minimum compaction level of 98% of the standard maximum dry unit weight per ASTM:D698 (Standard Proctor test). Fill placed outside of the 1:1 oversize zone below the leveling pad should have a minimum compaction level of 95% of the standard maximum dry unit weight. All fill should be free of debris, rubble, organics, and other unsuitable materials. All fill soils should be compacted with equipment which will densify the entire lift of fill. Fill should not be placed over frozen soils, and frozen soils should not be used as fill.

8.4 Foundation Support Recommendations

The MnDOT PMBW standard plans require an allowable bearing pressure of 2,000 psf for walls up to 10 feet tall (8-foot exposed height, with minimum 2 feet embedment) with level fill at the top of the wall.

Based on the conditions encountered, it is our opinion the encountered soil conditions would be suitable for conventional foundation design for PMBW retaining walls based on an allowable soil bearing pressure of up to 2,000 psf. It is our judgment this design pressure will have a factor of safety of at least 3 with respect to the ultimate bearing capacity. We estimate that total settlements under these loadings should not exceed 1-inch and differential settlements are estimated to be less than 1"/200" over the length of each wall assuming the soils along the length of the wall are uniform as depicted in the borings.

The bottoms of all foundation excavations should be free of water and loose soil prior to placing structural fill or concrete. Structural fill should be placed soon after excavating to reduce bearing

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soil disturbance, and concrete should be placed soon after excavating or completion of the structural fill placement. If the materials at bearing level become excessively dry, disturbed, saturated, or frozen, the affected material should be removed and replaced prior to placing concrete.

8.5 Wall Backfill Recommendations

The new wall backfill should consist of *Select Granular Material Modified 10%* per the MnDOT PMBW special provisions. The new fill material should provide a minimum friction angle of 34 degrees, which should be confirmed via material testing in accordance with Standard Method of Direct Shear Test of Soils under Consolidated Drained Conditions (ASTM: D3080/AASHTO T236). The zone of sand backfill should extend behind the wall to a 2V:1H (i.e. 63 degree) backslope up from the back of the leveling pad for the blocks.

Wall backfill should be compacted in thin lifts, such that the entire lift achieves a minimum compaction level of at least 95% of the standard maximum dry unit weight per ASTM: D698 (Standard Proctor test). Note the MnDOT PMBW specifications or the wall designer may require a higher compaction level, particularly if the backfill supports pavements or other surface structures.

Compaction within 3 feet of the back of the retaining wall should be accomplished with hand-operated tampers or other lightweight compactors. Over-compaction may cause excessive lateral earth pressures which could result in unexpected wall movement or cracking.

8.6 Wall Drainage Recommendations

We recommend that a perforated drainpipe wrapped with Type I geotextile (meeting MnDOT Spec. 3733) be placed immediately behind the block at the same elevation as the lowest block course, on top of the concrete leveling pad. The drain pipe should extend through the wall at maximum intervals of 150 feet to gravity outlet or connect to the existing storm sewer system, if feasible.

9.0 CONSTRUCTION CONSIDERATIONS

9.1 Potential Difficulties

9.1.1 Water in Excavations

Groundwater was observed in 2 of the 13 borings drilled in the planned project areas. Groundwater should also be expected near the level of the lake outlet channel. Water also can be expected to collect in the excavation bottom during times of inclement weather or snow melt. To allow observation of the excavation bottom, to reduce the potential for soil disturbance, and to facilitate filling operations, we recommend water be removed from within the excavation during construction. Based on the soils encountered, we anticipate the groundwater can be handled with conventional sump pumping.

If groundwater is encountered, the level of drawdown should be achieved before the excavation reaches the planned elevation and maintained at least 2 feet below the lowest anticipated subgrade or subcut elevation. The water table should not be lowered more than necessary to provide a dry excavation, to reduce the risk of settlement of adjacent structures, pavements, and sewers. It is the responsibility of the designers of the dewatering system to assess the effects of lowering the groundwater on adjacent structures, pavements, or sewers.

9.1.2 Disturbance of Soils

The on-site soils can be disturbed under construction traffic, especially if the soils are wet. If soils become disturbed, they should be subcut to the underlying undisturbed soils. The subcut soils can then be dried and recompacted back into place, or they should be removed and replaced with drier imported fill.

9.1.3 Cobbles and Boulders

The soils at this site can include cobbles and boulders. This may make excavating procedures somewhat more difficult than normal if they are encountered.

9.2 Excavation Backsloping

If excavation faces are not retained, the excavations should maintain maximum allowable slopes in accordance with *OSHA Regulations (Standards 29 CFR), Part 1926, Subpart P, "Excavations"* (can be found on www.osha.gov). Even with the required OSHA sloping, water

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seepage or surface runoff can potentially induce sideslope erosion or sloughing which could require slope maintenance.

9.3 Observation and Testing

The recommendations in this report are based on the subsurface conditions found at our test boring locations. Since the soil conditions can be expected to vary away from the soil boring locations, we recommend on-site observation by a geotechnical engineer/technician during construction to evaluate these potential changes. Soil density testing should also be performed on new fill placed in order to document that project specifications for compaction have been satisfied.

10.0 ASTM STANDARDS

When we refer to an ASTM Standard in this report, we mean that our services were performed in general accordance with that standard. Compliance with any other standards referenced within the specified standard is neither inferred nor implied.

11.0 LIMITATIONS

Within the limitations of scope, budget, and schedule, we have endeavored to provide our services according to generally accepted geotechnical engineering practices at this time and location. Other than this, no warranty, express or implied, is intended.

Important information regarding risk management and proper use of this report is given in Appendix B entitled “Geotechnical Report Limitations and Guidelines for Use.”

UTILITY EXCAVATION BACKFILLING

GENERAL

Clayey and silty soils are often difficult to compact, as they may be naturally wet or dry, or may become wet due to ground water or runoff water during construction. Soils will need to be placed within a certain range of water (moisture) content to attain desired compaction levels. Moisture conditioning to within this range can be time consuming and labor intensive, and will require favorable weather.

The degree of compaction and the soil type used for backfill within open cut utility excavations depends on the eventual function of the overlying land surface. Details are as follows:

ROADWAYS

Where trenches are located below roadways, we recommend using inorganic fill and compacting these soils per MnDOT Specification 2105.3F1 (Specified Density Method). On MnDOT funded roads, the 2016 Specification requires 100% compaction over the entire trench depth. On non-MnDOT funded roads, we feel the specification can be relaxed to the previous version of achieving 100% of the Standard Proctor density in the upper 3-foot subgrade zone, and 95% below this depth. Note that this specification also includes moisture content range requirements which are important for proper subgrade stability.

Where available soils are wet or of poor quality, it may be possible to use the "Quality Compaction Method" (MnDOT Specification 2105.3F2) for soils below the upper 3-foot subgrade zone if you can tolerate some subsidence. However, a high level of stability is still important within the upper subgrade zone and recommend that the "Specified Density Method" be used in this upper subgrade area. We caution that if backfill soils in the lower trench area are significantly unstable, it may be difficult or even impossible to properly compact soils within the upper 3-foot subgrade zone. In this case, road subgrade stability can be improved by placing a geotextile reinforcement fabric directly over the unstable soils followed by properly drained granular fill placement.

STRUCTURAL AREAS

If fill is placed beneath or within the significant zone of influence of a structure (typically a 1:1 lateral oversize zone), the soil type and minimum compaction level will need to be evaluated on an individual basis. Because trenches result in variable fill depths over a short lateral distance, higher than normal compaction levels and/or more favorable (sandy) soil fill types may be needed. If this situation exists, it is important that special geotechnical engineering review be performed.

NON-STRUCTURAL AREAS

In grass/ditch areas, backfill soils should be placed in reasonable lift thicknesses and compacted to a minimum of 90% of the Standard Proctor density (ASTM: D698) and/or per the MnDOT "Quality Compaction Method." If lower compaction levels are accepted, more noticeable subsidence at the surface can occur. Steep or high slopes require special consideration, and if this situation exists, it is important that special geotechnical engineering review be performed.

SPECIAL CASES

Structural retention systems are often used to reduce impacts on adjacent streets/improvements. If localized excavations/pits or annular spaces are created which need to be backfilled, it may not be possible to place and compact soils by the conventional means of backfilling. Retraction of structural systems can also leave soils loosened. Significant settlement can occur in areas where backfill cannot be compacted. If these situations are located in non-structural or non-paved areas, it may be reasonable to accept the settlements and associated follow-up maintenance in order avoid the high cost of trying to compact the soil or placing flowable lean concrete fill. However, there may be areas where fill settlement needs to be avoided, especially as the settlement will be differential from the surrounding surface, or differential from a buried structure in the case of higher piping entering the structure. Where settlement needs to be avoided, the specification should require that the contractor submit a backfill compaction plan along with the retention plan. Improper sequencing of retention system removal and backfilling of the pits could result in excessive settlement and/or lateral movement of nearby improvements.

DEFINITIONS RELATING TO PAVEMENT CONSTRUCTION

Top of subgrade: Grade which contacts the bottom of the aggregate base layer.

Sand subbase: Uniform thickness sand layer placed as the top of subgrade which is intended to improve the frost and drainage characteristics of the pavement system by increasing drainage of excess water in the aggregate base and subbase, by reducing and “bridging” frost heaving, and by reducing spring thaw weakening effects.

Critical subgrade zone: The subgrade portion beneath and within three vertical feet of the top of subgrade. A sand subbase, if placed, would be considered the upper portion of the critical subgrade zone.

Suitable Grading Material: Mineral soil materials, typically from the project site, excluding the following: 1) soils which have an organic content exceeding 3%, 2) cohesive soils having a Liquid Limit exceeding 50%, 3) soils which include debris, cobbles, and/or boulders, and 4) soils which are considered acceptable from an environmental standpoint. The soil must also be capable of attaining the specified compaction level at its current water content or at a water content that can be reasonably scarified, blended, and moisture conditioned to a uniform water content in order to uniformly meet compaction requirements.

