CITY OF WEST ST. PAUL
1616 HUMBOLDT AVENUE, WEST ST. PAUL, MN 55118

REGULAR CITY COUNCIL MEETING
September 26, 2016
6:30 p.m.
MUNICIPAL CENTER COUNCIL CHAMBERS

1. **CALL TO ORDER**

2. **ROLL CALL**

3. **PLEDGE OF ALLEGIANCE**

4. **ADOPT THE AGENDA**

5. **OCWS BRIEFING**

6. **ROBERT STREET REVIEW**

7. **CITIZEN COMMENTS**
   Individuals may address the City Council about any item not included on the regular agenda. Speakers are requested to come to the podium, state their name and address for the Clerk's record. Generally, the City Council will not take official action on items discussed at this time, but may typically refer the matter to staff for a future report or direct that the matter be scheduled on an upcoming agenda.

8. **COUNCIL COMMENTS**

9. **PROCLAMATIONS, PRESENTATIONS AND RECOGNITIONS**

10. **CONSENT AGENDA**
    All items on the Consent Agenda are considered to be routine and have been made available to the City Council at least two days prior to the meeting; these items will be enacted by one motion. There will be no separate discussion of these items unless a Council member or citizen so requests, in which event the item will be removed from this agenda and considered under separate motion.

    A. Meeting Minutes

    Documents:

    08-22-16 OCWS MINS 9-23.PDF
    08-22-16 CC MINS.PDF
    09-12-16 OCWS MINS.PDF
    09-12-16 COUNCIL MINS.PDF

    B. Council Report - List Of Claims

    Documents:

    COUNCIL REPORT - LIST OF CLAIMS.PDF

    C. August 2016 Bank Reconciliation

C. August 2016 Bank Reconciliation

Documents:

COUNCIL REPORT - AUGUST 2016 BANK RECONCILIATION.PDF
AUGUST 2016 BANK RECONCILIATION.PDF

D. August 2016 General Fund Budget Report

Documents:

COUNCIL REPORT - AUGUST 2016 GENERAL FUND BUDGET REPORT.PDF
AUGUST 2016 GENERAL FUND BUDGET REPORT.PDF

E. August 2016 Investment Report

Documents:

COUNCIL REPORT - AUGUST 2016 INVESTMENT REPORT.PDF
AUGUST 2016 INVESTMENT REPORT.PDF

F. K-9 Mike, Retirement, Surplus

Documents:

COUNCIL REPORT - K-9 MIKE, SURPLUS.PDF

G. Approve Revisions To Special Assessment Policy

Documents:

COUNCIL REPORT - APPROVE REVISIONS TO SPECIAL ASSESSMENT POLICY.PDF
SPECIAL ASSESSMENT POLICY 9-26-16.PDF

H. Approve Sanitary Sewer Inflow/Infiltration Private Property Assessment Agreements

Documents:

COUNCIL REPORT - APPROVE ASSESSMENT AGREEMENTS I-I.PDF
ATTACHMENT - APPROVE ASSESSMENT AGREEMENTS I-I.PDF

I. Consider Encroachment Agreement For 1190-1214 S. Robert St.

Documents:

COUNCIL REPORT - 1190-1124 ROBERT STREET ENCROACHMENT AGREEMENT.PDF
1190-1214 ROBERT STREET ENCHROACHMENT AGREEMENTX.PDF

J. Consider Encroachment Agreement For 998 S. Robert St.

Documents:

COUNCIL REPORT - 998 ROBERT ST ENCROACHMENT AGREEMENT.PDF
998 ROBERT STREET ENCHROACHMENT AGREEMENT.PDF

11. PUBLIC HEARING

A. Application For A Conditional Use Permit To Allow An Adult Day Care Facility In A B2, Neighborhood District At 355 Marie Ave E. - Snyder Health Care Systems Inc.

Documents:

Documents:

COUNCIL REPORT - CUP 355 MARIE AVE E.PDF
ATTACHMENT - CUP 355 MARIE.PDF
RESOLUTION - CUP 355 MARIE AVE E.PDF

B. Application For Conditional Use Permit To Allow A Dental Lab In A B1, Limited Business District And Application For Site Plan Review To Expand The Existing Building And Modify The Parking Lot At 5 Wentworth Ave E. - Mularoni & Co.

Documents:

COUNCIL REPORT - SITE PLAN CUP 5 WENTWORTH AVE E.PDF
ATTACHMENT - SITE PLAN CUP 5 WENTWROTH AVE.PDF
RESOLUTION - SITE PLAN 5 WENTWORTH AVE E.PDF
RESOLUTION - CUP 5 WENTWORTH AVE E.PDF
PLANS.PDF

C. Application For Plat To Combine Lots And Application For Site Plan To Modify The Existing Parking Lot At 963 Robert St. - Alliant Engineering

Documents:

COUNCIL REPORT - SITE PLAN PLAT 963 ROBERT (2).PDF
ATTACHMENT - SITE PLAN PLAT 963 ROBERT.PDF
PLANS - SITE PLAN PLAT 963 ROBERT ST.PDF
RESOLUTION - SITE PLAN 963 ROBERT ST.PDF
RESOLUTION - PLAT 963 ROBERT.PDF

D. Application For Site Plan Review To Modify The Existing Parking Lot At 1675 Livingston Ave - Dakota County CDA

Documents:

COUNCIL REPORT - SITE PLAN 1675 LIVINGSTON.PDF
ATTACHMENT - SITE PLAN 1675 LIVINGSTON.PDF
RESOLUTION - SITE PLAN 1675 LIVINGSTON AVE.PDF
SITE PLAN.PDF

12. **NEW BUSINESS**

A. Consideration Of Override To Mayor Meisinger's Veto Of Resolution 16-88

Documents:

16-88 VETOED FOR ACQUISTION OF PARCEL 100 OF THE ROBERT ST PROJECT.PDF
COUNCIL REPORT - VETO OF RESOLUTION REGARDING EASEMENT ACQUISITIONS FOR ROBERT ST PROJECT.PDF

B. Approve 2017 Preliminary Budget And Levy

Documents:

COUNCIL REPORT - 2017 BUDGET AND MAXIMUM LEVY CERTIFICATION.PDF
2017 GENERAL FUND AND EDA BUDGET SUMMARIES.PDF

C. Consider Access Changes At 141 Wentworth Ave.

Documents:

COUNCIL REPORT - CONSIDER ACCESS CHANGES AT 141 WENTWORTH AVENUE.PDF

D. Approve Change Order For Lift Station 5 & 6 Project #16-2

Documents:

COUNCIL REPORT - APPROVE CHANGE ORDER FOR PROJECT 16-2.PDF

E. Receive Feasibility Report & Call Public Improvement Hearing For 2017 Street Improvements Project #17-1

Documents:

COUNCIL REPORT - RECEIVE FEASABILITY ORDER PH 17-1 (1).PDF
RESOLUTION - ORDER FEAS 17-1.PDF
RESOLUTION - RECEIVE FEAS ORDER PH.PDF
ATTACHMENT - 2017 FEASIBILITY REPORT.PDF

F. Approve Supplemental Agreement #8 For Robert Street Project #11-3

Documents:

COUNCIL REPORT - APPROVE SA 8 FOR ROBERT STREET PROJECT 11-3.PDF

13. **OLD BUSINESS**

14. **ADJOURN**

If you need an accommodation to participate in the meeting, please contact the ADA Coordinator at 651-552-4100, TDD 651-322-2323 at least 5 business days prior to the meeting
www.wspmn.gov EOE/AA

City of West St. Paul
Open Council Work Session Minutes
August 22, 2016

1. Call to Order and Roll Call

Mayor David Meisinger called the work session to order at 4:50 p.m.

Present: Mayor David Meisinger and Councilmembers Pat Armon, Ed Iago, John Bellows, Dave Napier, Jenny Halverson and Dick Vitelli.

Others: City Manager Matt Fulton, Assistant City Manager and HR Director Sherrie Le, Community Development Director Jim Hartshorn, Public Works Director Ross Beckwith, City Attorney Korine Land, Police Chief Manila Shaver and City Clerk Chantal Doriott.

2. Review and Approve the Work Session Agenda

Council approved the agenda as presented.

3. Review and Approve the Regular Meeting Consent Agenda

Council approved the regular City Council meeting agenda with one change:

- Remove item 12.A. and continue to a future meeting.

4. Agenda Item(s)

4.A. Closed Meeting to Discuss Management Position for Labor Negotiations

Motion was made by Clpn. Halverson and seconded by Clpn. Bellows to close the meeting at 5:04 p.m. pursuant to Minn. Statute 13D.03 to consider strategy for labor negotiations for 2017 as authorized by said state statute. All members present voted aye. Motion carried.

Assistant City Manager Sherrie Le gave discussed potential negotiation strategies for the upcoming year.

Motion was made by Clpn. Napier and seconded by Clpn. Armon to open the work session at 5:38 p.m. All members present voted aye. Motion carried.

4.B. Continuation of Discussion Relating to Bike trails/Sharrows and City-Wide Assessment District

City Manager Matt Fulton said staff had an opportunity to initiate this discussion back on June 27 at a work session. At that time staff was directed to come back with sample drawings of what the bike lanes and sharrow could look like. Manager Fulton presented options for the bike lanes and sharrows and asked Council to consider which option(s) they liked best. Some of the sharrow examples were from the Mayor. A Charlton example shows bike lanes on both sides.

Since we are rebuilding Charlton next week should we consider adding two lanes? A Bernard example shows a bike lane on one side of the street. Staff asked Council to consider bike lanes on Livingston, Bernard and Charlton.

Comments:

- The mayor is in favor of sharrows but not taking away street parking.
- Clpn. Halverson said she understands the parking concerns and wants to seek public input. She is not opposed to Sharrows. Bike lanes help us connect, they are inexpensive and valuable.
- Parking is Clpn. Napier's biggest issue. On Charlton, to eliminate parking, is tough. If there is a way to have bike lanes going both ways on one side of the road that could be an option. We can't eliminate parking on both sides of the street.
- Clpn. Vitelli is on board.
- Clpn. Bellows is somewhat in agreement. Last weekend he drove these sites. Charlton switches from on parking on side, four different times as you head north. That is an issue. Most places on Charlton if you took away parking it could be a severe issue. He is concerned about Livingston as there is no real parking for some and parking on one side of the street only. We would need to spend considerable time reviewing. We need to follow up with citizen input. Make sure we mail these people so we hear from everyone we can and get a full picture. Mayor added that we need to have people that abut these streets as well. Clpn. Halverson added comment.
- When is the County doing work on Wentworth? In 2019 answered Public Works Director Beckwith. Does MTC enter into this equation? No one answered with certainty.
- Mayor Meisinger is in favor of trying one street and not implementing everything all at once.
- Clpn. Iago is concerned about taking away any parking. Council is interested in receiving public input on this idea and what would be the priority streets.
- Mayor Meisinger suggested Charlton from Highway 110 to Wentworth. Notify the residents along that road and get feedback. With the reconstruction of Charlton Avenue from Hwy 110 to Marie next summer, it is important to determine whether or not to include on-street bike lanes in the design process.
- Clpn. Iago would like to see the notice that is being sent to the public prior to mailing.

City Manager Matt Fulton gave an overview and reviewed previous information on a possible city-wide sidewalk assessment program. Staff work is continuing regarding the development of a city-wide sidewalk assessment program for expanding and developing a comprehensive sidewalk and trail system throughout the city. The estimated cost for such a system is around $6 to $7 million and would be implemented over time. A new state law allows for the costs to be assessed against all city properties.

Finance Director, Joan Carlson, has developed a possible strategy for implementing a series of overlapping assessment districts that would allow for the sidewalk plan to be financed over the next 14 years with assessment impacts (set currently to a residential equivalency that would start at $20/ year and adjust annually by $20.00 until the peak assessment rate of $100 is reached in five years. the annual assessment rate would start decreasing after year 10. Manager Fulton said the entire city would benefit.

The impact on the use / need for sidewalks/ trails are greater for larger commercial businesses and institutional uses like schools. Therefore, the assessed amount for these land uses should reflect the higher impact/ need. Staff has been considering the most appropriate approach for establishing a tiered assessment level and would appreciate Council input and suggestions.

Possible options to consider:

- Employment levels (difficult to objectively define and keep current);
- Daily pedestrian activity levels (difficult to objectively define and keep current);
- Geographic size of building (objectively definable through GIS);
- Zoning categories (commercial / industrial / institutional (objectively definable).

Comments

- Why wouldn't you just consider say a 2% levy increase? Manager Fulton is being sensitive to individual proportionate shares. It might be safer and cleaner and simpler. The graph looks too complex to sell to the public.
- Clpn. Bellows this could be problematic. We should figure out what we are looking to do over a set period of time. If we have a plan we can do it so it can increase the cost and some level of cost increase. The people that have sidewalks say on Marie, who just spent a lot of money, this doesn't allow for them. It seems there are a series of issues that are not being addressed.
- Marie Ave. did not get assessed for the new sidewalks. If you have a $6 to 7 million project it could be fully funded right? Yes. Clpn. Napier likes the idea. If you do a levy they would still pay the same amount because it's based on home value.
- Attorney Korine Land an assessment could be right – would there be a legal means. This statute does not provide for the due process and it's simply you can assess. You would need to provide (and are not obligated) a process. The statute says property classification. It is tied to the class – multi-family, commercial, residential, etc.
- Discussed payment of said assessment over a period of time.
- No one is exempt and everyone is assessed. If it's a levy and you don't pay taxes.
- Manager Fulton added comment about street repairs being taken care of by assessment in other communities.
- Clpn. Halverson also understands the parking concerns and wants to seek public input.
- Council would like to get more information from Joan (Finance Director). This would be a community-wide assessment hearing and probably not done this year; it would be done in 2017. You could add a sidewalk levy into the proposed budget. Mayor Meisinger and Clpn. Halverson were in favor.

5. Adjourn

Council adjourned the work session at 6:15 p.m.

David Meisinger
Mayor
City of West St. Paul

CITY OF WEST ST. PAUL
CITY COUNCIL MEETING MINUTES
August 22, 2016 at 6:30 p.m.

1. Call to Order

Mayor David Meisinger called the meeting to order at 6:30 p.m.

2. Roll Call

Present: Mayor David Meisinger and Councilmembers Ed Iago, John Bellows, Dave Napier, Jenny Halverson, Pat Armon and Dick Vitelli.

Others: City Manager Matt Fulton, Assistant City Manager and HR Director Sherrie Le, Community Development Director Jim Hartshorn, Public Works Director Ross Beckwith, City Attorney Korine Land, Police Chief Manila Shaver, Assistant Community Development Director Ben Boike and City Clerk Chantal Doriott.

3. Pledge of Allegiance

4. Adopt the Agenda

Council moved to approve the agenda with one change:

1) Pull item 12.A. to be continued for two weeks.

5. OCWS Briefing

Mayor David Meisinger gave an overview of the work session items discussed prior to the regular meeting.

- Closed session to consider labor negotiation strategies; and
- Discussion regarding bike trails/sharrows and city-wide assessment district.

6. Robert Street Review

Public works Director Ross Beckwith gave an overview. Marie Ave. is closed; Carol will close next; and you will see more curb and gutter in this area. On Wentworth Ave. traffic will be split. The north end of project has a new landscaper and they are securing trees and pulling weeds and getting ready for planting at the end of summer, beginning of fall.

7. Citizen Comments

Karen Vavrek, 1229 Stryker Avenue, presented a citizen petition with about 70 signatures from citizens in favor of the River-to-River Regional Trail Crossing (tunnel, bridge across Robert Street). The petition was accepted and will be attached to these minutes.

David and Carol Schoeneck, 1325 Manomin Ave., as part of the Met Council sewer upgrade program received a notice they needed an I/I inspection. After the inspection was done they were given a list of issues to be corrected and a list of contractors they would use. They selected Ben Franklin to do the work. Unfortunately because of some work they experienced over 2" of water flooding their basement and there are costs associated with this problem. It appears the city or contractor doesn't feel it necessary to inform the homeowner of the potential for flooding with this type of repair. It's too late for them to take measures but they would like others to know what happened. The city and private contractors need to prevent this from happening to others. Please clarify the roles and communication and alert homeowners if they choose to go ahead with a sewer lining. The exact same thing happened to their neighbors due to the lining of the sewer. Clpn. Vitelli commented. The drain tiles that were keeping the basement dry, when they were blocked, the water had to go someplace. That was the source of the flooding. Clpn. Napier said this highlights the importance of having our own person on staff and consistent communication. Clpn. Iago said he spoke to the State of MN about plumber Ben Franklin and encouraged others to share their story. Clpn. Bellows asked - did Ben Franklin have the report and video? Yes and they watched the video in her presence (Carol). The Council said they are sympathetic and will note these issues.

8. Council Comments

Clpn. Vitelli said Burger Time is open and his hamburger was very good. Burger Time is located on the corner of Bernard and Robert Street.

Clpn. Armon said the news reports say it doesn't look good for a special legislative session. The state fair could be a good place to meet legislatures so seek them out.

Clpn. Halverson said this Saturday August 27 is the color dash starting at 6pm (you must be registered to participate and registration is full and closed). There are also fun kid and family activities such as games, dancing, DJ music, goodie bags, and more. Join us this Saturday at Sports Dome Park at 6:00 p.m. The festivities will end with the movie "Time Out (weather permitting).

9. Proclamations, Presentations and Recognitions

A. Sergeant Andy Gubash, Retirement

After almost 29 years of service to the City, Sergeant Andy Gubash will be retiring from the police department. Andy started his career working as a Community Service Officer in 1986 and was quickly moved to a sworn police officer position. Andy is particularly proud of his work with the Dakota County Drug Task Force. From 2005 until 2013 Andy and his K-9 partner "Buster" worked on the task force. During those eight years major cases were broken and Buster found untold amounts of illicit drugs and other contraband. The Council said congratulations and thank you for all of your years of service.

Clpn. Iago gave further accolades. He was hired as a CSO in 1986 and hired as full time officer in 1988. After his initial training as a routine patrol officer he was assigned to the canine

program. During his time on the drug task force he became a go-to member of that organization mentoring many. The number of operations he performed and valuable services are way too much to list. Upon his return to the West St. Paul police dept. as a Sgt. he continues to mentor our officers. His son now serves in Hawaii. Mayor Meisinger said thanks to Police Chief Shaver - it's a testament to your chief skills and to Sgt. Gubash for his service. Council gave a standing ovation.

B. West St. Paul Stars - 11AA Baseball Team Champions

Mayor David Meisinger congratulated the championship team and read the attached proclamation. The Council said congratulations to the boys and their coaches. Mayor Meisinger handed out a copy of the proclamation to each player and shook their hand in congratulations.

C. DARTS Presentation

Ann Bailey, DARTS President gave an overview and said DARTS has been around since 1974 and it's been about a year since the last update.

- Currently they are doing more and more home repairs and adding services to meet future seniors' needs.
- They also support LOOP and ridership continues to rise. People are willing to pay the stipend for this transit option. July provided about 158 rides.
- There are more and more aging people and the demand for services and the funding for these service needs continues. The city support is vital and telling people how our programs can assist the is helpful. They are recruiting volunteers for fall clean-up and other events. Go to www.dartsconnects.org for more volunteer opportunities; they also have some job opportunities; and there are learning opportunities.
- Contact DARTS personnel at 651-455-1560.

D. Donation - Target

Motion was made by Clpn. Vitelli and seconded by Clpn. Armon to adopt Resolution No. 16-75 approving and graciously accepting the donation from Target for the Night to Unite activities. All members present voted aye. Motion carried.

E. Accept Donation from South Robert Street Business Association

Shop Robert and Touch-a-Truck Event

Some of the day's events from 1:00 to 8:00 p.m. include:

- Live music, beer, wine and food;
- Raffles, pull tabs, dancing, WSP Royalty;
- Bounce house, bingo and more.
- For more information contact Dave Motz, president of SRSBA on Facebook.

Motion was made by Clpn. Halverson and seconded by Clpn. Napier to adopt Resolution No. 16-76 approving and graciously accepting a donation from the South Robert Street Business

Association in the amount of $13,000.00 for the Touch-a-Truck and Shop Robert celebration on September 17, 2016. All members present voted aye. Motion carried.

F. Donation - Ms. Michele McGinn

Motion was made by Clpn. Armon and seconded by Clpn. Halverson to adopt Resolution No. 16-77 approving and graciously accepting a donation from Michele McGinn in the amount of $100.00 for the purpose of furthering police officer safety. All members present voted aye. Motion carried.

G. Accept Donation from Walmart Foundation for the LOOP

Motion was made by Clpn. Napier and seconded by Clpn. Vitelli to graciously approve and accept the Walmart Foundation grant in the amount of $1,500.00 for the LOOP. All members present voted aye. Motion carried.

10. Consent Agenda

A. City Council Meeting Minutes - 8-08-16 OCWS, 8-08-16 regular meeting and 8-11-15 special meeting to canvass the primary
B. List of Claims
C. July 2017 General Fund Budget Report
D. July 2017 Investment Report
E. Rental Licensing
F. Council Report - City Licensing
G. Resolution No. 16-80 City Licenses-Touch-a-Truck Shop Robert St Event
H. T-Mobile Site Sublease Agreement - Marie Ave. Water Tower
I. Removed for individual consideration (below)
J. Resolution No. 16-78 approving a property line adjustment for 283 E. Haskell St.
K. Resolution No. 16-79 approving a property line adjustment for 1994 Robert St.

Motion was made by Clpn. Vitelli and seconded by Clpn. Halverson to approve the consent agenda items as presented and listed above; note that item I was removed for individual discussion and consideration. All members present voted aye. Motion carried.

I. Special Permit, Excessive Number of Animals (Chickens), 203 Stanley Street East

Lisa Antony-Thomas has lived here since 2004 and has 4 chickens. The city ordinance at the time she got her chickens had no limit and no license fee. Now there is an annual $200 fee and she feels it is excessive and completely will discourage people from keeping more than 2 chickens. Every other city is moving progressively and West St. Paul seems to be moving backwards. With the proposed fee this averages $1 per egg. Mayor Meisinger said the ordinance includes all animals. Police Chief Shaver said let’s prorate the fee to no fee for her 4 chickens until December 31, 2016.

Motion was made by Clpn. Halverson and seconded by Clpn. Vitelli to approve the application for Lisa Antony-Thomas with no charge for up to four chickens. The Council will revisit the issue of excessive number of chickens at a future meeting. All members present voted aye. Motion carried.

11. Public Hearing

A. Application for a Conditional Use Permit to allow Medical Clinic in a B3 District at 1963 Robert St. – MedExpress Urgent Care

Assistant Community Development director gave an overview. MedExpress Urgent Care is requesting a Conditional Use Permit to allow a Medical Clinic at 1963 Robert St. The proposed use will occupy the southern half of the recently constructed building (Aspen Dental occupies the northern half). The proposed urgent care clinic will provide walk-in patient services that treat illnesses and injuries along with wellness and prevention services and will be open seven days a week from 8:00 a.m. to 8:00 p.m. There will typically be six to eight employees daily. The site plan includes 37 parking stalls with an approved variance for four additional stalls. In addition to the parking stalls provided on-site, parking is allowed on Crusader Ave.

The public hearing opened at 7:29 p.m.

No one wished to speak.

The public hearing closed at 7:29 p.m.

Motion was made by Clpn. Iago and seconded by Clpn. Bellows to hold a public hearing and approve the conditional use permit subject to the following condition: 1) The applicant shall apply for applicable building and sign permits for the tenant finish. All members present voted aye. Motion carried.

B. Final Reading - An Ordinance Opting-out of the Requirements of Minnesota Statutes, Section 462.3593 relating to Temporary Family Health Care Dwellings – City of West St. Paul

The State Legislature recently passed a bill creating a new process for landowners to place mobile residential dwellings on their property to serve as a temporary health care dwelling. The bill essentially requires all cities to allow mobile dwelling units (300 sq. ft. or less) on residential properties as a permitted use to provide temporary housing for “mentally or physically impaired” relatives. The bill does allow cities the ability to “opt out” of the requirement by passing an ordinance.

The public hearing opened at 7:30 p.m.

No one wished to speak.

The public hearing closed at 7:30 p.m.

Motion was made by Clpn. Bellows and seconded by Clpn. Halverson to hold a public hearing and approve the final reading of Ordinance No. 16-10 opting-out of the requirements of Minnesota Statutes, Section 462.3593 in regards to temporary family health care dwellings. All members present voted aye. Motion carried.

C. Final Reading - Ordinance Regarding Vacation of Allen Avenue

Attorney Korine Land gave an overview. As part of the Safe Routes to School ("SRTS") project, it was discovered that there exists a portion of a "vacated" Allen Avenue that encumbers the property at 217 Wentworth Avenue W. By a Decree of May 29, 1929, the City Council vacated the eastern half of Allen Avenue. On May 22, 1946, the City Council intended to vacate several rights of way and alleys in the subdivision plat, including Allen Avenue, but, due to a scrivener's error, Allen Avenue was accidentally exempted from the vacation and it still exists, as depicted on the attached map. The underlying property is owned by Ms. Kopp and the City acquired easements from Ms. Kopp for the sidewalk project and promised to address vacating Allen Avenue.

The public hearing opened at 7:30 p.m.

No one wished to speak.

The public hearing closed at 7:30 p.m.

Motion was made by Clpn. Vitelli and seconded by Clpn. Bellows to adopt Ordinance No. 16-11 providing for the vacation for right-of-way a portion of Allen Avenue as presented. All members present voted aye. Motion carried.

12. New Business

A. Comprehensive Plan Consultant Selection

This item was removed and will be discussed and considered at the next regular meeting.

13. Old Business

A. Renaissance Plan Review and Discussion

Assistant Development Director Ben Boike introduced Andrew Dresser, an Urban Planner, Designer and Architect who gave a plan review. The Renaissance Plan has guided private redevelopment within the Robert Street corridor over the past 15 years by incorporating a commercial site plan review process, including the development of requirements for building placement, building façade materials and design, landscaping, signage, etc. However, in response to changing development patterns, regional competition, changing demographics, and in lieu of the Robert Street Improvement project, Council determined that an update of the plan was important.

As a result, Cuningham Group was hired by the City to lead the planning process for the update of the plan. The scope of the project includes two phases: 1) an update of the Renaissance Plan document including the development of three concept plans within the corridor, and 2) development of new zoning requirements to implement the plan. A Project Advisory Committee (PAC) consisting of property owners, business owners, residents and other local stakeholders was created to assist with the development of the plan update. The PAC had a total of six meetings between February 2015 and April 2016 providing valuable direction and feedback as the draft plan was developed. In addition, a public open house was held early on in the process to gather feedback from the general public.

The PAC was assigned to provide Council comment and overall approval or disapproval of the draft plan. Staff received comments back from 12 of the 14 PAC members (the remaining two PAC members were minimally involved early in the process). Staff received five votes in favor of the draft plan as written, six votes that were not in favor of the draft plan as written and one vote with no specific recommendation either way.

Comments:

- Clpn. Bellows asked Mr. Dresser – Do you think the PAC was an important part of this process and he said yes. Clpn. Bellows asked – Are you concerned that members do not agree with this plan? Mr. Dresser said yes, adding they worked to get a majority one way or the other. What troubles Clpn. Bellows is the fact that we don't have a consensus to proceed and yet you are asking us to proceed. Mr. Dresser said he is not recommending approval but he is presenting their best plan. It did build support over time and they did their best to respond to everyone. Clpn. Bellows asked if a prime architectural and design principle is that form follows use. Mr. Dresser said- the two are not inconsistent and he is talking about layout of site. Clpn. Bellows asked him to forward the slides that were not included in earlier information.
- Clpn. Halverson said her issue is the PAC is very important and she worries that it is heavy on business owners and not residents and some don't live in our community. Our residents and homeowners are making a significant investment and this plan protects this investment. She hopes that there is enough long term vision to look at this and consider the future.
- Mayor Meisinger on top of resident's (property owners) investing – everyone who pays taxes should be heard. There is a big group involved. The mayor is not moving this forward and it needs to go back to the PAC and be revised or whatever it takes.
- Clpn. Vitelli commented on supporting and not supporting comments made by PAC members regarding the plan. Robert Street is the life blood of West St. Paul and we need to move forward. New development with housing – we need businesses like this so we need to move forward. That is why this was recommended by the PAC.
- Clpn. Napier this is a critical time for West St. Paul. We are about to finish the biggest project – Robert Street. This plan is thorough and it's up to us to take what we have and move it forward. There are good points and we need to look at it seriously to move it forward. We have an opportunity to move this plan to Phase 2 and the reinvestment in our community has a vision to move in a consistent way down the corridor for what we want in West St. Paul. Move this forward to Phase 2.

- Assistant Director Ben Boike explained this is an update to an existing plan we have had for 15 years.
- Chamber of Commerce President, Vicki Stute, asked that it be entered into record that she and her represented businesses are not in favor
- Clpn. Halverson said this is not about the tunnel and she is open to compromise. This has been considered for a long time. Assistant Director Boike said the PAC started in early 2015.
- Clpn. Napier said we should review the plan and it is an update to the original plan. Times have changed and demographics have changed to get the most economically out of Robert Street.
- Clpn. Iago said one thing that concerns him is some of the comments and what staff has proposed to the PAC itself. He respects every PAC member and the role they played. Unfortunately there is a significant amount of disagreement with the plan. Assistant Director Boike might agree that the comments have been gently edited, "fair to say," said Boike. To have this level of disagreement we are at a place of great trouble. He would like to see that clean. Go back to Cuningham and PAC – he would like to know why the committee doesn't agree with the plan.
- Clpn. Armon we have identified issues – lack of business identity, questions for Assistant Director Boike would be what if we adopt this where would we go? Boike said we adopt the plan and it's implemented part by part. The next step is to create zoning.
- Clpn. Bellows said that Clpn. Napier said we should have a work session but if we understand the update then the next step is to form base zoning. He is still not sure what it is and what it does. If we don't know what it is, how we can proceed? Clearly the members of the PAC have a problem with the plan.
- Clpn. Vitelli said the point he is trying to make is that the PAC did their job and now it's up to us, the elected officials, to make decisions and discuss this plan. To send this back to the PAC is pushing our job back onto them.
- Clpn. Halverson said we are making big investments in West St. Paul and on Robert Street. There are different visions with each of us but we need to come together with a cohesive vision.
- Clpn. Bellows suggests having a Council work session. We can't accept a plan and then work on it. If we accept it there is nothing to work on.
- Clpn. Halverson said this is a flexible plan, it's fluid. Mr. Dresser said accepting is different than adopting the plan.
- Clpn. Iago said to Mr. Dresser, he has respect for him and the PAC to learn why there is such a disconnect and fracture. Dresser said it is important.
- Chris Simmons, 1231 Silvendale Road, is a PAC committee member. This was an eye opener. The PAC is fractured; it is not heavy on business owners. He has been in industry for Welsch for 23 years. He is not a housing person but he knows an expert in retail. West St. Paul is the retail hub for West St. Paul and surrounding communities. In his 23 years he gained experience; he is working on an Arbor Lakes development in Maple Grove and Lockheed Martin. As Eagan and other areas grow it creates changes. We need to help bring people here. Your city has a river that runs around it and hinders transportation and that's a reality of your area. Since these other areas have grown (Eagan) it creates a destination for people to gather to do more than shop. He spoke of generators such as a stadium in Minneapolis and what could we do in West St. Paul. You are going to have

strong personalities on these committees and listen to the PAC members individually – he supports having a joint session. You need to make a decision and hear the concerns right from the person that has a concern. The bike path, the generator, he was not in favor of moving this forward at this time. Is Signal Hills a generator – no; Kohl's or Herberger's would be. Clpn. Vitelli said we need a generator. You did your job and the rest of the PAC needs to let us know what they think. He appreciates Chris' input.

- Chris Simmons continued his comments and opinions and really suggests Council meet with the PAC. He further offered information and comments about millennials.
- Without a plan we haven't attracted Kohl's. Having a plan helps you move forward. Were there any millennials? Assistant Director Boike said 1 or 2 people; that was not good representation.
- Clpn. Bellows asked - what's the driver? If you look at St. Paul and Summit Ave. – it has high density housing, colleges – these are the generators. Generators make a difference in retailers and drug stores and housing. A vision is important as is a bike trail but there was not enough for support of the plan said Chris Simmons.
- Clpn. Vitelli asked was your biggest issue with the plan too much housing. Chris Simmons said he didn't think anyone on the PAC wanted housing. How are we going to do that? It was never answered. We need an idea to generate their interest to get them here.
- Clpn. Napier to Andrew Dresser asked what brought you to all the housing. Dresser said it's not if the plan asks for all housing – maybe 1/3 to the south. He thinks he heard from the PAC that housing is needed – we need more choices. There is aging apartment stock in the city and it needs to be reinvested in or replaced. He agrees with the generator discussion but he doesn't see it needs to be Herberger's or Kohl's. People like it here because they want to be here; Signal Hills and Town Center are the two hubs. Housing can be above retail. Look closely at the land use vision (yellow). He thinks our generators are location to places like Xcel Energy, and the airport – they are in proximity to a lot. The housing idea is not a hidden agenda and is something that you have seen in other communities. Clpn. Napier would like to accept, not adopt the plan, and move this to another work session and invite PAC for feedback to see if there is something here to adopt.
- Clpn. Vitelli asked if Opus would come. Mr. Dresser said maybe. There are many developers. Clpn. Napier would like to eliminate that there is a hidden agenda. This is a true plan that would work in this corridor. Mr. Dresser said yes; adding the PAC was very diverse. We went through several drafts and revisions.
- The next meeting will be advertised and anyone you think should be invited please let staff know.

Motion was made by Clpn. Halverson seconded by Clpn. Vitelli to move forward with the Renaissance Plan. Motion was amended by Clpn. Halverson and seconded by Clpn. Vitelli to accept the Renaissance Plan, schedule a work session with the PAC members, and move forward. All members present voted aye.

B. Approve Revised Pay Equity Report

Assistant City Manager Sherrie Le gave an overview as she has been working with the State Pay Equity Coordinator for a while. Changes have been made to the report that puts the City in compliance. The changes consist of removing the words “performance pay” from any job class covering an employee who received performance pay, but did not receive wages and merit pay that, combined, would exceed their salary range maximum. In making these changes, the number of male classes receiving merit (or performance) pay dropped below the 20% threshold that made that test applicable to us. In the past the city had been exempt from this test, as fewer than 20% of our male-dominated classes received merit pay in 2016.

Motion was made by Clpn. Vitelli and seconded by Clpn. Halverson to approve the revised pay equity report as presented. All members present voted aye. Motion carried.

14. Adjourn

Motion was made by Clpn. Bellows and seconded by Clpn. Halverson to adjourn the meeting at 8:50 p.m. All members present voted aye. Motion carried.

David Meisinger
Mayor
City of West St. Paul

City of West St. Paul
Open Council Work Session Minutes
September 12, 2016

1. Call to Order and Roll Call

Mayor David Meisinger called the work session to order at 4:50 p.m.

Present: Mayor David Meisinger and Councilmembers Pat Armon, Ed Iago, John Bellows, Dave Napier, Jenny Halverson and Dick Vitelli.

Others: City Manager Matt Fulton, Finance Director Joan Carlson, Assistant City Manager and HR Director Sherrie Le, Community Development Director Jim Hartshorn, Public Works Director Ross Beckwith, City Attorney Korine Land, Police Chief Manila Shaver, SMFD Chief Mike Pott, and City Clerk Chantal Doriott.

2. Review and Approve the Work Session Agenda

Council approved the OCWS agenda as presented.

3. Review and Approve the Regular Meeting Consent Agenda

Council approved the regular City Council meeting agenda with changes:

12.F. Consider legal service agreement at the next meeting. Clpn. Bellows would like to consider the attorney appointment on September 26. Manager Fulton will be at a conference on September 26. Manager Fulton said LeVander (Attorney Land) has already offered the city two options to consider for legal services. The Mayor could consider going for RFP for all attorney services. Clpn. Bellows said the civil side and institution memory is important.

13.A. Add: Consider Settlement for Robert Street Project, Parcel 100.

13.B. Add: Consider Minnesota County Data Services Agreement.

4. Agenda Item(s)

4.A. 2017 General Fund and Capital Budget

City Manager Matt Fulton said tonight's discussion will center on levy impacts to taxes. The general fund is to increase 13.6 million which is a 7.72% increase from last year. About 75% of this amount is for personnel and potential insurance increases. Other budgetary issues are water at the Harmon Park Splashpad and weekend maintenance on Harmon Park and throughout the city. The intent tonight is to give you an overview of all funds and use the next couple of months to be to an approvable levy amount which will be done in December. This is really a status quo

budget. Manager Fulton added information on the levy and how it relates to property values as well as capital. There are a lot of pressures on our budget.

Finance Director Joan Carlson said the primary goal tonight is to get to consensus on what we would like to get as a preliminary levy amount by the end of this month. In the two weeks since council received budget information staff will be updating any things we can bring down.

The proposed levy is $13,193,542 or 8.46% increase; adopted levies from 2015 and 2016 and the proposed were reviewed. The revenue budge is approximately 80%, license and permits 4%, intergovernmental 4%, charges for services 5%, fees and forfeitures 1%, miscellaneous 1% and other financing sources 5%. The proposed expenditure budget was reviewed with public safety being the largest expense at 55%, public works 12%, economic development 3%, park and recreation a little more than 6.5% and general government the remaining balance.

2017 expenditures by department were reviewed. Some items discussed:

- Council travel – this budget reflects 2 councilmembers on a spring conference and a fall conference.
- Community survey – this was not done last year and it's helpful information to update strategic planning.
- Marketing and communication person and said program is not under the city manager department and is on its own. Clpn. Bellows asked what is the actual increase in the city manager/city clerk budget; it's about $43,000 or 5.5%. Clpn. Iago asked what does marketing include: salary, benefits, newsletter, printing, publications and contractual services which include NDC4. The Mayor asked if we can move the survey into the marketing communication budget? Manager Fulton said that would be fine.
- Election costs are down in 2017 as there is no election. Legal remains the same as last year; this is a starting point. Recycling is increasing slightly as this is a new program. There is no change in IT. City Hall maintenance includes salaried person and maintenance costs. If there are costs to City Hall they would come out of another fund.
- We are asking to add two additional police officers which is why this line item increases. Police Chief Shaver offered information on the three-year salary range and we staggered the start times (April and June). The full cost for two officers is about $185,000. We are waiting to hire them to reduce impacts on the budget. Staff has applied for grant funds. We did not budget with anticipation of the officer hire. In the next five years you are probably looking at three to four people retiring. Clpn. Iago asked what the contract with Walmart is. The contract is open-ended and goes Thursday through Sunday and pays hourly. They are our number 1 commercial stop. Council is in favor of hiring two new officers next year. The budget increase also includes money for clerical police duties.
- SMFD increased due to capital and 1.5 full time employees. South St. Paul does not have issues with the increase. The West St. Paul Council did not have issues.
- Other expenditures street signs, animal control, engineering 7.7% increase for extra contract work, streets are up less than 4% but street lighting increases because electricity increased and the new LED lights are more expensive (could be moved to capital); human resources increased 3.5%. Director Carlson explained why these expenses increased.

- Mayor Meisinger said cost drivers were listed individually and further explained. We are going out for bids on employee insurance and will have more information at the next meeting.

Comments:

- Clpn. Vitelli would like Director Beckwith to research how much it would cost to sweep the streets more often.
- Council was advised to send in budget questions to Director Carlson and Manager Fulton.

Capital Equipment Plan (CEP)

Director Joan Carlson gave an overview of the equipment plan.

- The IT department includes additional desk scanners and new electronic timesheet software. The software will be reviewed by Council at the regular meeting tonight for possible early purchase. Other IT expenses were reviewed.
- Park and recreation would like additional software to schedule programs and more. Slight concern about the cost.
- Vehicle and equipment review including comprehensive plan (started this year). Also reviewed were engineering, fire, police and government buildings. The comprehensive plan budget will be reviewed as there might be a discrepancy ($90,000 needs to be budgeted over 3 years). Here is a thought – let's see if we can share equipment such as a paver with South St. Paul or Mendota Heights. Director Beckwith will check on this.

Capital Improvement Plan (CIP)

Director Carlson said this is probably a plan that could have the most changes especially with legislature changes over the next few weeks. Director Carlson reviewed projects by funding source and department/division.

- Government building such as city hall, ice arena, and public works facility, etc.
- Streets, sewer, parks improvements,
- Discussion regarding LGA and capital projects.
- Special assessments – payments and a list of projects.
- Manager Fulton asked Council to consider the special assessed Edgewood – is this a new road or a reconstruction?

Manager Fulton said to Council – make sure you get your questions into Director Carlson and himself. Council should review what was presented and this will be reviewed at the next meeting and include any changes that are forwarded to staff. The next meeting we will have to approve an estimated levy budget.

Mayor Meisinger asked Attorney Land what it would entail to eliminate the electrical franchise fee. Attorney Land said there is an agreement with Xcel Energy. You are paying West St. Paul and you don't get to write that off. Manager Fulton said no tax exempt properties pay a franchise fee and they don't pay property tax. Mayor Meisinger would like to know what it entails to eliminate the franchise fee. Manager Fulton said your tax levy would increase about $800,000.

Director Carlson said it can be very difficult to calculate and is about $25.00 per year, per property.

5. Adjourn

Council adjourned the work session at 6:15 p.m.

David Meisinger
Mayor
City of West St. Paul

City of West St. Paul Council Meeting Minutes
Municipal Center Council Chamber
September 12, 2016
6:30 p.m.

1. Call to Order

Mayor David Meisinger called the meeting to order at 6:30 p.m.

2. Roll Call

Present: Mayor David Meisinger and Councilmembers Ed Iago, John Bellows, Dave Napier, Pat Armon and Dick Vitelli. Clpn. Jenny Halverson had an excused absence.

Others: City Manager Matt Fulton, Finance Director Joan Carlson, Community Development Director Jim Hartshorn, Public Works Director Ross Beckwith, City Attorney Korine Land, Police Chief Manila Shaver and City Clerk Chantal Doriott.

3. Pledge of Allegiance

4. Adopt the Agenda

Motion was made by Clpn. Armon and seconded by Clpn. Iago to approve the agenda as amended:

- Remove consideration of 10.A. City Council meeting minutes;
- Remove consideration of 12.F. Legal Services Contract Renewal;
- 13.A. add Consideration of Purchase of Parcel 100 - part of the Robert Street project; and
- 13.B. add Consideration of the Minnesota Court Data Services agreement.

All members present voted aye. Motion carried.

5. OCWS Briefing

Mayor David Meisinger gave an overview of the work session items discussed prior to the regular meeting:

- Proposed 2017 Budget and Levy Review including Capital Improvement Plan and Capital Equipment Plan. There was no action taken and Council will discuss the proposed budget at the next work session.

6. Robert Street Review

Public Works Director Ross Beckwith gave an update.

- Great day for paving today; there has been a lot of nice weather.
- Trees are being planted on the north end.
- During the week of the 19th the Lothenbach area – southbound traffic will be down to one lane, on the north, for utility work.

- Paving and curb work continues onto Mendota road next week; and the following week will see final wear.
- Clpn. Napier cautioned everyone to drive safely and watch traffic changes at intersections.

7. Citizen Comments

- John Palano, 1137 Seminole Ave., thanked the Council for dedicating a field at Harmon Park to him. Council thanked John for his service to the community.

8. Council Comments

Clpn. Bellows asked for remembrance of good friend and classmate Gary Koechler one of the souls we lost during 9-11.

Clpn. Armon reminded everyone to get out to a baseball game. The stands were full on Friday. The Park and Rec Chair does a great job in announcing at these games. We have good teams this year.

Mayor Meisinger said this coming Saturday is Family Fun Day (1PM to 8PM) and Touch a Truck (12PM to 4PM) event at Harmon Park. Rich and the Resistors will present live music from 5:30 to 7:30 PM; the event commences with fireworks (7:45 PM). Also on September 24 is the annual Clean-up Day and Recycle event from 8:00 a.m. to 12:00 noon at Inver Gove Heights, 8168 Barbara Avenue, and additional information is on the city website.

Clpn. Iago said thanks to the South Robert Street Business Association as they continue to do amazing things in our community. Many, many thanks to the members of this great association.

Clpn. Napier, as the Council Representative to the Environmental Committee, wants to highlight that Thompson Park will start to take organics from residential homes starting in October. Thanks to Dakota County as this is great benefit to our community. Visit the County or City websites for more information.

9. Proclamations, Presentations and Recognitions

A. Recognition of Police Patrol Sergeant Promotions

Police Chief Manila Shaver gave an overview of the promotion process. The two officer promotions go to Matt Mollner and Shawna Curtis. Matt's passion and Shawna's strive are being recognized. Mayor Meisinger congratulated both on their promotion and thanked them for their community work.

B. Accept Donations from South Robert Street Business Association

City Manager Fulton explained the South Robert Street Business Association has donated money to the City for events and special needs for many years from their charitable gambling

contributions. They have recently made two donations to the Parks and Recreation Department. The first donation was for a new freezer, valued at $300, for the West St Paul Sports Complex. The second donation was a $250 donation for our Little Tykes Safety Camp program.

Motion was made by Clpn. Armon and seconded by Clpn. Napier to graciously accept and adopt Resolution No. 16-81 accepting the $550.00 donation from South Robert Street Business Association for the Parks and Recreation department. All members present voted aye. Motion carried.

10. Consent Agenda

~~A. Works Session and Regular Meeting Minutes of August 22, 2016~~ (continued to the next meeting)
B. List of Claims
C. July 2016 Bank Reconciliation
D. Declare Public Works - Parks Vehicles as Surplus and Authorize Disposal
E. City Licensing
F. Rental Licensing

Motion was made by Clpn. Vitelli and seconded by Clpn. Napier to approve the consent agenda items as listed above. All members present voted aye. Motion carried.

11. Public Hearing

There were no public hearings.

12. New Business

A. Alcohol and Tobacco Compliance Sanctions

Police Chief Shaver explained that each year the police department conducts alcohol and tobacco compliance checks on licensed establishments. Police Chief Shaver reviewed the May 2016 compliance checks in detail.

Nick Clyde, 4920 Chicago Avenue in Minneapolis, is the Manager of Cub Liquors, said after the compliance check he performed additional training to educate the employees. The employee who is at fault was new and also had completed the recent training. He believes that providing additional training in-house and through the police dept. has impact. Clpn. Armon is trying to figure out the override of the system. Mr. Clyde said speed rather than having to type in a birthdate is the issue.

Motion was made by Clpn. Vitelli and seconded by Clpn. Armon to adopt Resolution No. 16-82 imposing sanctions upon retail tobacco license holder Cub Liquors, 2001 Robert Street South. All members present voted aye. Motion carried.

Motion was made by Clpn. Armon and seconded by Clpn. Napier to adopt Resolution No. 16-83 imposing sanctions upon retail tobacco license holder West St. Paul Marathon, 433 Mendota Road E. All members present voted aye. Motion carried.

Clpn. Bellows is concerned with the compliance check failures and would like to think of some ways we can work with businesses to minimize these occurrences.

Assistant Walmart Manager Ahmed Abdual, 1170 Northwood Drive, the store implemented an employee training program and has other protocols in place to try and avoid future episodes and will offer additional in-house training. Tobacco products are only sold at designated cashier stations.

Motion was made by Clpn. Napier and seconded by Clpn. Iago to adopt Resolution No. 16-84 imposing sanctions upon retail tobacco license holder Walmart. All members present voted aye. Motion carried.

Assistant Walmart Manager Ahmed Abdual said the store will continue working with employees and training. They realize how important it is to check driver licenses. Clpn. Bellows questioned another failed compliance check as it appears there were three in the last two years. There was a misunderstanding and this was incorrect, there were only two failed checks.

Motion was made by Clpn. Napier and seconded by Clpn. Armon to adopt Resolution No. 16-85 imposing sanctions upon retail alcohol license holder Walmart. All members present voted aye. Motion carried.

Jerry Carbone, 1338 Kruse Street, had two prior compliance failures in 2008 and 2009. These made him develop a policy to terminate a longtime employee who sold alcohol to a minor. He will continue with this practice and continue training the employees. Mayor Meisinger said we appreciate your efforts. Clpn. Bellows said the termination policy is to be commended.

Motion was made by Clpn. Vitelli and seconded by Clpn. Iago to adopt Resolution No. 16-86 imposing sanctions upon retail alcohol license holder Carbone's Pizza, 55 Wentworth Avenue E. All members present voted aye. Motion carried.

B. Council Report - Special Animal Permit Application

Lisa Leach, the owner of 448 Emerson Ave West, has applied for a Special Permit for exceeding the number of animals (chickens and goats) restricted by City Code. This property has two structures including a single family home with a tuck-under garage, along with an animal coop in the backyard. The property is fenced in and appears to be well maintained.
In order to assure compliance with City Code, on June 25, 2016 Community Service Officer Nolan Cornell inspected the property and the area where the animals will be kept. CSO Nolan took several photos to document the property's condition. The following information was noted during the inspection:

- The property appears to be well maintained;
- The four hens and two miniature goats were making no noise;

- The area was free of offensive odor;
- The animal coop appeared suitable for the four hens and the two goats;
- The coop was not particularly visible from any public property; and
- The property was fenced in with chain link fence and the animal coop was further fenced in within the property by an additional chain link fence.

Comments:

- What if this turns into a problem? Attorney Land said the Council can grant the special license and they can also revoke the license.
- Lisa Leach, 448 Emerson Ave. W, she has coffee on her patio every day and enjoys the chickens who are charming and provide eggs. The goats are dwarfs and don't get larger than 22 inches. The animals are quiet and at dusk they walk themselves into their structure. These animals are nothing like the roaming dogs in some neighborhoods. The neighbors abutting her property do not have issues. She invited the Council to visit anytime. The goats are pets and they do not smell and it's better to have two rather than one.
- Clpn. Vitelli asked if the yard was fenced. She said yes and inside the fence is a structure for them.
- Clpn. Napier is in favor of trying it (approving the special permit) since there seems to not have been a lot of complaints.
- Clpn. Iago asked about the predators and related activity. Lisa said she has seen foxes and there is nothing she can do because they are double-gated. These animals did not bring the foxes into this area.
- Clpn. Armon asked about the chickens getting loose. Lisa said two white hens flew onto her fence but they have been gone for at least three months. This was an isolated incident.
- Clpn. Vitelli doesn't think he has an issue but would like to see the structure have siding.
- Lisa said she has had the goats for three months. Clpn. Bellows asked what the due process would be if this doesn't work out. Attorney Land said to treat this as a license. Evidence would be presented to the Council if revocation was imminent. Chief Shaver said this is an annual license.

Motion was made by Clpn. Bellows and seconded by Clpn. Iago to approve the special animal permit and allow four chickens and two dwarf goats and includes having the structure sided by November 30, 2016. All members present voted aye. Motion carried.

C. Comprehensive Plan Consultant Selection

Community Development Director Hartshorn gave an overview. Staff recently solicited proposals from consulting firms to assist with the development of the required 2018 Comprehensive Plan Update. The Met Council mandates that all cities in the metro area complete a Comp Plan update every ten years. In doing so, the City is required to amend the current plan to adhere to the policies set forth by Met Council in areas such as Land Use, Transportation, Water Resources, Housing and Parks.

Staff received proposals from the Cuningham Group and WSB & Associates. Both consultants provide three pricing options to complete the plan update based on the amount of community

engagement (see attached for more info). Both proposals call for the completion of the plan update in early 2018 which is in advance of the submittal deadline of December 31, 2018 to the Met Council.

Comments:

- Council will get to meet all the consultants and learn more about the process.
- Clpn. Bellows is in favor.

Motion was made by Clpn. Bellows and seconded by Clpn. Napier to accept the request for proposals and award a contract to WSB & Associates, Inc. for a base package amount of $94,150.00 to complete the required Comprehensive Plan update. All members present voted aye. Motion carried.

D. Approve Revision to Consultant Contract City Project 14-6

Public Works Director Ross Beckwith gave an overview. Council recently approved a consultant contract with WSB & Associates, Inc. (WSB) for preliminary engineering of the Wentworth/Bellows Safe Routes to School Project #14-6. Acquiring right of way has added costs to consider for this project. Staff asked Council to consider amending WSB's contract for actual hours worked to bring their contract to a total amount of $101,029.00. Dakota County who is a financial partner is supportive of the amended contract amount.

Clpn. Napier said this is based on actual work and Director Beckwith said yes, they submit a timesheet. This is tough but in good faith they put the hours in said Clpn. Napier.

Motion was made by Clpn. Napier and seconded by Clpn. Vitelli to increase the WSB & Associates, Inc. Contract amount of $101,029.00 for services related to the Wentworth/Bellows Safe Routes to School Project #14-6 as presented. All members present voted aye. Motion carried.

E. Approval to Purchase E-Suite (electronic timesheets)

Finance Director Joan Carlson gave an overview of electronic timesheet software that will greatly enhance the efficiency of the payroll process, saving time and money. The electronic timesheets will be automatically routed for department approvals and easily uploaded to the payroll program. Staff is requesting that council approve this purchase immediately due to staff changes in this department.

Comments:

- There are funds available in the IT budget. We would begin the conversion immediately and hope it is up and running in a couple of months.
- What does annual maintenance of $800 include? Director Carlson said staff can call the customer service line as often as needed; bugs are taken care of and the maintenance fee includes updates as well.
- Clpn. Napier said we are currently using paper timesheets. The new software seems very efficient and this could alleviate errors and speed up the process.

Motion was made by Clpn. Armon and seconded by Clpn. Iago to approve the purchase of Tyler Technologies E-Suite (timesheet) software as presented. All members present voted aye. Motion carried.

F. ~~Consider Legal Services Agreement Renewal~~

This will be continued and considered at the next meeting.

G. Consider Collaborative Recycling Program with South St. Paul

City Manager Fulton gave an overview explaining the City has operated a recycling program for many years. The program is funded through a grant provided by Dakota County. The City has been discussing a joint recycling program with the City of South St. Paul to create greater efficiencies and better recycling programming. For payroll purposes the employee would technically be a West St. Paul employee and we would bill South St. Paul for said services. The actual budget numbers and program specifics need to be written.

Comments:

- Are there space issues for a new employee? We have an actual area for this person.
- Why did Inver Grove Heights and Mendota Heights opt out? They are doing this program in-house.
- Funds come from the state and county and are to be used for recycling services. We need to meet the goals and expectations of these entities and administering the program in a collaborative way should be more effective.
- Are there zero costs to the city? Manager Fulton is hesitant to say there are no costs to the city budget. Previously there were funds from the designated $25,000 offsetting Ms. Wilson's (previous employee) wages. We do the same now since the City Clerk took over the position. If we bring in another person that person would benefit from the grant funds. Any levy affect with be nominal.
- Why is South St. Paul not taking on the employee processes? It seems premature to approve this with many unanswered questions. During discussions staff thought West St. Paul had experience with this type of collaborative effort so they offered to host the employee. Clpn. Bellows is a little concerned with taking on another employee.
- Clpn. Napier asked if there was room for negotiations on hiring the new person. Manager Fulton is not concerned about the hiring of the employee. Clpn. Napier said he supports the new program and employee and it's important to the Environmental Committee. There is a lot of good work being done with the County including the new organics recycling program.
- Clpn. Vitelli sees it as a zero cost to the city and win-win for both entities and is supportive.
- Manager Fulton is asking Council to authorize the JPA and to bring back program specifics. Mayor Meisinger said that may be a way to keep this moving forward.
- Clpn. Bellows suggested authorizing Manager Fulton to proceed and have him bring back for final approval; Clpn. Iago could support that. Clpn Vitelli asked the JPA? Yes said

Clpn. Bellows, bring back all of the information when it's final and ask South St. Paul if they could be the employing agency.

John Margo is on the Environmental Committee and he is unsure of the benefit. He asked questions and was provided answers and seemed more in favor of the program. This is not comparable to the residential/commercial recycling program provided by your rubbish hauler.

Motion was made by Clpn. Napier and seconded by Clpn. Vitelli directing the City Manager to finalize the details of the JPA relating to the collaborative recycling approach with South St Paul and bring back to the City Council for final consideration. The Council would also like to explore the possibility of South St. Paul hosting the Recycling Coordinator employee. All members present voted aye. Motion carried.

Add: Consider Purchase of Parcel 100 part of the Robert Street Project

Attorney Korine Land gave an overview of a confidential agreement the Council reviewed at a closed session with the attorney handling the Robert Street acquisitions. The attorney was asked to negotiate placement of two trees in addition to a payment of $160,000 for full and final settlement. That is the approval the attorney is seeking this evening. Clpn. Bellows thought there were two options to be considered: no trees and $130,000 or two trees and $160,000. Then he would bring back the settlement options for further consideration by the Council. The property owner rejected the "no trees" option said Attorney Land.

Motion was made by Clpn. Napier and seconded by Clpn. Vitelli to accept the offer of $160,000 and two trees as presented. Additional comments ensued.

Comments:

- Clpn. Bellows asked for clarification of the options. Attorney Land read from an email and that is the proposed being presented to the Council.
- Clpn. Bellows said it is his understanding that we are paying $30,000 for two trees if we accept this. Clpn. Vitelli said we agreed to this option. Clpn. Bellows said it has come to his attention that the entire Robert Street landscaping budget for trees, shrubs, etc., except sidewalks, is $400,000 and this is 7.5% of the budget for the entire road. He realizes this is for an easement and not part of the landscaping but he is trying to figure out if we said no and we spend the $30,000 more effectively over the entire avenue than for two trees. He is not in favor of the proposed.
- Clpn. Napier looked at it as a land acquisition settlement. The tree is a tree but we need the land and this was the negotiation on acquiring of the easement.
- Clpn. Vitelli said it is no different than other exorbitant prices we have paid for other land acquisitions. We are going on the advice of our Counsel.
- Clpn. Bellows said this is not a negotiation for land as we could have gotten the land for $130,000 but with the land and two trees its $160,000.00. Clpn. Napier said the owner wanted trees. Clpn. Iago called for the vote.

Motion was made by Clpn. Napier and seconded by Clpn. Vitelli to approve and adopt Resolution No. 16-88 authorizing the settlement of Robert Street Improvement Project Parcel

100 Easement Acquisition. Clpns. Vitelli, Napier, Armon and Iago voted aye. Clpn. Bellows voted any. Motion carried.

Add: Minnesota Court Data Services Agreement

Police Chief Shaver gave an overview of the agreement that provides rules for accessing data. This agreement will allow our legal services to access the data for court records.

Motion was made by Clpn. Bellows and seconded by Clpn. Armon to adopt Resolution No. 16-87 approving and authorizing execution of the court data services subscriber agreement as presented. All members present voted aye. Motion carried

13. Old Business

There was no old business to discuss.

14. Adjourn

Motion was made by Clpn. Vitelli and seconded by Clpn. Armon to adjourn the meeting at 8:10 p.m. All members present voted aye. Motion carried.

David Meisinger
Mayor
City of West St. Paul

TO:	Mayor and City Council
THROUGH:	Matt Fulton, City Manager
FROM:	Joan Carlson, Finance Director
DATE:	September 26, 2016
SUBJECT:	List of Claims

City of West St. Paul

BACKGROUND INFORMATION:

Invoices to be paid

FISCAL IMPACT:

$2,583,925.67

STAFF RECOMMENDATION:

Approve payment of attached

CITY OF WEST ST PAUL

Summary of List of Claims
Council Meeting of September 26, 2016

PAYROLL CHECK REGISTER:

Payroll Period	8/29/16 - 9/11/16	
Date Paid	9/16/2016	$151,609.45
Direct Deposit		
Payroll Period		
Date Paid		
Direct Deposit		
TOTAL NET PAYROLL		$151,609.45

DISBURSEMENT CHECK REGISTER:

Checks	122812 - 122951	$2,295,158.36
EFTS	999 - 1013	$137,157.86
TOTAL DISBURSEMENT CHECKS		$2,432,316.22

TOTAL PAYROLL, DISBURSEMENTS, ACH AND WIRE TRANSFERS $2,583,925.67

CITY OF W.S.P

Payment Register

From Payment Date: 9/26/2016 - To Payment Date: 9/26/2016

Number	Date	Payee Name	Transaction Amount
AP - Accounts Payable			
Check			
122812	09/26/2016	ARC DOCUMENT SOLUTIONS, LLC	$347.00
122813	09/26/2016	ARMOR SECURITY	$85.50
122814	09/26/2016	ARROW MOWER	$7.00
122815	09/26/2016	ASPEN EQUIPMENT COMPANY	$220.39
122816	09/26/2016	ATEC LLC	$7,181.57
122817	09/26/2016	BANASZEWSKI, MARY	$50.00
122818	09/26/2016	BCA CJTE	$725.00
122819	09/26/2016	BEACON ATHLETICS	$103.00
122820	09/26/2016	BENJAMIN FRANKLIN PLUMBING	$6,010.00
122821	09/26/2016	BENTSON, BRUCE	$50.00
122822	09/26/2016	BMI	$336.00
122823	09/26/2016	CAPRA'S UTILITIES	$7,770.00
122824	09/26/2016	CEMSTONE	$2,595.00
122825	09/26/2016	CHAMBERLAIN, BRYAN	$4.32
122826	09/26/2016	CINTAS UNIFORMS	$139.05
122827	09/26/2016	COORDINATED BUSINESS SYSTEMS	$123.75
122828	09/26/2016	CORPORATE MARK INC	$475.53
122829	09/26/2016	CUMMINS NPOWER,LLC	$337.00
122830	09/26/2016	DIAMOND VOGEL PAINT	$435.40
122831	09/26/2016	DIGOLO, HEATHER	$20.00
122832	09/26/2016	DORIOTT, CHANTAL	$75.87
122833	09/26/2016	EARL F ANDERSEN INC	$1,045.00
122834	09/26/2016	EHLERS & ASSOCIATES	$1,382.50
122835	09/26/2016	ENGINEERING MINNESOTA	$35.00
122836	09/26/2016	EUREKA CONSTRUCTION	$1,500,138.01
122837	09/26/2016	FACTORY MOTOR PARTS	$76.56
122838	09/26/2016	FASTENAL COMPANY	$21.81
122839	09/26/2016	FLEETPRIDE	$51.00
122840	09/26/2016	FOTH INFRASTRUCTURE & ENVIRO	$1,554.04
122841	09/26/2016	FRESCO INC	$1,771.96
122842	09/26/2016	GALLS INC	$673.90
122843	09/26/2016	GENERAL SECURITY SERVICES	$119.70
122844	09/26/2016	GERHERTS, JOE	$6,106.50
122845	09/26/2016	GERRY'S FIRE & SAFETY INC	$100.15
122846	09/26/2016	GOODIN COMPANY	$42.35
122847	09/26/2016	GOPHER STATE ONE-CALL	$346.95
122848	09/26/2016	HAWK PERFORMANCE SPECIALTIES	$965.00
122849	09/26/2016	HEALTHEAST MEDICAL TRANSPORT	$85.00
122850	09/26/2016	HENNEPIN COUNTY WARRANTS	$250.00
122851	09/26/2016	HOLIDAY STATION STORES	$101.50
122852	09/26/2016	HOLLYWOOD PYROTECHNICS, INC	$5,000.00
122853	09/26/2016	HOSE/CONVEYORS	$107.79
122854	09/26/2016	HOTSY	$261.80
122855	09/26/2016	HRLATC	$250.00
122856	09/26/2016	IDENTISYS INC	$57.89
122857	09/26/2016	INVER GROVE FORD	$531.49
122858	09/26/2016	IOT(INTERNATIONAL OFFICE TECH)	$164.99

CITY OF W.S.P

Payment Register

From Payment Date: 9/26/2016 - To Payment Date: 9/26/2016

122859	09/26/2016	JIM MURR PLUMBING	$549.35
122860	09/26/2016	JOHNSON, MARIA MEDINA	$50.00
122861	09/26/2016	KEEPRS, INC	$648.17
122862	09/26/2016	KLOOZ, ELIZABETH & KLOOZ,	$750.00
122863	09/26/2016	KREMER SERVICES, LLC	$263.85
122864	09/26/2016	L-3 COMMUNICATIONS MOBILE VISI	$123.90
122865	09/26/2016	LANGUAGE LINE SERVICES	$51.75
122866	09/26/2016	LAWSON PRODUCTS INC	$373.70
122867	09/26/2016	LE/SHERRIE	$216.33
122868	09/26/2016	LEAGUE OF MN CITIES	$17,008.00
122869	09/26/2016	LEIRNESS, ALAN	$4,582.52
122870	09/26/2016	LEVANDER, GILLEN & MILLER	$33,844.34
122871	09/26/2016	LIGHTNING DISPOSAL INC	$580.14
122872	09/26/2016	LILLIE SUBURBAN NEWSPAPERS	$752.46
122873	09/26/2016	LIVING LONGER AND STRONGER	$3,080.00
122874	09/26/2016	LMCIT	$1,230.04
122875	09/26/2016	LOGIS	$2,740.50
122876	09/26/2016	LOWE'S RETAIL STORE	$114.28
122877	09/26/2016	LS BLACK CONSTRUCTORS	$336,183.11
122878	09/26/2016	LYNN CARD COMPANY	$135.95
122879	09/26/2016	LYONS, RODNEY	$565.50
122880	09/26/2016	M R P A	$269.00
122881	09/26/2016	MAACO	$150.00
122882	09/26/2016	MANSFIELD OIL COMPANY	$10,170.01
122883	09/26/2016	MARCO, INC	$939.48
122884	09/26/2016	MCADAMS, BARBARA	$618.00
122885	09/26/2016	MCMULLEN INSPECTING, INC	$2,804.00
122886	09/26/2016	MCQUILLAN BROS PLUMBING	$11,720.00
122887	09/26/2016	MENARDS	$2,137.34
122888	09/26/2016	METROPOLITAN COUNCIL	$2,460.15
122889	09/26/2016	MID-NORTHERN SERVICES	$3,567.97
122890	09/26/2016	MINNEAPOLIS/CITY OF	$47.70
122891	09/26/2016	MINNESOTA SODDING COMPANY	$396.17
122892	09/26/2016	MN DEPT-EMPL & ECON DEV	$4,110.00
122893	09/26/2016	MN GLOVE	$184.93
122894	09/26/2016	MN LOCKS	$107.24
122895	09/26/2016	MN OFFICE OF ENTERPRISE TECH	$348.00
122896	09/26/2016	MODERN DATA CONSTRUCTION	$1,260.00
122897	09/26/2016	MUNICIPAL'S	$117.00
122898	09/26/2016	NATURE CALLS	$1,057.00
122899	09/26/2016	NITTI SANITATON INC	$133.17
122900	09/26/2016	NOWICKI, DAN	$16.69
122901	09/26/2016	NUSS TRUCK & EQUPMENT	$153,708.10
122902	09/26/2016	NYSTROM PUBLISHING CO INC	$3,285.26
122903	09/26/2016	O'REILLY AUTOMOTIVE, INC	$679.15
122904	09/26/2016	OLSEN FIRE INSPECTION	$700.00
122905	09/26/2016	ORKIN COMMERCIAL SERVICES	$115.77
122906	09/26/2016	PIONEER RIM & WHEEL	$80.00
122907	09/26/2016	PLAZA TV	$294.59
122908	09/26/2016	POWERPLAN/R D O EQUIPMENT	$628.69
122909	09/26/2016	PRINTEEZ & PROMOTION	$552.50

CITY OF W.S.P

Payment Register

From Payment Date: 9/26/2016 - To Payment Date: 9/26/2016

122910	09/26/2016	RDO INTEGRATED CONTROLS	$1,246.00
122911	09/26/2016	REINEKE/RON	$4,443.75
122912	09/26/2016	RICHARDSON/LISA & SPROULE/D	$941.25
122913	09/26/2016	RICOH USA INC	$195.88
122914	09/26/2016	SABA, GEORGE	$647.70
122915	09/26/2016	SFDMG, LLC	$4,910.64
122916	09/26/2016	SHERWIN WILLIAMS	$3.72
122917	09/26/2016	SIR LINES-A-LOT	$1,588.21
122918	09/26/2016	SPEED PRINT INC	$95.00
122919	09/26/2016	SPEED PROPS & PYLONS	$444.80
122920	09/26/2016	SPRWS	$13,270.45
122921	09/26/2016	SPYGLASS GROUP, LLC	$1,853.14
122922	09/26/2016	ST PAUL PUBLISHING CO	$809.36
122923	09/26/2016	STAPLES ADVANTAGE	$29.18
122924	09/26/2016	STONEBROOKE EQUIPMENT	$1,750.00
122925	09/26/2016	STREICHER'S	$3,770.25
122926	09/26/2016	T G LANDSCAPING & CONST	$3,740.00
122927	09/26/2016	TESSMAN SEED	$2,841.45
122928	09/26/2016	TRANSUNION RISK & ALTERNATIVE	$25.00
122929	09/26/2016	TRI COUNTY LAW ENFORCEMENT	$75.00
122930	09/26/2016	TRI STATE BOBCAT INC	$125.26
122931	09/26/2016	TROJE'S TRASH PICK-UP SERVICE	$1,386.26
122932	09/26/2016	TWIN CITY GARAGE DOOR CO	$30.00
122933	09/26/2016	TWIN CITY HARDWARE	$715.36
122934	09/26/2016	TWIST OFFICE PRODUCTS	$270.56
122935	09/26/2016	UNIFORMS UNLIMITED	$287.67
122936	09/26/2016	UNITED RENTALS	$873.28
122937	09/26/2016	US BANK EQUIPMENT FINANCE	$230.98
122938	09/26/2016	USA SOFTBALL MINNESOTA	$90.00
122939	09/26/2016	VANGUARD CLEANING SYSTEMS	$2,179.80
122940	09/26/2016	VENTURE PASS PARTNERS, LLC	$323.50
122941	09/26/2016	VERSATILE VEHICLES, INC	$625.00
122942	09/26/2016	VOYANT COMMUNICATIONS, LLC	$1,218.99
122943	09/26/2016	WASTE MANAGEMENT-SAVAGE	$360.00
122944	09/26/2016	WHEELER, DEBORAH	$700.00
122945	09/26/2016	WOLD ARCHITECTS & ENGINEERS	$677.80
122946	09/26/2016	WSB & ASSOCIATES	$3,299.50
122947	09/26/2016	XCEL ENERGY	$43,045.22
122948	09/26/2016	YANTES, TARYN	$1,046.25
122949	09/26/2016	YTS COMPANIES, LLC	$26,159.55
122950	09/26/2016	ZIEGLER INC	$159.53
122951	09/26/2016	DIMMEN, LARRY A & CATHRYN	$13,839.00
Type Check Totals:			$2,295,158.36
EFT			
999	09/09/2016	MII LIFE --- VEBA	$1,602.69
1000	09/16/2016	I C M A	$200.00
1001	09/16/2016	I C M A RETIREMENT TRUST-457	$7,045.82
1002	09/16/2016	IRS - PR TAXES	$50,065.16
1003	09/16/2016	MII LIFE --- VEBA	$3,041.15
1004	09/16/2016	MN DEPARTMENT OF REVENUE	$10,239.35
1005	09/16/2016	MN REVENUE	$100.00

CITY OF W.S.P

Payment Register

From Payment Date: 9/26/2016 - To Payment Date: 9/26/2016

1006	09/16/2016	MSRS HCSP	$2,144.81
1007	09/16/2016	PUBLIC EMPLOYEES RETIRMNT	$46,518.99
1008	09/16/2016	MII LIFE --- VEBA	$1,602.69
1009	09/16/2016	SELECTACCOUNT	$250.11
1010	09/26/2016	HIGHER STANDARDS INC	$1,084.27
1011	09/26/2016	MN STATE TREASURER	$2,128.00
1012	09/26/2016	US BANK CARDMEMBER SERVICES	$9,244.82
1013	09/26/2016	MSRS - 457	$1,890.00
Type EFT Totals:			$137,157.86

TOTAL CHECKS & EFTS $2,432,316.22

US BANK CARDMEMBER SERVICES

Transaction date	Cardholder	Vendor	Expense Type	Account Number	Amount	Comments
8/1/16	Matthew Swenke	Dollar Tree	Nite to Unite supplies	101-42100-40453	17.14	Nite to Unite Supplies
7/13/16	Matthew Swenke	Target	Crime Pevention (Wed. Activ	101-42100-40453	74.33	Wed. activities at Southview Park
7/22/16	Matthew Swenke	ZPS Store	supplies	101-42100-40230	165.63	labels for evidence tracker printer
07/11/16	Brian Sturgeon	Oriental Trading	Crime Prevention	101-42100-40453	434.67	Nite to Unite Supplies
07/11/16	Brian Sturgeon	4 Imprint	Crime Prevention	101-42100-40453	478.79	Nite to Unite Supplies
07/19/16	Brian Sturgeon	Top Gear/HemletRUs	Crime Prevention/Bike Safety	101-42100-40453	305.30	Bike Helmets for Tiny Tots Safety Day
07/22/16	Brian Sturgeon	FedEx	Shipping	101-42100-40345	131.17	Shipping of Gov Rifles back to US Government
08/01/16	Brian Sturgeon	Brownells	Equipment Parts	101-42100-40220	250.65	Replacement of handgun sights (2)
08/05/16	Brian Sturgeon	Dairy Queen	Refreshments	101-42100-40453	85.27	Little Tykes Safety Camp refreshments
8/3/16	Brian Sturgeon	Taser Internation	returned wrong item	101-42100-40217	-80.32	return- wrong item
07/13/16	Dave Schletty	Walmart	program supplies	101-45000-40450	14.41	supplies for summer programs
07/21/16	Dave Schletty	Apple Valley Family Aquatics	Programs	101-45000-40450	261.69	Youth Program Expense
07/25/16	Dave Schletty	fiverr	misc contractual services	101-45000-40399	5.50	translation of program flyer
7/29/16	Dave Schletty	Walmart	program supplies	101-45000-40450	5.97	supplies for summer programs
07/29/16	Dave Schletty	GoDaddy	Advertising	617-49873-40343	75.85	renewal of website domain (RAC)
08/02/16	Dave Schletty	K2 Awards & Apparel	program supplies	101-45000-40450	789.52	Awards/trophies for recreation programs
08/03/16	Dave Schletty	Walmart	program supplies	101-45000-40450	7.96	supplies for safety camp
08/03/16	Dave Schletty	Michaels	program supplies	101-45000-40450	16.66	Recreation Program Supplies
08/03/16	Dave Schletty	Office Depot	program supplies	101-45000-40200	23.52	for program certificates
08/04/16	Dave Schletty	BuyDraegerTubes.com	Equipment Supplies	615-49853-40220	231.95	Testing tubes for air quality
08/05/16	Dave Schletty	Walmart	program supplies	101-45000-40450	50.00	Food for little tykes sfaety camp
7/26/16	Duane Schneider	Helm.com	Ford manual renewal	101-43100-40240	650.00	Ford manual renewal
7/27/16	Duane Schneider	ACT University of MN	Pesticide License renewal	101-45000-40310	140.00	pesticide license renewal - Tague
7/27/16	Duane Schneider	ACT University of MN	Pesticide License renewal	101-45000-40310	140.00	pesticide license renewal - Larson
8/2/16	Duane Schneider	Paypal- Image Warehouse	supplies	101-43100-40230	29.99	ink cartridge
07/13/16	Chantal Doriott	target	elections	101-41410-40230	53.20	judge training supplies
07/14/16	Chantal Doriott	walmart	elections	101-41410-40230	15.48	training supplies
07/14/16	Chantal Doriott	Walmart	elections	101-41410-40230	1.57	training supplies
07/14/16	Chantal Doriott	uline	elections	101-41410-40230	180.31	election cart for computer
07/27/16	Chantal Doriott	Southworth Paper	paper	101-41320-40200	66.54	special card stock for park and rec
08/02/16	Chantal Doriott	signs direct	elections	101-41410-40230	444.44	signs
9/9/16	Chantal Doriott	Little Caesars	elections	101-41410-40490	115.08	dinner for election judges
7/28/16	Chantal Doriott	walmart	elections	101-41410-40230	14.56	election supplies
8/9/16	Chantal Doriott	Oxendale's Market	elections	101-41410-40230	15.58	election supplies
7/22/16	Bud Shaver	Walmart	supples	101-42100-40451	100.57	coolers
8/10/16	Bud Shaver	Target	supples	101-42100-40453	47.54	youth programs
8/10/16	Bud Shaver	Lowes	supples	101-42100-40453	53.54	youth programs
7/22/16	Sherrie Le	Survey Monkey	survey	101-41110-40490	24.00	survey
7/24/16	Sherrie Le	Volgistics	volunteer software	101-41320-40492	31.00	volunteer software
7/27/16	Sherrie Le	Uline	supplies	101-42100-40230	372.70	investigative supplies
7/27/16	Sherrie Le	Amazon	supplies	101-42100-40230	37.46	investigative supplies
7/31/16	Sherrie Le	Facebook	advertising	101-41320-40343	352.32	advertising
8/8/16	Sherrie Le	Star Tribune	subscription	101-41320-40343	35.25	subscription
8/3/16	Ben Boike	Panera Bread	meeting	101-41910-40490	4.27	mtg with developer
7/13/16	Marc Gade	Amazon	supplies	411-41920-40585	81.54	USB 2.0 pocket flash memory card
7/15/16	Marc Gade	Amazon	supplies	411-41920-40585	257.98	monitor
7/15/16	Marc Gade	Amazon	supplies	411-41920-40585	257.98	monitor
07/29/16	Marc Gade	Amazon	PD	101.41920.40201	$63.78	Power adapters for squads
8/3/16	Marc Gade	Amazon	supplies	101-42100-40580	1299.98	touch screen laptop
8/10/16	Marc Gade	Amazon	supplies returned	101-41920-40201	-24.90	supplies returned
8/1/16	Mike Sanders	Trystar	supplies	602-49450-40530	417.44	Lift stations repairs
08/04/16	Mike Sanders	Sinclair Invergrove	Fuel	101-45000-40212	$71.55	Fuel
07/22/16	Ross Beckwith	Caribou Coffee	Meeting Refreshments	551-43121-41113	$12.84	Robert St mtg

07/22/16	Ross Beckwith	CUB Foods	Meeting Refreshments	551-43121-41113	$13.48	Robert St mtg
08/03/16	Ross Beckwith	CUB Foods	Meeting Refreshments	602-49450-40490	$25.44	WMO Meeting refreshments
07/27/16	Jim Hartshorn	Fireside Rest	Food	209-41121-40399	$26.20	Mtg. w/dev
08/08/16	Jim Hartshorn	Caribou Coffee	meeting	209-41121-40399	$1.81	Mtg. w/developer
7/12/16	Dennis Schilling	Otiss Bar & Grill	conference	101-42401-40310	21.10	conference lodging/meals
7/13/16	Dennis Schilling	Sugar lake Lodge	conference	101-42401-40310	296.22	conference lodging/meals
7/13/16	Dennis Schilling	Otiss Bar & Grill	conference	101-42401-40310	16.83	conference lodging/meals
7/14/16	Dennis Schilling	Lodge Dining Bar	conference	101-42401-40310	13.84	conference lodging/meals
7/14/16	Dennis Schilling	Sugar lake Lodge	conference	101-42401-40310	175.80	conference lodging/meals
7/15/16	Dennis Schilling	Tobies	conference	101-42401-40310	66.88	conference lodging/meals
7/15/16	Dennis Schilling	Lodge Dining Bar	conference	101-42401-40310	13.84	conference lodging/meals
8/8/16	Dennis Schilling	Panera Bread	training refreshments	101-42401-40310	29.97	training refreshments
8/10/16	Dennis Schilling	Panera Bread	training refreshments	101-42401-40310	14.99	training refreshments
8/10/16	Dennis Schilling	Sugar lake Lodge	conference	101-42401-40310	-180.83	conference lodging/meals

9244.82

City of West St. Paul

TO: Mayor and City Council

THROUGH: Matt Fulton, City Manager

FROM: Joan Carlson, Finance Director

DATE: September 26, 2016

SUBJECT: August 2016 Bank Reconciliation

BACKGROUND INFORMATION:

Attached is the summary bank reconciliation for August 2016.

FISCAL IMPACT:

There is no fiscal impact.

		Amount
Fund:		
Department:		
Account:		

STAFF RECOMMENDATION:

Approve the August 2016 bank reconciliation.