Granular Material: Soils meeting MnDOT Specification 3149.2B.1. This refers to granular soils which, of the portion passing the 1" sieve, contain less than 20% by weight passing the #200 sieve.

Select Granular Material: Soils meeting MnDOT Specification 3149.2B.2. This refers to granular soils which, of the portion passing the 1" sieve, contain less than 12% by weight passing the #200 sieve.

Select Granular Material (Super Sand): Soils meeting MnDOT Specification 3149.2B.3. This material is cleaner and coarser than Select Granular Material (see specification for specific requirements).

Compaction Subcut: Construction of a uniform thickness subcut below a designated grade to provide uniformity and compaction within the subcut zone. Replacement fill can be the materials subcut, although the reused soils should be blended to a uniform soil condition, moisture conditioned as needed to meet MnDOT Specification 2105.F; and re-compacted per the Specified Density Method defined in MnDOT Specification 2105.3F.1.

Test Roll: A means of evaluating the near-surface stability of subgrade soils (usually non-granular). Suitability is determined by the depth of rutting or deflection caused by passage of heavy rubber-tired construction equipment, such as a loaded dump truck, over the test area. Yielding of less than 1" is normally considered acceptable, although engineering judgment may be applied depending on the equipment used, soil conditions present, and/or depth below final grade.

Unstable Soils: Subgrade soils which do not pass a test roll. Unstable soils typically have water content exceeding the *standard optimum water content* defined in ASTM:D698 (Standard Proctor test).

Organic Soils: Soils which have sufficient organic content such that the soils engineering properties are negatively affected (typically more than 3% organic content). These soils are usually black to dark brown in color.

Report of Geotechnical Exploration

2022 and 2023 Infrastructure Improvements Projects; Waconia, Minnesota

March 10, 2021

Report No. 20-23155

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Appendix A

Geotechnical Field Exploration and Testing

Boring Log Notes

Unified Soil Classification System

AASHTO Classification System

Figures 1 to 3 – Boring Locations

Subsurface Boring Logs

Sieve Analysis Tests

MnDOT Figure 2411-1 Gravity PMBW Material Definitions/Typical Cross
Sections

Appendix A

Geotechnical Field Exploration and Testing

Report No. 20-23155

A.1 FIELD EXPLORATION

The subsurface conditions at the site were explored by drilling and sampling 13 standard penetration test borings. The locations of the borings appear on Figure 1, preceding the Subsurface Boring Logs in this appendix.

A.2 SAMPLING METHODS

A.2.1 Split-Spoon Samples (SS) - Calibrated to N_{60} Values

Standard penetration (split-spoon) samples were collected in general accordance with ASTM: D1586 with one primary modification. The ASTM test method consists of driving a 2-inch O.D. split-barrel sampler into the in-situ soil with a 140-pound hammer dropped from a height of 30 inches. The sampler is driven a total of 18 inches into the soil. After an initial set of 6 inches, the number of hammer blows to drive the sampler the final 12 inches is known as the standard penetration resistance or N-value. Our method uses a modified hammer weight, which is determined by measuring the system energy using a Pile Driving Analyzer (PDA) and an instrumented rod.

In the past, standard penetration N-value tests were performed using a rope and cathead for the lift and drop system. The energy transferred to the split-spoon sampler was typically limited to about 60% of its potential energy due to the friction inherent in this system. This converted energy then provides what is known as an N_{60} blow count.

The most recent drill rigs incorporate an automatic hammer lift and drop system, which has higher energy efficiency and subsequently results in lower N-values than the traditional N_{60} values. By using the PDA energy measurement equipment, we are able to determine actual energy generated by the drop hammer. With the various hammer systems available, we have found highly variable energies ranging from 55% to over 100%. Therefore, the intent of AET's hammer calibrations is to vary the hammer weight such that hammer energies lie within about 60% to 65% of the theoretical energy of a 140-pound weight falling 30 inches. The current ASTM procedure acknowledges the wide variation in N-values, stating that N-values of 100% or more have been observed. Although we have not yet determined the statistical measurement uncertainty of our calibrated method to date, we can state that the accuracy deviation of the N-values using this method is significantly better than the standard ASTM Method.

A.2.2 Disturbed Samples (DS)/Spin-up Samples (SU)

Sample types described as "DS" or "SU" on the boring logs are disturbed samples, which are taken from the flights of the auger. Because the auger disturbs the samples, possible soil layering and contact depths should be considered approximate.

A.2.3 Sampling Limitations

Unless actually observed in a sample, contacts between soil layers are estimated based on the spacing of samples and the action of drilling tools. Cobbles, boulders, and other large objects generally cannot be recovered from test borings, and they may be present in the ground even if they are not noted on the boring logs.

Determining the thickness of "topsoil" layers is usually limited, due to variations in topsoil definition, sample recovery, and other factors. Visual-manual description often relies on color for determination, and transitioning changes can account for significant variation in thickness judgment. Accordingly, the topsoil thickness presented on the logs should not be the sole basis for calculating topsoil stripping depths and volumes. If more accurate information is needed relating to thickness and topsoil quality definition, alternate methods of sample retrieval and testing should be employed.

A.3 CLASSIFICATION METHODS

Soil descriptions shown on the boring logs are based on the Unified Soil Classification (USC) system. The USC system is described in ASTM: D2487 and D2488. Where laboratory classification tests (sieve analysis or Atterberg Limits) have been performed, accurate classifications per ASTM: D2487 are possible. Otherwise, soil descriptions shown on the boring logs are visual-manual judgments. Charts are attached which provide information on the USC system, the descriptive terminology, and the symbols used on the boring logs.

Visual-manual judgment of the AASHTO Soil Group is also noted as a part of the soil description. A chart presenting details of the AASHTO Soil Classification System is also attached.

Appendix A
Geotechnical Field Exploration and Testing
Report No. 20-23155

The boring logs include descriptions of apparent geology. The geologic depositional origin of each soil layer is interpreted primarily by observation of the soil samples, which can be limited. Observations of the surrounding topography, vegetation, and development can sometimes aid this judgment.

A.4 WATER LEVEL MEASUREMENTS

The ground water level measurements are shown at the bottom of the boring logs. The following information appears under “Water Level Measurements” on the logs:

- ♦ Date and Time of measurement
- ♦ Sampled Depth: lowest depth of soil sampling at the time of measurement
- ♦ Casing Depth: depth to bottom of casing or hollow-stem auger at time of measurement
- ♦ Cave-in Depth: depth at which measuring tape stops in the borehole
- ♦ Water Level: depth in the borehole where free water is encountered
- ♦ Drilling Fluid Level: same as Water Level, except that the liquid in the borehole is drilling fluid

The true location of the water table at the boring locations may be different than the water levels measured in the boreholes. This is possible because there are several factors that can affect the water level measurements in the borehole. Some of these factors include: permeability of each soil layer in profile, presence of perched water, amount of time between water level readings, presence of drilling fluid, weather conditions, and use of borehole casing.

A.5 LABORATORY TEST METHODS

A.5.1 Water Content Tests

Conducted per AET Procedure 01-LAB-010, which is performed in general accordance with ASTM: D2216 and AASHTO: T265.

A.5.2 Sieve Analysis of Soils (thru #200 Sieve)

Conducted per AET Procedure 01-LAB-040, which is performed in general conformance with ASTM: D6913, Method A.

A.5.3 Laboratory Soil Resistivity using the Wenner Four-Electrode Method

Conducted per AET Procedure 01-LAB-090, which is performed using Soil Box apparatus in the laboratory in general accordance with ASTM: G57

A.6 TEST STANDARD LIMITATIONS

Field and laboratory testing is done in general conformance with the described procedures. Compliance with any other standards referenced within the specified standard is neither inferred nor implied.

A.7 SAMPLE STORAGE

Unless notified to do otherwise, we routinely retain representative samples of the soils recovered from the borings for a period of 30 days.

BORING LOG NOTES

DRILLING AND SAMPLING SYMBOLS

Symbol	Definition
AR:	Sample of material obtained from cuttings blown out the top of the borehole during air rotary procedure.
B, H, N:	Size of flush-joint casing
CAS:	Pipe casing, number indicates nominal diameter in inches
COT:	Clean-out tube
DC:	Drive casing; number indicates diameter in inches
DM:	Drilling mud or bentonite slurry
DR:	Driller (initials)
DS:	Disturbed sample from auger flights
DP:	Direct push drilling; a 2.125 inch OD outer casing with an inner 1½ inch ID plastic tube is driven continuously into the ground.
FA:	Flight auger; number indicates outside diameter in inches
HA:	Hand auger; number indicates outside diameter
HSA:	Hollow stem auger; number indicates inside diameter in inches
LG:	Field logger (initials)
MC:	Column used to describe moisture condition of samples and for the ground water level symbols
N (BPF):	Standard penetration resistance (N-value) in blows per foot (see notes)
NQ:	NQ wireline core barrel
PQ:	PQ wireline core barrel
RDA:	Rotary drilling with compressed air and roller or drag bit.
RDF:	Rotary drilling with drilling fluid and roller or drag bit
REC:	In split-spoon (see notes), direct push and thin-walled tube sampling, the recovered length (in inches) of sample. In rock coring, the length of core recovered (expressed as percent of the total core run). Zero indicates no sample recovered.
SS:	Standard split-spoon sampler (steel; 1.5" is inside diameter; 2" outside diameter); unless indicated otherwise
SU	Spin-up sample from hollow stem auger
TW:	Thin-walled tube; number indicates inside diameter in inches
WASH:	Sample of material obtained by screening returning rotary drilling fluid or by which has collected inside the borehole after "falling" through drilling fluid
WH:	Sampler advanced by static weight of drill rod and hammer
WR:	Sampler advanced by static weight of drill rod
94mm:	94 millimeter wireline core barrel
▼:	Water level directly measured in boring
▽:	Estimated water level based solely on sample appearance

TEST SYMBOLS

Symbol	Definition
CONS:	One-dimensional consolidation test
DEN:	Dry density, pcf
DST:	Direct shear test
E:	Pressuremeter Modulus, tsf
HYD:	Hydrometer analysis
LL:	Liquid Limit, %
LP:	Pressuremeter Limit Pressure, tsf
OC:	Organic Content, %
PERM:	Coefficient of permeability (K) test; F - Field; L - Laboratory
PL:	Plastic Limit, %
q _p :	Pocket Penetrometer strength, tsf (<u>approximate</u>)
q _c :	Static cone bearing pressure, tsf
q _u :	Unconfined compressive strength, psf
R:	Electrical Resistivity, ohm-cms
RQD:	Rock Quality Designation of Rock Core, in percent (aggregate length of core pieces 4" or more in length as a percent of total core run)
SA:	Sieve analysis
TRX:	Triaxial compression test
VS _R :	Vane shear strength, remolded (field), psf
VS _U :	Vane shear strength, undisturbed (field), psf
WC:	Water content, as percent of dry weight
%-200:	Percent of material finer than #200 sieve

STANDARD PENETRATION TEST NOTES

(Calibrated Hammer Weight)

The standard penetration test consists of driving a split-spoon sampler with a drop hammer (calibrated weight varies to provide N₆₀ values) and counting the number of blows applied in each of three 6" increments of penetration. If the sampler is driven less than 18" (usually in highly resistant material), permitted in ASTM: D1586, the blows for each complete 6" increment and for each partial increment is on the boring log. For partial increments, the number of blows is shown to the nearest 0.1' below the slash.

The length of sample recovered, as shown on the "REC" column, may be greater than the distance indicated in the N column. The disparity is because the N-value is recorded below the initial 6" set (unless partial penetration defined in ASTM: D1586 is encountered) whereas the length of sample recovered is for the entire sampler drive (which may even extend more than 18").

UNIFIED SOIL CLASSIFICATION SYSTEM

ASTM Designations: D 2487, D2488

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Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A				Soil Classification		Notes
				Group Symbol	Group Name ^B	
Coarse-Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines ^C	Cu≥4 and 1≤Cc≤3 ^E	GW	Well graded gravel ^F	^A Based on the material passing the 3-in (75-mm) sieve. ^B If field sample contained cobbles or boulders, or both, add “with cobbles or boulders, or both” to group name. ^C Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt GW-GC well-graded gravel with clay GP-GM poorly graded gravel with silt GP-GC poorly graded gravel with clay
			Cu<4 and/or 1>Cc>3 ^E	GP	Poorly graded gravel ^F	
	Sands 50% or more of coarse fraction passes No. 4 sieve	Gravels with Fines more than 12% fines ^C	Fines classify as ML or MH	GM	Silty gravel ^{F,G,H}	^D Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt SW-SC well-graded sand with clay SP-SM poorly graded sand with silt SP-SC poorly graded sand with clay
			Fines classify as CL or CH	GC	Clayey gravel ^{F,G,H}	
		Clean Sands Less than 5% fines ^D	Cu≥6 and 1≤Cc≤3 ^E	SW	Well-graded sand ^I	
			Cu<6 and/or 1>Cc>3 ^E	SP	Poorly-graded sand ^I	
Fine-Grained Soils 50% or more passes the No. 200 sieve (see Plasticity Chart below)	Silts and Clays Liquid limit less than 50	inorganic	PI>7 and plots on or above “A” line ^J	CL	Lean clay ^{K,L,M}	^E Cu = D ₆₀ /D ₁₀ , Cc = $\frac{(D_{30})^2}{D_{10} \times D_{60}}$ ^F If soil contains ≥15% sand, add “with sand” to group name. ^G If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM. ^H If fines are organic, add “with organic fines” to group name. ^I If soil contains ≥15% gravel, add “with gravel” to group name. ^J If Atterberg limits plot is hatched area, soil is a CL-ML silty clay. ^K If soil contains 15 to 29% plus No. 200 add “with sand” or “with gravel”, whichever is predominant. ^L If soil contains ≥30% plus No. 200, predominantly sand, add “sandy” to group name. ^M If soil contains ≥30% plus No. 200, predominantly gravel, add “gravelly” to group name. ^N PI≥4 and plots on or above “A” line. ^O PI<4 or plots below “A” line. ^P PI plots on or above “A” line. ^Q PI plots below “A” line. ^R Fiber Content description shown below.
			PI<4 or plots below “A” line ^J	ML	Silt ^{K,L,M}	
		organic	Liquid limit—oven dried <0.75 Liquid limit – not dried	OL	Organic clay ^{K,L,M,N} Organic silt ^{K,L,M,O}	
			inorganic	PI plots on or above “A” line	CH		Fat clay^{K,L,M}
		PI plots below “A” line		MH	Elastic silt ^{K,L,M}	
		organic	Liquid limit—oven dried <0.75 Liquid limit – not dried	OH	Organic clay ^{K,L,M,P} Organic silt ^{K,L,M,Q}	
	Highly organic soil			PT	Peat ^R	

SIEVE ANALYSIS

Equation of “A”-line
Horizontal at PI = 4 to LL = 25.5,
then PI = 0.73 (LL-20)

Equation of “U”-line
Vertical at LL = 16 to PI = 7,
then PI = 0.9 (LL-8)

For classification of fine-grained soils and fine-grained fraction of coarse-grained soils:

CL-ML, CH-OH, ML-OL, MH-OH

LIQ. LINE, “A” LINE

LIQUID LIMIT (LL)
Plasticity Chart

SIEVE ANALYSIS

Equation of “A”-line
Horizontal at PI = 4 to LL = 25.5,
then PI = 0.73 (LL-20)

Equation of “U”-line
Vertical at LL = 16 to PI = 7,
then PI = 0.9 (LL-8)

For classification of fine-grained soils and fine-grained fraction of coarse-grained soils:

CL-ML, CH-OH, ML-OL, MH-OH

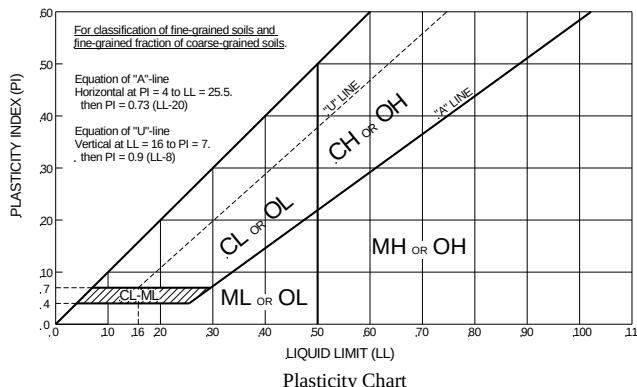
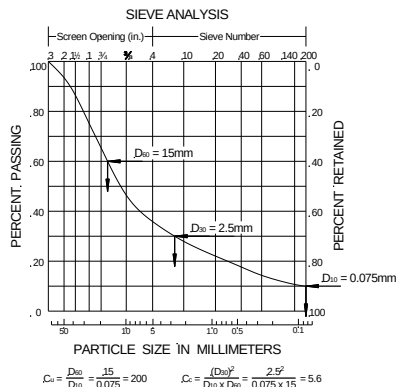
LIQ. LINE, “A” LINE

LIQUID LIMIT (LL)
Plasticity Chart

Notes
^ABased on the material passing the 3-in (75-mm) sieve.
^BIf field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
^CGravels with 5 to 12% fines require dual symbols:
 GW-GM well-graded gravel with silt
 GW-GC well-graded gravel with clay
 GP-GM poorly graded gravel with silt
 GP-GC poorly graded gravel with clay
^DSands with 5 to 12% fines require dual symbols:
 SW-SM well-graded sand with silt
 SW-SC well-graded sand with clay
 SP-SM poorly graded sand with silt
 SP-SC poorly graded sand with clay

$$E_{Cu} = D_{60} / D_{10}, \quad C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

^FIf soil contains $\geq 15\%$ sand, add "with sand" to group name.
^GIf fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.
^HIf fines are organic, add "with organic fines" to group name.
^IIf soil contains $\geq 15\%$ gravel, add "with gravel" to group name.
^JIf Atterberg limits plot is hatched area, soil is a CL-ML silty clay.
^KIf soil contains 15 to 29% plus No. 200 add "with sand" or "with gravel", whichever is predominant.
^LIf soil contains $\geq 30\%$ plus No. 200, predominantly sand, add "sandy" to group name.
^MIf soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.
^NPI ≥ 4 and plots on or above "A" line.
^OPI < 4 or plots below "A" line.
^PPI plots on or above "A" line.
^QPI plots below "A" line.
^RFiber Content description shown below.