CITY OF WEST ST. PAUL
BANK RECONCILIATION
August 31, 2016

ANCHOR BANK BALANCE:			
Ending Balance - Checking Account		**$**	**680,902.24**
Deposits in Transit			7,256.73
Outstanding Disbursements & Checks			(107,378.56)
Petty Cash			3,000.00
	RECONCILED BALANCE	**$**	**583,780.41**
CITY TREASURER'S BALANCE:			
Previous Month's Reconciled Balance		**$**	**636,994.19**
Daily Receipts Posted			1,482,751.32
Disbursement Checks Issued			(3,471,856.15)
Payroll Checks and Direct Deposits			(315,947.44)
Cash Journal Entries (net)			2,249,949.00
Adjustments:	Reverse Prior Months Adj.		(5.81)
	Outstanding Deposits		185.25
	Reconciling Item		1,704.05
	Anchor Bank		**6.00**
	RECONCILED BALANCE	**$**	**583,780.41**
CASH ACCOUNT BALANCE:		**$**	**581,885.11**
Adjustments:			
			1,895.30
	RECONCILED BALANCE	**$**	**583,780.41**

CITY OF WEST ST. PAUL

08/31/16

FUND NUMBER AND NAME		CURRENT MONTH'S ACTIVITIES		
		BEGINNING BAL	NET REV / (EXP)	ENDING BAL
101	General Fund	2,910,973.55	(678,935.57)	2,232,037.98
209	Economic Development Authority	355,080.67	(55,399.47)	299,681.20
212	Insurance Fund	434,863.02	(1,957.57)	432,905.45
213	Innovation Fund	68,746.65	-	68,746.65
323	2006 GO Bonds	41,577.43	-	41,577.43
324	2008 GO Bonds	1,474.10	-	1,474.10
325	2009 GO Refunding Bonds	620,741.92	-	620,741.92
327	2008 Capital Note	621,064.33	-	621,064.33
328	2009 Capital Note	851,598.77	-	851,598.77
329	2012 GO Bonds	663,482.99	-	663,482.99
330	2013 GO Bonds	73,468.74	-	73,468.74
331	2014A GO Bonds	125,225.36	-	125,225.36
332	2014B GO Bonds	298,183.84	-	298,183.84
333	2015A Refunding Bonds	16,457.36	-	16,457.36
334	2015B Go Refunding Bonds	89,468.12	-	89,468.12
335	2015C Go Tax Increment Refunding	(16,453.31)	-	(16,453.31)
375	2005 G O TIF Bonds	(79,826.16)	-	(79,826.16)
401	Vehicle and Equipment Reserve	2,102,561.77	(23,504.80)	2,079,056.97
402	M S A Streets Fund	96,486.81	(523.37)	95,963.44
403	Street Maintenance Fund	905,302.78	(15,749.10)	889,553.68
409	Police and Fire PERA	235,941.02	-	235,941.02
411	Technology Replacement Fund	252,136.68	(5,715.90)	246,420.78
413	Parks Improvement Fund	167,323.30	(23,274.86)	144,048.44
415	Govt Facilities Cap Proj	434,471.76	(1,326.47)	433,145.29
450	TIF 1-1	1,031,727.12	-	1,031,727.12
451	TIF 1-2	290,148.22	(1,360.00)	288,788.22
452	TIF 1-3	18,949.03	19,574.00	38,523.03
453	Lowes TIF	39,241.75	-	39,241.75
551	Perm. Improv. Revolving Fund	(3,340,929.00)	(1,574,204.15)	(4,915,133.15)
600	Storm Sewer Utility	1,967,176.63	78,614.28	2,045,790.91
602	Public Utilities (Sewer) Fund	3,669,622.49	(11,484.75)	3,658,137.74
613	Golf Course Enterprise Fund	70,126.89	5,249.31	75,376.20
615	Civic Arena Enterprise Fund	177,671.96	(16,406.64)	161,265.32
616	Swimming Pool Enterprise Fund	(14,273.50)	(10,254.13)	(24,527.63)
617	Regional Athletic Center Fund	886,853.56	11,555.92	898,409.48
705	Investment Fund	(15,429,678.27)	2,250,000.00	(13,179,678.27)
CASH TOTAL ALL FUNDS		**636,988.38**	**(55,103.27)**	**581,885.11**

TO: Mayor and City Council

THROUGH: Matt Fulton, City Manager

FROM: Joan Carlson, Finance Director

DATE: September 26, 2016

SUBJECT: August 2016 General Fund Budget Report

City of West St. Paul

BACKGROUND INFORMATION:

Attached is the August 2016 General Fund Budget to Actual Report for Council review. The revenues are reported by major type and the expenditures are reported by department.

The budget target percentage for August is 67%. Actual revenues total 61% and expenditures total 60%.

All departments are near or below 67% with the following exceptions:

- Mayor/Council – 87% due to expenditures for the Winter Fun Fest, Touch a Truck, and Shop Robert Street events (these were offset by donations).
- Legal – 77% due to higher than expected civil legal costs.
- Civil Defense – 70% due to payment of annual subscription.

FISCAL IMPACT: None

		Amount
Fund:		
Department:		
Account:		

STAFF RECOMMENDATION:

Approve the August 2016 General Fund Budget Report.

City of West St Paul
General Fund Budget to Actual Report
August 2016

Account Description	Adopted Budget	Current Transactions	YTD Transactions	Remaining Budget	% of Budget Rec'd/Used
Fund 101 - General Fund					
REVENUE					
Taxes	10,053,785	4,827	6,663,727	3,390,058	66%
Licenses and Permits	519,500	56,742	268,607	250,893	52%
Intergovernmental Revenues	484,500	-	182,426	302,074	38%
Charges for Services	639,205	45,205	387,007	252,198	61%
Fines & Forfeits	125,000	9,675	78,785	46,215	63%
Miscellaneous	231,908	14,004	140,861	91,047	61%
Other Financing Sources	688,000	388	5,809	682,191	1%
REVENUE TOTALS	12,741,898	130,841	7,727,223	5,014,675	61%
EXPENSE					
Mayor and Council	120,652	6,637	105,395	15,257	87%
Charter Commission	1,500	-	195	1,305	13%
City Manager / City Clerk	778,375	56,696	493,904	284,471	63%
Elections	28,575	11,597	12,197	16,378	43%
Finance	378,370	30,886	245,672	132,698	65%
Legal	360,000	44,236	275,512	84,488	77%
Planning & Comm Devlep	317,275	29,078	166,847	150,428	53%
Recycling Dept	23,250	4	7,709	15,541	33%
Information Technology	437,225	23,133	269,565	167,660	62%
City Hall Building	205,610	13,664	112,079	93,531	55%
PW Facility	63,000	4,119	35,245	27,755	56%
Police	4,269,675	309,091	2,667,652	1,602,023	62%
Communications Center	638,065	104,295	416,957	221,108	65%
Fire	2,125,394	-	1,062,697	1,062,697	50%
Building Inspections	415,635	27,925	226,193	189,442	54%
Civil Defense	15,295	2,431	10,783	4,512	70%
Traffic Signs	23,900	906	12,959	10,941	54%
Animal Control	5,150	-	-	5,150	0%
Engineering	204,004	13,704	109,045	94,959	53%
Streets	1,201,698	84,525	743,417	458,281	62%
Street Lighting	132,025	19,713	78,429	53,596	59%
Human Resources	138,775	5,071	64,065	74,710	46%
Parks and Recreation	823,450	87,262	537,155	286,295	65%
Transfers Out	35,000	-	-	35,000	0%
EXPENSE TOTALS	12,741,898	874,974	7,653,671	5,088,227	60%
General Fund Totals					
REVENUE TOTALS	12,741,898	130,841	7,727,223	5,014,675	61%
EXPENSE TOTALS	12,741,898	874,974	7,653,671	5,088,227	60%
General Fund Net	-	(744,133)	73,552	(73,552)	

City of West St. Paul

TO: Mayor and City Council

THROUGH: Matt Fulton, City Manager

FROM: Joan Carlson, Finance Director

DATE: September 26, 2016

SUBJECT: August 2016 Investment Report

BACKGROUND INFORMATION:

Attached is the investment report for August 2016.

FISCAL IMPACT:

There is no fiscal impact.

		Amount
Fund:		
Department:		
Account:		

STAFF RECOMMENDATION:

Approve the August 2016 investment report.

UBS

Prepared for City of West Saint Paul
RP 34592 • Custody Acct • Business Service Account
Risk profile: Conservative
Return Objective: Current Income

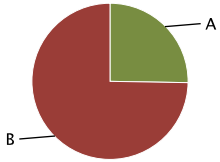
Portfolio holdings

as of August 31, 2016

Summary of Portfolio Holdings

	Cost basis ($)	Value on 08/31/2016 ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of portfolio
A Cash	**2,689,930.58**	**2,689,930.58**	**0.00**	**0.00%**	**9,274.76**	**0.34%**	**25.27%**
Cash	2,689,930.58	2,689,930.58	0.00	0.00%	9,274.76	0.34%	25.27%
B Fixed Income	**7,357,288.75**	**7,954,596.95**	**97,495.98**	**1.33%**	**123,412.50**	**1.55%**	**74.73%**
US	6,872,288.75	7,459,605.25	87,504.28	1.27%	115,145.00	1.54%	70.08%
International	485,000.00	494,991.70	9,991.70	2.06%	8,267.50	1.67%	4.65%
C Equity	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
D Commodities	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
E Non-Traditional	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
F Other	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00%**	**0.00%**
Total Portfolio	**$10,047,219.33**	**$10,644,527.53**	**$97,495.98**	**0.97%**	**$132,687.26**	**1.25%**	**100%**

Balanced mutual funds are allocated in the 'Other' category



Details of portfolio holdings

	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of asset class	% of portfolio
Total Portfolio	**$10,047,219.33**	**$10,644,527.53**	**$97,495.98**	**0.97%**	**$132,687.26**	**1.25%**	**100%**	**100%**

Cash	Quantity	Purchase price ($) / Avg Price	Price on 08/31/2016 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Cash	% of portfolio
Cash											
UBS BANK USA DEPOSIT ACCOUNT	3,043.39	1.00	1.00	3,043.39	3,043.39	0.00	0.00%	0.00	0.00%	0.11%	0.03%
UBS SELECT PRIME INSTITUTIONAL FUND Client investment: $0.00 Reinvested dividends: $2,649,930.58 Investment return: $2,649,930.58 (0%)	2,649,930.58	1.00	1.00	2,649,930.58	2,649,930.58	0.00	0.00%	9,274.76	0.35%	98.51%	24.89%
USD CASH	36,956.61	1.00	1.00	36,956.61	36,956.61	0.00	0.00%	0.00	0.00%	1.37%	0.35%
Total Cash				**$2,689,930.58**	**$2,689,930.58**	**$0.00**	**0.00%**	**$9,274.76**	**0.34%**	**100.00%**	**25.27%**

Total Cash				**$2,689,930.58**	**$2,689,930.58**	**$0.00**	**0.00%**	**$9,274.76**	**0.34%**	**100.00%**	**25.27%**

Fixed Income	Quantity	Purchase price ($) / Avg Price	Price on 08/31/2016 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Fixed Income	% of portfolio
US											
ALLY BK UT US RT 01.2500% MAT 08/26/19 FIXED RATE CD	245,000.00	100.00	99.98	245,000.00	244,989.09	-10.91	0.00%	3,062.50	1.25%	3.08%	2.30%
AMERICAN EXPRESS C NY US RT 02.1000% MAT 10/17/18 FIXED RATE CD	240,000.00	100.00	102.13	240,000.00	246,999.52	6,999.52	2.92%	5,040.00	2.06%	3.11%	2.32%
AMERICAN EXPRESS F UT US RT 02.0000% MAT 07/24/19 FIXED RATE CD	240,000.00	100.00	102.58	240,000.00	246,696.53	6,696.53	2.79%	4,800.00	1.95%	3.10%	2.32%
BANGOR SVGS BK ME US RT 01.1000% MAT 07/15/19 FIXED RATE CD	245,000.00	100.00	100.13	245,000.00	245,655.73	655.73	0.27%	2,695.00	1.10%	3.09%	2.31%
BANK OF HAMPTON RO VA US RT 01.0000% MAT 09/27/17 FIXED RATE CD	240,000.00	100.00	100.03	240,000.00	241,094.73	1,094.73	0.46%	2,400.00	1.00%	3.03%	2.26%
BANKUNITED FSB FL US RT 01.1000% MAT 02/20/18 FIXED RATE CD	200,000.00	100.00	100.66	200,000.00	201,404.38	1,404.38	0.70%	2,200.00	1.09%	2.53%	1.89%

Portfolio holdings - as of August 31, 2016 (continued)

Fixed Income	Quantity	Purchase price ($) / Avg Price	Price on 08/31/2016 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Fixed Income	% of portfolio
US											
BARCLAYS BK DE US RT 02.1000% MAT 07/23/19 FIXED RATE CD	245,000.00	100.00	102.54	245,000.00	251,780.09	6,780.09	2.77%	5,145.00	2.05%	3.17%	2.37%
BK OF NORTH CAROLI ME US RT 01.0000% MAT 01/30/17 FIXED RATE CD	200,000.00	100.00	100.21	200,000.00	200,414.00	414.00	0.21%	2,000.00	1.00%	2.52%	1.88%
BMW BANK NORTH AME UT US RT 02.1500% MAT 12/10/19 FIXED RATE CD	240,000.00	100.00	103.37	240,000.00	249,247.23	9,247.23	3.85%	5,160.00	2.08%	3.13%	2.34%
CAPITAL ONE BK VA US RT 02.1000% MAT 10/01/19 FIXED RATE CD	245,000.00	100.00	102.62	245,000.00	253,566.48	8,566.48	3.50%	5,145.00	2.05%	3.19%	2.38%
CIT BK SALT LAKE C UT US RT 02.1000% MAT 11/13/19 FIXED RATE CD	240,000.00	100.00	103.00	240,000.00	248,706.90	8,706.90	3.63%	5,040.00	2.04%	3.13%	2.34%
COMENITY BANK DE US RT 01.3500% MAT 12/12/17 FIXED RATE JUMBO CD	200,000.00	100.00	100.19	200,000.00	200,595.12	595.12	0.30%	2,700.00	1.35%	2.52%	1.88%
COMPASS BANK AL US RT 01.3000% MAT 12/11/17 FIXED RATE CD	245,000.00	100.00	100.48	245,000.00	246,902.71	1,902.71	0.78%	3,185.00	1.29%	3.10%	2.32%
FIRST BK HIGHLAND IL US RT 01.9500% MAT 07/24/19 FIXED RATE CD	240,000.00	100.00	100.19	240,000.00	240,938.43	938.43	0.39%	4,680.00	1.95%	3.03%	2.26%
FNMA NTS 01.000 % DUE 122617 DTD 122612 FC 06262013	250,000.00	100.00	100.01	250,000.00	250,476.39	476.39	0.19%	2,500.00	1.00%	3.15%	2.35%
FNMA NTS STEP-UP 01.000 % DUE 082421 DTD 082416 FC 02242017	500,000.00	0.00	99.94	0.00	499,812.22	0.00	0.00%	5,000.00	1.00%	6.28%	4.70%
FNMA NTS STEP-UP 01.250 % DUE 072721 DTD 072716 FC 01272017	500,000.00	100.00	99.61	500,000.00	498,630.28	-1,369.72	-0.27%	6,250.00	1.25%	6.27%	4.68%
GOLDMAN SACHS BANK NY US RT 02.0500% MAT 07/23/19 FIXED RATE CD	200,000.00	100.00	102.43	200,000.00	205,298.08	5,298.08	2.65%	4,100.00	2.00%	2.58%	1.93%
GOLDMAN SACHS BK U UT US RT 01.3500% MAT 08/29/17 FIXED RATE CD	240,000.00	100.00	100.44	240,000.00	241,065.60	1,065.60	0.44%	3,240.00	1.34%	3.03%	2.26%
HSBC BANK , NA DE US RT 01.2500% MAT 03/30/20 STEP RATE CD	240,000.00	100.00	100.17	240,000.00	240,412.80	412.80	0.17%	3,000.00	1.25%	3.02%	2.26%
JPMORGAN CHASE & C DE US RT 01.2500% MAT 11/30/18 FIXED RATE CD	200,000.00	100.00	100.17	200,000.00	200,342.85	342.85	0.17%	2,500.00	1.25%	2.52%	1.88%
NEW YORK CITY TRANSITION TAX C-3 RV BE/R/ 1.280 110118 DTD 120412	500,000.00	100.00	100.83	500,000.00	506,303.33	6,303.33	1.26%	6,400.00	1.27%	6.36%	4.76%

Portfolio holdings - as of August 31, 2016 (continued)

Fixed Income	Quantity	Purchase price ($) / Avg Price	Price on 08/31/2016 ($)	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of Fixed Income	% of portfolio
US											
SALLIE MAE BK UT US RT 01.5000% MAT 10/10/17 FIXED RATE CD	240,000.00	100.00	100.77	240,000.00	243,256.01	3,256.01	1.36%	3,600.00	1.49%	3.06%	2.29%
SUN NATL BK NJ US RT 01.0000% MAT 10/03/17 FIXED RATE CD	240,000.00	100.00	100.25	240,000.00	240,772.73	772.73	0.32%	2,400.00	1.00%	3.03%	2.26%
THIEF RIVER FALLS MN TAX SR B BE/R/ 3.000 020125 DTD 060112	375,000.00	101.68	103.88	381,288.75	390,483.75	9,195.00	2.41%	11,250.00	2.89%	4.91%	3.67%
THIRD FED S&L ASSN OH US RT 02.0000% MAT 11/25/19 FIXED RATE CD	247,000.00	100.00	102.98	247,000.00	255,693.08	8,693.08	3.52%	4,940.00	1.94%	3.21%	2.40%
TWO RIVERS ST BK NE US RT 01.2500% MAT 07/18/19 FIXED RATE CD	169,000.00	100.00	100.02	169,000.00	169,114.11	114.11	0.07%	2,112.50	1.25%	2.13%	1.59%
WORLD'S FOREMOST B NE US RT 02.3000% MAT 08/06/20 FIXED RATE JUMBO CD	200,000.00	100.00	99.32	200,000.00	198,953.08	-1,046.93	-0.52%	4,600.00	2.32%	2.50%	1.88%
Total US				**$6,872,288.75**	**$7,459,605.25**	**$87,504.28**	**1.27%**	**$115,145.00**	**1.54%**	**93.78%**	**70.08%**
International											
ORIENTAL BANK PR RT 01.2500% MAT 08/31/17 FIXED RATE CD	240,000.00	100.00	100.43	240,000.00	241,034.40	1,034.40	0.43%	3,000.00	1.24%	3.03%	2.26%
STATE BK OF INDIA NY US RT 02.1500% MAT 09/11/19 FIXED RATE CD	245,000.00	100.00	102.64	245,000.00	253,957.30	8,957.30	3.66%	5,267.50	2.09%	3.19%	2.39%
Total International				**$485,000.00**	**$494,991.70**	**$9,991.70**	**2.06%**	**$8,267.50**	**1.67%**	**6.22%**	**4.65%**
Total Fixed Income				**$7,357,288.75**	**$7,954,596.95**	**$97,495.98**	**1.33%**	**$123,412.50**	**1.55%**	**100.00%**	**74.73%**

	Cost basis ($)	Market value ($)	Unrealized gain/loss ($)	Unrealized gain/loss (%)	Est. annual income ($)	Current yield (%)	% of asset class	% of portfolio
Total Portfolio	**$10,047,219.33**	**$10,644,527.53**	**$97,495.98**	**0.97%**	**$132,687.26**	**1.25%**	**100%**	**100%**

Total accrued interest (included in market values): $21,150.24

UBS

Disclosures applicable to accounts at UBS Financial Services Inc.

This section contains important disclosures regarding the information and valuations presented here. This report presents information since December 31, 2002. This report does not include complete account activity or performance of your accounts before this date. All information presented is subject to change at any time and is provided only as of the date indicated. The information in this report is for informational purposes only and should not be relied upon as the basis of an investment or liquidation decision. UBS FS accounts statements and official tax documents are the only official record of your accounts and are not replaced, amended or superseded by any of the information presented in these reports.

UBS FS offers a number of investment advisory programs to clients, acting in our capacity as an investment adviser, including fee-based financial planning, discretionary account management, non-discretionary investment advisory programs, and advice on the selection of investment managers and mutual funds offered through our investment advisory programs. When we act as your investment adviser, we will have a written agreement with you expressly acknowledging our investment advisory relationship with you and describing our obligations to you. At the beginning of our advisory relationship, we will give you our Form ADV brochure(s) for the program(s) you selected that provides detailed information about, among other things, the advisory services we provide, our fees, our personnel, our other business activities and financial industry affiliations and conflicts between our interests and your interests.

Please review the report content carefully and contact your Financial Advisor with any questions.

The account listing may or may not include all of your accounts with UBS FS. The accounts included in this report are listed under the "Accounts included in this review" shown on the first page or listed at the top of each page.

Portfolio: For purposes of this report "portfolio" is defined as all of the accounts presented on the cover page or the header of this report and does not necessarily include all of the client's accounts held at UBS FS or elsewhere.

Percentage: Portfolio (in the "% Portfolio" column) includes all holdings held in the account(s) selected when this report was generated.Broad asset class (in the "% broad asset class" column) includes all holdings held in that broad asset class in the account(s) selected when this report was generated.

Tax lots: This report displays security tax lots as either one line item (i.e., lumped tax lots) or as separate tax lot level information. If you choose to display security tax lots as one line item, the total cost equals the total value of all tax lots. The unit cost is an average of the total cost divided by the total number of shares. If the shares were purchased in different lots, the unit price listed does not represent the actual cost paid for each lot. The unrealized gain/loss value is calculated by combining the total value of all tax lots plus or minus the total market value of the security.

If you choose to display tax lot level information as separate line items on the Portfolio Holdings report, the tax lot information may include information from sources other than UBS FS. The Firm does not independently verify or guarantee the accuracy or validity of any information provided by sources other than UBS FS. As a result this information may not be accurate and is provided for informational purposes only. Clients should not rely on this information in making purchase or sell decisions, for tax purposes or otherwise. See your monthly statement for additional information.

Pricing: All securities are priced using the closing price reported on the last business day preceding the date of this report. Every reasonable attempt has been made to accurately price securities; however, we make no warranty with respect to any security's price. Please refer to the back of the first page of your UBS FS. accounts statement for important information regarding the pricing used for certain types of securities, the sources of pricing data and other qualifications concerning the pricing of securities. To determine the value of securities in your account, we generally rely on third party quotation services. If a price is unavailable or believed to be unreliable, we may determine the price in good faith and may use other sources such as the last recorded transaction. When securities are held at another custodian or if you hold illiquid or restricted securities for which there is no published price, we will generally rely on the value provided by the custodian or issuer of that security.

Cash: Cash on deposit at UBS Bank USA is protected by the Federal Deposit Insurance Corporation (FDIC) up to $250,000 in principal and accrued interest per depositor for each ownership type. Deposits made in an individual's own name, joint name, or individual retirement account are each held in a separate type of ownership. Such deposits are not guaranteed by UBS FS. More information is available upon request.

Margin: The quantity value may indicate that all or part of this position is held on margin or held in the short account. When an account holds a debit balance, this debit balance is incorporated into the account's total market value and deducted from the total value. When calculating the percent of portfolio on each security, the percentage will be impacted by the total market value of the account. Therefore, if the account's market value is reduced by a debit value of a holding the percent of portfolio will be greater and if the account's market value is increased by a holding then the percent of portfolio will be less.

Mutual Fund Asset Allocation: If the option to unbundle balanced mutual funds is selected and if a fund's holdings data is available, mutual funds will be classified by the asset class, subclass, and style breakdown of their underlying holdings. Where a mutual fund or ETF contains equity holdings from multiple equity sectors, this report will proportionately allocate the underlying holdings of the fund to those sectors measured as a percentage of the total fund's asset value as of the date shown.

This information is supplied by Morningstar, Inc. on a monthly basis to UBS FS based on data supplied by the fund which may not be current. Mutual funds change their portfolio holdings on a regular (often daily) basis. Accordingly, any analysis that includes mutual funds may not accurately reflect the current composition of these funds. If a fund's underlying holding data is not available, it will be classified based on its corresponding overall Morningstar classification. All data is as of the date indicated in the report.

Equity Style: The Growth, Value and Core labels are determined by Standard and Poor's using a price-to-book ratio methodology. The Growth, Value and Core labels are based on how a company's price-to-book ratio compares to the median price-to-book ratio for its industry based on the company's assigned Industry Sector. If the company's ratio is greater than or equal to the industry median, it is classified as a growth stock. If the company's ratio is less than the industry median, it is classified as a value stock. If a security includes both growth and value attributes, it is classified as a core stock. If price-to-book is not available or the industry's median is not available, this item will be Unclassified.

Equity Capitalization: Market Capitalization is defined as the number of shares outstanding times the market value. Equity securities are classified as Large Cap if they have a capitalization of 8 billion or above. Securities with capitalization between 1.8 and 7.9 billion are classified as Mid Cap. Securities with capitalization below 1.79 billion are classified as Small Cap. Unclassified securities are those for which no capitalization is available or applicable.

Equity Sectors: The Equity sector analysis may include a variety of accounts, each with different investment and risk parameters. As a result, the overweighting or underweighting in a particular sector or asset class should not be viewed as an isolated factor in making investment/liquidation decisions; but should be assessed on an account by account basis to determine the overall impact on the account's portfolio.

Classified Equity: Classified equities are defined as those equities for which the firm can confirm the specific industry and sector of the underlying equity instrument.

Estimated Annual Income: The Estimated Annual Income is the annualized year to date per share dividends paid and multiplied by the quantity of shares held in the selected account(s).

Current Yield: Current yield is defined as the estimated annual income divided by the total market value.

Credit/Event Risk: Investments are subject to event risk and changes in credit quality of the issuer. Issuers can experience economic situations that may have adverse effects on the market value of their securities.

Interest Rate Risk: Bonds are subject to market value fluctuations as interest rates rise and fall. If sold prior to maturity, the price received for an issue may be less than the original purchase price.

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1) Have there been any changes to your financial situation or investment objectives?
2) Would you like to implement or modify any restrictions regarding the management of your account?
If the answer to either question is "yes," it is important that you contact your Financial Advisor as soon as possible to discuss these changes. For MAC advisory accounts, please contact your investment manager directly if you would like to impose or change any investment restrictions on your account.

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City of West St. Paul

TO: Mayor and City Council

THROUGH: Matt Fulton, City Manager

FROM: Manila Shaver, Chief of Police

DATE: September 26, 2016

SUBJECT: Retirement, K-9 Mike

BACKGROUND INFORMATION:

In the spring of 2007 Officer Carl Elam and his canine partner “Mike” re-established the police department’s K-9 team and began serving the community of West St. Paul. During the past nine years Officer Elam and Mike have protected officers and citizens alike, captured criminals, helped find lost persons and located found property and evidence. They have been a credit to the community and have added value to the services the police department provides.

The service life of a police canine is about ten years, which Mike is approaching. This past year in anticipation of Mike retiring the Council authorized the purchase and implementation of a replacement canine team, Officer Joe Gobely and his partner DOC.

Technically a police canine is departmental property and needs to be declared as surplus. It is customary for the assigned officer to be able to purchase his canine partner for a nominal fee ($1.00). Officer Elam has indicated he would like to take ownership of Mike and has signed a release taking full responsibility of Mike as of October 2nd.

FISCAL IMPACT:

None

STAFF RECOMMENDATION:

Adopt the attached draft resolution declaring Mike as surplus (aka: retirement) and authorize the City to allow Officer Elam to purchase Mike for a nominal fee ($1.00).

On Motion of Clpn. Seconded by Clpn.

RESOLUTION NO. 16-

A RESOLUTION DECLARING CERTAIN PROPERTY SURPLUS (POLICE CANINE "MIKE"), AND AUTHORIZING SALE AND/OR DISPOSAL THEREOF

WHEREAS, certain property is no longer needed for public service, and can be offered for sale and/or disposal.

WHEREAS, the police department's current canine "Mike" has served the community well since 2007 and has reached the end of his useful service life;

WHEREAS, continued deployment of Mike would place Mike at risk of injury and cause greater liability for the City;

WHEREAS, the City, the police department and the Council would like to recognize Officer Carl Elam and his partner Mike for their dedication and excellent service to the City;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WEST ST. PAUL, MINNESOTA:

Declares, that on October 2, 2016, Mike, a police canine, will be retired from active police duty and considered surplus(retired). Be it further resolved the police department is hereby authorized to allow Officer Elam to take personal ownership and responsibility of Mike by purchasing Mike for a nominal fee ($1.00). Should the officer fail or refuse to take ownership, the police chief is hereby authorized to dispose of Mike in a humane manner, appropriate for police canines no longer in police service.

Adopted by the City Council this 26th day of September, 2016.

Ayes: Nays:

_____ Attest:_____

David Meisinger, Mayor Chantal Doriott, City Clerk

City of West St. Paul

TO: Mayor and City Council

THROUGH: City Manager

FROM: Public Works & Parks Director/City Engineer

DATE: September 26, 2016

SUBJECT: Approve Revisions to Special Assessment Policy

BACKGROUND INFORMATION:
The City's Special Assessment Policy was last revised in 2012. It states that 25% of the storm sewer repair cost in a street reconstruction project is to be assessed to the adjacent property owner. A few years ago, a city-wide Storm Sewer Utility Fund was set up to help pay for storm sewer improvements as part of street reconstruction projects. Therefore, the policy needs to be updated to properly reflect what each property owner is being assessed for.

Another change to the policy is clarifying what a Hardship Deferral is. The previous language was unspecific and misleading. The actual statute is now attached to the Special Assessment Policy and clears up any misconceptions.

FISCAL IMPACT:
Property owners city-wide are contributing to the Storm Sewer Utility Fund and therefore will not be assessed for storm sewer repairs as part of a street reconstruction project.

STAFF RECOMMENDATION:
Staff recommends that the City Council approve the attached Special Assessment Policy revised 9-26-16.

City of West St. Paul

Special Assessment Policy

Revised 9/26/16

SECTION I – PURPOSE, POLICY, AND LIMITS

A. Purpose

The purpose of these Special Assessment Policies is to set forth the policies and procedures for the determination of benefit and the assessment of cost of the various public improvements which are constructed and installed by the City of West St. Paul pursuant to Minnesota law and the order of the City Council. These policies shall serve as a guide for current and future City Councils and for all persons concerned with such matters. It is the intent and purpose of these policies to provide for and insure consistent, uniform, fair and equitable treatment, insofar as is practical, lawful, and possible, of all property owners in regard to the assessment of cost for benefits to property for the various improvements within the City of West St. Paul, MN. These policies shall be used in conjunction with the City's Public Facilities Policy.

Definition

Special assessments are charges levied against real property for the cost of a public improvement that provides a "special benefit" to the properties that are assessed a charge. Special assessments are a direct function of the enhancement of value or the benefit which a specific improvement gives the property.

Special Assessment Uses

Special assessments may be used to pay the cost of all or a portion of public improvement projects including the maintenance and/or repair of the City's infrastructure. Improvement projects include, but are not necessarily limited to, the construction and/or reconstruction of, the installation and/or replacement of water main systems, sanitary sewer systems, storm sewer systems, road and street construction and/or reconstruction, construction and/or replacement of sidewalks, curbing and gutters.

The Benefit Principle

Special assessment may be levied only upon property receiving a special benefit from the improvement. The rate must be uniform and levied equally upon all property receiving special benefits. Assessment must be confined to property benefited, and THE AMOUNT OF THE ASSESSMENT MUST NOT EXCEED THE BENEFIT.

B. Procedures and Policy

The City shall follow the procedures set forth in MN Stat. Chapter 429. The statutes should be referred to particularly in determining publication and notice requirements. The City Council of the City of West St. Paul hereby declares that the Assessment Policies contained herein are the policies that the City is dedicated to follow as nearly as possible and practical.

C. Limits

The Council reserves the right to vary from these policies if the policies act to create obvious inequities, or where the assignment of benefit to a particular property is difficult because of an extreme and unusual situation, or if such variance is deemed to be in the best interest of the City.

D. Review and Modifications

The Council may, by resolution, modify this policy at any time.

SECTION II – SPECIFIC POLICIES RELATING TO SPECIAL ASSESSMENTS

A. Assessments

The total amount of assessment for a public improvement project shall not exceed the project cost and shall be apportioned equally among properties having the same general land use based on benefit. The project cost of an improvement includes the costs of all necessary construction work required to accomplish the improvement, including:

- Engineering Fees
- Legal Fees
- Administrative Fees
- Financing
- Other Contingent Costs
- Acquisition of Right-of-Way and Other Property

These costs will typically range from 16 to 20% of the total construction cost.

B. Assessment Period

The standard term of assessment for public improvements shall be based upon the type of improvement made, as listed on the following page. The term of any assessment will generally not exceed the term of a bond's duration when a bond is issued to finance the project's costs. Any assessment that is less than $100.00 shall be prepaid or shall be certified as the entire amount payable in one installment in the upcoming year. The Council may, however, establish a shorter or longer term if it is determined to be in the best interest of the City.

Type of Improvement	Allocation of Cost (City/Property Owner)	Assessment Period
Street Construction (including curb and gutter)	Overlay/Reconstruction – 75/25 assessable by front footage	10 years
Street Construction (including storm sewer, curb and gutter)	New Construction – 100% assessable by front footage	10 years
Street Maintenance	Patching/Sealcoating – 0% assessable –	
Sanitary Sewer & Water Laterals (NEW only)	Assessed 100% - allocated equally per unit (benefiting property) Any costs for oversized service will be born by property requesting service	20 years
Sidewalks	New – 100% assessed Replacement – 50/50	10 years
Alleys	Assessed 10/90 using property linear footage along alleyway.	10 years

C. Interest Rate

The finance charges include all costs of financing the project. These costs include, but are not limited to financial consultant's fees, bond rating agency fee, bond attorney's fees, carrying cost and capitalized interest. The interest to be used for special assessments shall be determined by the interest rate of the City's most recently issued bond if that bond was issued within the previous two years. If the previous issue was more than two years prior to the assessment date, the rate shall be determined by the rate that the City would receive at the time of assessment as estimated by the City's bond counsel. Additionally, there shall be an additional two percent (200 basis points) added to the rate to account for the costs listed above, assessment prepayment and default. The rate shall not exceed the legal maximum as stated in M.S. 429.061.

D. Hardship Deferrals

Special assessments may be deferred pursuant to MN Stat 435.193 to 435.195 (see appendix A)

E. Partial and Full Prepayments of Assessments

After the City Council has adopted the assessment roll in a local improvement hearing, the owner of any property specially assessed may, prior to certification of the assessment to the County Auditor, pay to the City Treasurer all or a portion of the assessment but not less than $100.00. The remaining unpaid balance (if any) shall be spread over the period of time established by the Council for installment payment of the assessment. If full payment is made prior to certification to the County Auditor, interest through December 31st shall be waived.

At any time after certification to the County Auditor, the owner of any property against which special assessment have been levied may pay the full amount of the remaining assessment to the County Auditor. Interest accrued to December 31st of the year in which such a payment is made shall also be paid with the prepayment.

F. "Oversized" Facility Assessments

When trunk utility lines, collector or arterial streets or similar "oversized" improvements are constructed, the assessments to directly benefited properties (e.g., those properties receiving water service from a trunk water main) shall be based upon the equivalent cost of a non-oversized improvement.

The cost of the "oversized" portion of the improvement shall be assessed against a larger service area, shall be paid by the City or shall be funded by a combination of the two sources.

G. Private Developer Projects

A Private Developer Project is defined as: 1) A project where utilities are extended to a parcel of land where that parcel of land will be broken down into multiple parcels for the intent to sell the lots individually; or, 2) A single person purchases a parcel of land petitions for utilities to be extended and after construction does not homestead the property under the developers legal name for a minimum of one year.

The City will not cost participate in private developer projects through the special assessment policy.

I. Projects Completed with Costs Under Estimate

Improvement costs shall be assessed according their actual costs. Estimates shall not provide the basis for the assessment amount.

J. "Per Foot" Assessments for Streets and Road Improvements

Street improvements shall, in general, be assessed according to the front footage of the benefiting property adjacent to the improvement with the following consideration for corner lots:

> Corner Lot Credit: The Total Assessable Footage (TAF) for a corner lot with both sides abutting work under this program shall be the total length of street frontage minus the lesser of the length of the longest side or 100 feet. Any allowable credit will not be applied until such time that the second side is considered for assessment. A similar credit may be applied to odd-shaped and/or double-frontage lots at the Council's discretion, except that double-frontage residential lots using, or potentially using, the rear street for garage access will be assessed at one-half the current street reconstruction rate for the rear lot width with no other credit allowed.

When services are provided to common interest communities, town homes or condominiums, each parcel identification number shall be assessed as one parcel, with the front footage equally assessed to each unit.

K. "Per Parcel" Assessments for Water Systems and Sanitary Sewer Systems

Water and sanitary sewer improvement projects shall, in general, be assessed on a "per property parcel" basis, rather than a front footage basis. (This is also known as assessing on a unit basis.)

In the case where there are one or more parcels that are substantially larger than the typical parcel in an improvement project, the Council may assess multiple units to a particular parcel. In making such a multiple assessment, the Council shall consider the minimum lot size and/or frontage permitted by the zoning ordinance.

When services are provided to common interest communities, town homes or condominiums, each parcel identification number shall be assessed as one parcel. Common spaces within these complexes shall be assessed as one parcel if they are served with water and sanitary sewer services.

L. Project Costs to be Assessed

The total project cost to be assessed shall include any costs allowable under Minnesota Statutes Section 429.

M. Tax Forfeited Properties

Properties, which have been forfeited for non-payment of taxes, are subject to possible reassessment pursuant to MN Stat. Sec 429.071. The amount of special assessments subject to reassessment is determined by Council resolution following sale by the County for the tax-forfeited land. Following the sale of a tax forfeited property, the City may conduct an assessment hearing and re-assess the amount remaining unpaid on the original assessment. The assessment terms and conditions will be determined by the City Council. In reassessing such property, the City will follow the same procedure as for an original assessment under MN Stat. 429.061 including advance notice and public hearing.

N. Tax Exempt Properties

Government units including State agencies, cities, school districts, counties, private cemeteries, churches, hospitals, schools, and similar institutions must pay special assessments. Railroads are also not exempt from special assessments. Federal government entities shall be exempt from special assessments.

O. Reapportionment

Special assessments that have been levied against a tract of land that is subsequently subdivided may be reapportioned pursuant to MN Stat. Sec 429.071 and any applicable City Ordinances.

P. Deferred Assessments

Parcels certified as "Green Acres" by the County Assessor under MN Stat 273.111 may defer the assessment until such time as the property no longer meets the Green Acres requirements and no longer carries the designation. Any other deferral of assessments shall be allowed on a case-by-case basis to be approved by the City Council.

Q. Right to Appeal

Pursuant to MN Stat 429.081, any person aggrieved, who is not precluded by failure to object prior to or at the assessment hearing, or whose failure to object is due to a reasonable cause, may appeal to the district court by serving a notice upon the mayor or clerk of the City within 30 days after the adoption of the assessment.

R. Assessable Alley Properties

For an alley improvement project, only those lots that have an existing garage, driveway, or other reasonable access off the alley at the time of the public improvement hearing are to be assessed.

Appendix A: MN Stat 435.193 to 435.195

435.193 HARDSHIP ASSESSMENT DEFERRAL FOR SENIORS, DISABLED, OR MILITARY PERSONS.

(a) Notwithstanding the provisions of any law to the contrary, any county, statutory or home rule charter city, or town, making a special assessment may, at its discretion, defer the payment of that assessment for any homestead property:

(1) owned by a person 65 years of age or older or retired by virtue of a permanent and total disability for whom it would be a hardship to make the payments; or

(2) owned by a person who is a member of the Minnesota National Guard or other military reserves who is ordered into active military service, as defined in section 190.05, subdivision 5b or 5c, as stated in the person's military orders, for whom it would be a hardship to make the payments.

(b) Any county, statutory or home rule charter city, or town electing to defer special assessments shall adopt an ordinance or resolution establishing standards and guidelines for determining the existence of a hardship and for determining the existence of a disability, but nothing herein shall be construed to prohibit the determination of hardship on the basis of exceptional and unusual circumstances not covered by the standards and guidelines where the determination is made in a nondiscriminatory manner and does not give the applicant an unreasonable preference or advantage over other applicants.

435.194 PROCEDURE TO OBTAIN DEFERRED ASSESSMENT.

The homeowner shall make application for deferred payment of special assessments on forms prescribed by the county auditor of the county in which the homestead is located. Where the deferred assessment is granted, the auditor shall record a notice thereof with the county recorder of said county which shall set forth the amount of the assessment. The taxing authority may determine by ordinance or resolution the amount of interest, if any, on the deferred assessment and this rate shall be recorded by the auditor along with and in the same manner as the amount of the assessment.