ADDITIONAL TERMINOLOGY NOTES USED BY AET FOR SOIL IDENTIFICATION AND DESCRIPTION

Grain Size		Gravel Percentages		Consistency of Plastic Soils		Relative Density of Non-Plastic Soils	
Term	Particle Size	Term	Percent	Term	N-Value, BPF	Term	N-Value, BPF
Boulders	Over 12"	A Little Gravel	3% - 14%	Very Soft	less than 2	Very Loose	0 - 4
Cobbles	3" to 12"	With Gravel	15% - 29%	Soft	2 - 4	Loose	5 - 10
Gravel	#4 sieve to 3"	Gravelly	30% - 50%	Firm	5 - 8	Medium Dense	11 - 30
Sand	#200 to #4 sieve			Stiff	9 - 15	Dense	31 - 50
Fines (silt & clay)	Pass #200 sieve			Very Stiff	16 - 30	Very Dense	Greater than 50
				Hard	Greater than 30		
Moisture/Frost Condition		Layering Notes		Peat Description		Organic Description (if no lab tests)	
(MC Column)							
D (Dry):	Absence of moisture, dusty, dry to touch.	Laminations:	Layers less than 1/2" thick of differing material or color.	Fiber Content (Visual Estimate)		Soils are described as <i>organic</i> , if soil is not peat and is judged to have sufficient organic fines content to influence the Liquid Limit properties. <i>Slightly organic</i> used for borderline cases.	
M (Moist):	Damp, although free water not visible. Soil may still have a high water content (over "optimum").					Root Inclusions	
W (Wet/ Waterbearing):	Free water visible, intended to describe non-plastic soils. Waterbearing usually relates to sands and sand with silt.	Lenses:	Pockets or layers greater than 1/2" thick of differing material or color.	Fibric Peat: Greater than 67%		With roots: Judged to have sufficient quantity of roots to influence the soil properties.	
F (Frozen):	Soil frozen			Hemic Peat: 33 - 67%		Trace roots: Small roots present, but not judged to be in sufficient quantity to significantly affect soil properties.	
				Sapric Peat: Less than 33%			

AASHTO SOIL CLASSIFICATION SYSTEM

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

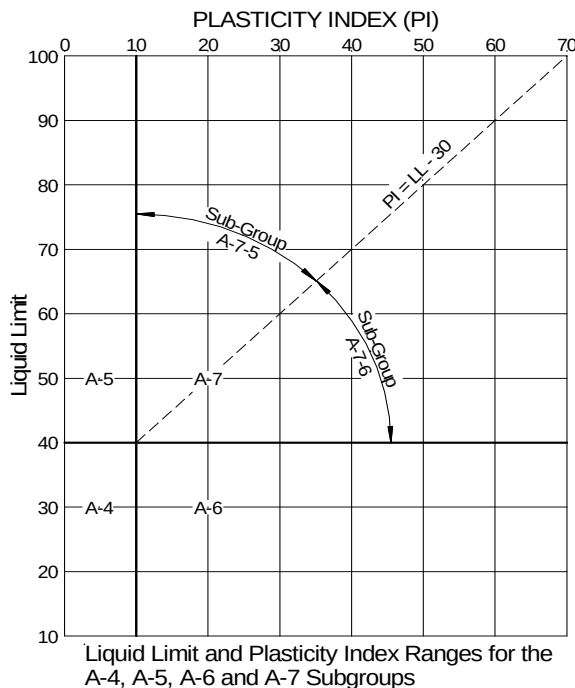
Classification of Soils and Soil-Aggregate Mixtures

General Classification	Granular Materials (35% or less passing No. 200 sieve)							Silt-Clay Materials (More than 35% passing No. 200 sieve)			
Group Classification	A-1		A-3	A-2				A-4	A-5	A-6	A-7
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5 A-7-6
Sieve Analysis, Percent passing:											
No. 10 (2.00 mm)	50 max.	....	....	....	....	....	....	....	....	....	....
No. 40 (0.425 mm)	30 max.	50 max.	51 min.	....	....	....	....	....	....	....	....
No. 200 (0.075 mm)	15 max.	25 max.	10 max.	35 max.	35 max.	35 max.	35 max.	36 min.	36 min.	36 min.	36 min.
Characteristics of Fraction Passing No. 40 (0.425 mm)											
Liquid limit . . . . .	....		....	40 max.	41 min.	40 max.	41 min.	40 max.	41 min.	40 max.	41 min.
Plasticity index	6 max.		N.P.	10 max.	10 max.	11 min.	11 min.	10 max.	10 max.	11 min.	11 min.
Usual Types of Significant Constituent Materials	Stone Fragments, Gravel and Sand		Fine Sand	Silty or Clayey Gravel and Sand				Silty Soils		Clayey Soils	
General Ratings as Subgrade	Excellent to Good							Fair to Poor			

The placing of A-3 before A-2 is necessary in the "left to right elimination process" and does not indicate superiority of A-3 over A-2.

Plasticity index of A-7-5 subgroup is equal to or less than LL minus 30. Plasticity index of A-7-6 subgroup is greater than LL minus 30.

Group A-8 soils are organic clays or peat with organic content >5%.



Definitions of Gravel, Sand and Silt-Clay

The terms "gravel", "coarse sand", "fine sand" and "silt-clay", as determinable from the minimum test data required in this classification arrangement and as used in subsequent word descriptions are defined as follows:

GRAVEL - Material passing sieve with 3-in. square openings and retained on the No. 10 sieve.

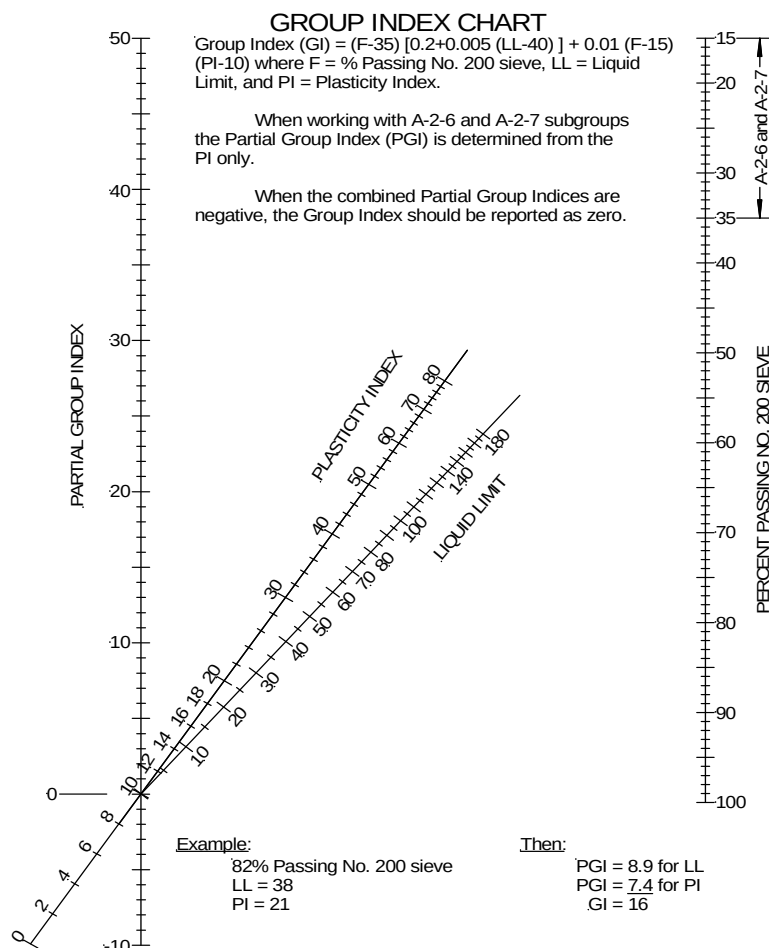
COARSE SAND - Material passing the No. 10 sieve and retained on the No. 40 sieve.

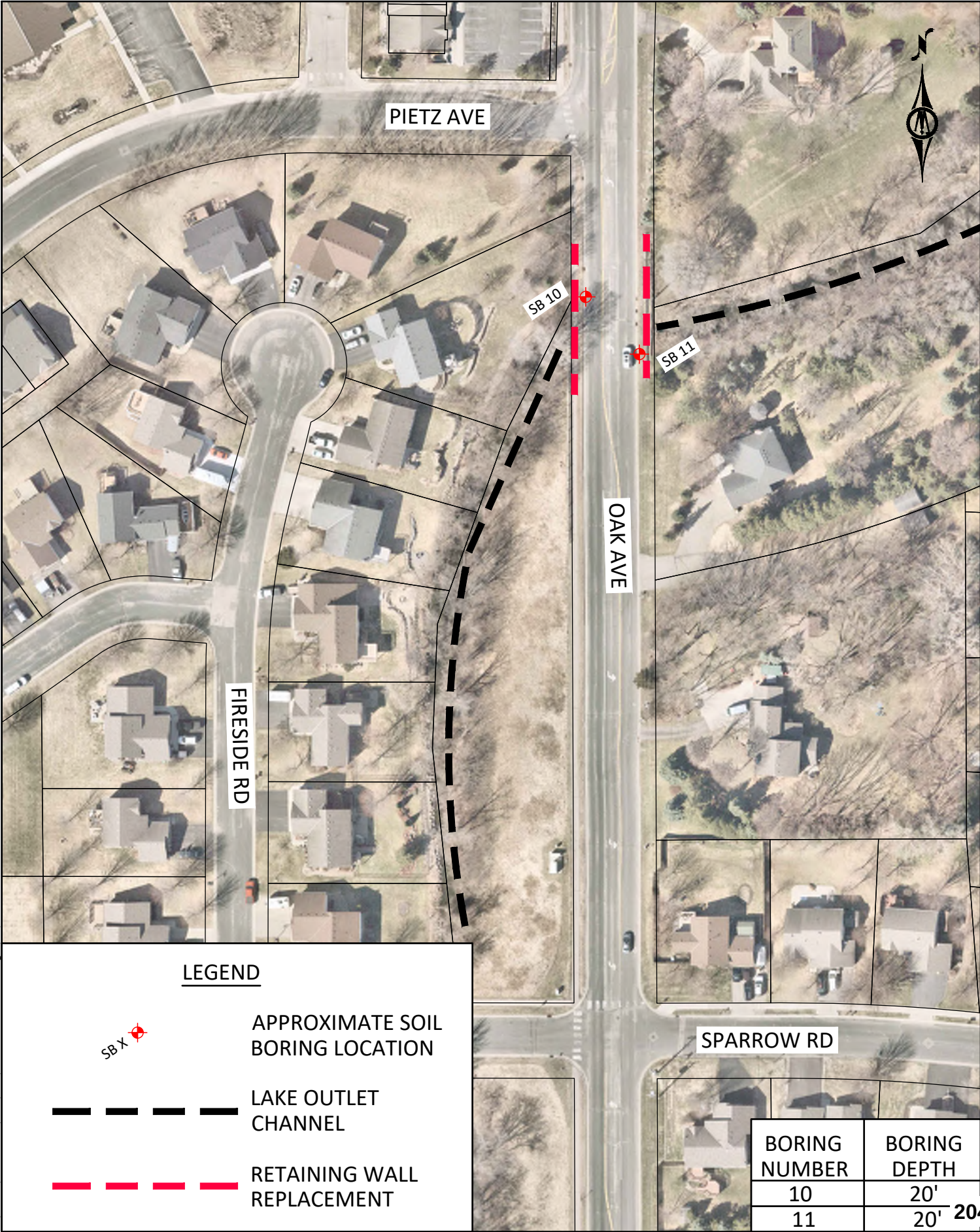
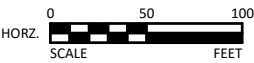
FINE SAND - Material passing the No. 40 sieve and retained on the No. 200 sieve.

COMBINED SILT AND CLAY - Material passing the No. 200 sieve

BOULDERS (retained on 3-in. sieve) should be excluded from the portion of the sample to which the classification is applied, but the percentage of such material, if any, in the sample should be recorded.

The term "silty" is applied to fine material having plasticity index of 10 or less and the term "clayey" is applied to fine material having plasticity index of 11 or greater.





LEGEND



APPROXIMATE SOIL BORING LOCATION

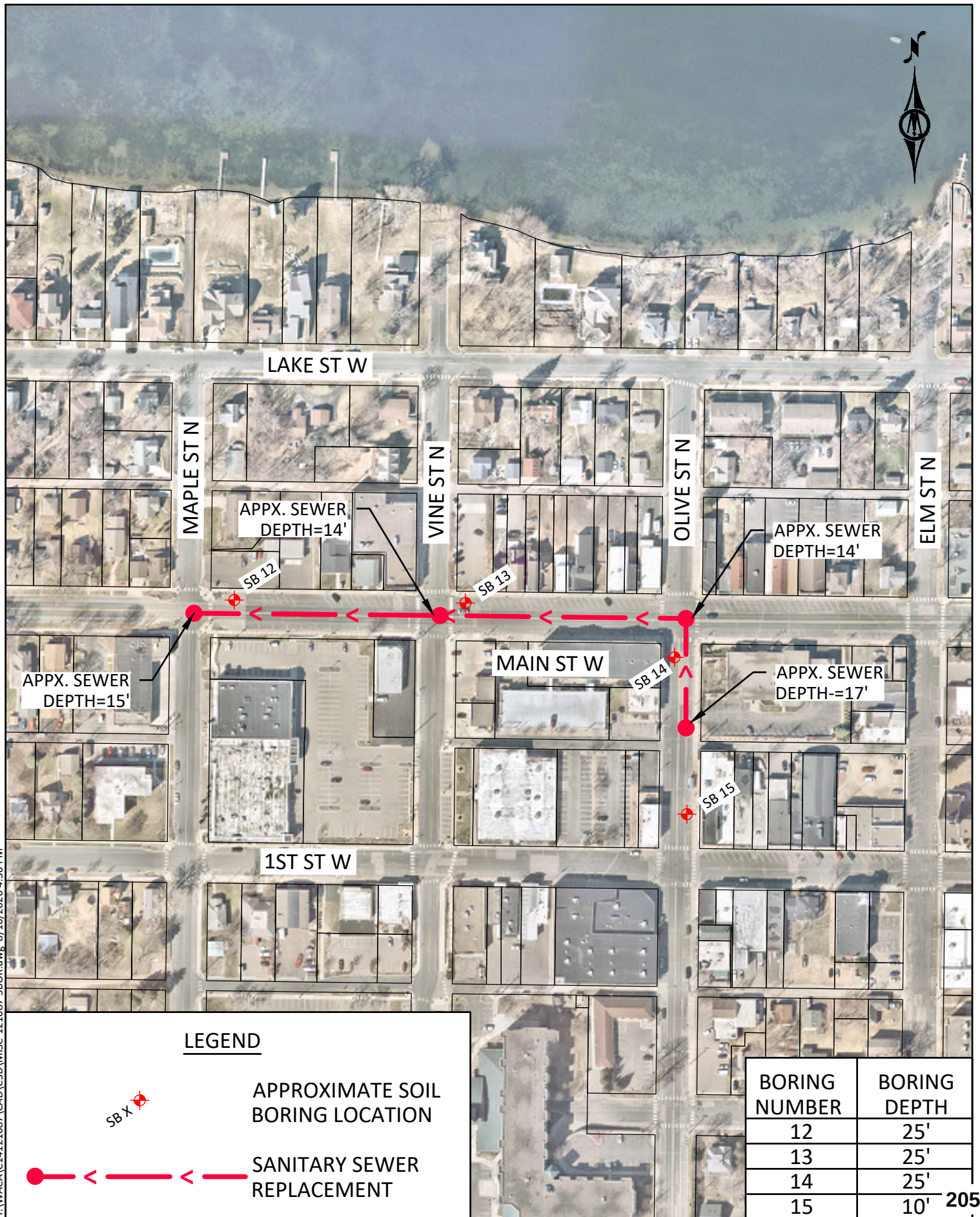
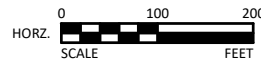


LAKE OUTLET CHANNEL



RETAINING WALL REPLACEMENT

BORING NUMBER	BORING DEPTH
10	20'
11	20'



LEGEND

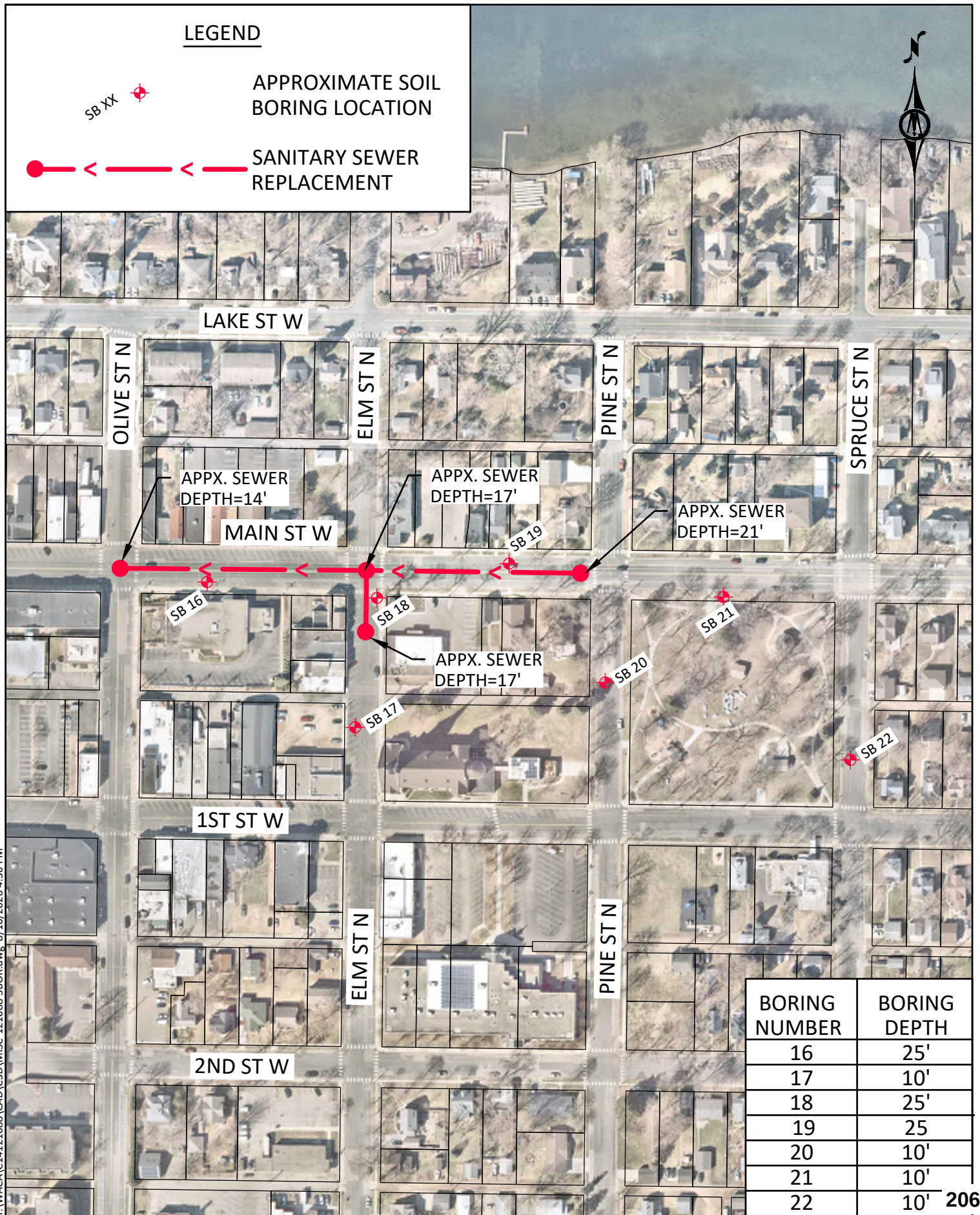
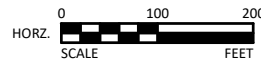


APPROXIMATE SOIL BORING LOCATION



SANITARY SEWER REPLACEMENT

BORING NUMBER	BORING DEPTH
12	25'
13	25'
14	25'
15	10'