435.195 TERMINATION OF RIGHT TO DEFERRED PAYMENT.

The option to defer the payment of special assessments shall terminate and all amounts accumulated plus applicable interest, shall become due upon the occurrence of any of the following events: (a) the death of the owner, provided that the spouse is otherwise not eligible for the benefits hereunder; (b) the sale, transfer or subdivision of the property or any part thereof; (c) if the property should for any reason lose its homestead status; or (d) if for any reason the taxing authority deferring the payments shall determine that there would be no hardship to require immediate or partial payment.

City of West St. Paul

TO: Mayor and City Council

THROUGH: City Manager

FROM: Public Works & Parks Director/City Engineer

DATE: September 26, 2016

SUBJECT: Approve Sanitary Sewer Inflow/Infiltration Private Property Assessment Agreements

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BACKGROUND INFORMATION:
As part of the Inflow and Infiltration (I/I) Sewer Inspection Program that the City began in the fall of 2008, the City Council allowed property owners to assess the cost of any sewer repairs that were required as part of the inspection program. The City Council set the terms of the assessment interest rate and time-frame at 3% over 10-years. Staff worked with the City Attorney to come up with an assessment agreement which property owners must sign prior to having their I/I sewer-related repair costs assessed.

The attached spreadsheet shows the properties that are requesting to have their sewer-related repair costs assessed. The total assessments are for $373,843.71.

FISCAL IMPACT:
Approval of the assessment role will allow the City to recoup (over the next 10-years) the cost of fronting the funds for the various sewer repairs.

		Amount
Fund:	**602**	
Department:	**49450**	
Account:	**40530**	$373,843.71

STAFF RECOMMENDATION:
Staff recommends that the City Council approve the attached I/I assessment agreements with the attached property owner.

LIST OF I/I ASSESSMENT AGREEMENTS

Date: September 26, 2016

	Owner Name	Site Address	PID	Assessment Amount
1	MARCELLE CLAIRE DIEDRICH	328 Arion St	420180027020	$8,246.70
2	DAVID J SCHOUVELLER	114 Bernard St	424350001012	$15,618.75
3	MATTHEW & KATE SPINDLER	269 Bernard St	420180032040	$5,229.20
4	ERIK PUFFER	292 Bernard St	420450004020	$6,438.75
5	MAGDALEN A WILSON-THOENNES	353 Butler Ave	422880000021	$9,307.50
6	ARTHUR M & NANCY J DEMENT	1023 Charlton St	426575000060	$5,943.20
7	RAMON ROBELIN PICHARDO	1035 Charlton St	426575000080	$7,386.50
8	VIRGINIA K ISAACS	1137 Charlton St	423495201050	$6,013.75
9	ROBERT J & LINDA S LUCIO	1173 Charlton St	423495201150	$6,664.00
10	KENNETH R PAULMAN	912 Cherokee Ave	423495006210	$5,758.75
11	CHRISTOPHER E BAIR	929 Cherokee Ave	426995000056	$5,514.80
12	ROBERT G & JULIE B FURU	950 Cherokee Ave	423495005260	$10,448.91
13	JOEL J ZINNEL & RICHARD J HALL	962 Cherokee Ave	423495005240	$4,165.00
14	RITA A MCCARTHY	972 Cherokee Ave	423495005200	$5,100.00
15	PAUL R & RITA A ECKERT	976 Cherokee Ave	423495005190	$4,930.00
16	BRIAN & MAGGIE KRAMER	1007 Cherokee Ave	423495004012	$2,125.00
17	KELLY A ZUBICK & TRAVIS ZUBICK	1008 Cherokee Ave	423495003060	$6,334.20
18	DAVID JEROME & ELIZA POTRATZ	1051 Cherokee Ave	423495004053	$6,630.00
19	MARY JACKSON	1109 Cherokee Ave	427250002090	$5,078.75
20	NORMAN L & PAULINE S GOETZKE	1182 Cherokee Ave	427250005200	$5,333.75
21	MELISSA PAPPAS	936 Dodd Rd	427360001171	$4,966.38
22	NOAH STEIN & ELLEN HEIN	937 Dodd Rd	423330000020	$7,645.75
23	JAMES DWAIN HUNTER & HANNAH JANE	285 Edith Dr	425670005060	$5,202.00
24	JUAN A & GABRIELA C MENA	960 Galvin Ave	420180033070	$5,677.15
25	MICKEY SCOTT MORGAN	974 Galvin Ave	420180033050	$5,427.25
26	MARY L TRAYNOR	986 Galvin Ave	420180033030	$5,427.25
27	KEVIN C CHEVRE	1025 Galvin Ave	426675002010	$5,333.75
28	PAMELA J CALLAIS	340 Hurley St	421440003051	$5,427.25
29	DONNA J KOREN & ROBERT CLARK MIL	930 Ohio St	421560001110	$6,502.50
30	YEMANA CHARAN	973 Ohio St	424000000050	$5,270.00
31	MATTHEW J & PATRICIA PARTINGTON	974 Ohio St	427140000070	$5,440.00
32	RODERICK HUGH SQUIRES	979 Ohio St	424000000060	$6,859.50
33	GERALD W GUNDERSON	1069 Ohio St	420180028110	$4,914.70
34		1069 Ohio St		$3,825.00
35	WALTER A & MARYANN AUGE	1075 Ohio St	420180028100	$6,282.77
36	NATHAN J & JACQUELIN HARTWELL	1080 Ohio St	426575000210	$6,647.00
37	RODNEY L & MARY T COLBURN	1093 Ohio St	420180026030	$5,040.50
38	GEORGE R REVOCABLE T STEVENS	956 Ottawa	423495002240	$5,100.00
39	DIANE J CRUZ	970 Ottawa Ave	423495002210	$5,418.75
40	BRADLEY J ZILGE	977 Ottawa Ave	423495005120	$5,427.25
41	KURT A & SUSAN B KOEFOD	1011 Ottawa Ave	420400002010	$14,062.40
42	LAUREN A PETERSON	1021 Ottawa Ave	420400010010	$10,327.50
43	CLIFFORD O & JUDITH HAUGEN	1055 Ottawa Ave	427250001050	$6,192.25
44	STEPHANIE A WEISS	1096 Ottawa Ave	423495101210	$5,848.00
45	STJ PROPERTIES LLC	992 Robert St	428340000079	$5,504.60
46	STJ PROPERTIES LLC	998 Robert St	428340000081	$6,375.00
47	SANDRA DIANE GALLIVAN	1035 Robert St	424810009070	$7,628.75
48	KHUE DANG	1064 Robert St	420170026012	$5,780.00
49	CORNER POST CONTRACTING LLC	1085 Robert St	427280000070	$6,043.50
50	KHUE THI DANG	1088 Robert St	422980000072	$6,672.50
51	EDWARD L & STEPHANIE OVERELL	1888 Robert St	426345007080	$5,780.00
52	KURT S & AIMEE J FREES	1904 Robert St	426345007100	$5,525.00
53	ANNE EKHOLM BEALL	416 Ruby Dr	425670000020	$7,463.00
54	JACK L & JULIA KIRKWOOD	976 Seminole Ave	421910003170	$4,420.00
55	DENNIS G & COLLEEN M SCHMALZBAUE	1032 Seminole Ave	426675002110	$5,333.75
56	BRIAN L & ANN M SIEG	1041 Seminole Ave	420440006010	$6,672.50
57	CLAUDIA JO GILMAN	1052 Seminole Ave	426675002080	$4,522.00
58	ANDREW R & JANET M RUNDQUIST	1078 Seminole Ave	420180027030	$5,078.75
59	JACQUELENE G BEDARD	950 Smith Ave	422020001080	$4,653.75
60	VICKI ENTWEISTLE	1075 Smith Ave	423495101040	$5,858.20

Total Assessments = $373,843.71

TO: Mayor and City Council

THROUGH: Ross Beckwith, City Engineer
Matt Fulton, City Manager

FROM: Korine Land, City Attorney

City of West St. Paul

DATE: September 26, 2016

SUBJECT: Encroachment Agreement at 1190-1214 S. Robert St.

BACKGROUND INFORMATION:

As part of the Robert Street project, the City acquired an easement in front of the above-mentioned property, which impacted the property owner's parking. In order to maximize the parking lot, the property owner has requested that 3 parking lot lights be relocated to and incorporated in the City's landscaping easement. An encroachment agreement is appropriate in order to allow the property owner to have the placement of these lights within the City's easement. The attached agreement allows the lights within the City's easement, however, in the event the City needs to move the lights in order to conduct work in, on or under the City easement, the property owner will be responsible for all costs for removal and replacement of the lights. If the property owner does not pay the costs, they can be automatically assessed against the property. The property owner is in agreement with these terms and conditions.

FISCAL IMPACT:
n/a

STAFF RECOMMENDATION:

Approve the Encroachment Agreement

ATTACHMENT:

Encroachment Agreement

AGREEMENT RELATING TO LANDOWNER IMPROVEMENTS WITHIN CITY PROPERTY AT 1190, 1200 AND 1214 ROBERT STREET SOUTH IN THE CITY OF WEST ST. PAUL, DAKOTA COUNTY, MINNESOTA

THIS AGREEMENT (Agreement) is made, entered into and effective this _____ day of _____, 2016, by and among the City of West St. Paul, a Minnesota municipal corporation ("City") and Robert Street Partners, L.L.C. and Ace Building LLC (collectively, "Landowner"). Subject to the terms and conditions hereafter stated and based on the representations, warranties, covenants, agreements and recitals of the parties herein contained, the parties do hereby agree as follows:

ARTICLE 1
RECITALS

Recital No. 1. Landowner owns the Landowner Property.

Recital No. 2. The City Easement is within the Landowner Property.

Recital No. 3. Landowner wants to locate the Landowner Improvements within the City Easement.

Recital No. 4. Subject to the terms of this Agreement, the City is willing to allow the Landowner Improvements to be placed within the City Easement if the following conditions are met:

(a) The Landowner maintains the Landowner Improvements.

(b) If Landowner fails to do so, the Landowner agrees to allow the City to remove the Landowner Improvements in the event the City has need to access the area where the Landowner Improvements exist in order for the City to inspect, repair, maintain, and replace the City's Improvements or construct additional CityDefer Improvements in the City Easement.

ARTICLE 2
DEFINITIONS

2.1 **Terms.** The following terms, unless elsewhere specifically defined herein, shall have the following meanings as set forth below.

(a) **City.** "City" means the City of West St. Paul, a Minnesota municipal corporation.

(b) **City Easement.** City Easement means the easement legally described on Exhibit A and depicted on Exhibit B.

(c) **City Improvements.** "City Improvements" means public sidewalk, fencing, landscaping, wall, drainage and utility easements all located within the City Easement.

(d) **Cost Differential.** "Cost Differential" means the difference between the Pre-Encroachment Costs and the Utility Costs in light of the existence of the Landowner Improvements. The City's determination of the amount of the Cost Differential shall be binding on the Landowner. The City's determination shall be appropriately supported by cost estimates obtained from independent contractors or engineers.

(e) **Landowner.** "Landowner" means Robert Street Partners, L.L.C., a Minnesota limited liability company, and Ace Building LLC, a Minnesota limited liability company, and their assigns and successors in interest with respect to the Property.

(f) **Landowner Improvements.** "Landowner Improvements" means Landowner's three (3) privately owned parking lot lighting units, foundations and related conduits and wiring located within the City Easement and depicted on Exhibit C.

(g) **Landowner Property.** "Landowner Property" means real property legally described on the attached Exhibit D.

(h) **Pre-Encroachment Costs.** "Pre-Encroachment Costs" means a reasonable estimate by the City of the costs the City would have incurred for Utility Costs if the Landowner Improvements did not exist.

(i) **Utility Costs.** "Utility Costs" means all costs incurred by the City, (whether performed by the City or its agents or contractors), for the inspection of and access to and repair, maintenance and replacement of the City Improvements

located in the City Easement and the placement of additional City Improvements in the City Easement. Utility Costs, include, without limitation: excavation costs, labor costs, costs of removing fill, costs of re-burying the City Improvements, re-compacting the soils over the City Improvements, restoring the City Easement area, and all engineering and attorneys' fees incurred in connection therewith. Utility Costs also include the costs of temporarily removing the Landowner Improvements and subsequently replacing the Landowner Improvements in the City Easement, if such costs have not already been paid by the Landowner.

ARTICLE 3
AGREEMENTS

3.1 **Maintenance of Landowner Improvements.** Under the terms and conditions stated herein, Landowner is hereby authorized by the City to enter onto the City Easement in order to maintain Landowner Improvements in the City Easement. Landowner shall not place any other structures, lights, retaining walls, irrigation systems, buildings, fences, landscaping, trees or shrubs in the City Easement. Landowner shall provide the City with 20 days' notice prior to undertaking such maintenance activities in the City Easement.

3.2 **City Not Responsible For Landowner Improvements.** Nothing contained herein shall be deemed an assumption by the City of any responsibility for maintenance, replacement or repair of the Landowner Improvements.

3.3 **Continuing Right to City Easement.** Nothing contained herein shall be deemed a waiver or abandonment or transfer of the right, title and interest that the City holds to the City Easement.

3.4 **Subordinate Position of Landowner Improvements.** The Landowner Improvements are subordinate to the rights of the City in the City Easement and to the City Improvements.

3.5 **Risk of Loss.** Landowner understands and agrees that the Landowner Improvements within the City Easement may be adversely affected by damage caused to Landowner Improvements arising out of the City's use of the City Easement. The parties agree that the City is not responsible for such events; the City shall have no liability to Landowner for such events. Landowner assumes the risk of maintaining the Landowner Improvements in an area where the City Improvements exist.

3.6 **Landowner to Bear Cost of Relocating Landowner Improvements.** The City is responsible for the repair and maintenance of the City Improvements in the City Easement. The City may require the Landowner at Landowner's expense to temporarily remove and subsequently replace the Landowner Improvements in the City Easement in order for the City to gain access to the City Improvements for the purpose of inspecting, repairing, maintaining, or replacing the City Improvements or adding additional City Improvements.

If the Landowner does not perform such tasks, the City may perform such tasks and in such case the Landowner shall reimburse the City for the City's costs and expenses. Prior to commencing such tasks, the City shall send a notice to the Landowner and allow the Landowner twenty (20) days from the date of the written notice to perform the tasks. If the Landowner has not completed the work within the twenty (20) days, then the City may proceed to perform the tasks. Once the City's costs and expenses have been determined by the City, the City shall send an invoice for such costs and expenses to the Landowner. The Landowner must pay the invoice within thirty (30) days after the date of the invoice. Such costs and expenses include, but are not limited to, costs charged the City by third parties such as contractors as well as the costs for City personnel that may have performed the work. Bills not paid shall incur the standard penalty and interest established by the City for utility billings within the City. The charges shall be divided equally among the Landowner Property.

3.7 **Emergency.** Notwithstanding the requirements contained in Sections 3.6 relating to a twenty (20) day written notice to the Landowner to perform its obligations under Sections 3.6, the City shall not be required to give such notice if the City's engineer determines that an emergency exists. In such instance, the City, without giving notice to the Landowner may perform the work and in such case the Landowner shall reimburse the City for the costs and expenses relating to the work. Once the City's costs and expenses have been determined by the City, the City shall send an invoice for such costs and expenses to the Landowner. The Landowner must pay the invoice within thirty (30) days after the date of the invoice. Such costs and expenses include, but are not limited to, costs charged the City by third parties such as contractors as well as the costs for City personnel that may have performed the work. Bills not paid shall incur the standard penalty and interest established by the City for utility bills within the City. The charges shall be divided equally among the Landowner Property.

3.8 **Cost Differential.** If a Cost Differential occurs relating to the access to or inspection, maintenance, repair or replacement of the City Improvements or relating to construction of new City Improvements in the future, then the Landowner shall pay the Cost Differential to the City. The Landowner must make payment for the Cost Differential within 30 days after the City has sent a written invoice for the Cost Differential to the Landowner.

3.9 **Remedies.** If the Landowner fails to perform its obligations under this Agreement, then the City may avail itself of any remedy afforded by law or in equity and any of the following non-exclusive remedies:

(a) The City may specifically enforce this Agreement.

(b) If Landowner fails to make payments under Section 3.6, 3.7 or 3.8, then the City may assess and certify to Dakota County the amounts due as payable with the real estate taxes for the Landowner Property in the next calendar year; such certifications may be made under Minnesota Statutes, Chapter 444 in a manner similar to certifications for unpaid utility bills. The charges shall be evenly allocated among the Landowner Property. The Landowner waives any and all procedural and substantive objections to the imposition of such usual and customary charges on the Landowner Property.

(c) Further, as an alternate means of collection, if the written billing is not paid by the Landowner, the City, without notice and without hearing, may specially assess the Landowner Property for the costs and expenses incurred by the City. The Landowner hereby waives any and all procedural and substantive objections to special assessments for the costs including, but not limited to, notice and hearing requirements and any claims that the charges or special assessments exceed the benefit to the Landowner Property. The Landowner waives any appeal rights otherwise available pursuant to Minnesota Statute § 429.081. The Landowner acknowledges that the benefit from the performance of tasks by the City equals or exceeds the amount of the charges and assessments for the costs that are being imposed hereunder upon the Landowner Property.

No remedy herein conferred upon or reserved to the City shall be exclusive of any other available remedy or remedies, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Agreement or now or hereafter existing at law or in equity or by statute. No delay or omission to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver thereof, but any such right and power may be exercised from time to time and as often as may be deemed expedient.

3.10 **Indemnification.** The Landowner shall indemnify, defend and hold the City, its council, agents, consultants, attorneys, employees and representatives harmless against and in respect of any and all claims, demands, actions, suits, proceedings, losses, costs, expenses, obligations, liabilities, damages, recoveries, and deficiencies including interest, penalties and attorneys' fees, that the City incurs or suffers, which arise out of, result from or relate to any of the following:

(a) The Landowner Improvements;

(b) Installation and maintenance of the Landowners Improvements;

(c) Failure by the Landowner to observe or perform any covenant, condition, obligation or agreement on their part to be observed or performed under this Agreement; and

(d) Use of the City Easement for Landowner Improvements.

3.11 **City Duties.** Nothing contained in this Agreement shall be considered an affirmative duty upon the City to perform the Landowner's obligations contained in Article 3 if the Landowner does not perform such obligations.

3.12 **No Third Party Recourse.** Third parties shall have no recourse against the City under this Agreement.

3.13 **Recording.** The City shall record this Agreement with the Dakota County Recorder against the Landowner Property.

3.14 **Binding Agreement.** The parties mutually recognize and agree that all terms and conditions of this recordable Agreement shall run with the Landowner Property and shall be binding upon the heirs, successors, administrators and assigns of the parties. The obligations of the Landowner contained in this Agreement are joint and several.

3.15 **Amendment and Waiver.** The parties hereto may by mutual written agreement amend this Agreement in any respect. Any party hereto may extend the time for the performance of any of the obligations of another, waive any inaccuracies in representations by another contained in this Agreement or in any document delivered pursuant hereto which inaccuracies would otherwise constitute a breach of this Agreement, waive compliance by another with any of the covenants contained in this Agreement and performance of any obligations by the other or waive the fulfillment of any condition that is precedent to the performance by the party so waiving of any of its obligations under this Agreement. Any agreement on the part of any party for any such amendment, extension or waiver must be in writing. No waiver of any of the provisions of this Agreement shall be deemed, or shall constitute, a waiver of any other provisions, whether or not similar, nor shall any waiver constitute a continuing waiver.

3.16 **Governing Law.** This Agreement shall be governed by and construed in accord with the laws of the State of Minnesota.

3.17 **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument.

3.18 **Headings.** The subject headings of the sections this Agreement are included for purposes of convenience only, and shall not affect the construction of interpretation of any of its provisions.

[The remainder of this page has been intentionally left blank.]

IN WITNESS WHEREOF, the parties have executed this Agreement the year and day first set forth above.

CITY OF WEST ST. PAUL

_____
David Meisinger, Mayor

_____
Matt Fulton, City Manager

STATE OF MINNESOTA)
) ss.
COUNTY OF DAKOTA)

On this ___ day of _____, 2016, before me a Notary Public within and for said County, personally appeared David Meisinger and Matt Fulton, to me personally known, who being each by me duly sworn, each did say that they are respectively the Mayor and City Manager of the City of West St. Paul, the municipality named in the foregoing instrument, and that said instrument was signed on behalf of said municipality by authority of its City Council and said Mayor and City Manager acknowledged said instrument to be the free act and deed of said municipality.

_____
Notary Public

ROBERT STREET PARTNERS, L.L.C.

_____
By:
Its: Chief Manager

STATE OF MINNESOTA)
) ss.
COUNTY OF DAKOTA)

On this ___ day of _____, 2016, before me a Notary Public within and for said County, personally appeared _____ , to me personally known, who being by me duly sworn did say that he/she is the Chief Manager of Robert Street Partners, L.L.C., the limited liability company named in the foregoing instrument, and that said instrument was signed on behalf of said company by authority of its Board of Governors and said _____ _____ acknowledged said instrument to be the free act and deed of said limited liability company.

ACE BUILDING LLC

_____
By:
Its: Chief Manager

STATE OF MINNESOTA)
) ss.
COUNTY OF DAKOTA)

On this ___ day of _____, 2016, before me a Notary Public within and for said County, personally appeared _____ , to me personally known, who being by me duly sworn did say that he/she is the Chief Manager of Ace Building LLC, the limited liability company named in the foregoing instrument, and that said instrument was signed on behalf of said company by authority of its Board of Governors and said _____ _____ acknowledged said instrument to be the free act and deed of said limited liability company.

This Instrument Was Drafted By:
Korine L. Land, #262432
LeVander, Gillen & Miller, P.A.
633 South Concord Street
Suite 400
West St. Paul, MN 55075
(651) 451-1831

After Recording, Please Return This Instrument To:
Korine L. Land, #262432
LeVander, Gillen & Miller, P.A.
633 South Concord Street
Suite 400
West St. Paul, MN 55075
(651) 451-1831

EXHIBIT A
LEGAL DESCRIPTION OF CITY EASEMENT

PID: 42-83810-06-031

The West 3.70 feet of Lots 1, 2, 3, 4 and 5, Block 6, WESTCHESTER HEIGHTS NO. 2 RE-ARRANGEMENT, according to the recorded plat thereof, Dakota County, Minnesota.

AND

The West 3.70 feet of the North 19.80 feet of Lot 6, said Block 6.

AND

That part of said Lot 1 lying westerly of a line run from a point on the north line of said Lot 1 distant 22.00 feet easterly of the northwest corner of said Lot 1 to a point on the west line of said Lot 1 distant 23.90 feet southerly of said northwest corner. EXCEPT the West 3.70 feet thereof.

PID: 42-83810-06-082

The West 4.00 feet of Lots 6, 7, and 8 Block 6, WESTCHESTER HEIGHTS NO. 2 RE-ARRANGEMENT, Dakota County, Minnesota, except the North 19.80 feet of said Lot 6 and except the South 8.00 feet of said Lot 8.

Excepting and reserving therefrom the following, to-wit: a non-exclusive easement over and across the Westerly Ninety-five (Wly 95) feet of said premises for purposes of travel thereon and for purposes of parking motor vehicles, as set forth in agreements identified as Document No. 9600, dated April 15, 1953 registered April 21, 1953 and Document No. 10392 dated February 9, 1954 registered February 10, 1954.

EXHIBIT B
DEPICTION OF CITY EASEMENT

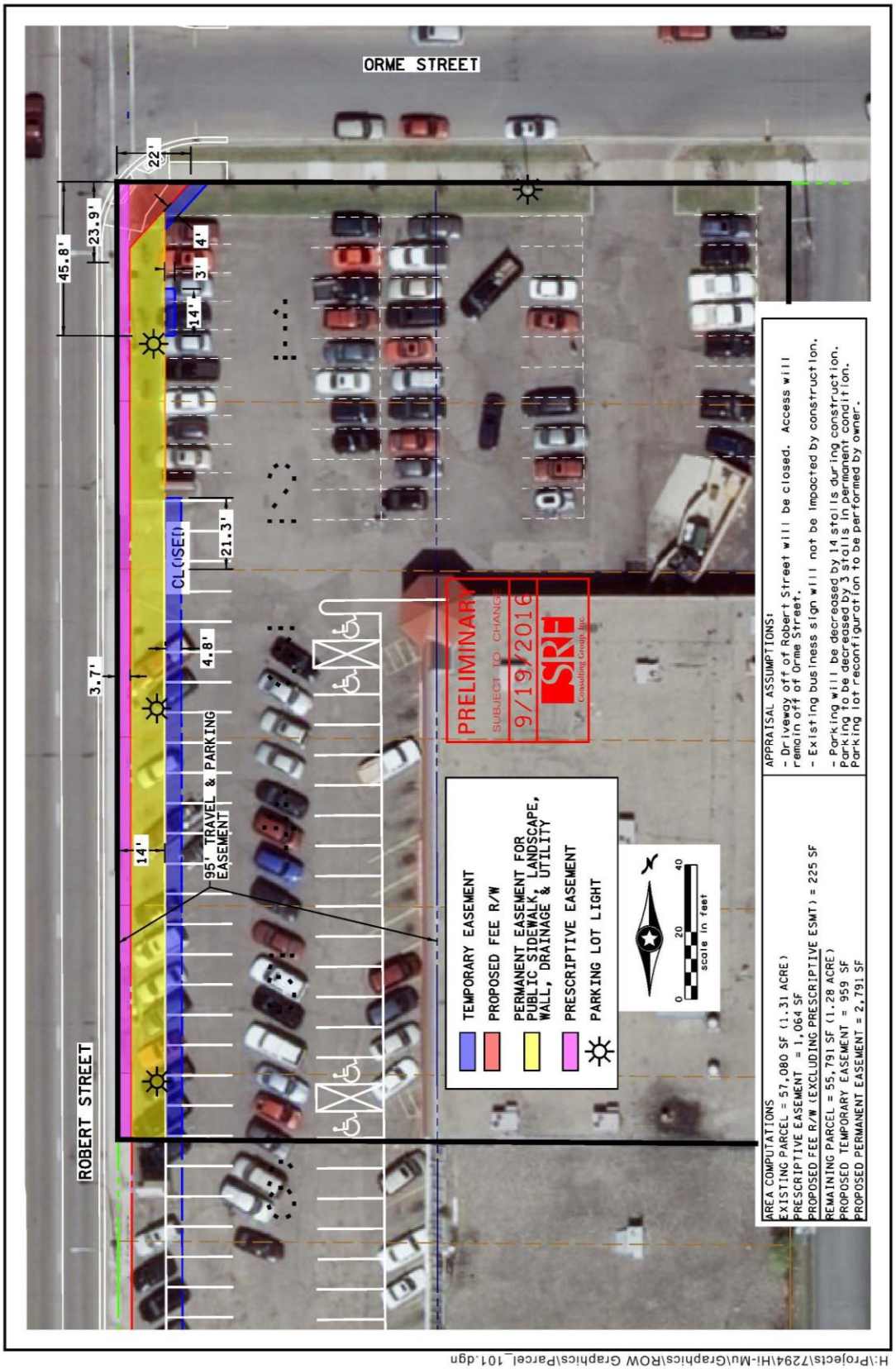

EXHIBIT C
DEPICTION OF LANDOWNER IMPROVEMENTS

EXHIBIT D
LEGAL DESCRIPTION OF LANDOWNER PROPERTY

PIDs: 42-83810-06-061 and 42-83810-06-032

Lot Five (5) excepting therefrom the North Twenty-nine and eight-tenths (29.8) feet; the North Nineteen and eight-tenths (19.8) feet of Lot Six (6) all in Block Six (6) of Westchester Heights No. 2 Re-arrangement according to the plat thereof on file and of record in the office of the Registrar of Titles in and for said County and State.

Excepting and reserving therefrom the following, to-wit: a non-exclusive easement over and across the Westerly Ninety-five (Wly 95) feet of said premises for the purposes of travel thereon and for purposes of parking motor vehicles as set forth in agreements identified as Document No. 9600 dated April 15, 1953 registered April 21, 1953 and Document 10392 dated February 9, 1954 registered February 10, 1954.

AND

Lots One (1), Two (2) and the North Nine and eight-tenths (9.8) feet of Lot Three (3) in Block Six (6) of Westchester Heights No. 2 Re-Arrangement, according to the plat thereof on file and of record in the Registrar of Titles office in and for said County and State.

AND

Lot Three (3) excepting therefrom the North Nine and eight-tenths (9.8) feet, all of Lot Four (4) and the North Twenty-nine and eight-tenths (29.8) feet of Lot Five (5) all in Block Six (6), Westchester Heights No. 2 Re-Arrangement, according to the plat thereof on file and of record in the office of the Registrar of Titles in and for said County and State.

PID: 42-83810-06-083

Lot Six (6) excepting therefrom the North Nineteen and eight-tenths (19.8) feet thereof;

All of Lots Seven (7) and Eight (8), excepting therefrom the South Eight (8) feet of said Lot Eight (8), all in Block Six (6), Westchester Heights No. 2 Rearrangement according to the plat thereof on file and of record in the office of the Registrar of Titles in and for said County and State.

EXCEPT

The West 4.00 feet of Lots 6, 7, and 8 Block 6, WESTCHESTER HEIGHTS NO. 2 RE-ARRANGEMENT, Dakota County, Minnesota, except the North 19.80 feet of said Lot 6 and except the South 8.00 feet of said Lot 8.

Excepting and reserving therefrom the following, to-wit: a non-exclusive easement over and across the Westerly Ninety-five (Wly 95) feet of said premises for purposes of travel thereon and

for purposes of parking motor vehicles, as set forth in agreements identified as Document No. 9600, dated April 15, 1953 registered April 21, 1953 and Document No. 10392 dated February 9, 1954 registered February 10, 1954.

TO: Mayor and City Council

THROUGH: Ross Beckwith, City Engineer
Matt Fulton, City Manager

FROM: Korine Land, City Attorney

City of West St. Paul

DATE: September 26, 2016

SUBJECT: Encroachment Agreement at 998 S. Robert St.

BACKGROUND INFORMATION:

As part of the Robert Street project, the City acquired right of way along Bernard St. that directly adjoins the building located at 998 S. Robert Street, owned by STJ Properties, LLC. Because the City Property extends right up to the building wall, the City property now includes the steps, railings and other obstructions that are affixed or adjacent to the building; therefore, an encroachment agreement is appropriate in order to allow the property owner to maintain the status quo. The attached agreement will allow the property owner to continue to maintain the existing improvements, but not add any additional items without City approval. In addition, if the City needs to move any of the property owner's improvements in order to conduct work in, on or under the City property, the City will remove and return the property owner's improvements to their original or better condition at no cost to the property owner.

FISCAL IMPACT:
n/a

STAFF RECOMMENDATION:

Approve the Encroachment Agreement

ATTACHMENT:

Encroachment Agreement

AGREEMENT RELATING TO LANDOWNER IMPROVEMENTS AT 998 S. ROBERT ST. IN THE CITY OF WEST ST. PAUL, DAKOTA COUNTY, MINNESOTA

THIS AGREEMENT ("Agreement") is made, entered into and effective this _____ day of September, 2016, by and among the City of West St. Paul, a Minnesota municipal corporation ("City") and STJ Properties, LLC, ("Landowner"). Subject to the terms and conditions hereafter stated and based on the representations, warranties, covenants, agreements and recitals of the parties herein contained, the parties do hereby agree as follows:

ARTICLE 1
RECITALS

Recital No. 1. Landowner owns the Landowner Property.

Recital No. 2. The Landowner Property is improved with Landowner Improvements.

Recital No. 3. Subject to the terms of this Agreement, the City will allow the Landowner Improvements to remain on the City Property if the following conditions are met:

(a) The Landowner maintains the Landowner Improvements.

(b) In the event the City needs to access the area where the Landowner Improvements exist in order for the City to inspect, repair, maintain, and replace the City Improvements or construct additional City Improvements in the City Property, the Landowner agrees to allow the City to remove the Landowner Improvements and upon completion, to repair or replace Landowner Improvements in the original or better condition as when the Landowner Improvements were removed.

ARTICLE 2
DEFINITIONS

2.1 **Terms.** The following terms, unless elsewhere specifically defined herein, shall have the following meanings as set forth below.

(a) **City.** "City" means the City of West St. Paul, a Minnesota municipal corporation.

(b) **City Improvements.** "City Improvements" means public sidewalk and public and private utilities within, on, under and through the City Property.

(c) **City Property.** "City Property" means the property legally described on Exhibit A.

(d) **Landowner.** "Landowner" means STJ Properties, LLC, a Minnesota limited liability company and its assigns and successors in interest with respect to the Property.

(e) **Landowner Improvements.** "Landowner Improvements" means the existing permanent or removable property affixed to, attached to or adjacent to the south side of Landowner's building including, but not limited to steps, railings, stoops, awnings, windows, window wells, window well covers, signs, pipes, conduits, mechanical equipment and electrical boxes as depicted on Exhibit B.

(f) **Landowner Property.** "Landowner Property" means Landowner's Property legally described on the attached Exhibit C, which is improved with a building that abuts City Property.

ARTICLE 3
AGREEMENTS

3.1 **Maintenance of Landowner Improvements.** Under the terms and conditions stated herein, Landowner, at its own cost, is hereby authorized by the City to maintain Landowner Improvements in the City Property that are depicted on Exhibit B. Maintain includes, but is not limited to, snow shoveling and keeping it free of ice and other obstructions.

Landowner and City hereby agree that the existing Landowner Improvements are accurately reflected on Exhibit B and are the Landowner Improvements that are existing as of the date of this Agreement. Landowner shall not place any new or replacement Landowner Improvements in, on, under or through the City Property or relocate any existing Landowner Improvements in, on under or through the City Property, without prior written City approval, which shall not be unreasonably withheld.

3.2 **City Not Responsible For Landowner Improvements.** Nothing contained herein shall be deemed an assumption by the City of any responsibility for construction,

maintenance, replacement or repair of the Landowner Improvements, except as provided in Section 3.4.

3.3 **Landowner's Risk of Loss.** Landowner understands and agrees that the Landowner Improvements within the City Property may be adversely affected by damage caused to Landowner Improvements arising out of the City's ordinary public use of the City Property. The parties agree that the City is not responsible for such events and the City shall have no liability to Landowner for such events. Landowner assumes the risk of maintaining the Landowner Improvements on City Property.

3.4 **Temporary Removal of Landowner Improvements for City Repair and Maintenance.** The City is responsible for the repair and maintenance of the City Improvements in the City Property. Upon 20 days' notice, the City may temporarily remove and subsequently return the Landowner Improvements in the City Property in order for the City to gain access to the City Improvements for the purpose of inspecting, repairing, maintaining, or replacing the City Improvements or adding additional City Improvements. In such event, the City shall return or replace Landowner Improvements in the original or better condition as they were prior to the City's removal. Whether the Landowner Improvements are returned in the original or better condition or replaced is within the City's sole discretion.

3.5 **Emergency.** Notwithstanding the requirements contained in Sections 3.4 relating to a 20-day notice the City shall not be required to give such notice if the City's engineer determines that an emergency exists. In such instance, the City, without giving notice may perform the emergency work immediately and provide notice of the work that was completed related to the Landowner Improvements after the emergency and return or replace any Landowner Improvements as required by Section 3.4.

3.6 **Remedies.** If the Landowner fails to perform its obligations under this Agreement, then the City may avail itself of any remedy afforded by law or in equity.

3.7 **Indemnification.** Except for City's negligence or willful misconduct, the Landowner shall indemnify, defend and hold the City, its council, agents, consultants, attorneys, employees and representatives harmless against and in respect of any and all claims, demands, actions, suits, proceedings, losses, costs, expenses, obligations, liabilities, damages, recoveries, and deficiencies including interest, penalties and attorneys' fees, that the City incurs or suffers, which arise out of, result from or relate to any of the following:

(a) The Landowner Improvements;

(b) Installation and maintenance of the Landowners Improvements;

(c) Failure by the Landowner to observe or perform any covenant, condition, obligation or agreement on their part to be observed or performed under this Agreement; and

(d) Use of the City Property for Landowner Improvements.

3.8 **City Duties.** Nothing contained in this Agreement shall be considered an affirmative duty upon the City to perform the Landowner's obligations contained in Article 3 if the Landowner does not perform such obligations.

3.9 **No Third Party Recourse.** Third parties shall have no recourse against the City under this Agreement.

3.10 **Recording.** The City shall record this Agreement with the Dakota County Recorder against the Encroachment Property and within 30 days after the date of this Agreement.

3.11 **Binding Agreement.** The parties mutually recognize and agree that all terms and conditions of this recordable Agreement shall run with the Landowner Property and shall be binding upon the heirs, successors, administrators and assigns of the parties.

3.12 **Amendment and Waiver.** The parties hereto may by mutual written agreement amend this Agreement in any respect. Any party hereto may extend the time for the performance of any of the obligations of another, waive any inaccuracies in representations by another contained in this Agreement or in any document delivered pursuant hereto which inaccuracies would otherwise constitute a breach of this Agreement, waive compliance by another with any of the covenants contained in this Agreement and performance of any obligations by the other or waive the fulfillment of any condition that is precedent to the performance by the party so waiving of any of its obligations under this Agreement. Any agreement on the part of any party for any such amendment, extension or waiver must be in writing. No waiver of any of the provisions of this Agreement shall be deemed, or shall constitute, a waiver of any other provisions, whether or not similar, nor shall any waiver constitute a continuing waiver.

3.13 **Governing Law.** This Agreement shall be governed by and construed in accord with the laws of the State of Minnesota.

3.14 **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument.

3.15 **Headings.** The subject headings of the sections this Agreement are included for purposes of convenience only, and shall not affect the construction of interpretation of any of its provisions.

[The remainder of this page has been intentionally left blank.]

IN WITNESS WHEREOF, the parties have executed this Agreement the year and day first set forth above.

CITY OF WEST ST. PAUL

_____
David Meisinger, Mayor

_____
Matt Fulton, City Manager

STATE OF MINNESOTA)
) ss.
COUNTY OF DAKOTA)

On this ___ day of _____, 2016, before me a Notary Public within and for said County, personally appeared David Meisinger and Matt Fulton, to me personally known, who being each by me duly sworn, each did say that they are respectively the Mayor and City Manager of the City of West St. Paul, the municipality named in the foregoing instrument, and that said instrument was signed on behalf of said municipality by authority of its City Council and said Mayor and City Manager acknowledged said instrument to be the free act and deed of said municipality.

_____
Notary Public

STJ PROPERTIES, LLC

_____
By: _____
Its: Chief Manager

STATE OF MINNESOTA)
) ss.
COUNTY OF DAKOTA)

On this ___ day of _____, 2016, before me a Notary Public within and for said County, personally appeared _____ , to me personally known, who being by me duly sworn did say that he/she is the Chief Manager of STJ Properties, LLC the limited liability company named in the foregoing instrument, and that said instrument was signed on behalf of said company by authority of its Board of Governors and said _____ acknowledged said instrument to be the free act and deed of said limited liability company.

This Instrument Was Drafted By:
Korine L. Land, #262432
LeVander, Gillen & Miller, P.A.
633 South Concord Street
Suite 400
West St. Paul, MN 55075
(651) 451-1831

After Recording, Please Return This Instrument To:
Korine L. Land, #262432
LeVander, Gillen & Miller, P.A.
633 South Concord Street
Suite 400
West St. Paul, MN 55075
(651) 451-1831

EXHIBIT A
LEGAL DESCRIPTION OF CITY PROPERTY

Real property in Dakota County, Minnesota, described as follows:

The South 13.00 feet of that part of said Lot 6 described as commencing at a point where the east line of South Robert Street intersects the north line of Bernard Street as now laid out; thence North along the east line of South Robert Street a distance of 27.24 feet; thence East 128.52 feet to a point 29.77 feet North of the north line of Bernard Street as now laid out; thence South to the north line of said Bernard Street; thence West along the north line of said Bernard Street to the point of beginning.

PID: 42-83400-00-080

EXHIBIT B
DEPICTION OF LANDOWNER'S IMPROVEMENTS

EXHIBIT C
LEGAL DESCRIPTION OF LANDOWNER'S PROPERTY

Real property in Dakota County, Minnesota, described as follows:

All that part of Lot Six (6) in Washington Heights Addition to St. Paul, described as follows, to-wit: Commencing at a point where the East line of South Robert Street intersects the North line of Bernard Street as now laid out, thence North along the East line of South Robert Street a distance of 27.24 feet; thence East 128.52 feet to a point 29.77 feet North of the North line of Bernard Street as now laid out, thence South to the North line of said Bernard Street, thence West along the North line of said Bernard Street to the point of beginning, all according to the plat thereof, now filed and of record in the Office of the Registrar of Deeds, within and for said County and State, Dakota County, Minnesota.