SUBSURFACE BORING LOG

AET No: **20-23155** Log of Boring No. **B-10 (p. 1 of 1)**
Project: **2022 and 2023 Infrastructure Improvement Projects; Waconia, MN**

DEPTH IN FEET	Surface Elevation <u>962.8</u> MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-#200
	7½" Bituminous pavement	FILL			 SU						
1	FILL, mostly silty sand with gravel, brown, A-1-b		16	M	 SS	12	13				
2	FILL, mostly clayey sand, a little gravel, geofabric, brown and black, A-6				 SS						
3	FILL, mostly lean clay, brown, A-6		10	M	 SS	14	38				
4					 SS						
5	FILL, mixture of sandy lean clay and lean clay, brown and dark brown, A-6		7	M	 SS	14	17				
6					 SS						
7	FILL, mixture of organic clay and sandy lean clay, a little gravel, brown and black, A-6 and A-8		4	M	 SS	12	31				
8					 SS						
9		TILL			 SS						
10	SANDY LEAN CLAY, a little gravel, trace roots, brown to gray, soft to stiff, A-6 (CL)		4	M	 SS	20	29				
11					 SS						
12					 SS						
13			7	M	 SS	24	21				
14					 SS						
15	CLAYEY SAND, a little gravel, gray, stiff, A-6 (SC)		12	M	 SS	18	20				
16					 SS						
17					 SS						
18					 SS						
19			12	M	 SS	18	18				
	END OF BORING										
DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG		
0-17½' 3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL			
		10/8/20	12:20	19.5	17.5	19.1		None			
		10/8/20	12:30	19.5	17.5	19.1		None			
BORING COMPLETED: 10/8/20											
DR: DS LG: SB Rig: 1C											

AET CORP 20-23155.GPJ AET-CPT+WELL 20181012 JG.GDT 12/15/20



SUBSURFACE BORING LOG

AET No: **20-23155** Log of Boring No. **B-11 (p. 1 of 1)**
Project: **2022 and 2023 Infrastructure Improvement Projects; Waconia, MN**

DEPTH IN FEET	Surface Elevation <u>962.9</u> MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-#200
	8 1/4" Bituminous pavement	FILL			 SU						
1	12" FILL, mostly crushed limestone, brown, A-1-b		39	M	 SS	15	19				
2	FILL, mostly clayey sand, a little gravel, geofabric, black, A-6				 SS						
3	FILL, mixture of organic clay and gravelly silty sand, black, A-2-4 and A-8		15	M	 SS	17	26				
4					 SS						
5	FILL, mostly organic clay, a little silty sand and gravel, black, A-8		15	M	 SS	18	27				
6					 SS						
7	ORGANIC CLAY, black, firm, A-8 (OL/OH)	SWAMP DEPOSIT			 SS						
8			6	M	 SS	12	30				
9					 SS		25				
10	SANDY LEAN CLAY, a little gravel, gray to brown, firm to stiff, A-6 (CL)	TILL	5	M	 SS	17	22				
11					 SS						
12					 SS						
13			11	M	 SS	24	20				
14					 SS						
15	CLAYEY SAND, a little gravel, gray, stiff to very stiff, A-6 (SC)		14	M	 SS	18	17				
16					 SS						
17					 SS						
18			18	M	 SS	18	17				
19					 SS						
	END OF BORING										
DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG		
0-17 1/2' 3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL			
		10/8/20	1:30	19.5	17.5	19.0		None			
		10/8/20	1:40	19.5	17.5	19.0		None			
BORING COMPLETED: 10/8/20											
DR: DS LG: SB Rig: 1C											

AET CORP 20-23155.GPJ AET-CPT+WELL 20181012 JG.GDT 1/29/21



SUBSURFACE BORING LOG

AET No: **20-23155** Log of Boring No. **B-12 (p. 1 of 1)**
Project: **2022 and 2023 Infrastructure Improvement Projects; Waconia, MN**

DEPTH IN FEET	Surface Elevation <u>1011.5</u> MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-#200
1	7½" Bituminous pavement	FILL									
2	FILL, mostly silty sand with gravel, pieces of concrete, geotextile, brown, A-1-b		75	M		3					
3	FILL, mostly silty sand with gravel, a little clayey sand and gravel, pieces of bituminous pavement, brown, A-1-b		28	M		22					
4											
5	FILL, mostly sandy lean clay, a little gravel, brown and dark brown, A-6		11	M		18	24				
6											
7											
8			2	M		4	23				
9											
10			5	M		10	21				
11											
12	ORGANIC CLAY, black, firm, A-8 (OL/OH)	SWAMP DEPOSIT									
13			8	M		12	26				
14		FINE ALLUVIUM									
15	SANDY LEAN CLAY, slightly organic, dark brown, grayish brown, firm, A-6 (CL)		7	M		22	24				
16		TILL									
17	SANDY LEAN CLAY, a little gravel, brown and gray mottled, a little light gray, stiff, laminations of silt, A-6 (CL)		14	M		15	14				
18											
19	CLAYEY SAND, a little gravel, brown and a little dark brown, very stiff, laminations of sandy silt, A-6 (SC)		22	M		13	18				
20											
21	CLAYEY SAND, a little gravel, brown, very stiff, laminations of silty sand, A-6 (SC)		24	M		17	20				
22											
23											
24	END OF BORING										

DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
0-22½'	3.25" HSA								
		10/6/20	11:40	24.0	22.5	23.9		None	
		10/6/20	11:50	24.0	22.5	23.9		None	
BORING COMPLETED: 10/6/20									
DR: DS LG: SB Rig: 1C									

AET CORP 20-23155.GPJ AET-CPT+WELL 20181012 JG.GDT 12/15/20



SUBSURFACE BORING LOG

AET No: **20-23155** Log of Boring No. **B-13 (p. 1 of 1)**
Project: **2022 and 2023 Infrastructure Improvement Projects; Waconia, MN**

DEPTH IN FEET	Surface Elevation <u>1012.3</u> MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-#200
1	6½" Bituminous pavement	FILL	18	M	 SU	17					
2	8½" FILL, crushed limestone, light brown A-1-b				 SS						
3	FILL, mostly silty sand, a little clayey sand and gravel, brown, A-2-4				 SS						
4					 SS						
5	FILL, mostly gravelly sand with silt, brown, A-1-b	FINE ALLUVIUM	6	M	 SS	18	29				
6					 SS						
7	SANDY LEAN CLAY, brown, a little gray, firm, laminations of sand and silt, A-6 (CL)				 SS						
8					 SS						
9		TILL	5	M	 SS	24	18				
10	SANDY LEAN CLAY, a little gravel, brown, firm, laminations of silty sand, A-6 (CL)				 SS						
11					 SS						
12					 SS						
13	SANDY LEAN CLAY, a little gravel, gray, very stiff to stiff, A-6 (CL)		19	M	 SS	24	17				
14					 SS						
15					 SS						
16					 SS						
17			14	M	 SS	18	18				56
18					 SS						
19	CLAYEY SAND, a little gravel, gray, a little brown, hard, laminations of silty sand, A-6 (SC)				 SS						
20					 SS						
21			47	M	 SS	18	15				
22					 SS						
23	CLAYEY SAND, a little gravel, gray, a little light gray, hard, laminations of sand (SC)				 SS						
24					 SS						
25	END OF BORING										

DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
0-22½'	3.25" HSA	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
		10/6/20	10:10	24.0	22.5	23.8		None	
		10/6/20	10:20	24.0	22.5	23.8		None	
BORING COMPLETED: 10/6/20									
DR: DS LG: SB Rig: 1C									

AET CORP 20-23155.GPJ AET-CPT+WELL 20181012 JG GDT 12/15/20



SUBSURFACE BORING LOG

AET No: 20-23155		Log of Boring No. B-14 (p. 1 of 1)										
Project: 2022 and 2023 Infrastructure Improvement Projects; Waconia, MN												
DEPTH IN FEET	Surface Elevation <u>1017.4</u> MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS					
							WC	DEN	LL	PL	%-#200	
1	6¾" Bituminous pavement	FILL				SU						
2	FILL, mostly silty sand with gravel, brown, A-1-b		11	M		SS	15	11				
3	FILL, mostly clayey sand, a little silty sand and gravel, brown, A-6		7	M		SS	7	11				
4												
5												
6							4	14				
7												
8	FILL, mostly sandy lean clay, a little gravel, brown, A-6		1	M		SS	12	22				
9												
10	SANDY LEAN CLAY, a little gravel, brown to brown and dark brown mottled, firm to very stiff, A-6 (CL)	TILL	7	M		SS	18	19				
11												
12												
13				18			SS	22	18			
14												
15	SANDY LEAN CLAY, a little gravel, grayish brown, stiff to very stiff, A-6 (CL)		15	M		SS	18	19				
16												
17												
18												
19												
20			18	M		SS	18	21				
21												
22												
23			16	M		SS	18	22				
24	END OF BORING											

DEPTH: 0-22½'	DRILLING METHOD: 3.25" HSA	WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
		10/6/20	1:10	24.0	22.5	24.0		19.6	
		10/6/20	1:30	24.0	22.5	23.9		13.7	
BORING COMPLETED: 10/6/20									
DR: DS LG: SB Rig: 1C									

AET CORP 20-23155.GPJ AET-CPT+WELL 20181012 JG.GDT 12/15/20



SUBSURFACE BORING LOG

AET No: 20-23155		Log of Boring No. B-15 (p. 1 of 1)									
Project: 2022 and 2023 Infrastructure Improvement Projects; Waconia, MN											
DEPTH IN FEET	Surface Elevation <u>1025.6</u> MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-#200
1	6½" Bituminous pavement	FILL	16	M		SU	14				
2	FILL, mostly silty sand with gravel, pieces of bituminous pavement at 3', brown and black, A-1-b										
3											
4											
5	FILL, mostly sandy lean clay, a little silty sand and gravel (apparent boulder at 5'), brown, a little light tan, A-6	55/6	M		SS	6	17				
6											
7											
8	SANDY LEAN CLAY, a little gravel, grayish brown and brown mottled, a little light gray, stiff, laminations of silt and sandy silt, stiff, A-6 (CL)		TILL	12	M		SS	24	20		
9											
END OF BORING											

DEPTH: 0-7½'		DRILLING METHOD: 3.25" HSA		WATER LEVEL MEASUREMENTS					NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
		10/6/20	1:50	9.5	7.5	9.4		None	
BORING COMPLETED: 10/6/20									
DR: DS LG: SB Rig: 1C									



SUBSURFACE BORING LOG

AET No: 20-23155		Log of Boring No. B-16 (p. 1 of 1)									
Project: 2022 and 2023 Infrastructure Improvement Projects; Waconia, MN											
DEPTH IN FEET	Surface Elevation <u>1019.7</u> MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-#200
1	5¾" Bituminous pavement	FILL				SU					
2	FILL, mostly silty sand, a little gravel, brown, A-2-4		27	M		SS	17				
3	FILL, mostly clayey sand, a little silty sand, gravel and bituminous pavement, brown, A-6		17	M		SS	18	15			
4											
5	SANDY LEAN CLAY, a little gravel, brown, a little gray mottled to brown, stiff to very stiff, A-6 (CL)	TILL	11	M		SS	22	19			
6											
7											
8			13	M		SS	24	20			
9											
10			15	M		SS	24	20			
11											
12			17	M		SS	24	18			
13											
14			15	M		SS	24	19			
15											
16			16	M		SS	18	19			
17											
18											
19											
20											
21											
22	CLAYEY SAND, a little gravel, brown, hard, lens of silty sand, A-6 (SC)										
23		39	M/W		SS	18	16				
24	END OF BORING										
DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG		
0-22½;' 3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL			
		10/7/20	9:40	24.0	22.5	24.0		23.0			
		10/7/20	9:50	24.0	22.5	24.0		21.4			
BORING COMPLETED: 10/7/20											
DR: DS LG: SB Rig: 1C											

AET CORP 20-23155.GPJ AET-CPT+WELL 20181012 JG.GDT 1/29/21



SUBSURFACE BORING LOG

AET No: **20-23155** Log of Boring No. **B-17 (p. 1 of 1)**
Project: **2022 and 2023 Infrastructure Improvement Projects; Waconia, MN**

DEPTH IN FEET	Surface Elevation <u>1039.3</u> MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-#200
1	4¾" Bituminous pavement	FILL			SU						
2	FILL, mixture of crushed limestone and silty sand, brown, A-1-b		9	M	SS	10	21				
3	FILL, mostly clayey sand, a little gravel, brown, A-6	TILL									
4	CLAYEY SAND, a little gravel, brown, stiff, A-6 (SC)		10	M	SS	16	20				
5											
6			11	M	SS	24	18				
7											
8											
9			12	M	SS	24	20				
END OF BORING											

DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
0-7½'	3.25" HSA	10/7/20	2:05	9.5	7.5	9.5		None	
BORING COMPLETED: 10/7/20									
DR: DS LG: SB Rig: 1C									



SUBSURFACE BORING LOG

AET No: **20-23155** Log of Boring No. **B-18 (p. 1 of 1)**
Project: **2022 and 2023 Infrastructure Improvement Projects; Waconia, MN**

DEPTH IN FEET	Surface Elevation	1032.1	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS					
	MATERIAL DESCRIPTION							WC	DEN	LL	PL	%-#200	
1	5½" Bituminous pavement		FILL	28	M		SU	15					
	FILL, mostly gravelly silty sand, brown, A-1-b												
2	FILL, mostly gravelly clayey sand, brown, A-2-6												
3													
4													
5	FILL, mostly clayey sand, a little gravel, brown, A-6												
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
END OF BORING													

DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
0-23' 3.25" HSA		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
		10/7/20	11:30	24.5	23.0	24.3		None	
		10/7/20	11:40	24.5	23.0	24.3		None	
BORING COMPLETED: 10/7/20									
DR: DS LG: SB Rig: 1C									



SUBSURFACE BORING LOG

AET No: **20-23155** Log of Boring No. **B-19 (p. 1 of 1)**
Project: **2022 and 2023 Infrastructure Improvement Projects; Waconia, MN**

DEPTH IN FEET	Surface Elevation <u>1039.6</u> MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-#200
1	7 1/4" Bituminous pavement	FILL									
2	FILL, mostly silty sand, a little gravel, brown, A-2-4		19	M		15					
3	FILL, mixture of clayey sand and silty sand with cinders, a little gravel, brown and dark brown. A-2-4 and A-6		11	M		19	15				
4											
5	SANDY LEAN CLAY, a little gravel, brown to brown with a little gray mottled, stiff, A-6 (CL)	TILL	13	M		22	18				
6											
7											
8			14	M		20	20				
9											
10			12	M		24	21				
11											
12			13	M		24	22				
13											
14			13	M		18	21				
15											
16			15	M		18	20				
17											
18											
19											
20			12	M		18	21				57
21											
22											
23											
24											
END OF BORING											

DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
0-23'	3.25" HSA	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
		10/7/20	1:10	24.5	23.0	24.0		None	
		10/7/20	1:20	24.5	23.0	24.0		None	
BORING COMPLETED: 10/7/20									
DR: DS LG: SB Rig: 1C									

AET CORP 20-23155.GPJ AET-CPT+WELL 20181012 JG.GDT 12/15/20



SUBSURFACE BORING LOG

AET No: **20-23155** Log of Boring No. **B-20 (p. 1 of 1)**
Project: **2022 and 2023 Infrastructure Improvement Projects; Waconia, MN**

DEPTH IN FEET	Surface Elevation <u>1047.1</u> MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-#200
1	2½" Bituminous pavement	FILL				SU	7				
2	FILL, mixture of clayey sand and silty sand, a little gravel, dark brown, A-2-6	TOPSOIL OR FILL	2	M		SS	6	28			
3	LEAN CLAY with sand, slightly organic, dark grayish brown, A-6 (possible fill) (CL)	TILL	12	M		SS	10	22			
4	SANDY LEAN CLAY, a little gravel, brown, stiff, A-6 (CL)										
5	SANDY LEAN CLAY, a little gravel, brown, a little gray and light brown, stiff, laminations of sandy silt, A-6 (CL)		11	M		SS	20	22			
6											
7											
8	LEAN CLAY, brown, a little gray, stiff, laminations of silt, A-6 (CL)	FINE ALLUVIUM	11	M		SS	24	33			
9											
END OF BORING											

DEPTH: 0-7½'	DRILLING METHOD: 3.25" HSA	WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG		
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL			
		10/8/20	10:50	9.5	7.5	9.5		None			
BORING COMPLETED: 10/8/20											
DR: DS LG: SB Rig: 1C											



SUBSURFACE BORING LOG

AET No: 20-23155		Log of Boring No. B-21 (p. 1 of 1)									
Project: 2022 and 2023 Infrastructure Improvement Projects; Waconia, MN											
DEPTH IN FEET	Surface Elevation <u>1043.2</u> MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS				
							WC	DEN	LL	PL	%-#200
1	5" Bituminous pavement	FILL	25	M		17					
	FILL, mostly silty sand, a little gravel, brown, A-2-4										
2	FILL, mostly silty sand with gravel, pieces of bituminous, dark brown, A-1-b										
3		TILL	11	M		19	23				
4	SANDY LEAN CLAY, a little gravel, brown, stiff, A-6 (CL)										
5	SANDY LEAN CLAY, a little gravel, brown, a little light brown, stiff, laminations of sandy silt, A-6 (CL)										
6											
7											
8	SANDY LEAN CLAY, a little gravel, brown mottled, very stiff, A-6 (CL)		18	M		22	22				
9											
END OF BORING											

DEPTH: 0-7½'		DRILLING METHOD: 3.25" HSA		WATER LEVEL MEASUREMENTS					NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
		10/8/20	9:35	9.5	7.5	9.5		None	
BORING COMPLETED: 10/8/20									
DR: DS LG: SB Rig: 1C									