PID: 42-83400-00-081

TO: Mayor and City Council

THROUGH: Matt Fulton, City Manager

Jim Hartshorn, Comm. Dev. Dir.

FROM: Ben Boike, Assistant Comm. Dev. Dir.

DATE: September 26, 2016

SUBJECT: Conditional Use Permit – 355 Marie Ave E

City of West St. Paul

BACKGROUND INFORMATION:

Snyder Health Care Systems Inc. is requesting a Conditional Use Permit to allow Adult Day Care in a B2, Neighborhood District at 355 Marie Ave E.

The applicant is proposing to have a dual use of the property with half of the building being utilized as office space for the operation and half of the building being utilized for the proposed Adult Day Program. According the applicant, they will be operating an Adult Day Program that support seniors' independent living through education on health management and healthy living. The program aims to increase community enrichment opportunities while maintaining social ties to the community. The program is developed to directly support local seniors in managing their affairs, coping with personal and system changes, as well as assisting them in navigating community resources.

Please see the attached Planning Commission report for additional information related to the request.

Planning Commission

The Planning Commission met in regular session on September 20, 2016 and held a public hearing. The Commission voted 6-0 to recommend APPROVAL of the Conditional Use Permit subject to the listed conditions below including the revision of condition two to require that the applicant re-surface the parking lot versus patch the lot per Staff's recommendation. The applicant stated that they were intending to re-surface anyway. No one from the public wished to speak on the item.

FISCAL IMPACT:

		Amount
Fund:		
Department:		
Account:		**N/A**

STAFF RECOMMENDATION:

Staff recommends that the City Council hold the public hearing and approve the Conditional Use Permit subject to the following conditions:

1. The applicant shall apply for applicable building and sign permits.

2. The applicant shall re-surface the parking lot and re-stripe the parking stalls.
3. The applicant shall adhere to the requests as outlined in the memo from the South Metro Fire Marshal dated September 8, 2016.

TO: Planning Commission

FROM: Ben Boike, Assistant Comm. Dev. Dir.

DATE: September 20, 2016

SUBJECT: Case #16-10

City of West St. Paul

REQUEST

Snyder Health Care Systems Inc. is requesting a Conditional Use Permit to allow Adult Day Care in a B2, Neighborhood District at 355 Marie Ave E.

Attachments:
Application Package
Memo from the Fire Marshal
Notice

EXISTING LAND USES

The subject property consists of an existing office building. Adjacent properties to the west consist of industrial uses. Adjacent properties to the north consist of commercial buildings. The adjacent properties to the east consist of the City Public Works building and apartment buildings. The adjacent properties to the south consist of apartment buildings.

ZONING

The subject property and adjacent properties to the north are zoned B2, Neighborhood Business. Adjacent properties to the west are zoned I1, Light Industrial. Adjacent properties to the east are zoned I2, General Industrial and R4, Multiple Family Residential. Adjacent properties to the south are zoned R4, Multiple Family Residential.

ANALYSIS

Zoning Ordinance

Section 153.141 of the Zoning Ordinance requires a Conditional Use Permit to allow Two-family Dwellings in the B1 District (uses in the B1 are also allowed in the B2):

> **153.141 CONDITIONAL USES**
>
> Within the B-1 Limited Business District, no structure or land shall be used for the following uses, except by conditional use permit:
>
> (K) A state licensed adult day care facility, provided that the lot is located at least 200 feet from Robert Street.

Proposal

The applicant is proposing to have a dual use of the property with half of the building being utilized as office space for the operation and half of the building being utilized for the proposed Adult Day Program. According the applicant, they will be operating an Adult Day Program that support seniors' independent living through education on health management and healthy living. The program aims to increase community enrichment opportunities while maintaining social ties to the community. The program is developed to directly support local seniors in managing their affairs, coping with personal and system changes, as well as assisting them in navigating community resources.

State License

The applicant operates under a 245D state license through the Department of Human Services.

Hours of Operation

Monday – Saturday 8am to 6 pm.

Employees

The program will include a total of 8 employees with around 5 staff at the location day to day.

Parking

The proposed use requires a total of 20 parking stalls (13 for the office and 7 for the day care). The existing parking lot has a total of 32 stalls. The existing parking lot has some rough areas and the parking stalls are need re-striping. As a result, Staff is recommending a condition of approval to patch the parking lot and re-stripe the parking stalls.

Fire Department Review
The Fire Marshal has provided a memo with two (2) recommended conditions pertaining to proposed Use (see attached memo). Staff is recommending a condition of approval that the applicant adhere to the recommendations in the memo. The conditions are as follows:

1) Per Minnesota State Building Code 1306 – Entire building shall be protected by an Automatic Sprinkler System.

    i) The City of West St. Paul has adopted Minnesota State Building Code Chapter 1306 Subp. 2. Automatic sprinkler systems for buildings in which the occupancy classification has changed must be installed and maintained in operational condition within the structure. The entire building will require an automatic sprinkler system.

2) The proposed occupancy is classified as an I-4 and shall comply with Minnesota State Fire Code 907.2.6.4- A Manual and Automatic fire alarm system shall be installed in Group I-4 in accordance with sections 907.2.6.4.1 through 907.2.6.4.2

STAFF RECOMMENDATION

Staff recommends APPROVAL of the CONDITIONAL USE PERMIT to allow an Adult Day Care in a B2 District at 355 Marie Ave E. subject to the following conditions:

1. The applicant shall apply for applicable building and sign permits.
2. The applicant shall patch the parking lot and re-stripe the parking stalls.
3. The applicant shall adhere to the requests as outlined in the memo from the South Metro Fire Marshal dated September 8, 2016.

CITY OF WEST ST. PAUL

1616 HUMBOLDT AVENUE, WEST ST. PAUL, MN 55118-3972

MUNICIPAL CENTER 651-552-4100 POLICE 651-552-4200
PARKS/RECREATION 651-552-4150 FIRE 651-552-4176
FAX 651-552-4190 TDD 651-552-4222

CONDITIONAL USE PERMIT APPLICATION

Filing Fee: $275.00

Escrow Amount: $400.00 (residential)
$800.00 (commercial)

TOTAL FEES $800.00

(OFFICE USE ONLY)

CASE NO. 16-
DATE RECEIVED 8/4/16
RECEIPT #
60 DAY DATE 10/3/16

1. STREET ADDRESS OF PARCEL 355 Marie Ave East, West St. Paul MN 55118

2. NAME OF APPLICANT Snyder Health Care Systems Inc. Phone # 651-216-9670

3. ADDRESS OF APPLICANT 1248 Delaware Ave, West St Paul MN 55118 Email cw_tweh@yahoo.com

4. NAME OF OWNER Clarence W. Tweh Sr. Phone # 651-216-9670

5. ADDRESS OF OWNER 3417 Rolling Hills Dr. Eagan MN 55121 Email cw_tweh@yahoo.com

6. LEGAL/PID # 420290005010

7. PRESENT ZONING B2

8. PROPOSED USE OF PARCEL Office space and Adult Day Program

9. ZONING SECTION AUTHORIZING CUP 153.141(K)

10. WHAT WILL BE THE EFFECT OF THE PROPOSED USE ON THE HEALTH, SAFETY, & WELFARE OF THE OCCUPANTS IN THE SURROUNDING PARCELS? The adult day program will provide an alternative community enrichment opportunity for vulnerable adults and seniors in surrounding parcels. There will be no significant change to the facility that could cause negative impact on surrounding parcels

11. WHAT WILL BE THE EFFECT ON EXISTING AND ANTICIPATED TRAFFIC CONDITIONS, INCLUDING PARKING FACILITIES ON ADJACENT STREETS? Any effect on existing traffic should be insignificant as the building has enough parking spaces to accommodate the desire use and anticipated traffic.

12. WHAT WILL BE THE EFFECT OF THE PROPOSED USE ON THE COMPREHENSIVE PLAN? There will be no material structure effect as a result of the proposed use on the comprehensive plan

PROMOTING AND PRESERVING A COMMUNITY OF EXCELLENCE
BY THE ETHICAL, RESPONSIVE, EFFICIENT AND INNOVATIVE PROVISION OF SERVICES
EOE/AAE

EXHIBITS REQUIRED

A. An electronic copy as well as four (4) 22x34 and twenty (20) 11x17 paper copies, of a map or plat showing the property on which the Conditional Use Permit is requested, and all parcel within 150 feet of the boundaries of the subject parcel.

B. An electronic copy as well as four (4) 22x34 and twenty (20) 11x17 paper copies in sets and folded plans, showing application information as follows:
   a. Proposed and existing topography and drainage.
   b. A complete plan prepared and signed by a registered Civil Engineer, Architect, and/or Landscape Architect showing:
      i. The parking layout, access provisions, structure locations, landscaping, drainage, trees and shrubbery including types and locations, and sizes.
      ii. Any fences, walls, or other screening, including height and type of material.
      iii. All lighting provisions, including type, location, and lumens affecting the surrounding parcels and streets.
      iv. Curb type and location on site.
      v. Proposed plans for sidewalk to service, parking, recreation and service areas within the site.

ACKNOWLEDGE AND SIGNATURE

The undersigned hereby represents upon all penalties of law, for the purpose of inducing the City of West St Paul to take action herein requested, that all statements herein are true and that all work herein mentioned will be done in accordance with the Ordinances and all Codes of the City of West St Paul and the State of Minnesota.

Signature of Owner (Required)	651-216-9670 Phone Number
Signature of Applicant (If different)	Phone Number

NOTE: All Materials relevant to this Application must be filed on or before the dates listed on Operating Procedures for Applicants page. The Planning Commission holds its regular meeting at 7:00pm on the third Tuesday of each month.

LAPSE OF CONDITIONAL USE PERMIT:
An approved Conditional Use Permit shall lapse and become null and void six months following the date on which the Conditional Use Permit was approved, unless prior to the expiration of six months a building permit is issued by the Building Official and construction is commenced and diligently pursued toward completion on the subject site, or a Certificate of Occupancy is issued by the Building Official. A Conditional Use Permit may be renewed once for a period of one year by the City Council.

FEES
1. The fees to be paid by each applicant for each zoning request shall be as prescribed by the City Council. Fees shall be payable at the time applications are filed with the Zoning Administrator and are not refundable unless the application is withdrawn prior to being sent for legal publication and notice. There shall be no fee in the case of applications filed in the public interest by the City Council or by the Planning Commission. Fees shall include application fee, filing fees, consultant, legal, planning, and engineering fees.
2. Applicants shall deposit with the City, together with the application filing fees, the sums required by Council resolution toward prepayment of the Consultants and Attorney's expenses and all costs to be billed and charged to the City. The prepayment amounts shall be a credit toward all reasonable fees and expenses charged by the Consultants to the City in the investigation report and recommendation to the City Council concerning the application. All reasonable expenses and fees in excess of the deposit, shall be paid by the applicant to the City within 30 days of final action on the matter by the City. If not paid within 30 days, the account shall be deemed delinquent. If the fees and expenses incurred by the City from the Consultants are less than the amount of deposit, such excess shall be returned to the applicant upon final action by the City in said manner.

Conditional Use Permit Application attachment for Snyder HealthCare Systems Inc. Located at 355 Marie Ave E. West St Paul MN 55118

Snyder HealthCare Systems Inc. plans to operate an Adult Day program at our 355 Marie Avenue East office building in West St Paul. The building will host our office staff of about 8 persons as well as an Adult Day Program which will provide community enrichment opportunities to vulnerable adults and seniors in the city. This program will be license through the Minnesota Depart of Human Services.

The Adult Day Program will have around 5 staff during its day to day operations from Monday through Friday. The building has a total square footage of 5,120.00.

Please let me know if I can be of further assistance.

8/4/16

Clarence W. Tweh Sr.

651-216-9670

355 Marie Ave East

West St Paul MN 55118

SOUTH METRO FIRE

1650 HUMBOLDT AVENUE • WEST ST. PAUL, MN • 55118
TELEPHONE: (651) 552-4176 • FAX: (651) 552-4195
www.southmetrofire.com

"PROUDLY SERVING THE CITIES OF SOUTH ST. PAUL AND WEST ST. PAUL"

TO: PLANNING COMMISSION MEMBERS
FROM: LINDA MCMILLAN
FIRE MARSHAL
DATE: 9/08/2016
SUBJECT: CASE NUMBER 16-10
355 Marie Ave East, West St. Paul 55118

In reference to the proposed change of occupancy classification please note the following:

1) Per Minnesota State Building Code 1306 – Entire building shall be protected by an Automatic Sprinkler System.

    i) The City of West St. Paul has adopted Minnesota State Building Code Chapter 1306 Subp. 2. Automatic sprinkler systems for buildings in which the occupancy classification has changed must be installed and maintained in operational condition within the structure. The entire building will require an automatic sprinkler system.

2) The proposed occupancy is classified as an I-4 and shall comply with Minnesota State Fire Code 907.2.6.4 - A Manual and Automatic fire alarm system shall be installed in Group I-4 in accordance with sections 907.2.6.4.1 through 907.2.6.4.2

CITY OF
WEST ST. PAUL

City Hall
1616 Humboldt Avenue
West St. Paul, MN
55118-3972
651-552-4100
FAX 651-552-4190
TDD 651-322-2323
www.wspmn.gov

CITY OF WEST ST. PAUL
NOTICE OF PUBLIC HEARINGS

TO WHOM IT MAY CONCERN:

The listed items below will be public hearings at the Planning Commission meeting on September 20, 2016 at 7:00 pm and public hearings at the Council meeting on September 26, 2016 at 6:30 p.m.:

Case #16-10 – Application for a Conditional Use Permit to allow Adult Day Care in a B2, Neighborhood Business District at 355 E. Marie Ave. – Snyder Health Care Systems Inc.

Interested persons will be heard at the meeting. If you have any questions, please contact City Planner Ben Boike at 651-552-4134. If you need any type of accommodation to participate in the meeting, please contact the ADA Coordinator at 651-552-4102 at least 5 (five) business days prior to the meeting.

Chantal M Doriott

Chantal M. Doriott
City Clerk
City of West St. Paul

Published: September 11, 2016

CITY OF WEST ST. PAUL
DAKOTA COUNTY, MINNESOTA

RESOLUTION NO. 16-

A RESOLUTION APPROVING A CONDITIONAL USE PERMIT TO ALLOW ADULT DAY CARE IN A B2 DISTRICT AT 355 MARIE AVE E. SNYDER HEALTH CARE SYSTEMS INC.

WHEREAS, a Conditional Use Permit application has been submitted to the City for properties legally described as:

> PT OF NW 1/4 OF NE 1/4 OF NE 1/4 OF SECTION 29 TWN 28 RANGE 22 LYING N OF MARIE AVE & S 14 FT OF W 670 FT OF E 1/2 OF SE 1/4 SECTION 20 TWN 28 RANGE 22

WHEREAS, a public hearing concerning the Conditional Use Permit was held before the West St. Paul Planning Commission on September 20, 2016; and

WHEREAS, the West St. Paul Planning Commission has recommended that the City Council of West St. Paul approve the Conditional Use Permit.

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF WEST ST. PAUL that the Conditional Use Permit for 355 Marie Ave E. requested by Snyder Health Care Systems Inc. is hereby approved subject to the following conditions:

1. The applicant shall apply for applicable building and sign permits for the tenant finish.

Passed by the City Council of the City of West St. Paul this 26th day of September, 2016.

Ayes: Nays:

Attest:

_____ _____

David Meisinger, Mayor Chantal Doriott, City Clerk

TO: Mayor and City Council

THROUGH: Matt Fulton, City Manager

Jim Hartshorn, Comm. Dev. Dir.

FROM: Ben Boike, Assistant Comm. Dev. Dir.

DATE: September 26, 2016

SUBJECT: Site Plan/ CUP – 5 Wentworth Ave E.

City of West St. Paul

BACKGROUND INFORMATION:

On behalf of Harrison Dental Studios, Mularoni & Co. is requesting two zoning approvals for 5 Wentworth Ave E.

1) Site Plan Review for a building addition and parking lot modification
2) Conditional Use Permit to allow a Dental Lab in a B1, Limited Business District

The applicant is proposing a one-story 4,262 sq. ft. walkout addition to the north side of their existing building. In addition, the applicant is also proposing to modify the existing parking lot by separating the "upper lot" (west parking lot) with the "lower lot" (north parking lot). The family run business has been in operation at this location since 1976. The proposed building expansion is needed to expand their operation.

In addition, since the existing Use predates the Zoning Ordinance requirement of a Conditional Use Permit, the Site Plan approval triggers the need for the property owner to obtain a Conditional use Permit in order to bring the Use into compliance with the current Zoning Ordinance.

For more detailed information on the proposed applications please see the attached Planning Commission report.

<u>Planning Commission</u>
The Planning Commission met in regular session on September 20, 2016 and held a public hearing. One neighboring property owner spoke at the public hearing.

The neighboring property owner inquired as to what was proposed for exterior lighting and requested that any new lighting be at the same or lower wattage than their existing lighting and that the lighting be amber in color. The applicant informed the neighbor that no new lighting was proposed for the parking lot. He stated that the two existing wall mounted lights on the north side of the building would be relocated to the new north elevation of the addition and that one wall mounted light would be added on the new west elevation.

The Commission voted 6-0 to recommend APPROVAL of the Site Plan Amendment and CUP subject to the submitted plans and the recommendations as proposed by Staff.

FISCAL IMPACT:

		Amount
Fund:		
Department:		
Account:		**N/A**

STAFF RECOMMENDATION:

Staff recommends that the City Council hold the public hearing and approve the Site Plan and the Conditional Use Permit subject to the listed conditions as follows:

Staff recommends APPROVAL of the SITE PLAN subject to the submitted site plan and to the following conditions:

1. Council approval of the corresponding Conditional Use Permit application.
2. The applicant shall obtain all applicable building and sign permits for the approved site improvements.
3. Upon application of a building permit, the applicant shall:
   a. Revise the east and west building elevations by relabeling the "prefinished metal" building material with "stucco" in order to meet the exterior building materials requirement.
   b. Revise the site plan to include all drive aisle and parking stall dimensions. All drive aisles and parking stalls shall meet the minimum requirements as outlined in Section 153.347 of the Zoning Ordinance.
   c. Provide elevations of the proposed enclosure and that the proposed enclosure meets the provisions as outlined in Section 153.032(F)(6).
   d. Revise the plans to replace the northernmost four deciduous trees with acceptable coniferous trees.
4. All rooftop mechanicals shall be screened per Section 153.032(F)(5).
5. The applicant shall adhere to the recommendations outlined in the attached memos provided by the City Civil Engineer, the Environmental Committee, and the Fire Marshal.

Staff recommends APPROVAL of the CONDITIONAL USE PERMIT subject to the following conditions:

1. Council approval of the corresponding Site Plan application.

TO:	Planning Commission
FROM:	Ben Boike, Assistant Comm. Dev. Dir.
DATE:	September 20, 2016
SUBJECT:	Site Plan/CUP Review – 5 Wentworth Ave E.

City of West St. Paul

REQUEST

On behalf of the Harrison Family Trust, Mularoni & Co. is requesting the following zoning applications in order to expand the existing building and modify the parking lot at 5 Wentworth Ave E.:

1) Site Plan approval for the building addition and parking lot modification
2) Conditional Use Permit to allow a Dental Clinic (lab) in a B1 District.

Attachments:
Applications/Notice
Memos from the Environment Committee, the Civil Engineer, and the Fire Marshal
Copies of submitted plans

EXISTING LAND USES

The subject property consists of a dental lab. Adjacent properties to the north, east and south are occupied by office uses. Adjacent properties to the south are occupied by single-family homes.

ZONING

The subject property is zoned B1, Limited Business. Adjacent properties to the north and east are zoned B3, General Business. Adjacent properties to the south are zoned B6, Town Center Mixed Use. Adjacent properties to the west are zoned R1, Single Family.

SITE PLAN ANALYSIS

Proposal

The applicant is proposing a one-story 4,262 sq. ft. walkout addition to the north side of their existing building. In addition, the applicant is also proposing to modify the existing parking lot by separating the "upper lot" (west parking lot) with the "lower lot" (north parking lot). The family run business has been in operation at this location since 1976. The proposed building expansion is needed to expand their operation.

Building Materials

Section 153.032(F)(1) of the Zoning Ordinance requires that exterior building materials be comprised of a minimum of 60 percent primary materials (brick, stone, stucco, or glass). Secondary materials which includes decorative block, synthetic stucco, wood and metal, may only account for 40 percent of the façade.

The applicant is proposing a combination of stucco (primary), glass (primary), and decorative block (secondary) to match the existing building. The submitted plans call for prefinished metal on the east and west elevations which are not primary materials however the applicant confirmed that the labels are error and that the planned material is stucco. Staff is recommending a condition of approval requiring that the elevations be revised accordingly. The proposed stucco and glass account for more than 60 percent of the façade. Therefore, the proposed building materials meet code.

Window Coverage

Section 153.032(F)(3) requires 40 percent window coverage for all facades facing a street, parking lot, or open space.

The proposed addition meets the window coverage requirement.

Visual Relief

Section 153.032(F)(4) requires that all exterior elevations adjacent to a street, parking lot or open space must not exceed 60 feet in length without visual relief of two or more of the following:

The three elevations do not require visual relief as they do not exceed 60 feet in length.

Rooftop Mechanicals

The proposed plans do not address whether or not rooftop mechanicals for the addition will be properly screened as required by the Zoning Ordinance. Staff recommends a condition of approval requiring that all rooftop mechanicals be screened per Section 153.032(F)(5).

Building Setbacks
The proposed building addition meets all setback requirements.

Parking Setbacks
The modified parking lot meets all required setback requirements.

Access
The applicant is not proposing any modifications to the two existing access points to Humboldt Ave. However the applicant is proposing a parking lot connection from the subject property to the property to the east at the northeast corner of the property. The property owner has worked out a parking agreement with the neighboring property to allow overflow parking in the parking lot to the east. The proposed driveway connection will allow for employees/visitors the ability to enter the neighboring parking lot directly from the parking lot on the subject property.

Parking Requirements
The proposed parking modifications result in the same number of parking stalls as existing, 36. The Zoning Ordinance requires a total number of 41 parking stalls. However, as mentioned, the property owner has entered into a parking agreement with the neighboring property owner to the east to allow for 13 overflow parking stalls.

Drive Aisles/Parking Stall Dimensions
The submitted plans do not indicate whether or not the existing/modified drive aisles and parking stalls meet minimum dimension requirements. Staff is recommending a condition of approval requiring the applicant to revise the site plan to include and meet all drive aisle and parking stall dimensions.

Curbing
The proposed parking lot addition includes B612 curbing as required by the Zoning Ordinance.

Trash Enclosure
The applicant is proposing to relocate the existing trash enclosure to the south in order to allow for the proposed parking lot connection the neighboring property to the east. Staff is recommending a condition of approval requiring the applicant to provide elevations of the proposed enclosure and that the proposed enclosure meets the provisions as outlined in Section 153.032(F)(6).

Lighting
No new lighting is proposed for the property.

Landscaping
Based on the exterior linear feet of the newly created property, code requires a total of 40 trees on-site (1 tree per 20 lineal ft. of property). The existing property has total of 15 trees on-site that will remain. The applicant is proposing a total of 9 new quality trees (7 deciduous trees and 2 coniferous trees). Staff is comfortable with the proposed landscaping despite the reduction in required trees. Staff believes that the proposed plan distributes trees appropriately in areas where they can be located plus the applicant is proposing a total of 44 additional shrubs for the site.

Staff did receive an email from a neighboring property owner inquiring as to whether or not the proposed trees along Humboldt Ave could be coniferous trees rather than deciduous trees as they would provide better screening of the parking lot. Staff is recommending the four most northern deciduous trees adjacent to Humboldt be replaced with acceptable coniferous trees as allowed by code.

Irrigation
The existing property has an irrigation system. No modifications are proposed.

Environmental Committee
The Environmental Committee reviewed the submitted landscape plan at their September 7, 2016 meeting. The Committee liked the overall plan and liked that many existing trees would remain. They agreed with the Assistant Community Development Director's recommendations, but noted that instead of adding additional trees, that they should consider planting larger diameter trees such as 3-4 inch instead of 2½ inch. The Committee unanimously voted to approve the site plan, with an additional comment that they strongly encourage the developer to use "pollinator friendly" native plants that were not treated with "neonicotinoids".

Engineer's Recommendation
The City Engineer has provided a memo with three (3) recommended conditions pertaining to the Site Plan (see attached memo). Staff is recommending a condition of approval that the applicant adhere to the recommendations in the memo. The conditions are as follows:

1. Permits from the appropriate regulatory agencies must be obtained, including but not limited to the MPCA, Dakota County, MnDOT, etc.
2. An existing curb cut is the same location as the proposed trash enclosure. The existing curb cut was the primary drainage flume for half of the lower parking lot. Indicate on the proposed plan where the new curb cut will be located.
3. Include a typical cross-section indicating the proposed pavement section through the proposed parking lot connection.

Fire Marshal Recommendation
The Fire Marshal has provided a memo with two (2) recommended conditions pertaining to the site plan (see attached memo). Staff is recommending a condition of approval that the applicant adhere to the recommendations in the memo. The conditions are as follows:

1. Per Minnesota State Building Code 1306 – Entire building shall be protected by an Automatic Sprinkler System.

2. The City of West St. Paul has adopted Minnesota State Building Code Chapter 1306 Subp. 2. Automatic sprinkler systems for buildings increased in total floor area must be installed and maintained in operational condition within the structure. The new addition and the existing building will require an automatic sprinkler system.

CONDITIONAL USE PERMIT ANALYSIS

Zoning Code
The Zoning Code requires a Conditional Use Permits for all Dental Clinics or Labs

Analysis
Since the existing Use predates the Zoning Ordinance requirement of a Conditional Use Permit, the Site Plan approval triggers the need for the property owner to obtain a Conditional use Permit in order to bring the Use into compliance with the current Zoning Ordinance.

Business Overview
As mentioned, the family run business began in 1976. The company manufactures dental prosthesis on-site in their dental lab. As business continues to grow, the owners need additional lab space to expand their operation. The company currently has 30 employees.

STAFF RECOMMENDATION

Staff recommends APPROVAL of the SITE PLAN for the expansion of the existing building and modifications to the existing parking lot subject to the submitted site plan and to the following conditions:

1. Council approval of the corresponding Conditional Use Permit application.
2. The applicant shall obtain all applicable building and sign permits for the approved site improvements.
3. Upon application of a building permit, the applicant shall:
   a. Revise the east and west building elevations by relabeling the "prefinished metal" building material with "stucco" in order to meet the exterior building materials requirement.
   b. Revise the site plan to include all drive aisle and parking stall dimensions. All drive aisles and parking stalls shall meet the minimum requirements as outlined in Section 153.347 of the Zoning Ordinance.
   c. Provide elevations of the proposed enclosure and that the proposed enclosure meets the provisions as outlined in Section 153.032(F)(6).
   d. Revise the plans to replace the northernmost four deciduous trees with acceptable coniferous trees.
4. All rooftop mechanicals shall be screened per Section 153.032(F)(5).
5. The applicant shall adhere to the recommendations outlined in the attached memos provided by the City Civil Engineer, the Environmental Committee, and the Fire Marshal.

Staff recommends APPROVAL of the CONDITIONAL USE PERMIT to allow a Dental Office (Lab) in a B1 District at 5 Wentworth Ave E. subject to the following conditions:

1. Council approval of the corresponding Site Plan application.

CITY OF WEST ST. PAUL

1616 HUMBOLDT AVENUE, WEST ST. PAUL, MN 55118-3972

MUNICIPAL CENTER 651-552-4100 POLICE 651-552-4200
PARKS/RECREATION 651-552-4150 FIRE 651-552-4176
FAX 651-552-4190 TDD 651-552-4222

SITE PLAN APPLICATION

Filing Fee: $275.00

Escrow Amount: $1300.00

TOTAL FEES $1,575.00

(OFFICE USE ONLY)

CASE NO. 16-
DATE RECEIVED 8/23/16
RECEIPT #
60 DAY DATE 10/22/16

1. STREET ADDRESS OF PARCEL 5 Wentworth Avenue East
2. NAME OF APPLICANT MULARONI + CO Phone # 651-308-2088
3. ADDRESS OF APPLICANT 6191 Cockleberry Trail Email michial@mularonico.com
Woodbury, MN 55129
4. NAME OF OWNER HARRISON FAMILY TRUST Phone # 602-909-9036
Pat Harrison, Trustee
5. ADDRESS OF OWNER 5 Wentworth Ave East Email patharrison@cox.net
West St. Paul 55118
6. LEGAL/PID # 42-17800-02-050
7. PRESENT ZONING B-1
8. PROPOSED USE OF PARCEL Dental Lab
9. WHAT WILL BE THE EFFECT ON EXISTING AND ANTICIPATED TRAFFIC CONDITIONS, INCLUDING PARKING FACILITIES ON ADJACENT STREETS
No change - negligable

EXHIBITS REQUIRED

A. An electronic copy as well as four (4) 22x34 and twenty (20) 11x17 paper copies, of a map or plat showing the property on which the Conditional Use Permit is requested, and all parcel within 150 feet of the boundaries of the subject parcel.

B. An electronic copy as well as four (4) 22x34 and twenty (20) 11x17 paper copies in sets and folded plans, showing application information as follows:
   a. Proposed and existing topography and drainage.
   b. A complete plan prepared and signed by a registered Civil Engineer, Architect, and/or Landscape Architect showing:
      i. The parking layout, access provisions, structure locations, landscaping, drainage, trees and shrubbery including types and locations, and sizes.
      ii. Any fences, walls, or other screening, including height and type of material.
      iii. All lighting provisions, including type, location, and lumens affecting the surrounding parcels and streets.
      iv. Curb type and location on site.
      v. Proposed plans for sidewalk to service, parking, recreation and service areas within the site.

ACKNOWLEDGE AND SIGNATURE

The undersigned hereby represents upon all penalties of law, for the purpose of inducing the City of West St Paul to take action herein requested, that all statements herein are true and that all work herein mentioned will be done in accordance with the Ordinances and all Codes of the City of West St Paul and the State of Minnesota.

Signature of Owner (Required)

Scott Harrison
651-457-6603
Phone Number

Signature of Applicant (If different)
Michial Mularoni, AIA

651-308-2088
Phone Number

NOTE: All Materials relevant to this Application must be filed on or before the dates listed on Operating Procedures for Applicants page. The Planning Commission holds its regular meeting at 7:00pm on the third Tuesday of each month.

LAPSE OF CONDITIONAL USE PERMIT:
An approved Conditional Use Permit shall lapse and become null and void six months following the date on which the Conditional Use Permit was approved, unless prior to the expiration of six months a building permit is issued by the Building Official and construction is commenced and diligently pursued toward completion on the subject site, or a Certificate of Occupancy is issued by the Building Official. A Conditional Use Permit may be renewed once for a period of one year by the City Council.

FEES
1. The fees to be paid by each applicant for each zoning request shall be as prescribed by the City Council. Fees shall be payable at the time applications are filed with the Zoning Administrator and are not refundable unless the application is withdrawn prior to being sent for legal publication and notice. There shall be no fee in the case of applications filed in the public interest by the City Council or by the Planning Commission. Fees shall include application fee, filing fees, consultant, legal, planning, and engineering fees.
2. Applicants shall deposit with the City, together with the application filing fees, the sums required by Council resolution toward prepayment of the Consultants and Attorney's expenses and all costs to be billed and charged to the City. The prepayment amounts shall be a credit toward all reasonable fees and expenses charged by the Consultants to the City in the investigation report and recommendation to the City Council concerning the application. All reasonable expenses and fees in excess of the deposit, shall be paid by the applicant to the City within 30 days of final action on the matter by the City. If not paid within 30 days, the account shall be deemed delinquent. If the fees and expenses incurred by the City from the Consultants are less than the amount of deposit, such excess shall be returned to the applicant upon final action by the City in said manner.

CITY OF WEST ST. PAUL

1616 HUMBOLDT AVENUE, WEST ST. PAUL, MN 55118-3972

MUNICIPAL CENTER 651-552-4100 POLICE 651-552-4200
PARKS/RECREATION 651-552-4150 FIRE 651-552-4176
FAX 651-552-4190 TDD 651-552-4222

CONDITIONAL USE PERMIT APPLICATION

Filing Fee: $275.00

Escrow Amount: $400.00 (residential)
$800.00 (commercial)

TOTAL FEES $1,075

(OFFICE USE ONLY)

CASE NO. 16-
DATE RECEIVED 8/29/16
RECEIPT #
60 DAY DATE 10/28/16

1. STREET ADDRESS OF PARCEL 5 Wentworth Avenue East

2. NAME OF APPLICANT MURARONI + CO Phone # 651-308-2088

3. ADDRESS OF APPLICANT 6191 Huckleberry Trail Email michiale@murarinico.com
Woodbury, MN 55129

4. NAME OF OWNER HARRISON FAMILY TRUST Phone # 602-909-9036
Pat Harrison, Trustee

5. ADDRESS OF OWNER 5 Wentworth Ave East Email patharrison1@cox.net
West St. Paul 55118

6. LEGAL/PID # 42-17800-02-05

7. PRESENT ZONING B-1

8. PROPOSED USE OF PARCEL Dental Lab

9. ZONING SECTION AUTHORIZING CUP

10. WHAT WILL BE THE EFFECT OF THE PROPOSED USE ON THE HEALTH, SAFETY, & WELFARE OF THE OCCUPANTS IN THE SURROUNDING PARCELS?

11. WHAT WILL BE THE EFFECT ON EXISTING AND ANTICIPATED TRAFFIC CONDITIONS, INCLUDING PARKING FACILITIES ON ADJACENT STREETS?
No Change - negligible

12. WHAT WILL BE THE EFFECT OF THE PROPOSED USE ON THE COMPREHENSIVE PLAN? No change

PROMOTING AND PRESERVING A COMMUNITY OF EXCELLENCE
BY THE ETHICAL, RESPONSIVE, EFFICIENT AND INNOVATIVE PROVISION OF SERVICES
EOE/AAE

EXHIBITS REQUIRED

1. An electronic copy as well as four (4) 22x34 and twenty (20) 11x17 copies in sets and folded plans, showing application information as follows:
   a. A survey scaled and dimensioned site plan showing pertinent existing conditions such as parking layout, access provisions, structure locations, drainage, lot area, and yard dimensions, including but not limited to the surrounding parcels within 150 feet.

   b. A complete set of preliminary drawings prepared and signed by a registered Civil Engineer, Architect, and/or Landscape Architect showing:

      (i) A site plan indicating parking layout, access provisions, structure locations, any fences, walls, or other screening, including height and type of material, landscaping, drainage, trees and shrubbery including types and locations, and sizes.
      (ii) Building Elevations including finishes on all buildings all sides.
      (iii) All lighting provisions on site, including type, location, and lumens affecting the surrounding parcels and streets.
      (iv) Curb type and location on site.
      (v) Proposed plans for sidewalk to service, parking, recreation and service areas within the site.

ACKNOWLEDGE AND SIGNATURE

The undersigned hereby represents upon all penalties of law, for the purpose of inducing the City of West St Paul to take action herein requested, that all statements herein are true and that all work herein mentioned will be done in accordance with the Ordinances and all Codes of the City of West St Paul and the State of Minnesota.

Signature of Owner (Required)

Scott Harrison
651-457-6683
Phone Number

Signature of Applicant (If different)

Michael Mulkroni, AIA

651-308-2088
Phone Number

NOTE: All Materials relevant to this Application must be filed on or before the dates listed on the Operating Procedures for Applicants page. The Planning Commission holds its regular meeting at 7:00pm on the third Tuesday of each month.

LAPSE OF SITE PLAN: An approved Site Plan shall lapse and become null and void six months following the date on which the Site Plan was approved, unless prior to the expiration of six months a building permit is issued by the Building Official and construction is commenced and diligently pursued toward completion on the subject site. An approved Site Plan may be renewed once for a period of one year by the City Council.

FEES

1. The fees to be paid by each applicant for each zoning request shall be as prescribed by the City Council. Fees shall be payable at the time applications are filed with the Zoning Administrator and are not refundable unless the application is withdrawn prior to being sent for legal publication and notice. There shall be no fee in the case of applications filed in the public interest by the City Council or by the Planning Commission. Fees shall include application fee, filing fees, consultant, legal, planning, and engineering fees.

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MULARONI+CO Architecture, LLC.

Michial G. Mularoni, A.I.A.

08-23-2016

Re: Harrison Dental Studios, Inc. (HDS, Inc.)
5 Wentworth Avenue East

PROJECT NARRATIVE

BUILDING & PARKING LOT ALTERATIONS

HDS, Inc. proposes to add 4,262 SF to its existing 6,048 SF dental lab building. All of the new space to be added will be dental lab area (see attached exhibit). None of the existing structure will be demolished; 1942 SF will be added to the Walkout Level, and 2,320 SF will be added to the Main Level. The *proposed* two-story walk-out addition will be 40' X 58' located directly north of the existing 70' X 54' structure. The HDS Building was originally built in 1964 and added onto in 1987 and has always been a dental lab and zoned B-1. Currently, the City Code requires a Conditional Use Permit.

There are currently 39 parking spaces in a somewhat inefficient parking lot which has been re-designed to include 35 parking spaces to accommodate the required 33 spaces for the proposed new addition and remodeled existing facility. We propose to separate the current parking lot into "upper" and "lower" parking lots in order to better manage water run-off, eliminate slopes and thus make the parking lot safer in icy conditions. Another benefit in making the more efficient design is eliminating approximately 2,000 SF (net) of impervious area (bituminous paving) and adding this area to the softscape while gaining 1,942 SF additional building coverage.

LANDSCAPIN

The current landscape consists of (13) deciduous trees, (3) coniferous trees, (1) flowering tree, (19) deciduous shrubs, and (24) Hydrangea plants. We are proposing to add (7) deciduous trees and (3) coniferous trees per City Code along Wentworth and Humbolt Avenues to achieve 20' on-center plantings. Also proposed to be added are (44) deciduous shrubs, a considerable amount of new trap rock mulch, and approximately 2,000 SF of new lawn. Currently, there is no lawn irrigation and we are requesting this requirement be waived. Other landscape elements will include a concrete stairway connecting the lower and upper parking lots, approximately 20-30 feet of retaining wall along the west edge of the lower parking lot (not to exceed 3 feet in height), and approximately 80 lineal feet of new concrete sidewalk along the north side of the proposed new addition.

Lastly, we will be retaining 390 lineal feet of existing B612 concrete curbing and adding 370 lineal feet of new concrete curb. This is best illustrated on Sheet A102 (Site Demolition Plan). The remaining existing parking surface, approximately 50%, will be curb-milled with a new overlay along with the new parking lot grading and construction.

SITE UTILITIES

A contract has been signed with SPRWS to provide 6" water main service for the required fire protection system to serve both the existing HDS Building and the new addition. The existing 1" water service and sanitary sewer service are adequate and will be retained.

BUILDING EXTERIOR

The existing HDS Building exterior decorative block and stucco surfaces will be unaltered except for the North Elevation (connection to the new addition). The new addition will match existing exterior materials. The architectural design includes 64% of the exterior wall surfaces to be either glass or stucco while 36% will be matching decorative colored block (see Sheets A400 and A901).

City of West St. Paul
PUBLIC WORKS & PARKS/ENG

Memorandum

TO: Ben Boike, Assistant Community Development Director/City Planner

FROM: Darin Rezac, Civil Engineer

DATE: September 14, 2016

SUBJECT: Site Review Harrison Dental Expansion

The engineering department has completed its review of the above-referenced project. In conjunction with the site plan approval, the following conditions must be met.

RECOMMENDED CONDITIONS OF APPROVAL

1. Permits from the appropriate regulatory agencies must be obtained, including but not limited to the MPCA, Dakota County, MnDOT, etc.
2. An existing curb cut is the same location as the proposed trash enclosure. The existing curb cut was the primary drainage flume for half of the lower parking lot. Indicate on the proposed plan where the new curb cut will be located.
3. Include a typical cross-section indicating the proposed pavement section through the proposed parking lot connection.

C: Ross Beckwith, City Engineer/Public Works & Parks Director
Chuck Price, Engineering Tech III

TO: Asst. Community Dev. Dir.
THROUGH: Asst. Parks & Recreation Dir.
FROM: Environmental Committee
DATE: September 14, 2016

SUBJECT:

CASE #16-13 – Site Plan review for 5 Wentworth Ave E

BACKGROUND INFORMATION:

At the September 7, 2016 Environmental Committee (EC) meeting, members reviewed the Site Plan submitted by Harrison Dental to construct an addition to their existing building and make modifications to their existing parking lot at 5 Wentworth Ave E. The EC members liked the overall plan and liked that many existing trees would remain. They agreed with the Assistant Community Development Director's recommendations, but noted that instead of adding additional trees, that they should consider planting larger diameter trees such as 3-4 inch instead of 2½ inch. They also questioned the use of only 1 variety of shrub being planted. The EC unanimously voted to approve the site plan, with an additional comment that they strongly encourage the developer to use "pollinator friendly" native plants that were not treated with "neonicotinoids".

RECOMMENDATION:

Environmental Committee members approve the site plan for redevelopment of 5 Wentworth Ave E with the recommendations listed above.

SOUTH METRO FIRE

1650 HUMBOLDT AVENUE • WEST ST. PAUL, MN • 55118
TELEPHONE: (651) 552-4176 • FAX: (651) 552-4195
www.southmetrofire.com

"PROUDLY SERVING THE CITIES OF SOUTH ST. PAUL AND WEST ST. PAUL"

TO: PLANNING COMMISSION MEMBERS
FROM: LINDA MCMILLAN
FIRE MARSHAL
DATE: 9/08/2016
SUBJECT: CASE NUMBER 16-13
5 Wentworth Avenue East, West St. Paul 55118

In reference to the proposed building expansion and parking lot modification please note the following:

a. Per Minnesota State Building Code 1306 – Entire building shall be protected by an Automatic Sprinkler System.

b. The City of West St. Paul has adopted Minnesota State Building Code Chapter 1306 Subp. 2. Automatic sprinkler systems for buildings increased in total floor area must be installed and maintained in operational condition within the structure. The new addition and the existing building will require an automatic sprinkler system.

CITY OF
WEST ST. PAUL

City Hall
1616 Humboldt Avenue
West St. Paul, MN
55118-3972
651-552-4100
FAX 651-552-4190
TDD 651-322-2323
www.wspmn.gov

CITY OF WEST ST. PAUL
NOTICE OF PUBLIC HEARINGS

TO WHOM IT MAY CONCERN:

The listed items below will be public hearings at the Planning Commission meeting on September 20, 2016 at 7:00 pm and public hearings at the Council meeting on September 26, 2016 at 6:30 p.m.:

Case #16-13 – Applications for a Conditional Use Permit to allow a Dental Office (lab) in a B1, Limited Business District and Site Plan review for a building expansion and parking lot modification at 5 Wentworth Ave. E – Mularoni & Co.

Interested persons will be heard at the meeting. If you have any questions, please contact City Planner Ben Boike at 651-552-4134. If you need any type of accommodation to participate in the meeting, please contact the ADA Coordinator at 651-552-4102 at least 5 (five) business days prior to the meeting.

Chantal M. Doriott

Chantal M. Doriott
City Clerk
City of West St. Paul

Published: September 11, 2016

CITY OF WEST ST. PAUL
DAKOTA COUNTY, MINNESOTA

RESOLUTION NO. 16-

A RESOLUTION APPROVING THE SITE PLAN FOR A BUILDING ADDITION AND PARKING LOT MODIFICATION AT 5 WENTWORTH AVE E. (HARRISON DENTAL STUDIO)

WHEREAS, a Final Site Plan has been submitted to the City for property legally described as:

LOT 5, BLOCK 2 CITY CENTER ADDITION

WHEREAS, a public hearing concerning the Site Plan was held before the West St. Paul Planning Commission on September 20, 2016; and

WHEREAS, the West St. Paul Planning Commission has recommended that the City Council of West St. Paul approve the Site Plan.

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF WEST ST. PAUL that the Site Plan requested by Harrison Dental Studio is hereby approved subject to the following conditions:

1. Council approval of the corresponding Conditional Use Permit application.
2. The applicant shall obtain all applicable building and sign permits for the approved site improvements.
3. Upon application of a building permit, the applicant shall:
    a. Revise the east and west building elevations by relabeling the “prefinished metal” building material with “stucco” in order to meet the exterior building materials requirement.
    b. Revise the site plan to include all drive aisle and parking stall dimensions. All drive aisles and parking stalls shall meet the minimum requirements as outlined in Section 153.347 of the Zoning Ordinance.
    c. Provide elevations of the proposed enclosure and that the proposed enclosure meets the provisions as outlined in Section 153.032(F)(6).
    d. Revise the plans to replace the northernmost four deciduous trees with acceptable coniferous trees.
4. All rooftop mechanicals shall be screened per Section 153.032(F)(5).
5. The applicant shall adhere to the recommendations outlined in the attached memos provided by the City Civil Engineer, the Environmental Committee, and the Fire Marshal.

Passed by the City Council of the City of West St. Paul this 26th day of September, 2016.

Ayes: Nays:

Attest:

Dave Meisinger, Mayor

Chantal Doriott, City Clerk

CITY OF WEST ST. PAUL
DAKOTA COUNTY, MINNESOTA

RESOLUTION NO. 16-

A RESOLUTION APPROVING A CONDITIONAL USE PERMIT TO ALLOW A DENTAL LAB IN A B1 DISTRICT AT 5 WENTWORTH AVE E. HARRISON DENTAL STUDIO

WHEREAS, a Conditional Use Permit application has been submitted to the City for properties legally described as:

LOT 5, BLOCK 2 CITY CENTER ADDITION

WHEREAS, a public hearing concerning the Conditional Use Permit was held before the West St. Paul Planning Commission on September 20, 2016; and

WHEREAS, the West St. Paul Planning Commission has recommended that the City Council of West St. Paul approve the Conditional Use Permit.

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF WEST ST. PAUL that the Conditional Use Permit for 5 Wentworth Ave E. by Harrison Dental Studio is hereby approved subject to the following condition:

1. Council approval of the corresponding Site Plan application.

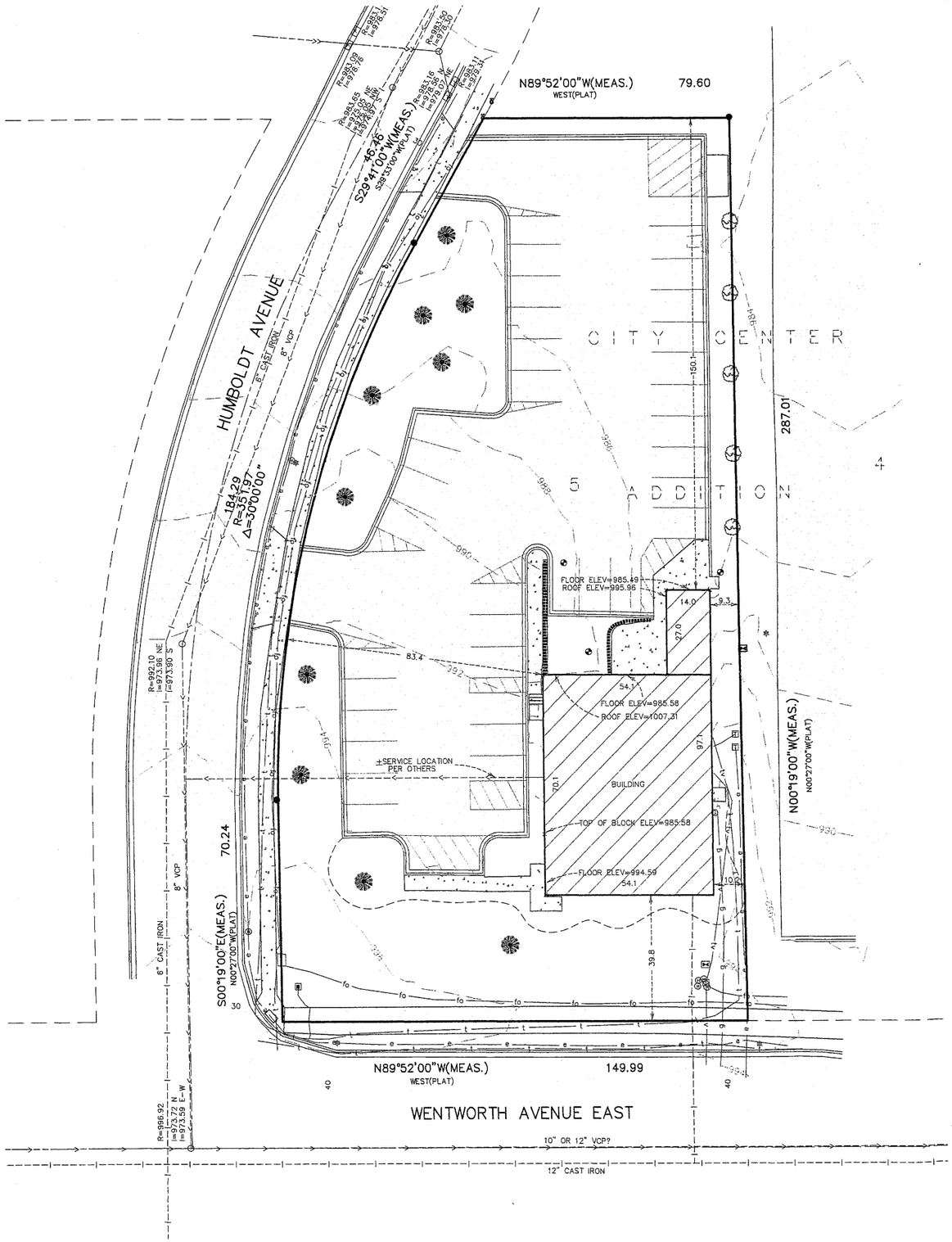
Passed by the City Council of the City of West St. Paul this 26th day of September, 2016.

Ayes: Nays:

Attest:

_____ _____

David Meisinger, Mayor Chantal Doriott, City Clerk

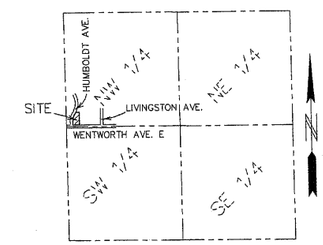


LEGEND

- Denotes concrete
- Denotes bituminous
- Denotes storm sewer line
- Denotes sanitary sewer line
- Denotes water line
- tv — Denotes underground television line
- t — Denotes underground telephone line
- fo — Denotes underground fiber optic line
- e — Denotes underground electric line
- g — Denotes underground gas line
- Denotes catch basin
- Denotes hand hole
- Denotes manhole other than sanitary or storm
- Denotes sanitary or storm manhole
- Denotes light pole
- Denotes telephone box
- Denotes found iron pipe
- Denotes judicial land mark
- Denotes test hole
- Denotes deciduous tree
- Denotes coniferous tree

N

20 10 0 20
Scale in Feet



SECTION 20, TWP. 28, RGE. 22

LOCATION MAP
NO SCALE

- No search for recorded or unrecorded easements was made by this surveyor as a part of this survey.
- Sanitary sewer, water and storm sewer utilities shown are per as-built plans provided by others and were verified where possible.
- Underground power, telephone, cable TV and gas lines are per field locations as marked by the individual utility companies and are shown in an approximate way only. For more information on these utilities please contact Gopher State One Call (651) 454-0002.
- The following companies attended the scheduled meet per Gopher State One Call ticket number 161963417:
  - City of West St. Paul
  - Dakota County it dept.
  - St Paul Regional Water
  - St. Paul Sewer
  - St. Paul Traffic and Lighting
  - St. Paul Parks
  - Xcell Energy
  - Zayo Bandwidth
- Site area : Gross =0.8718 Net = 0.8718
- Boundary corner monuments were not set as a part of this survey.
- Bench mark: MNDOT STATION 1928 Q with an elevation of 925.20 feet (NAVD88 datum-1996 ADJUSTMENT)

LEGAL DESCRIPTION

Lot 5, Block 2, CITY CENTER ADDITION, according to the recorded plat thereof, Dakota County, Minnesota

We hereby certify to Michial Mularoni that this survey, plan or report 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 this 22nd day of July, 2016.

Signed: Pioneer Engineering, P.A.

By _____
Peter J. Hawkinson, Professional Land Surveyor
Minnesota License No. 42299

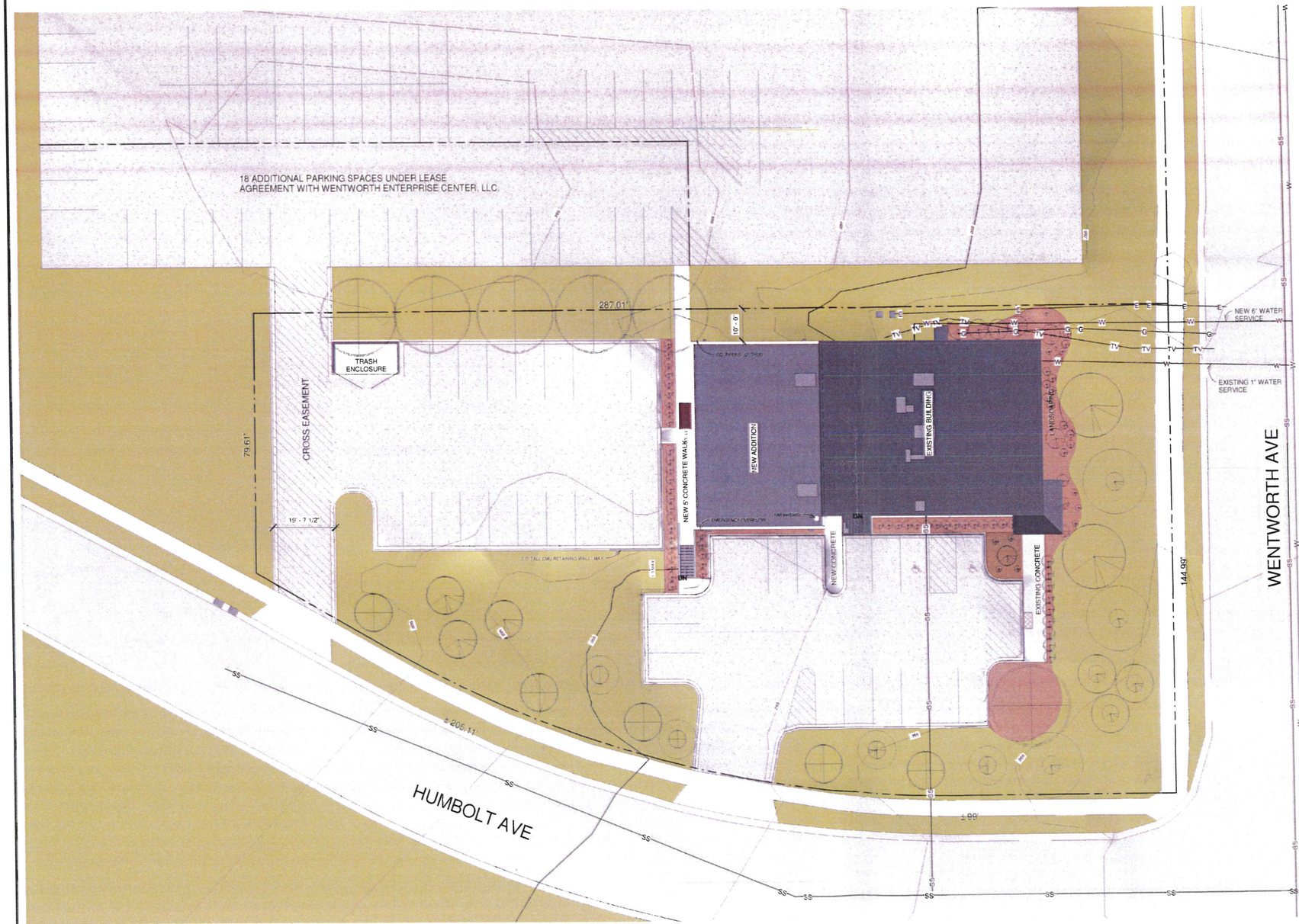
CERTIFICATE OF SURVEY FOR: Michial Mularoni

Cad File: EX-SURV-16193-PIONEER.dwg
Date: 7-15-16
Folder #: 7974
Drawn by: TSS/NJK

2422 Enterprise Drive
Mendota Heights, MN 55120
(651) 681-1914
Fax: 681-9488
www.pioneereng.com

PIONEER engineering
CIVIL ENGINEERS LAND PLANNERS LAND SURVEYORS LANDSCAPE ARCHITECTS

Sheet
1 of 1



1 SITE PLAN
A100 SC. 1/16" = 1'-0"

NEW WATER MAIN - SPRWS NOTES:

1. Water services to be installed according to SPRWS "Standards for the Installation of Water Mains."

2. A four-sided trench box is required on all excavations deeper than 5 feet where underground work or inspection is to be performed by SPRWS. Ladders are required and must extend 3 feet above the surface of the trench. Sidewalks, pavements, ducts and appurtenant structures shall not be undermined unless a support system or another method of protection is provided. Trenches in excess of 20 feet in depth must be signed off by a registered professional engineer. Excavated material must be kept a minimum of 2 feet from the edge of the trench.

3. Maintain 8 feet of cover over all water mains and services.

4. Pipe material for 8" Ductile Iron Pipe must be Class 52. Pipe material for 6" and 4" Ductile Iron Pipe must be Class 53. The exterior of ductile iron pipe shall be coated with a layer of arc-sprayed zinc per ISO 8179. The interior cement mortar lining shall be applied without asphalt seal coat.

5. Pipe must be wrapped in V-Bio Polywrap encasement.

6. Maintain 3 feet vertical separation between water and sewer pipes or a 12 inch separation with 4 inch high density insulation per SPRWS Standard Plate D-10 for typical water main offsets.

7. All pipe work inside of property to be performed by a plumber licensed by the State of Minnesota and Certified by the City of Saint Paul. SPRWS requires separate outside and inside plumbing permits for each new water service.

8. Water facility pipework within right of way to be installed by SPRWS. Excavation and restoration by owner's contractor.

9. The contractor providing excavation is responsible for obtaining all excavation and obstruction permits required by any governing authority.

SITE DATA

CURRENT ZONING	B1 - Limited Business District	
SITE AREA	37,975 SF	(0.87a)
PERVIOUS		
EXISTING	14,306 SF	(37.7%)
PROPOSED	16,213 SF	(42.7%)
	(5.02% INCREASE)	
IMPERVIOUS (INCULDES SIDEWALKS)		
EXISTING	23,669 SF	(62.3%)
PROPOSED	21,762 SF	(57.3%)
BUILDING COVERAGE	6,262 SF	
ON-SITE PARKING		
STANDARD	34	
ACCESSIBLE	2	
PROPOSED PARKING	36	
REQUIRED PARKING	33	

North

MULARONI + CO
ARCHITECTS & PLANNING CONSULTANTS
6175 Cook Avenue N.e. Woodbury, MINNESOTA 55125-9317 Tel:(651) 714-9100 Fax:(651) 714-9101 E-mail: mularoni@mularoni.com

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 Minnesota.

Reg. No. 13261

Project No. 1607.12

Date 07/12/16

Drawn By MWC

Architect

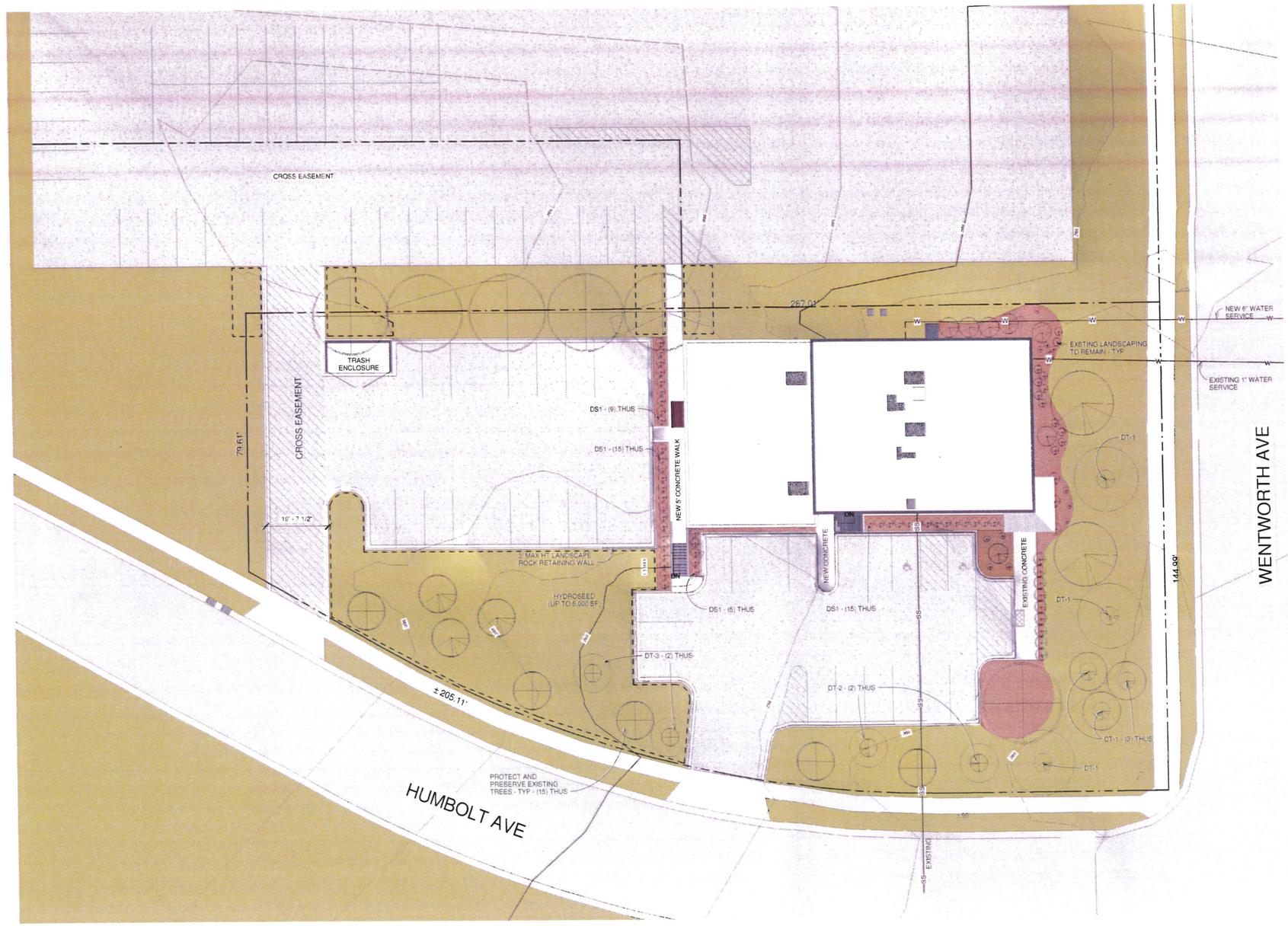
Sheet Title: SITE PLAN

Project: HDS, Inc.
West St. Paul, Minnesota 55118

Developer Owner: HDS, INC. 1000 Nicollet Mall, Minneapolis, Minnesota 55403 Contact: Mike Lee 612-337-2500 Minneapolis Area Fax: 952-931-7500 Brian Ely Fax: 952-931-7500

No.	Description	Date

SHEET NO.
A100



LEGEND

- TRAP ROCK MULCH (3/4" CLEAR)
- HYDROSEED
- LANDSCAPE ROCK RETAINING WALL MAX 3' HIGH

PLANT LIST

ID	QTY	COMMON NAME	BOTANICAL NAME	SCHEDULED SIZE	NOTES
DECIDUOUS TREES					
DT-1	3	Skyline Honey Locust	Gleditsia triacanthos inermis 'Skyline'	2 1/2" B&B	
DT-2	2	Autumn Blaze® Maple	Acer x freemanii 'Jeffersred' (PP4964)	2 1/2" B&B	Planted at 20' O/C or less
DT-3	2	Greenspire® Linden	Tilia cordata 'Greenspire'	2 1/2" B&B	
CONIFEROUS TREES					
CT-1	2	Colorado Green Spruce	Picea Pungens	2 1/2" B&B	
DECIDUOUS SHRUBS					
DS-1	44	Little Lime® Hydrangea	Hydrangea paniculata	#5 cont	

1 LANDSCAPE PLAN

A103 SC. 1/16" = 1'-0"

North

MULARONI + CO

ARCHITECTS & PLANNING CONSULTANTS

Project No. 1607.12

Sheet Title: LANDSCAPE PLAN

Project: HDS, Inc.
West St Paul, Minnesota 55118

Date 08.17.16

Drawn By: MWC

Arch/Eng

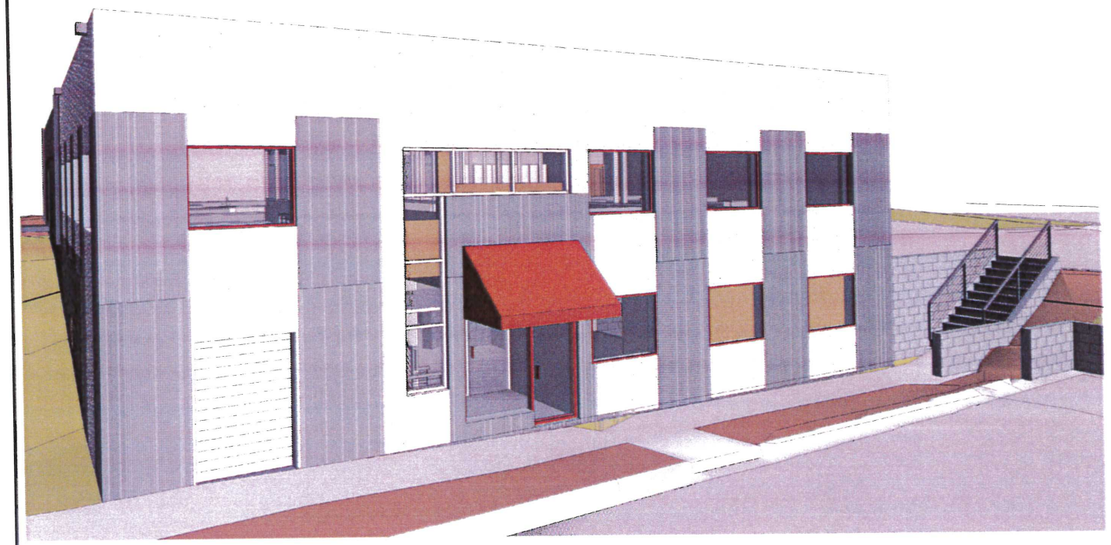
Date

Reg. No. 15281

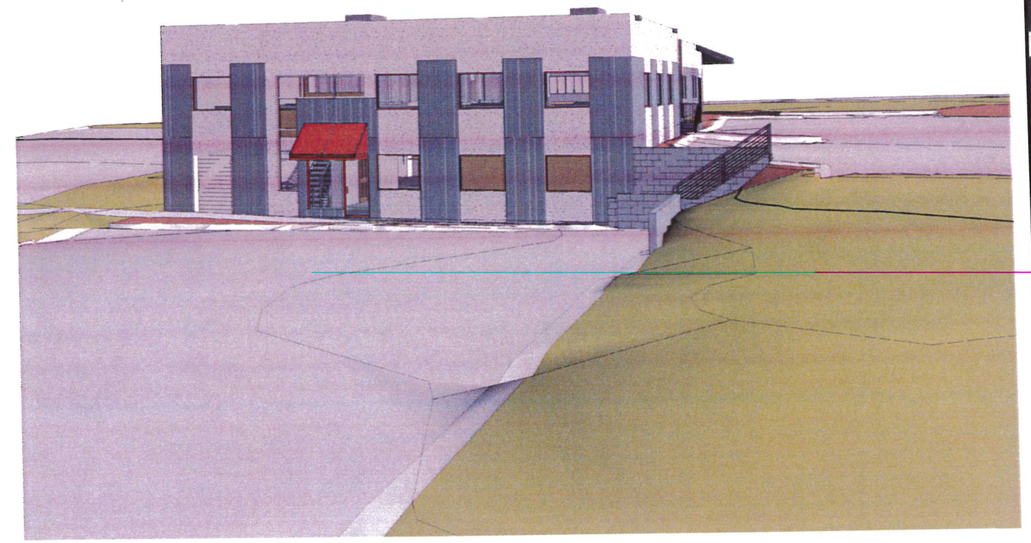
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.

No.	Description	Date

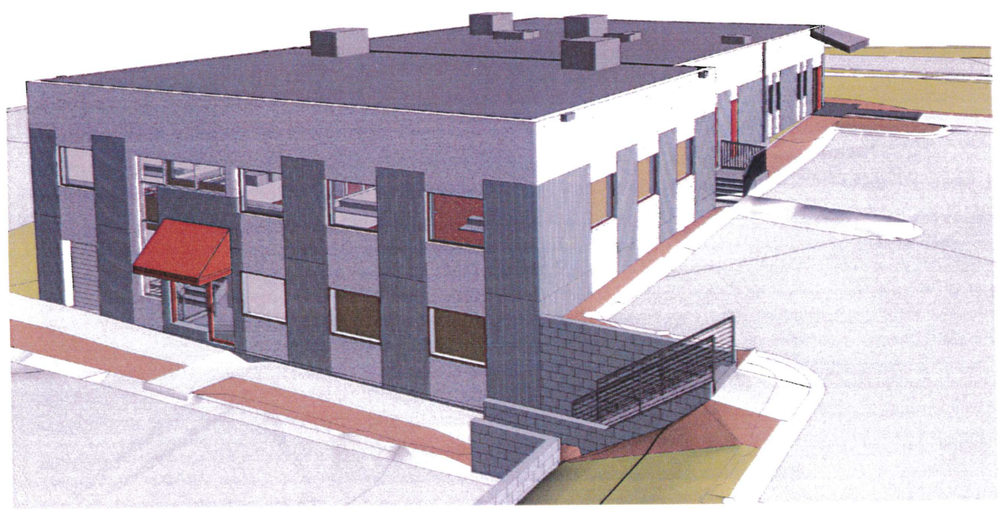
SHEET NO.
A103



1 A901 NORTH END
SC.



3 A901 NORTH LOT ENTRANCE
SC.



2 A901 FULL BUILDING
SC.

4 A901 SOUTH LOT ENTRANCE
SC.

MULARONI + CO
ARCHITECTS & PLANNING CONSULTANTS
8418 Cook County Line Woodbury, MN 55125 (651)501-5111 (651)501-5112 fax www.mularoniandco.com

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 Minnesota.

Architect
Date
Reg. No. 15061

Project No. 1607.12
Date 08.12.16
Drawn By MWC

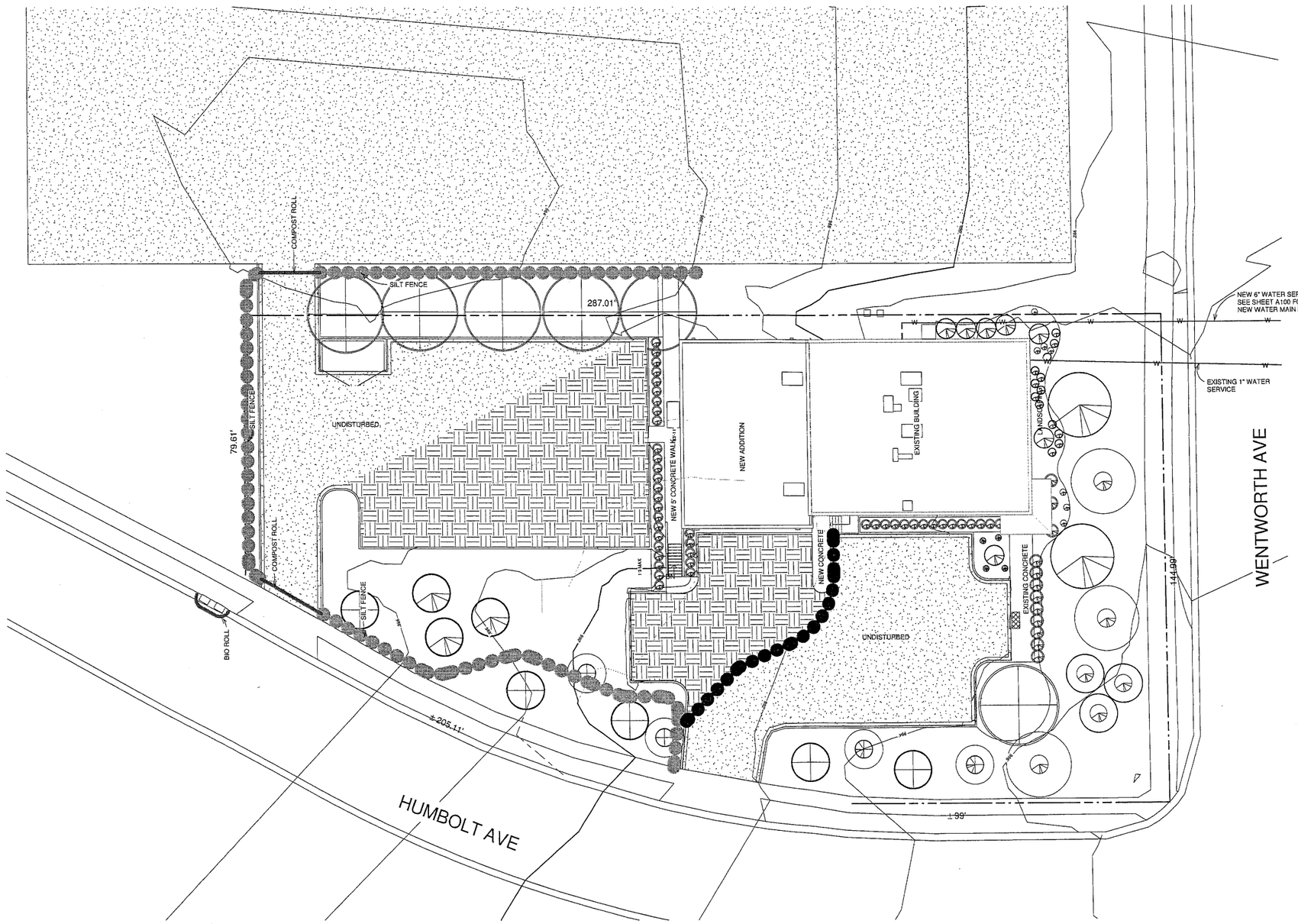
Sheet Title: 3D VIEWS

Project: HDS, Inc.
West St. Paul, Minnesota 55118

Developer: Dunsmore 1020 Eagan Woods Drive Eagan, MN 55123
Civil Engineer: Bolton & Menk
Structural Engineer: MKSD LLP

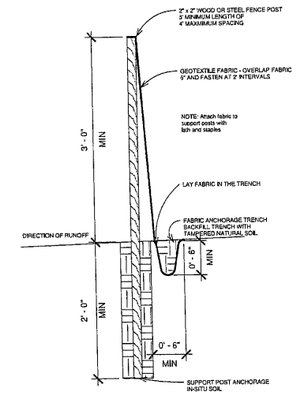
No.	Description	Date

SHEET NO.
A901

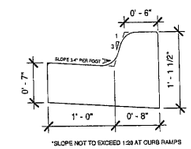


1 A101 GRADING / EROSION PLAN

SC. 1/16" = 1'-0"



SILT FENCE



B612 CURB

COMPOST LOG

Geotextile tube filled with shredded mulch or woodchips
They will overlap by 6" min. to ensure no gaps
Logs will form smile shape to keep sediment on site

LEGEND

- Proposed Site Grade
- Existing Site Grade
- Compost Log
- Silt Fence
- Secondary Erosion Control

PAVEMENT

	UNDISTURBED	DISTURBED	TOTAL
UPPER LOT	4,076 SF (68.8%)	1,851 SF (31.2%)	5,927 SF
LOWER LOT	3,514 SF (47.1%)	3,946 SF (52.9%)	7,460 SF
TOTAL	7,590 SF (56.7%)	5,797 SF (43.3%)	13,387 SF

North

MULARONI + CO
ARCHITECTS & PLANNING CONSULTANTS
6181 Cardinal Lane Woodbury MN 55125 651.459.9371 fax 651.459.0076 e-mail: andrew@mularoni-co.com

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 Minnesota.

Architect:
Date:
Reg. No. 15261

Project No. 1607.12
Date: 08/12/16
Drawn By: MWC

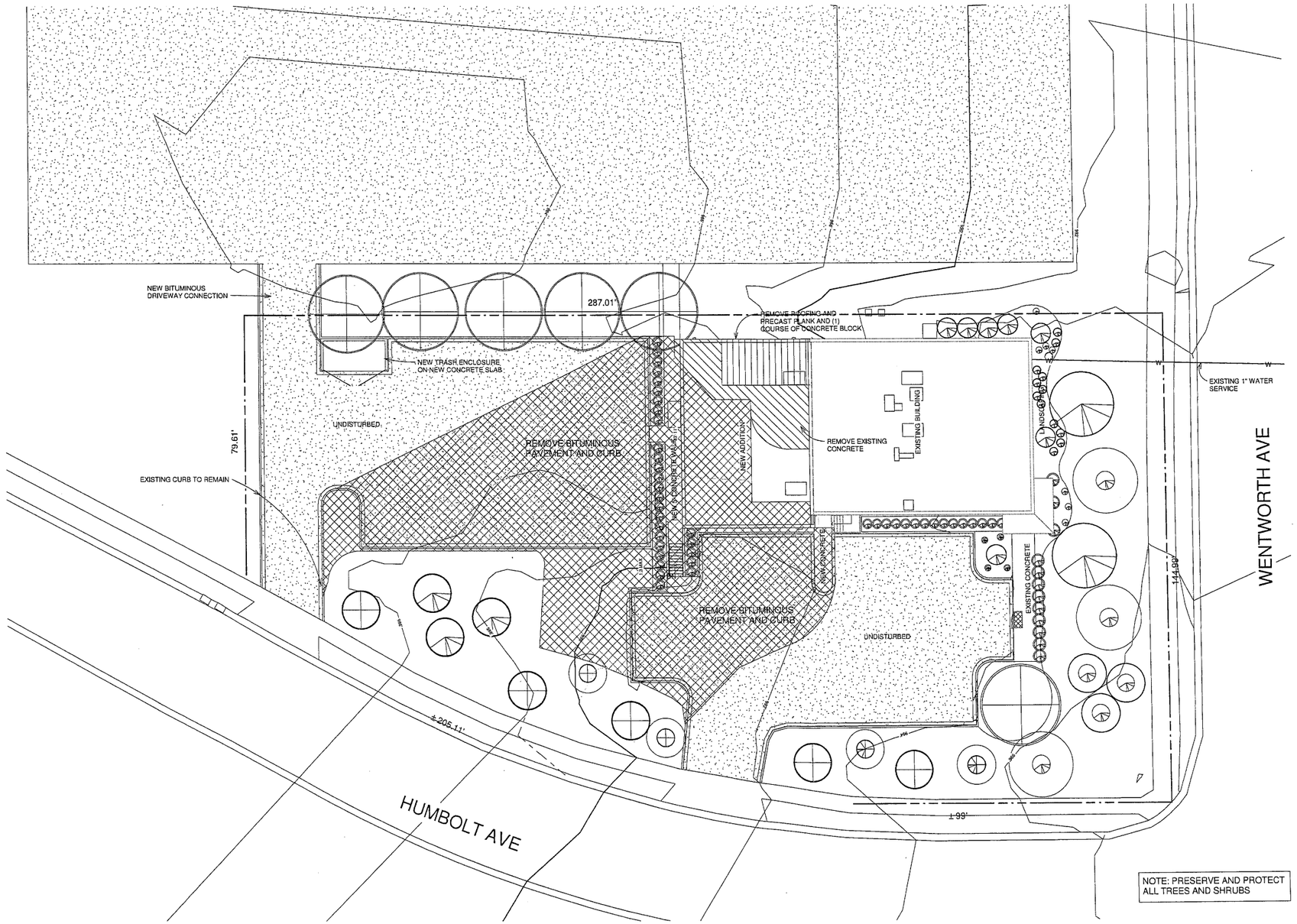
Sheet Title: GRADING / EROSION CONTROL

Project:
HDS, Inc.
West St. Paul, Minnesota 55118

Developer/Owner: HARRISON DESIGN STUDIO, INC.
Sean Harrison (651) 457 6600
5 Wentworth Ave East
West St. Paul, MN 55118

No.	Description	Date

SHEET NO.
A101



1 A102 SITE DEMOLITION PLAN

SC. 1/16" = 1'-0"

MULARONI + CO

ARCHITECTS & PLANNING CONSULTANTS

818 Cleveland Trail Waukesha, WI 53186 (262)549-3131 (262)549-3374 e-mail: jmulaw@mularoniarch.com

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 Minnesota.