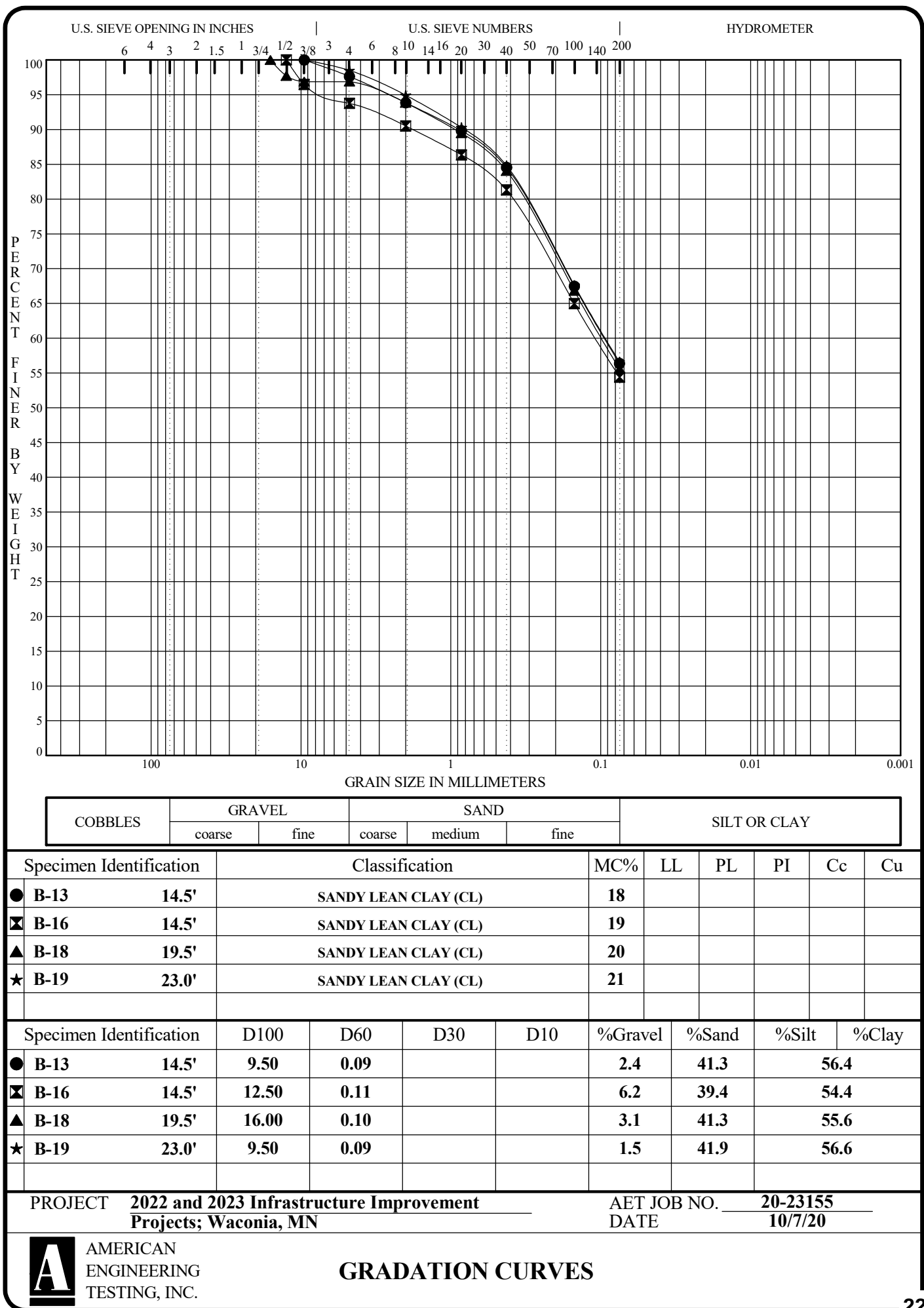
AET CORP 20-23155.GPJ AET-CPT+WELL 20181012 JG.GDT 12/15/20

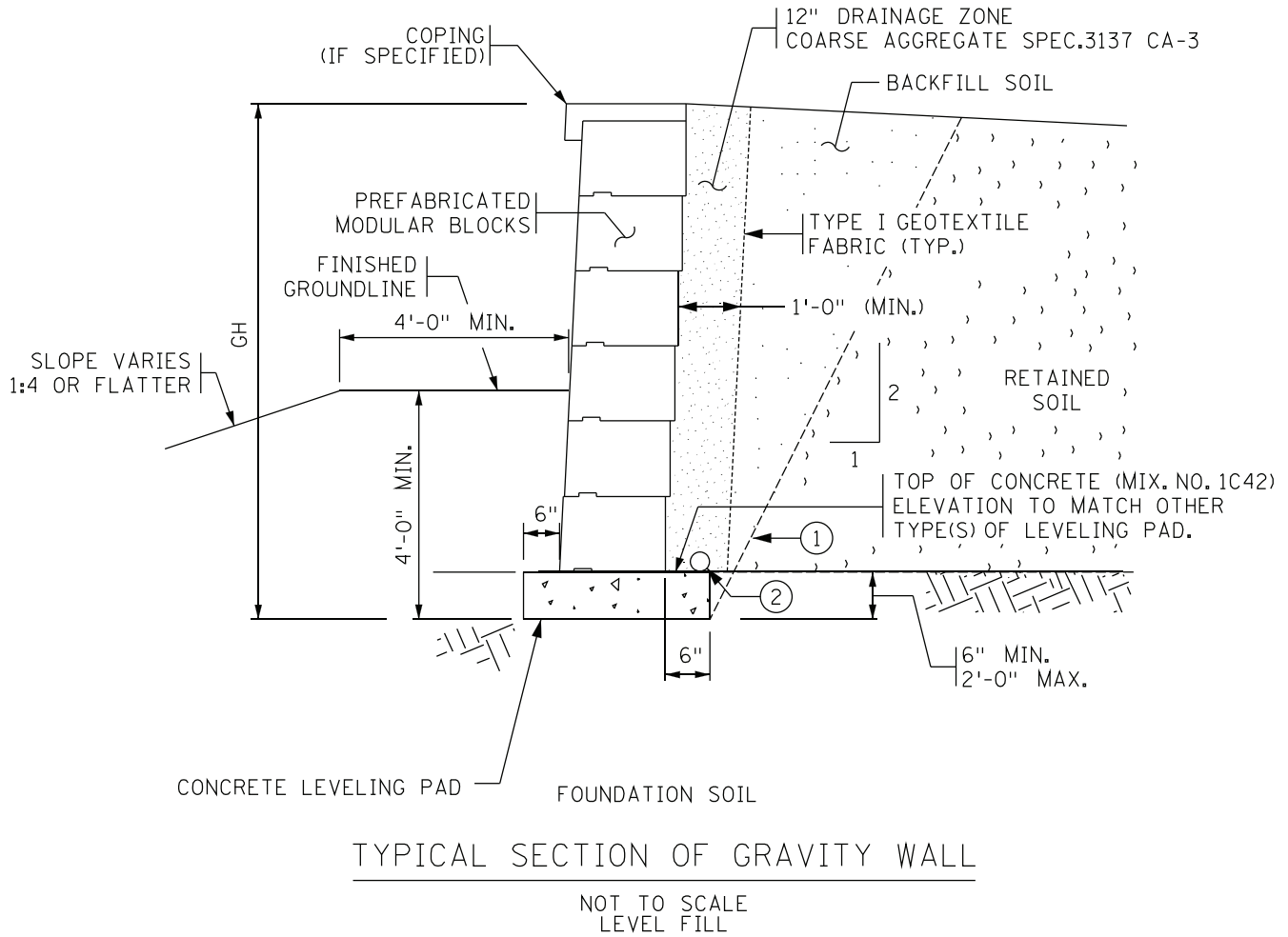


AET No: 20-23155 Log of Boring No. B-22 (p. 1 of 1)

Project: 2022 and 2023 Infrastructure Improvement Projects; Waconia, MN

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- ① PAY LIMIT (2:V TO 1:H) ACTUAL EXCAVATION SLOPE IS DETERMINED BY DESIGNER PREFERENCE OR OSHA REGULATIONS OF IN-SITU SOILS: EXCAVATION BEYOND THESE LIMITS AT CONTRACTORS EXPENSE.
- ② 4" THERMOPLASTIC PERFORATED PIPE, SPEC. 3245. WRAP WITH TYPE 1 GEOTEXTILE, SPEC. 3733, INSTALLATION AS PER SPEC. 2502. CONNECT TO DRAINAGE SYSTEM OR OUTLET THROUGH WALL USING 6" T.P. NON-PERFORATED PIPE WITH RODENT SCREEN. ALL WORK INCIDENTAL.

Figure 2411-1 Gravity PMBW Material Definitions/ Typical Cross Sections

Report of Geotechnical Exploration

2022 and 2023 Infrastructure Improvements Projects; Waconia, Minnesota

March 10, 2021

Report No. 20-23155

AMERICAN
ENGINEERING
TESTING, INC.

Appendix B

Geotechnical Report Limitations and Guidelines for Use

Appendix B

Geotechnical Report Limitations and Guidelines for Use

Report No. 20-23155

B.1 REFERENCE

This appendix provides information to help you manage your risks relating to subsurface problems which are caused by construction delays, cost overruns, claims, and disputes. This information was developed and provided by GBA¹, of which, we are a member firm.

B.2 RISK MANAGEMENT INFORMATION

B.2.1 Understand the Geotechnical Engineering Services Provided for this Report

Geotechnical engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical engineering services is typically a geotechnical engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

B.2.2 Geotechnical Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared solely for the client.

Likewise, geotechnical engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. If you are the least bit uncertain about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

¹ Geoprofessional Business Association, 1300 Piccard Drive, LL14, Rockville, MD 20850
Telephone: 301/565-2733; www.geoprofessional.org, 2019

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B.2.3 Read the Full Report

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. Read and refer to the report in full.

B.2.4 You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, always inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. The geotechnical engineer who prepared this report cannot accept responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

B.2.5 Most of the “Findings” Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface using various sampling and testing procedures. Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed. The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

B.2.6 This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations only after observing actual subsurface conditions exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.

B.2.7 This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals' plans and specifications; and
- be available whenever geotechnical engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

B.2.8 Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical engineering report, along with any attachments or appendices, with your contract documents, but be certain to note conspicuously that you've included the material for information purposes only. To avoid misunderstanding, you may also want to note that “informational purposes” means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about

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specific project requirements, including options selected from the report, only from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and be sure to allow enough time to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

B.2.9 Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled “limitations,” many of these provisions indicate where geotechnical engineers’ responsibilities begin and end, to help others recognize their own responsibilities and risks. Read these provisions closely. Ask questions. Your geotechnical engineer should respond fully and frankly.

B.2.10 Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a “phase-one” or “phase-two” environmental site assessment – differ significantly from those used to perform a geotechnical engineering study. For that reason, a geotechnical engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Unanticipated subsurface environmental problems have led to project failures. If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

B.2.11 Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer’s services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, proper implementation of the geotechnical engineer’s recommendations will not of itself be sufficient to prevent moisture infiltration. Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. Geotechnical engineers are not building-envelope or mold specialists.