Architect:

Date:

Reg. No. 15261

Project No. 1607.12

Date: 08/18/15

Drawn By: LMWC

Sheet Title: SITE DEMOLITION PLAN

Project:

HIDS, Inc.

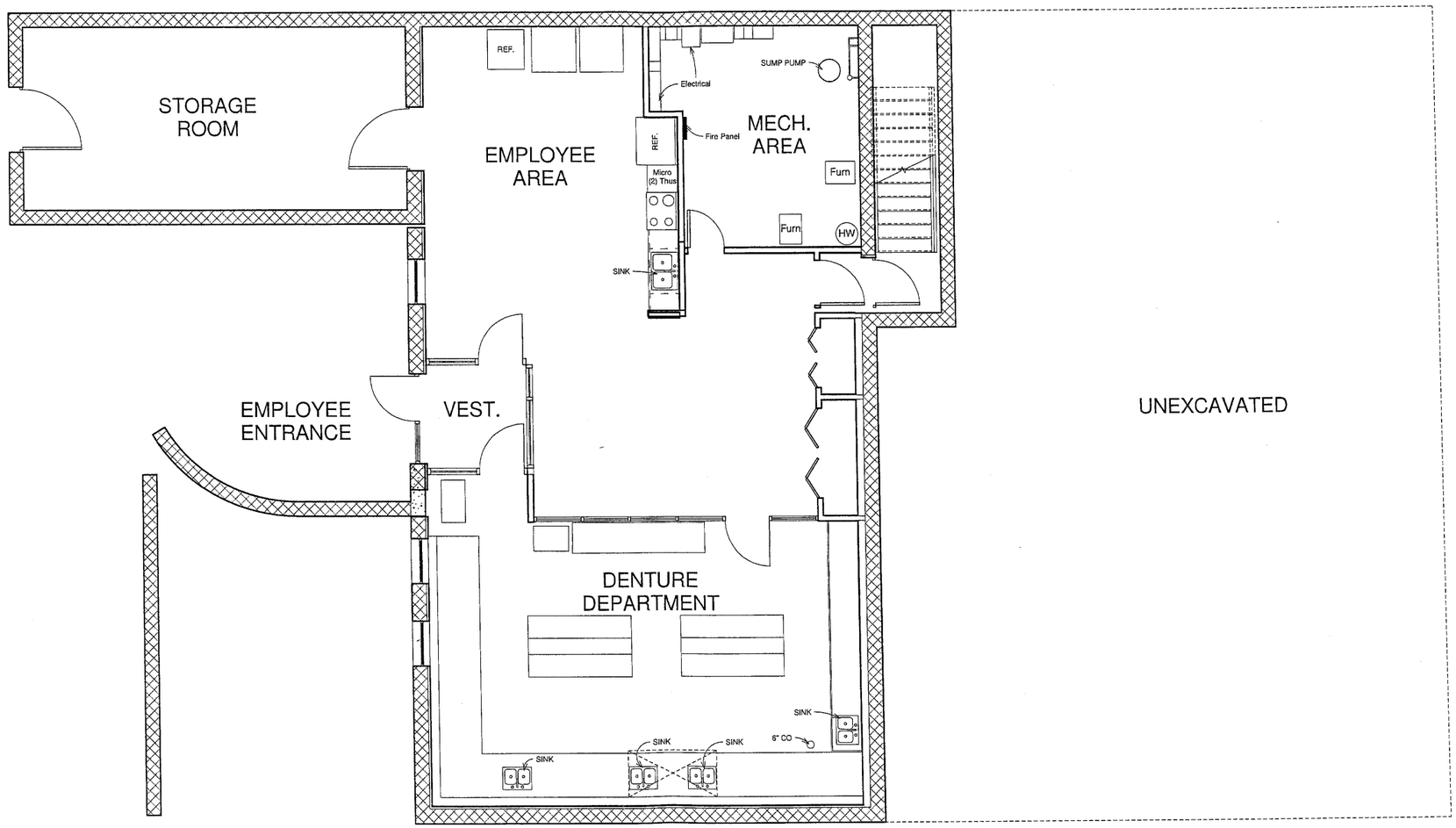
West St. Paul, Minnesota 55118

Developer / Owner: HUMPHREY DEVELOPMENT, INC.
Scott Humphrey - 952-920-0080
5 Mendelssohn Ave East
West St. Paul, MN 55118

No.	Description	Date

SHEET NO.

A102



1 A110 - AB AS BUILT - WALKOUT FLOOR

SC. 1/4" = 1'-0"

North

MULARONI + CO

ARCHITECTS & PLANNING CONSULTANTS

815 Cretacious Trail Woodbury, Minnesota 55125 651.735.2171 | 651.735.2172 e-mail: mularoni@mularoni.com

I hereby certify that this plan, specification, or report was or was not prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.

Architect:

Date:

Reg. No. 15081

Project No. 1607.12

Sheet Title: AS BUILT - WALKOUT FLOOR PLAN

Date: 08/09/16

Drawn By: MWC

Project:

HDS, Inc.

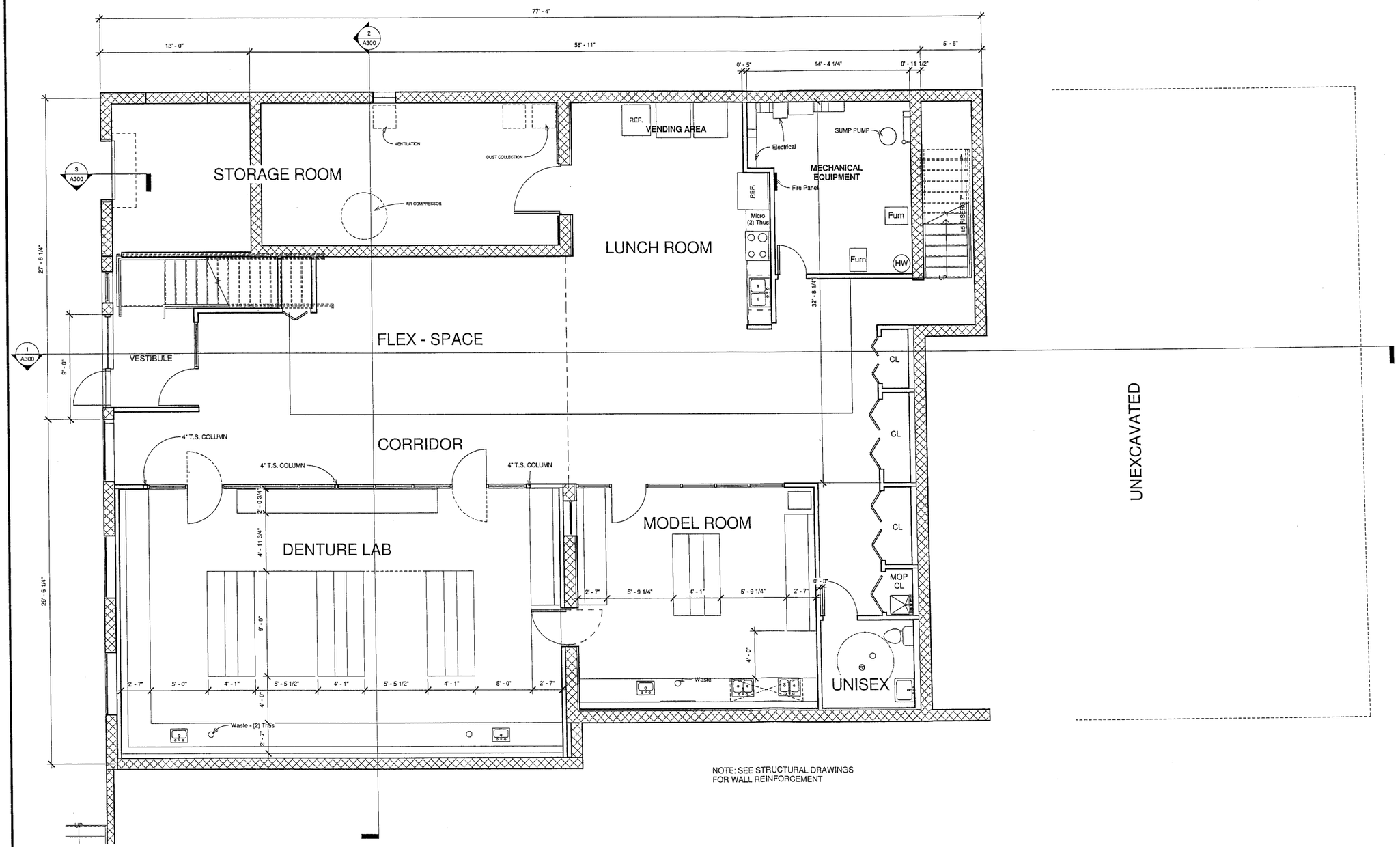
West St. Paul, Minnesota 55118

Developer/Owner: HARRISON DESIGN STUDIO, INC.
Scott Harrison (651) 917-6000
5 Wentworth Ave East
West St. Paul, MN 55118

No.	Description	Date

SHEET NO.

A110 - AB



1 A110 WALKOUT FLOOR

SC. 1/4" = 1'-0"

North

MULARONI + CO

ARCHITECTS & PLANNING CONSULTANTS

8181 Cedarbury Trail Woodbury, MN 55125 (651) 738-3111 (fax) 738-3211 e-mail: mmco@mularonicompany.com

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 Minnesota.

Architect:

Date:

Reg. No. 15281

Project No: 1807.12

Date: 07/19/16

Drawn By: JMWC

Sheet Title: WALKOUT FLOOR PLAN

Project:

HDS, Inc.

West St. Paul, Minnesota 55118

Developer / Owner: HARRISON DESIGN STUDIO, INC.

Scott Harrison (651) 457-8800

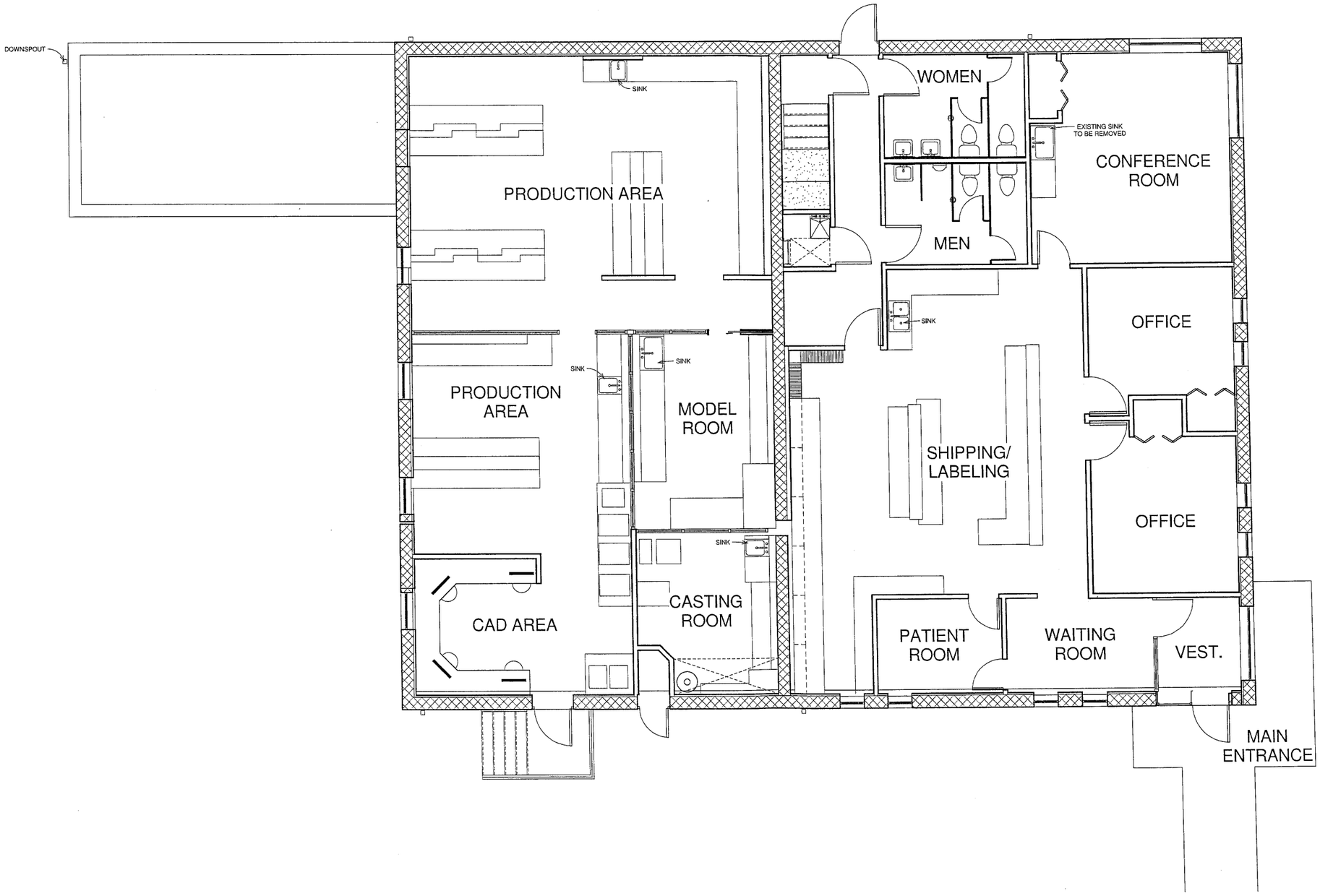
5 Wentworth Ave East

West St. Paul, MN 55118

No.	Description	Date

SHEET NO.

A110



1 A120 - AB

AS BUILT - UPPER FLOOR

SC. 1/4" = 1'-0"

North

MULARONI + CO

ARCHITECTS & PLANNING CONSULTANTS

8191 Cloudalemy Trail Woodbury MN 55125 (651)458-8171 (fax)458-0074 e-mail: mularoni@mularoni.com

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 Minnesota.

Architect:

Date:

Reg. No. 15681

Project No. 1507.12

Date: 06/22/16

Drawn By: MWC

Sheet Title: AS BUILT UPPER FLOOR PLAN

Project:

HDS, Inc.

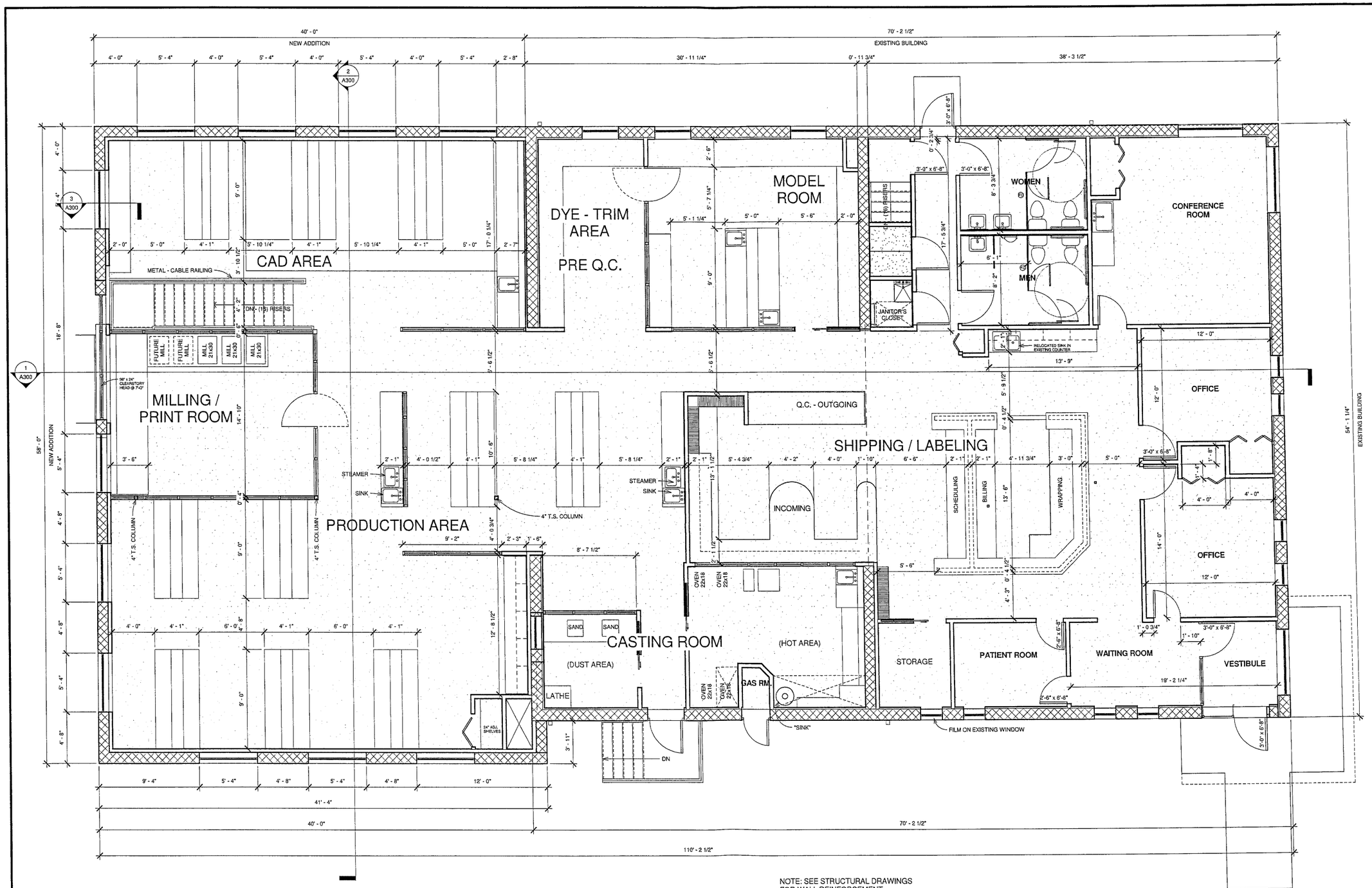
West St. Paul, Minnesota 55118

Developer / Owner: HARRISON HOBBS STUDIO, INC.
Scott Harrison (651) 457-9800
8 Westcroft Ave East
West St. Paul, MN 55118

No.	Description	Date

SHEET NO.

A120 - AB



1 A120 UPPER FLOOR

SC. 1/4" = 1'-0"

MULARONI + CO

ARCHITECTS & PLANNING CONSULTANTS

8315 Cordelia Ave Bloomington MN 55420 952-854-3371 Fax 952-854-3374 e-mail: mmco@mularonico.com

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 Minnesota.

Architect:

Date:

Reg. No. 15381

Project No. 1607.12

Date: 07/20/16

Drawn By: MWC

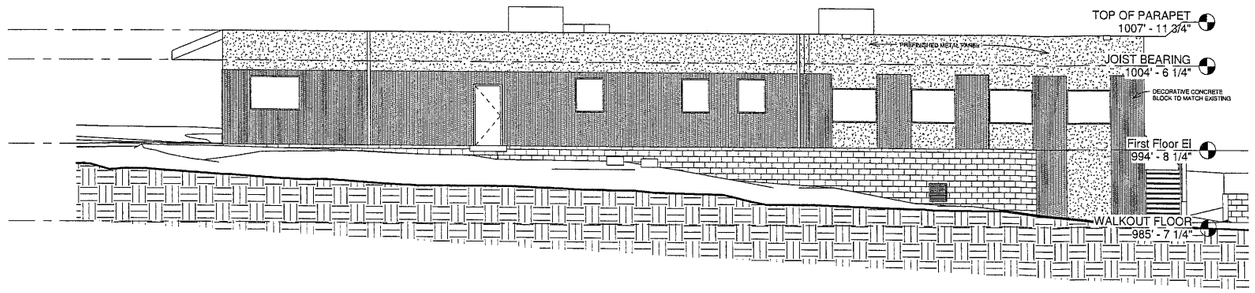
Sheet Title: UPPER FLOOR PLAN

Project: HDS, Inc. West St. Paul, Minnesota 55118

Developer/Owner: HARRISON DESIGN STUDIO, INC.
Scott Harrison (651) 457-6600
5 Wentworth Ave East
West St. Paul, MN 55118

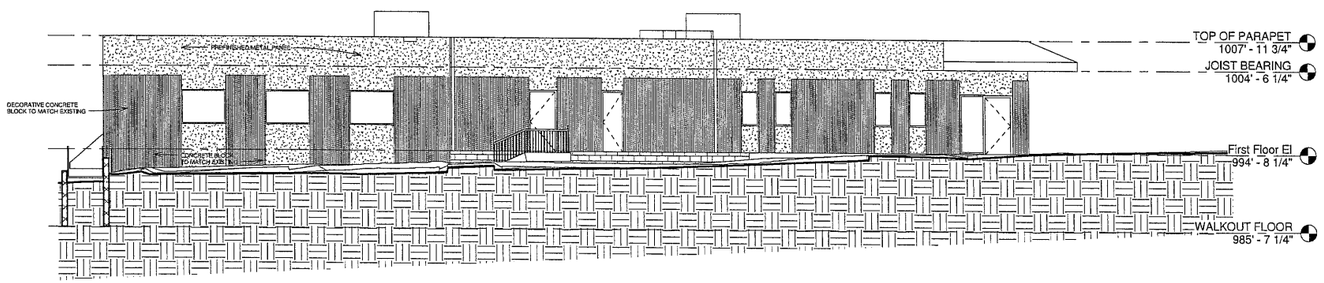
No.	Description	Date

SHEET NO. A120



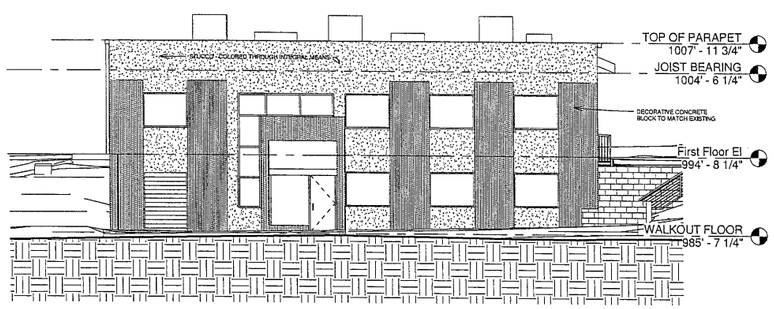
1 A400 East

SC. 1/8" = 1'-0"



2 A400 West

SC. 1/8" = 1'-0"



3 A400 North

SC. 1/8" = 1'-0"

BUILDING SURFACES - NEW ADDITION

	EAST	WEST	NORTH	TOTAL
COMBINATION OF STUCCO AND GLASS	65%	56%	68%	64%
DECORATIVE BLOCK	35%	44%	32%	36%

MULARONI + CO
ARCHITECTS & PLANNING CONSULTANTS
6191 Cullalbarry Trail Woodbury, MN 55125 651-653-0127 (fax)651-653-0317 e-mail: mmaia@mularoni.com

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 Minnesota.

Architect:

Date:

Reg. No. 15561

Project No. 1607.12

Date: 07/19/16

Drawn By: MWC

Sheet Title: ELEVATIONS

Project: HDS, Inc.
West St. Paul, Minnesota 55118

Developer / Owner: INTERSTATE DESIGN STUDIO, INC.
Scott Hanson (952) 431 6500
5 Westbrooke Ave East
West St. Paul, MN 55118

No.	Description	Date

SHEET NO.
A400

TO: Mayor and City Council

THROUGH: Matt Fulton, City Manager

Jim Hartshorn, Comm. Dev. Dir.

FROM: Ben Boike, Assistant Comm. Dev. Dir.

DATE: September 26, 2016

SUBJECT: Site Plan/ Plat – 963 Robert

City of West St. Paul

BACKGROUND INFORMATION:

On behalf of Sherman & Associates, Alliant Engineering is requesting two zoning approvals for 963 Robert St.:

1) Site Plan Review for the expansion of the existing parking lot
2) Preliminary/Final Plat approval

The applicant is proposing to develop the vacant land to the north of their recently constructed retail building as a parking lot to support the commercial use of the property. In addition, the applicant is proposing to combine the existing five lots into one lot. The proposed plat includes the dedication of .05 acres of right-of-way for the newly aligned Haskell St.

The proposed improvements are required per the development agreement between the applicant and the City of West St. Paul. The development agreement requires that the improvements are completed by December 31, 2016.

For more detailed information on the proposed applications please see the attached Planning Commission report.

<u>Planning Commission</u>
The Planning Commission met in regular session on September 20, 2016 and held a public hearing. Two neighboring property owners spoke at the public hearing.

The first neighboring property owner voiced his displeasure for the owner's lack of oversight/maintenance of the property over the past couple years (since the retail shell began construction). However was okay with the proposed plan as long as it cleaned up the property and included screening as required by code (concerned with noise).

The second neighboring property owner stated that he was happy to hear about the parking lot expansion and that the proposal included a requirement to allow overflow parking for apartment complex. He stated that the current lack of parking for the apartment building has become an issue for his neighbors and himself.

The Planning Commission discussed at length whether or not a parking lot was the best use of the site. Staff provided background relating to the development

agreement between the city and Sherman and that the EDA had agreed to allow the parking lot to finalize the project. In addition, the applicant stated that they believe the parking lot expansion would help in marketing the site to potential tenants.

After lengthy discussion, the Planning Commission voted 3-3 on a motion to approve both the Site Plan and Plat per the recommended conditions of Staff.

FISCAL IMPACT:

		Amount
Fund:		
Department:		
Account:		**N/A**

STAFF RECOMMENDATION:

Staff recommends that the City Council hold the public hearing and approve the Site Plan and the Preliminary/Final Plat subject to the listed conditions as follows (condition 8 under the Site Plan recommendation was added by Staff and condition 2 under the Plat recommendation was amended by staff):

Staff recommends APPROVAL of the SITE PLAN subject to the submitted site plan and to the following conditions:

1. Council approval of the corresponding Plat application.
2. The applicant shall obtain all applicable building and sign permits for the approved site improvements.
3. The applicant shall meet the screening requirement for the west property by providing a six-foot maintenance free fence as outlined in Section 153.032(E)(4).
4. The property owner shall record a shared parking easement benefitting 993 Robert St. for overflow parking. In addition, the property owner shall include signage in the parking lot of 993 Robert St. stating that overflow parking is available in the parking lot at 963 Robert.
5. The applicant shall revise the lighting plan to meet the zero-foot candle requirement at the south and west property lines.
6. The applicant shall revise the site plan to include a landscaped curbed island in the western row of parking.
7. The applicant shall adhere to the recommendations outlined in the attached memos provided by the City Civil Engineer, the Environmental Committee, and MnDOT.
8. The applicant shall complete the improvements by December 31, 2016 in accordance with the Development Agreement with the City of West St. Paul.

Staff recommends APPROVAL of the PRELIMINARY/FINAL PLAT subject to the submitted plat drawings and to the following conditions:

1. Council approval of the corresponding Site Plan application.
2. The applicant shall record the plat prior to obtaining a building permit to complete the improvements.

TO:	Planning Commission
FROM:	Ben Boike, Assistant Comm. Dev. Dir.
DATE:	September 20, 2016
SUBJECT:	Site Plan/Plat Review – 963 Robert St.

City of West St. Paul

REQUEST

On behalf of Sherman & Associates, Alliant Engineering is requesting the following zoning applications in order to expand the existing parking lot at 963 Robert St.:

1) Site Plan approval for the construction of the parking lot
2) Plat approval to combine lots

Attachments:
Applications/Notice
Memos from the Civil Engineer, the Environment Committee, and MnDOT
Copies of submitted plans

EXISTING LAND USES

The subject properties currently consist of a recently constructed retail shell on the south end of the property and vacant land on the north end. Adjacent properties to the north are currently vacant. Adjacent properties to the east are occupied by commercial and multi-family uses. The adjacent property to the south is occupied by

a multi-family apartment building. Adjacent properties to the west are occupied by single-family homes.

ZONING

The subject property and adjacent properties to the north and east are zoned B5, Gateway North Mixed-use. The adjacent property to the south is zoned Planned Residential Development with R4, Multiple-family Residential underlying zoning. Adjacent properties to the west are zoned R1, Single family.

SITE PLAN ANALYSIS

Proposal
The applicant is proposing to develop the vacant land to the north of their recently constructed retail building as a parking lot to support the commercial use of the property. The development of the property is required per a development agreement between the owner and the City of West. St. Paul dating back to the construction of the apartment building to the south.

Access
The proposed parking lot addition will connect to the existing parking lot north of the existing building and also provide new access for the property to the newly aligned Haskell St. The existing parking lot has access to Robert St. (right-in, right-out) and the public ally to the rear of the property.

Parking Requirements
The 8,520 sq. ft. retail building requires a total of 43 parking stalls. The existing parking lot includes a total of 29 stalls. The proposed parking lot addition calls for 40 parking stalls bringing the total number of parking stalls for the property to 69.

Setbacks
The proposed parking addition meets all setback requirements.

Drive Aisle/Parking Stall Dimensions
The submitted plans meet all required minimum drive aisle and minimum parking stall dimensions.

Curbing
The proposed parking lot addition includes B612 curbing as required by the Zoning Ordinance.

Monument Sign
The applicant is proposing a new monument sign for the property to be located adjacent to the Robert St. access. Staff is recommending a condition of approval requiring the applicant to obtain a sign permit for the proposed sign.

Stormwater Pond
The applicant is proposing a stormwater pond at the northeast corner of the property. The proposed pond will treat all stormwater runoff for the parking lot. A decorative maintenance free ornamental fence is proposed to be located adjacent to the northeast corner of the pond to provide enhanced aesthetics at the intersection of

Robert St. and Haskell. In addition to the fence, a variety of plantings and two benches are also proposed.

Screening
The Zoning Ordinance requires screening of commercial property if adjacent to residential uses. The applicant is proposing a combination of 29 shrubs (24 inches in height that grow to 6 ft. in height) and 4 overstory trees (lindens) between the parking lot and the alley. Section 153.032(E)(4) requires screening 6 ft. in height in the form of a maintenance privacy fence, masonry wall, or landscaping. Staff is recommending a condition of approval requiring that the this requirement is satisfied.

Shared Parking Agreement
Overflow parking for 993 Robert St. (apartment to the south) has become an issue with the loss of on-street parking on Robert St. Since the subject property is tied to the residential apartment complex to the south through a previous development agreement with the West St. Paul Economic Development Authority, Staff is recommending a condition of approval requiring the property owner to record a shared parking easement for the subject property benefiting the apartment to the south (993 Robert). In addition, the property owner shall locate signs in the parking lot at 993 Robert stating that overflow parking is provided in the parking lot at 963 Robert.

Lighting
Six additional 20-foot light poles are proposed for the parking lot addition (see plan sheet P-1.0). The proposed lighting plan shows low levels of lighting bleeding across the western and southern property lines. Section 153.032(E)(5) requires all lighting levels be zero-foot candles at the property lines. Staff is recommending a condition of approval requiring the applicant to revise the plans to meet the requirement.

Landscaped Islands
The Zoning Ordinance requires a landscaped curbed island every 20 parking stalls. Staff is recommending a condition of approval requiring the applicant to revise the plans to include a landscaped curbed island in the western row of parking.

Landscaping
Based on the exterior linear feet of the newly created property, code requires a total of 28 trees on-site (1 tree per 20 lineal ft. of property). The applicant is proposing a total of 15 deciduous trees at 2.5 caliper inches and 5 ornamental trees at 2.5 caliber inches for a total of 20 trees.

Environmental Committee Review
The Environmental Committee reviewed the proposed landscape plan at their September 7, 2016 meeting (see attached memo). The Committee liked the selection of trees and the large amount of plants and shrubs being installed. However, the Committee felt that all 28 trees should be required, per the code, especially since this was parking lot development. The Committee unanimously voted to approve the site plan as long as the developer fulfilled the required number of 28 trees for the site plan, with an additional comment that they strongly encourage the developer to use "pollinator friendly" native plants that were not treated with "neonicotinoids".

Engineering Review
The City Engineer has provided a memo with four (4) recommended conditions pertaining to the Site Plan (see attached memo). Staff is recommending a condition of approval that the applicant adhere to the recommendations in the memo. The conditions are as follows:

1. Permits from the appropriate regulatory agencies must be obtained, including but not limited to the MPCA, Dakota County, MnDOT, etc.
2. Existing storm sewer line that runs underneath the existing driveway abutting Robert St appears to be dead-headed at the existing catch basin. Connect existing CB to proposed CB-4. Approximate distance is 84 LF.
3. Remove and re-space the trees along Robert St to accommodate the recently installed trees as part of the Robert St Landscape Project. Coordinate with city staff to determine exact location of proposed trees along Robert St.
4. Provide the city with a copy of the proposed Stormwater Management Plan.

MnDOT Review
Since Robert St. is a state road, MnDOT reviewed the proposed plans and submitted the attached letter dated June 14, 2016. Staff is recommending a condition of approval that the applicant adhere to the requests of MnDOT per their letter.

PLAT ANALYSIS

Proposal
The applicant is proposing to combine the existing five lots into one lot. In addition, the applicant is dedicating .05 acres of right-of-way for the newly aligned Haskell St. Staff is recommending a condition of approval that the plat be recorded at the Dakota County Recorder's office within one year of City approval.

Parkland Dedication
Parkland Dedication is not required for parking lot additions. The applicant has already paid parkland dedication when the building plans were approved.

STAFF RECOMMENDATION

Staff recommends APPROVAL of the SITE PLAN subject to the submitted site plan and to the following conditions:

1. Council approval of the corresponding Plat application.
2. The applicant shall obtain all applicable building and sign permits for the approved site improvements.
3. The applicant shall meet the screening requirement for the west property as outlined in Section 153.032(E)(4).
4. The property owner shall record a shared parking easement benefitting 993 Robert St. for overflow parking. In addition, the property owner shall include signage in the parking lot of 993 Robert St. stating that overflow parking is available in the parking lot at 963 Robert.

5. The applicant shall revise the lighting plan to meet the zero-foot candle requirement at the south and west property lines.
6. The applicant shall revise the site plan to include a landscaped curbed island in the western row of parking.
7. The applicant shall adhere to the recommendations outlined in the attached memos provided by the City Civil Engineer, the Environmental Committee, and MnDOT.

Staff recommends APPROVAL of the PRELIMINARY/FINAL PLAT subject to the submitted plat drawings and to the following conditions:

1. Council approval of the corresponding Site Plan application.
2. The applicant shall record the plat at Dakota County within one year of City approval.

CITY OF WEST ST. PAUL

1616 HUMBOLDT AVENUE, WEST ST. PAUL, MN 55118-3972

MUNICIPAL CENTER 651-552-4100 POLICE 651-552-4200
PARKS/RECREATION 651-552-4150 FIRE 651-552-4176
FAX 651-552-4190 TDD 651-552-4222

SITE PLAN APPLICATION

Filing Fee: $275.00

Escrow Amount: $1300.00

TOTAL FEES $1,575.00

(OFFICE USE ONLY)

CASE NO. 16-
DATE RECEIVED 8/25/16
RECEIPT #
60 DAY DATE 10/24/16

1. STREET ADDRESS OF PARCEL 963 Robert Street South

2. NAME OF APPLICANT Alliant Engineering, Mark Kronbeck Phone # 612-758-3080

3. ADDRESS OF APPLICANT 233 Park Ave S, Suite 300 Email mkronbeck@alliant-inc.com

Minneapolis, MN 55415

4. NAME OF OWNER Homes of Emerson Hill, LLC Paul Keenan Phone # (612) 332-3000

5. ADDRESS OF OWNER 233 Park Ave S, Suite 201 Email pkeenan@sherman-associates.com

Minneapolis, MN 55415

6. LEGAL/PID # See attached Legal Description. PID numbers: 424810008010, 424810008020, 424810008023, 424810008032, 422372501022

7. PRESENT ZONING B-3 - General Business

8. PROPOSED USE OF PARCEL Commercial Use

9. WHAT WILL BE THE EFFECT ON EXISTING AND ANTICIPATED TRAFFIC CONDITIONS, INCLUDING PARKING FACILITIES ON ADJACENT STREETS The proposed use will have very little effect on traffic and adequate parking will be provided on site.

EXHIBITS REQUIRED

1. An electronic copy as well as four (4) 22x34 and twenty (20) 11x17 copies in sets and folded plans, showing application information as follows:
   a. A survey scaled and dimensioned site plan showing pertinent existing conditions such as parking layout, access provisions, structure locations, drainage, lot area, and yard dimensions, including but not limited to the surrounding parcels within 150 feet.

   b. A complete set of preliminary drawings prepared and signed by a registered Civil Engineer, Architect, and/or Landscape Architect showing:

      (i) A site plan indicating parking layout, access provisions, structure locations, any fences, walls, or other screening, including height and type of material, landscaping, drainage, trees and shrubbery including types and locations, and sizes.
      (ii) Building Elevations including finishes on all buildings all sides.
      (iii) All lighting provisions on site, including type, location, and lumens affecting the surrounding parcels and streets.
      (iv) Curb type and location on site.
      (v) Proposed plans for sidewalk to service, parking, recreation and service areas within the site.

ACKNOWLEDGE AND SIGNATURE

The undersigned hereby represents upon all penalties of law, for the purpose of inducing the City of West St Paul to take action herein requested, that all statements herein are true and that all work herein mentioned will be done in accordance with the Ordinances and all Codes of the City of West St Paul and the State of Minnesota.

Signature of Owner (Required)	612-332-3000 Phone Number
Signature of Applicant (If different)	Phone Number

NOTE: All Materials relevant to this Application must be filed on or before the dates listed on the Operating Procedures for Applicants page. The Planning Commission holds its regular meeting at 7:00pm on the third Tuesday of each month.

LAPSE OF SITE PLAN: An approved Site Plan shall lapse and become null and void six months following the date on which the Site Plan was approved, unless prior to the expiration of six months a building permit is issued by the Building Official and construction is commenced and diligently pursued toward completion on the subject site. An approved Site Plan may be renewed once for a period of one year by the City Council.

FEES

1. The fees to be paid by each applicant for each zoning request shall be as prescribed by the City Council. Fees shall be payable at the time applications are filed with the Zoning Administrator and are not refundable unless the application is withdrawn prior to being sent for legal publication and notice. There shall be no fee in the case of applications filed in the public interest by the City Council or by the Planning Commission. Fees shall include application fee, filing fees, consultant, legal, planning, and engineering fees.

2. Applicants shall deposit with the City, together with the application filing fees, the sums required by Council resolution toward prepayment of the Consultants and Attorney's expenses and all costs to be billed and charged to the City. The prepayment amounts shall be a credit toward all reasonable fees and expenses charged by the Consultants to the City in the investigation report and recommendation to the City Council concerning the application. All reasonable expenses and fees in excess of the deposit, shall be paid by the applicant to the City within 30 days of final action on the matter by the City. If not paid within 30 days, the account shall be deemed delinquent. If the fees and expenses incurred by the City from the Consultants are less than the amount of deposit, such excess shall be returned to the applicant upon final action by the City in said manner.

CITY OF WEST ST. PAUL

1616 HUMBOLDT AVENUE, WEST ST. PAUL, MN 55118-3972

MUNICIPAL CENTER 651-552-4100 POLICE 651-552-4200
PARKS/RECREATION 651-552-4150 FIRE 651-552-4176
FAX 651-552-4190 TDD 651-552-4222

PLATTING APPLICATION

Filing Fee: $275.00 + $2 each lot

(OFFICE USE ONLY)

Required Escrow: $600.00 (1-2 Lots)
$1600.00 (3 or more Lots)

CASE NO. 16-
DATE RECEIVED 8/25/16
RECEIPT #
60 DAY DATE 10/24/16

TOTAL FEES $877.00

CONTACT INFORMATION

1. NAME OF APPLICANT Alliant Engineering, Mark Kronbeck Phone # 612-758-3080

2. ADDRESS OF APPLICANT 233 Park Ave S, Suite 300 Email mkronbeck@alliant-inc.com
Minneapolis, MN 55415

4. NAME OF OWNER Homes of Emerson Hill, LLC, Paul Keenan Phone # (612) 332-3000

5. ADDRESS OF OWNER 233 Park Ave S, Suite 201 Email pkeenan@sherman-associates.com
Minneapolis, MN 55415

6. NAME OF SURVEYOR Alliant Engineering, Dennis Olmstead Phone # 612-758-3080

7. ADDRESS OF SURVEYOR 233 Park Ave S, Suite 300 Email dolmstead@alliant-inc.com
Minneapolis, MN 55415

8. NAME OF ENGINEER Alliant Engineering, Clark Wicklund Phone # 612-758-3080

9. ADDRESS OF ENGINEER 233 Park Ave S, Suite 300 Email cwicklund@alliant-inc.com
Minneapolis, MN 55415

PLAT INFORMATION

10. LEGAL/PID # OF PROPERTY INVOLVED See attached Legal Description. PID numbers: 424810008010, 424810008020, 424810008023, 424810008032, 422372501022

11. TOTAL ACREAGE 1.352 Acres 12. NUMBER OF PROPOSED LOTS One

13. PROPOSED NAME OF PLAT EMERSON HILL SECOND ADDITION

EXHIBITS REQUIRED

1. An electronic copy as well as four (4) 22x34 and twenty (20) 11x17 copies of the proposed plat/final plat in sets.

2. Plat meets all minimum subdivision requirements. If not, explain:

_____

_____

_____

ACKNOWLEDGE AND SIGNATURE

The undersigned hereby represents upon all penalties of law, for the purpose of inducing the City of West St Paul to take action herein requested, that all statements herein are true and that all work herein mentioned will be done in accordance with the Ordinances and all Codes of the City of West St Paul and the State of Minnesota.

Signature of Owner (required)	612-332-3000 Phone Number
Signature or Applicant (if different)	Phone Number

NOTE: All Materials relevant to this Application must be filed on or before the dates listed on the Operating Procedures for Applicants page. The Planning Commission holds its regular meeting at 7:00pm on the third Tuesday of each month.

LAPSE OF PLAT: An approved Plat shall lapse and become null and void six months following the date on which the Plat was approved, unless prior to the expiration of six months the Plat is recorded at Dakota County

FEES

1. The fees to be paid by each applicant for each zoning request shall be as prescribed by the City Council. Fees shall be payable at the time applications are filed with the Zoning Administrator and are not refundable unless the application is withdrawn prior to being sent for legal publication and notice. There shall be no fee in the case of applications filed in the public interest by the City Council or by the Planning Commission. Fees shall include application fee, filing fees, consultant, legal, planning, and engineering fees.

2. Applicants shall deposit with the City, together with the application filing fees, the sums required by Council resolution toward prepayment of the Consultants and Attorney's expenses and all costs to be billed and charged to the City. The prepayment amounts shall be a credit toward all reasonable fees and expenses charged by the Consultants to the City in the investigation report and recommendation to the City Council concerning the application. All reasonable expenses and fees in excess of the deposit, shall be paid by the applicant to the City within 30 days of final action on the matter by the City. If not paid within 30 days, the account shall be deemed delinquent. If the fees and expenses incurred by the City from the Consultants are less than the amount of deposit, such excess shall be returned to the applicant upon final action by the City in said manner.

City of West St. Paul
PUBLIC WORKS & PARKS/ENG

Memorandum

TO: Ben Boike, Assistant Community Development Director/City Planner

FROM: Darin Rezac, Civil Engineer

DATE: September 14, 2016

SUBJECT: Site Review 967 Robert St S

The engineering department has completed its review of the above-referenced project. In conjunction with the site plan approval, the following conditions must be met.

RECOMMENDED CONDITIONS OF APPROVAL

1. Permits from the appropriate regulatory agencies must be obtained, including but not limited to the MPCA, Dakota County, MnDOT, etc.
2. Existing storm sewer line that runs underneath the existing driveway abutting Robert St appears to be dead-headed at the existing catch basin. Connect existing CB to proposed CB-4. Approximate distance is 84 LF.
3. Remove and re-space the trees along Robert St to accommodate the recently installed trees as part of the Robert St Landscape Project. Coordinate with city staff to determine exact location of proposed trees along Robert St.
4. Provide the city with a copy of the proposed Stormwater Management Plan.

C: Ross Beckwith, City Engineer/Public Works & Parks Director

Chuck Price, Engineering Tech III

TO: Asst. Community Dev. Dir.
THROUGH: Asst. Parks & Recreation Dir.
FROM: Environmental Committee
DATE: September 14, 2016

SUBJECT:

CASE #16-12 – Site Plan review for 963 Robert St.

BACKGROUND INFORMATION:

At the September 7, 2016 Environmental Committee (EC) meeting, members reviewed the Site Plan submitted by Sherman Associates to construct an addition to their parking lot at 963 Robert St. The EC members liked the selection of trees and the large amount of plants and shrubs being installed. They disagreed with the Assistant Community Development Director's recommendations, and felt that all 28 trees should be required, per the code, especially since this was parking lot development. The EC unanimously voted to approve the site plan as long as the developer fulfilled the required number of 28 trees for the site plan, with an additional comment that they strongly encourage the developer to use "pollinator friendly" native plants that were not treated with "neonicotinoids".

RECOMMENDATION:

Environmental Committee members approve the site plan for redevelopment of 963 Robert St. with the conditions listed above.

Minnesota Department of Transportation
Metropolitan District
Waters Edge Building
1500 County Road B2 West
Roseville, MN 55113

June 14th, 2016

Ben Boike, Zoning Administrator
City of West St. Paul
1616 Humboldt Ave
West St. Paul, MN 55118

SUBJECT: **Emerson Hill Commercial Mn/DOT Review #P16-038**
NW quad of Robert st (952A) and Haskell St
West St. Paul, Dakota County
Control Section 1908

Dear Mr. Boike:

The Minnesota Department of Transportation (MnDOT) has reviewed the above referenced plat in compliance with Minnesota Statute 505.03, subdivision 2, Plats. Before any further development, please address the following issues:

Water Resources
A drainage permit may be required. More information is needed. A stormwater pond with outlet connection to Robert Street is shown, but no calculations or model is provided. Maintenance of peak discharge rate at or less than for existing conditions will need to be demonstrated for 2-year, 10-year, and 100-year design events to obtain required drainage permit.

For questions concerning these comments, please contact Bruce Irish (651-234-7534) or bruce.irish@state.mn.us.

Surveys
A survey crew was unable to locate any of the monuments on the proposed plat boundary to verify property boundaries.

For questions regarding these comments please contact Matt Wernet at 651-366-4345 or matt.wernet@state.mn.us.

Permits
Any use of or work within or affecting MnDOT right of way requires a permit. Permit forms are available from MnDOT's utility website at
http://www.dot.state.mn.us/metro/maintenance/permits.html

Please include one to one set of plans formatted to 11X17 with each permit application. Please direct any questions regarding permit requirements to Buck Craig (651-234-7911) of MnDOT's Metro Permits Section.

CITY OF
WEST ST. PAUL

City Hall
1616 Humboldt Avenue
West St. Paul, MN
55118-3972
651-552-4100
FAX 651-552-4190
TDD 651-322-2323
www.wspmn.gov

CITY OF WEST ST. PAUL
NOTICE OF PUBLIC HEARINGS

TO WHOM IT MAY CONCERN:

The listed items below will be public hearings at the Planning Commission meeting on September 20, 2016 at 7:00 pm and public hearings at the Council meeting on September 26, 2016 at 6:30 p.m.:

Case #16-12 – Applications for Plat to combine lots and Site Plan review to modify (expand) the existing parking lot at 963 Robert St. – Alliant Engineering

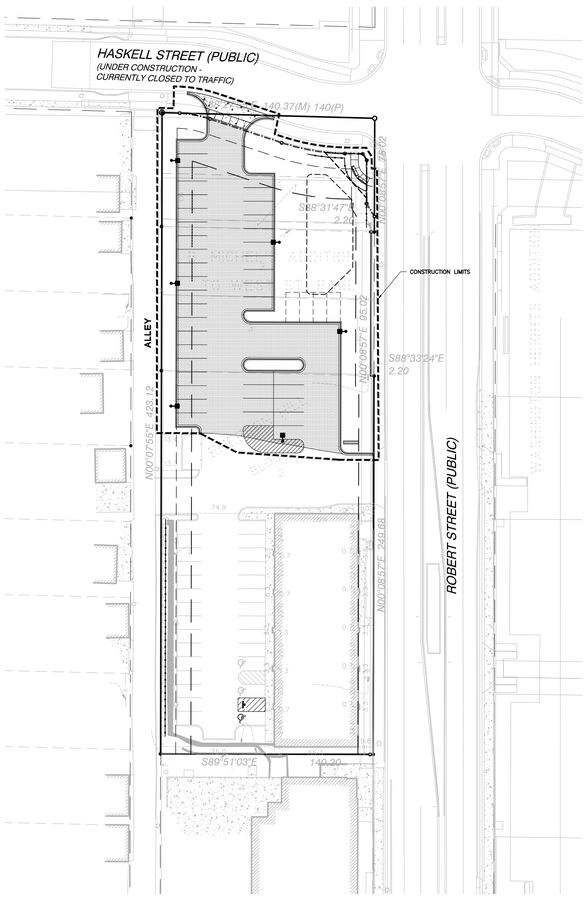
Interested persons will be heard at the meeting. If you have any questions, please contact City Planner Ben Boike at 651-552-4134. If you need any type of accommodation to participate in the meeting, please contact the ADA Coordinator at 651-552-4102 at least 5 (five) business days prior to the meeting.

Chantal M Doriott

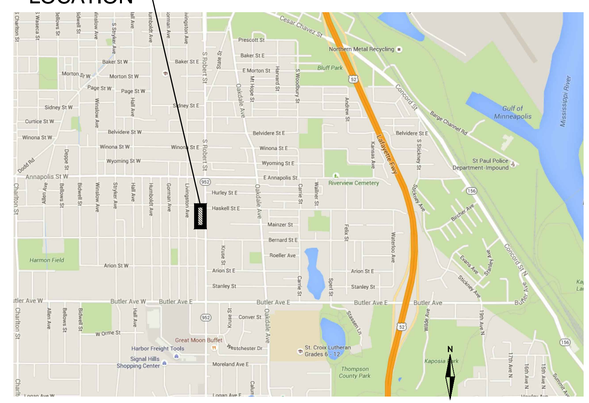
Chantal M. Doriott
City Clerk
City of West St. Paul

Published: September 11, 2016

EMERSON HILL COMMERCIAL
SITE PLAN & PRELIMINARY PLAT SUBMITTAL
WEST ST. PAUL, MINNESOTA



PROJECT LOCATION



VICINITY MAP
NOT TO SCALE

SHEET INDEX

C-0.0 COVER SHEET
C-1.0 EXISTING CONDITIONS PLAN
C-1.1 PLAT MAP - 150'
C-2.0 PRELIMINARY PLAT
FINAL PLAT
C-3.0 SITE PLAN
C-4.0 GRADING AND DRAINAGE PLAN
C-5.0 UTILITY PLAN
C-6.0 DETAILS
L-1.0 LANDSCAPE PLAN
P-1.0 PHOTOMETRIC PLAN

OWNER / DEVELOPER

SHERMAN ASSOCIATES
233 PARK AVENUE SOUTH, SUITE 201
MINNEAPOLIS, MN 55415
PH 612-604-0852
CONTACT: PAUL KEENAN

CIVIL ENGINEER

CLARK WICKLUND, P.E.
ALLIANT ENGINEERING, INC.
233 PARK AVENUE SOUTH
SUITE 300
MINNEAPOLIS, MN 55415
PH 612-758-3080
FX 612-758-3099

SURVEYOR

DENNIS OLMSTEAD, PLS
ALLIANT ENGINEERING, INC.
233 PARK AVENUE SOUTH
SUITE 300
MINNEAPOLIS, MN 55415
PH 612-758-3080
FX 612-758-3099

LANDSCAPE ARCHITECT

MARK KRONBECK, PLA, ASLA
ALLIANT ENGINEERING, INC.
233 PARK AVENUE SOUTH
SUITE 300
MINNEAPOLIS, MN 55415
PH 612-758-3080
FX 612-758-3099

FOR REVIEW ONLY
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ALLIANT ENGINEERING
233 Park Ave S, Ste 300
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612.758.3080 MAIN
612.758.3099 FAX
www.alliant-inc.com

EMERSON HILL COMMERCIAL
967 SOUTH ROBERT STREET
WEST ST. PAUL, MINNESOTA
SITE PLAN & PRELIMINARY PLAT SUBMITTAL
COVER SHEET

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

CLARK WICKLUND, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

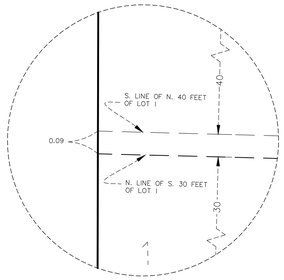
DATE	ISSUE
5-27-16	PLANNING SUBMITTAL

PROJECT TEAM DATA

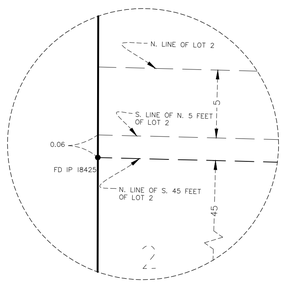
DESIGNED: MK
DRAWN: EMK
PROJECT NO: 212-0116

C-0.0

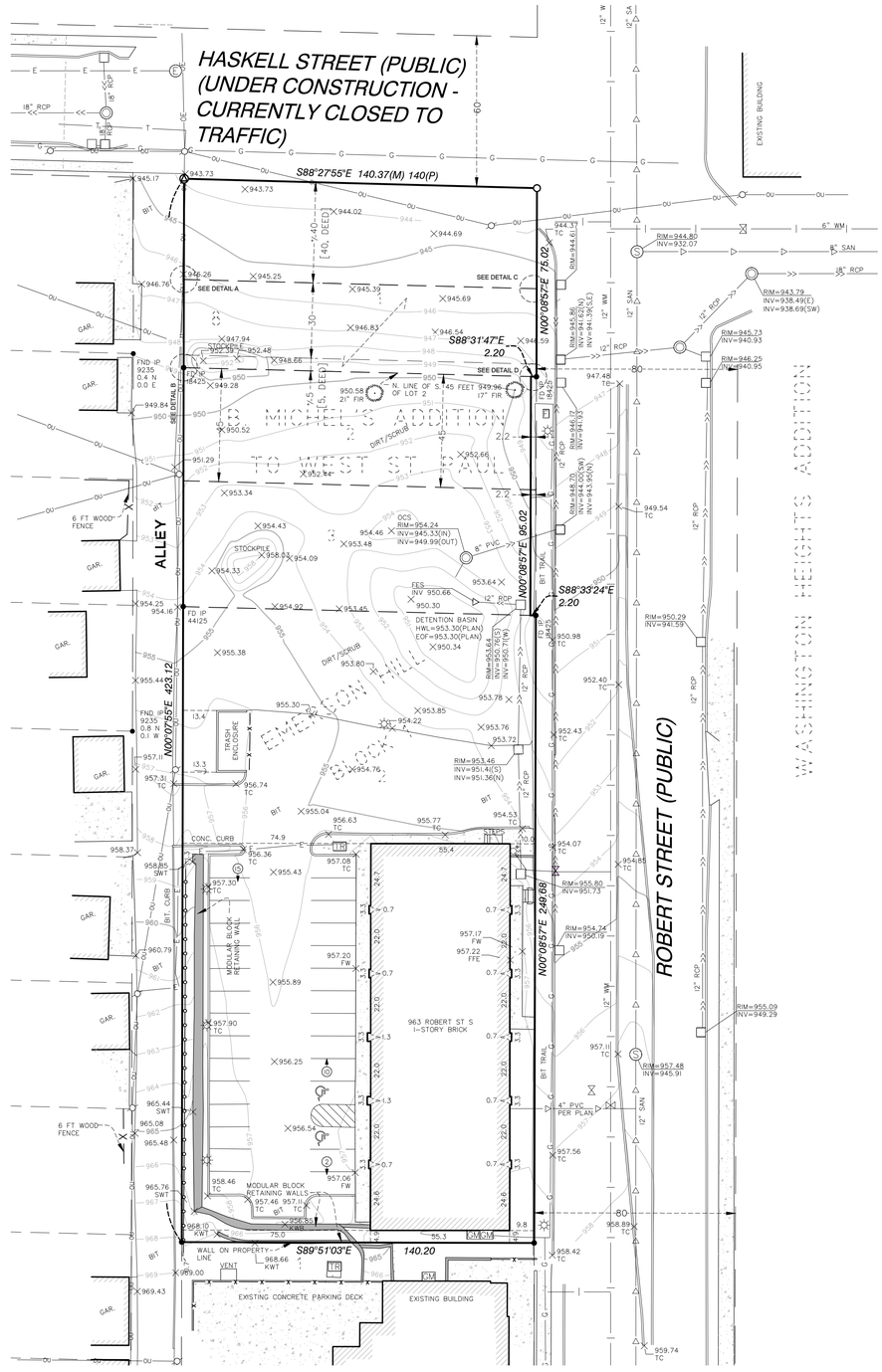
Drawing name: X:\2012\120116\plan sheets\Planning Submittal\120116cover.dwg May 27, 2016 - 11:19am

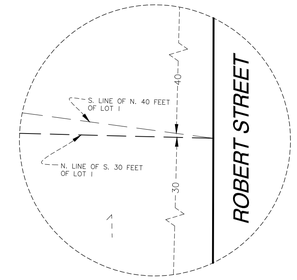


DETAIL A
NOT TO SCALE

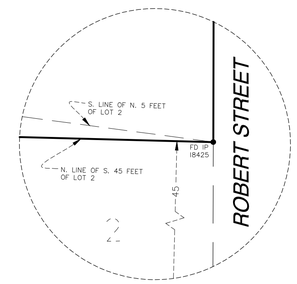


DETAIL B
NOT TO SCALE





DETAIL C
NOT TO SCALE



DETAIL D
NOT TO SCALE

LEGAL DESCRIPTION

Parcel 1:

Lot 2, Block 1, Emerson Hill, Dakota County, Minnesota.

Parcel 2:

Lot 3, Block 8, B. Michel's Addition, Dakota County, Minnesota, EXCEPT the East 2.20 feet of said Lot 3, Block 8, which was conveyed to the City of West St. Paul by Quit Claim Deed dated September 23, 2014, filed September 26, 2014, as Document No. 3031450.

Parcel 3:

The South 45 feet of Lot 2, Block 8, B. Michel's Addition, Dakota County, Minnesota, EXCEPT the East 2.20 feet of the South 45 feet of said Lot 2, Block 8, which was conveyed to the City of West St. Paul by Quit Claim Deed dated September 23, 2014, filed September 26, 2014, as Document No. 3031452.

Parcel 4:

The South 30 feet of Lot 1 and the North 5 feet of Lot 2, Block 8, B. Michel's Addition, Dakota County, Minnesota.

Parcel 5:

The North 40 feet of Lot 1, Block 8, B. Michel's Addition, Dakota County, Minnesota.

NOTES

1. This survey was prepared from legal descriptions supplied and our in house records and may not depict all easements, appurtenances or encumbrances affecting the property. Legal descriptions for Parcels 3, 4 and 5 are prepared based on Dakota County tax information. The legal descriptions are crafted where the dimension control is to opposite lines on the lot and create a potential gap or overlap between the parcels. The survey has depicted a de-minimis gap condition as shown in the details hereon.

2. The locations of underground utilities are depicted based on information from Gopher State One Call system for a "Boundary Survey locate". The information was provided by a combination of available maps, proposed plans or city records and field locations which may not be exact. Verify all utilities critical to construction or design.

3. The basis of bearings is assumed.

4. All distances are in feet.

5. The area of the above described property is 58,900 square feet or 1.352 acres.

6. Bench Mark: Top Nut of Hydrant located on the northwest corner of Robert Street and Bernard Street has an elevation of 965.20 feet NGVD 29.

LEGEND

- FOUND IRON MONUMENT
- SET IRON MONUMENT MARKED 18425
- SET MAG NAIL W/ BRASS DISC
- HYDRANT
- FIRE HOOK UP
- ELECTRIC MANHOLE
- SANITARY MANHOLE
- CATCH BASINS
- ELECTRIC BOX
- LIGHT
- STORM MANHOLE
- POWER POLE
- TRANSFORMER
- GAS METER
- FLAG POLE
- SPOT ELEVATION
- TREE
- PARKING COUNT
- GAS
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- UNDERGROUND ELECTRIC
- OVERHEAD ELECTRIC
- OVERHEAD UTILITY
- UNDERGROUND TELEPHONE
- FENCE
- GUARDRAIL
- CONCRETE

FOR REVIEW ONLY
PRELIMINARY
NOT FOR CONSTRUCTION

N

0 15 30 60
SCALE IN FEET

ALLIANT ENGINEERING
233 Park Ave S, Ste 300
Minneapolis, MN 55415
612.758.3080 MAIN
612.758.3099 FAX
www.alliant-inc.com

EMERSON HILL COMMERCIAL
967 SOUTH ROBERT STREET
WEST ST. PAUL, MINNESOTA

SITE PLAN & PRELIMINARY PLAT SUBMITTAL
EXISTING CONDITIONS

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 LAND SURVEYOR under the laws of the State of MINNESOTA

DENNIS OLMSTEAD, PLS

2-5-16 Date
18425 License No.

QUALITY ASSURANCE/CONTROL

BY	DATE

DATE	ISSUE
5-27-16	PLANNING SUBMITTAL

PROJECT TEAM DATA

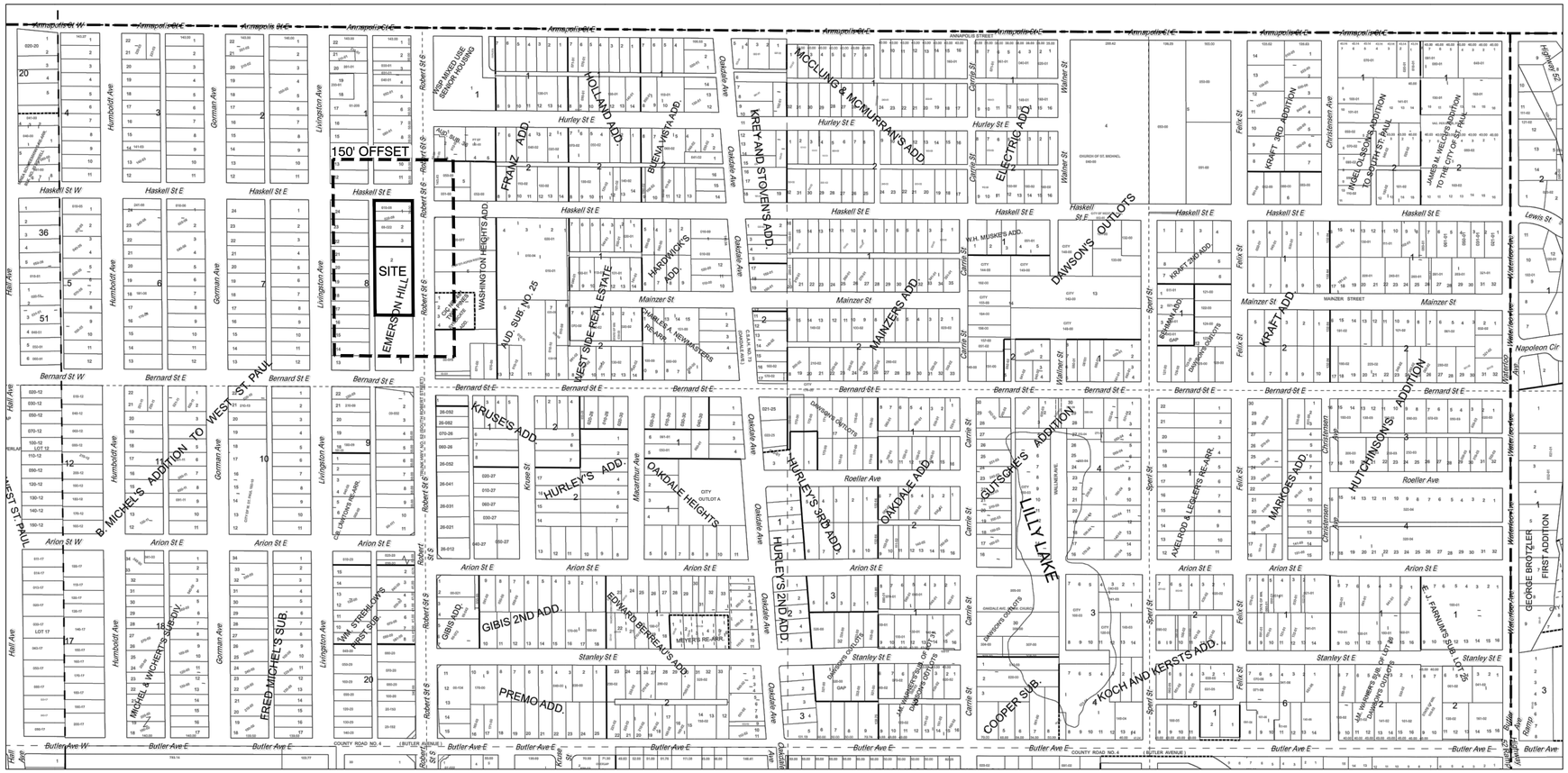
DESIGNED:	DBO
DRAWN:	DPE
PROJECT NO:	212-0116

C-1.0

Drawing name: X:\2012\120116\plan sheets\Planning Submittal\120116econ.dwg May 27, 2016 - 11:19am

N1/2 Section 17, T.28N., R.22W.

City of West St. Paul



Dakota County, 2016

This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data located in various city, county, and state offices and other sources, affecting the area shown, and is to be used for reference purposes only. Dakota County is not responsible for any inaccuracies herein contained.

#146 - Property Map-Urban-1/2 Sect

DAKOTA COUNTY, MINNESOTA

Property Map

Date of Map: May 20, 2016

Bearings are referenced to the Dakota County coordinate system.

0 200 400 600 800

Feet

FOR REVIEW ONLY
PRELIMINARY
NOT FOR CONSTRUCTION

ALLIANT ENGINEERING

233 Park Ave S, Ste 300
Minneapolis, MN 55415
612.758.3080 MAIN
612.758.3099 FAX
www.alliant-inc.com

EMERSON HILL COMMERCIAL

967 SOUTH ROBERT STREET
WEST ST. PAUL, MINNESOTA

SITE PLAN & PRELIMINARY PLAT SUBMITTAL

PLAT MAP - 150 FT

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

CLARK WICKLUND, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

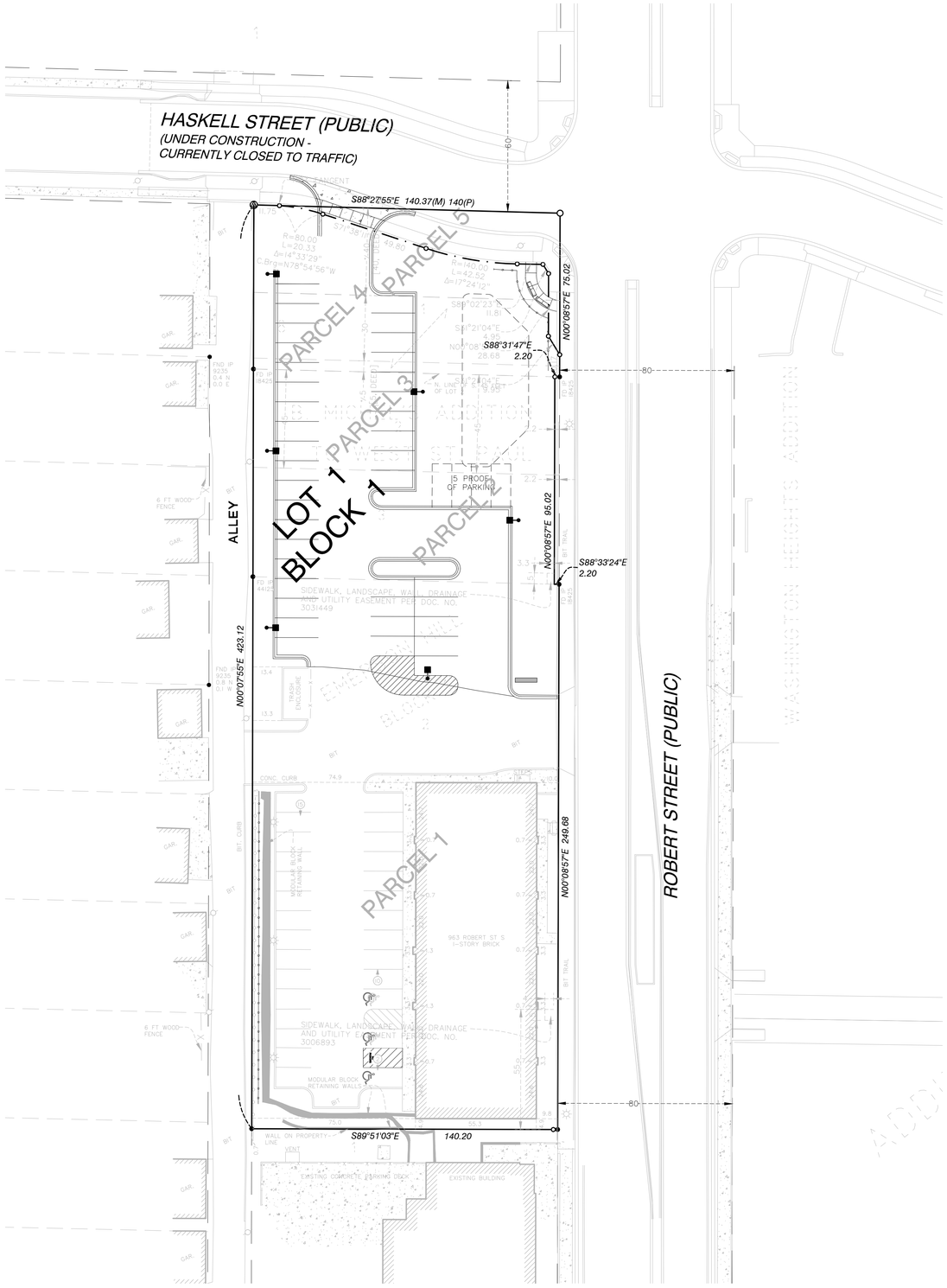
DATE	ISSUE
5-27-16	PLANNING SUBMITTAL

PROJECT TEAM DATA

DESIGNED: JG
DRAWN: JG
PROJECT NO: 212-0116

C-1.1

Drawing name: X:\2012\120116\plan sheets\Planning Submittal\120116econ-150 ft.dwg May 27, 2016 - 11:19am



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The South 30 feet of Lot 1 and the North 5 feet of Lot 2, Block 8, B. Michel's Addition, Dakota County, Minnesota.

Parcel 5:

The North 40 feet of Lot 1, Block 8, B. Michel's Addition, Dakota County, Minnesota.

SITE DATA

ZONING:

CURRENT	B-5
PROPOSED	B-5

LOT SUMMARY:

EXISTING LOT AREA	
PARCEL 1	35,237 S.F., .81 AC
PARCEL 2,3,4,5	23,663 S.F., .54 AC
TOTAL	58,900 S.F., 1.35 AC
PROPOSED LOT AREA	
LOT 1	58,900 S.F., 1.35 AC
AREA TO BE DEDICATED AS RIGHT OF WAY	2,101 S.F., 0.05 AC
TOTAL	56,799 S.F., 1.30 AC

LEGEND:

EXISTING PROPERTY LINE

PROPOSED PROPERTY LINE

PARKING LOT LIGHT

FOR REVIEW ONLY
PRELIMINARY
NOT FOR CONSTRUCTION

N

0 15 30 60
SCALE IN FEET

ALLIANT
ENGINEERING
233 Park Ave S, Ste 300
Minneapolis, MN 55415
612.758.3080 MAIN
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www.alliant-inc.com

EMERSON HILL COMMERCIAL

967 SOUTH ROBERT STREET
WEST ST. PAUL, MINNESOTA

SITE PLAN & PRELIMINARY PLAT SUBMITTAL

PRELIMINARY PLAT

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

CLARK WICKLUND, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
5-27-16	PLANNING SUBMITTAL

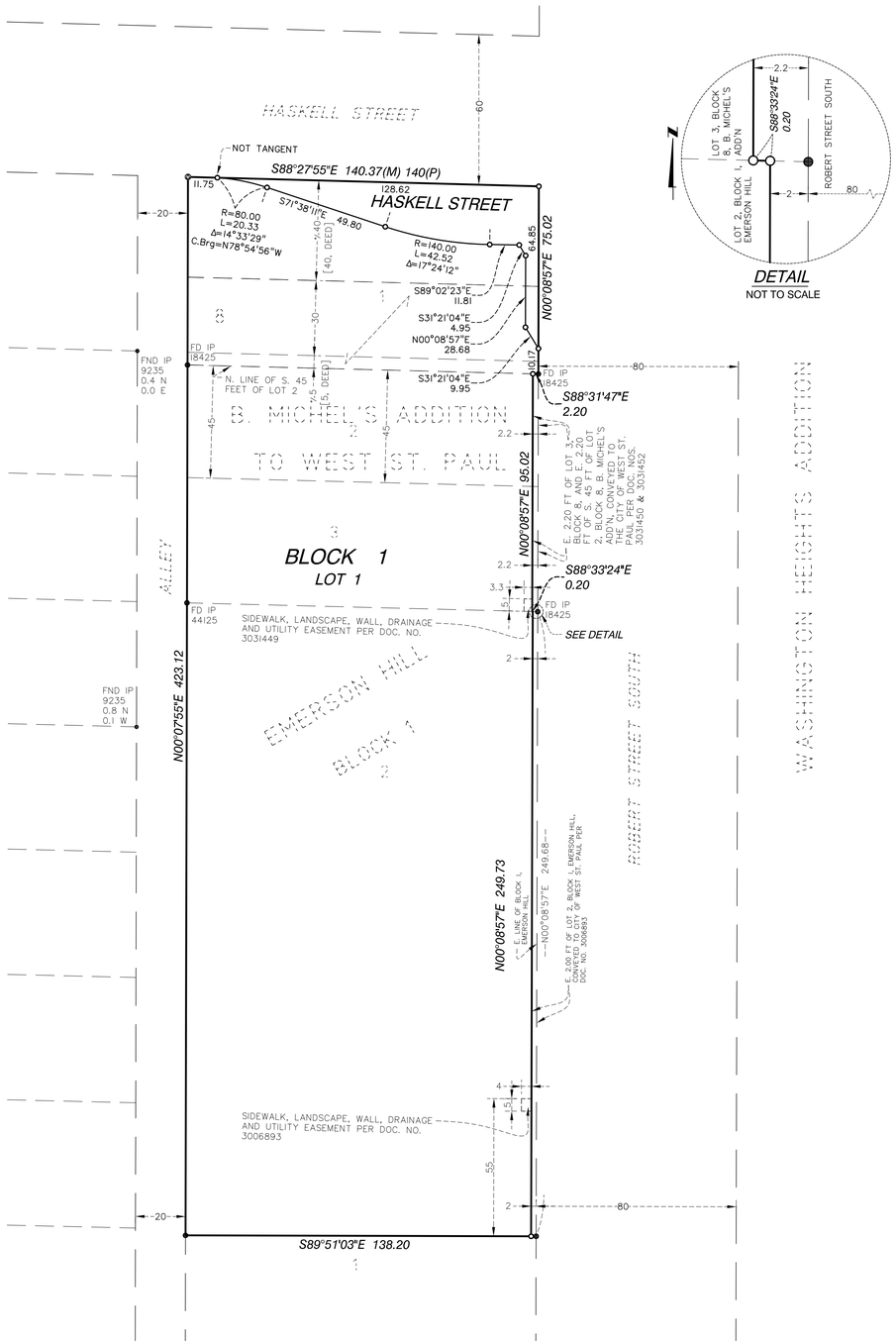
PROJECT TEAM DATA

DESIGNED:	JG
DRAWN:	JG
PROJECT NO:	212-0116

C-2.0

Drawing name: X:\2012\120116\plan sheets\Planning Submittal\120116preplat.dwg May 27, 2016 - 11:20am

EMERSON HILL SECOND ADDITION



DETAIL
NOT TO SCALE

KNOW ALL PERSONS BY THESE PRESENTS: That Emerson Commercial LLC, a Minnesota limited liability company, owner and proprietor of the following described property situated in the City of West St. Paul, County of Dakota, State of Minnesota to wit:

Lot 2, Block 1, Emerson Hill, Dakota County, Minnesota, Except the East 2.00 feet of said Lot 2, Block 1, Emerson Hill which was conveyed to the City of West St. Paul, evidenced in Receipt of Deposit filed April 11, 2014, as Document No. 3006893;

AND

Lot 3, Block 8, B. Michel's Addition, Dakota County, Minnesota, EXCEPT the East 2.20 feet of said Lot 3, Block 8, which was conveyed to the City of West Saint Paul by Quit Claim Deed dated September 23, 2014, filed September 26, 2014, as Document No. 3031450;

AND

The South 45 feet of Lot 2, Block 8, B. Michel's Addition, Dakota County, Minnesota, EXCEPT the East 2.20 feet of the South 45 feet of said Lot 2, Block 8, which was conveyed to the City of West Saint Paul by Quit Claim Deed dated September 23, 2014, filed September 26, 2014, as Document No. 3031452;

AND

The South 30 feet of Lot 1, Block 8 and North 5 feet of Lot 2, Block 8, B. Michel's Addition, Dakota County, Minnesota;

AND

The North 40 feet of Lot 1, Block 8, B. Michel's Addition, Dakota County, Minnesota.

Has caused the same to be surveyed and platted as EMERSON HILL SECOND ADDITION and does hereby donate and dedicate to the public for public use forever the public way and the easements for drainage and utility purposes only as shown on the plat.

In witness whereof said Emerson Commercial LLC, a Minnesota limited liability company, has caused these presents to be signed by its proper officer this _____ day of _____, 201__.

Signed: Emerson Commercial LLC, a Minnesota limited liability company

By _____
George Sherman, President and Chief Manager

STATE OF MINNESOTA
COUNTY OF _____

The foregoing instrument was acknowledged before me on this ____day of _____, 201__ by George E. Sherman, President and Chief Manager of Emerson Commercial LLC, a Minnesota limited liability company on behalf of the company.

_____
Notary Public, _____ County, Minnesota
My commission expires _____

I Dennis B. Olmstead hereby certify that this plat was prepared by me or under my direct supervision; that I am a duly Licensed Land Surveyor in the State of Minnesota; that this plat is a correct representation of the boundary survey; that all mathematical data and labels are correctly designated on this plat; that all monuments depicted on this plat have been, or will be correctly set within one year; that all water boundaries and wet lands, as defined in Minnesota Statutes, Section 505.01, Subd. 3, as of the date of this certificate are shown and labeled on this plat; and all public ways are shown and labeled on this plat.

Dated this _____day of _____, 201___.

_____
Dennis B. Olmstead, Land Surveyor
Minnesota License No. 18425

STATE OF MINNESOTA
COUNTY OF HENNEPIN

The instrument was acknowledged before me on _____, by Dennis B. Olmstead.

_____

_____

Notary Public, _____, Minnesota

My commission expires _____

CITY COUNCIL, WEST ST. PAUL, MINNESOTA

This plat was approved by the City Council of West St. Paul, Minnesota, this ____day of _____, 201__, and hereby certifies compliance with all requirements set forth in Minnesota Statutes, Section 505.03, Subd. 2.

By: _____, Mayor _____, Clerk

DAKOTA COUNTY SURVEYOR

I hereby certify that in accordance with Minnesota Statutes, Section 505.021, Subd 11, this plat has been reviewed and approved this ____ day of _____, 201__.

_____
Todd B. Tollefson
Dakota County Surveyor

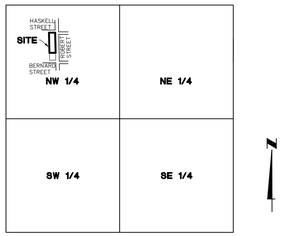
DEPARTMENT OF PROPERTY TAXATION AND RECORDS

Pursuant to Minnesota Statutes, Section 505.021, Subd 9, taxes payable in the year 201__ on the land hereinbefore described have been paid. Also, pursuant to Minnesota statutes, Section 272.12, there are no delinquent taxes and transfer entered this _____ day of _____, 201__.

_____, Director
Department of Property Taxation and Records

COUNTY RECORDER, COUNTY OF DAKOTA, STATE OF MINNESOTA
I hereby certify that this plat of EMERSON HILL SECOND ADDITION was filed in the office of the County Recorder for record on ___ day of _____, 201__, at ___o'clock _.M. and was duly filed in Book _____ of plats, Page _____, as Document Number _____.

_____
County Recorder



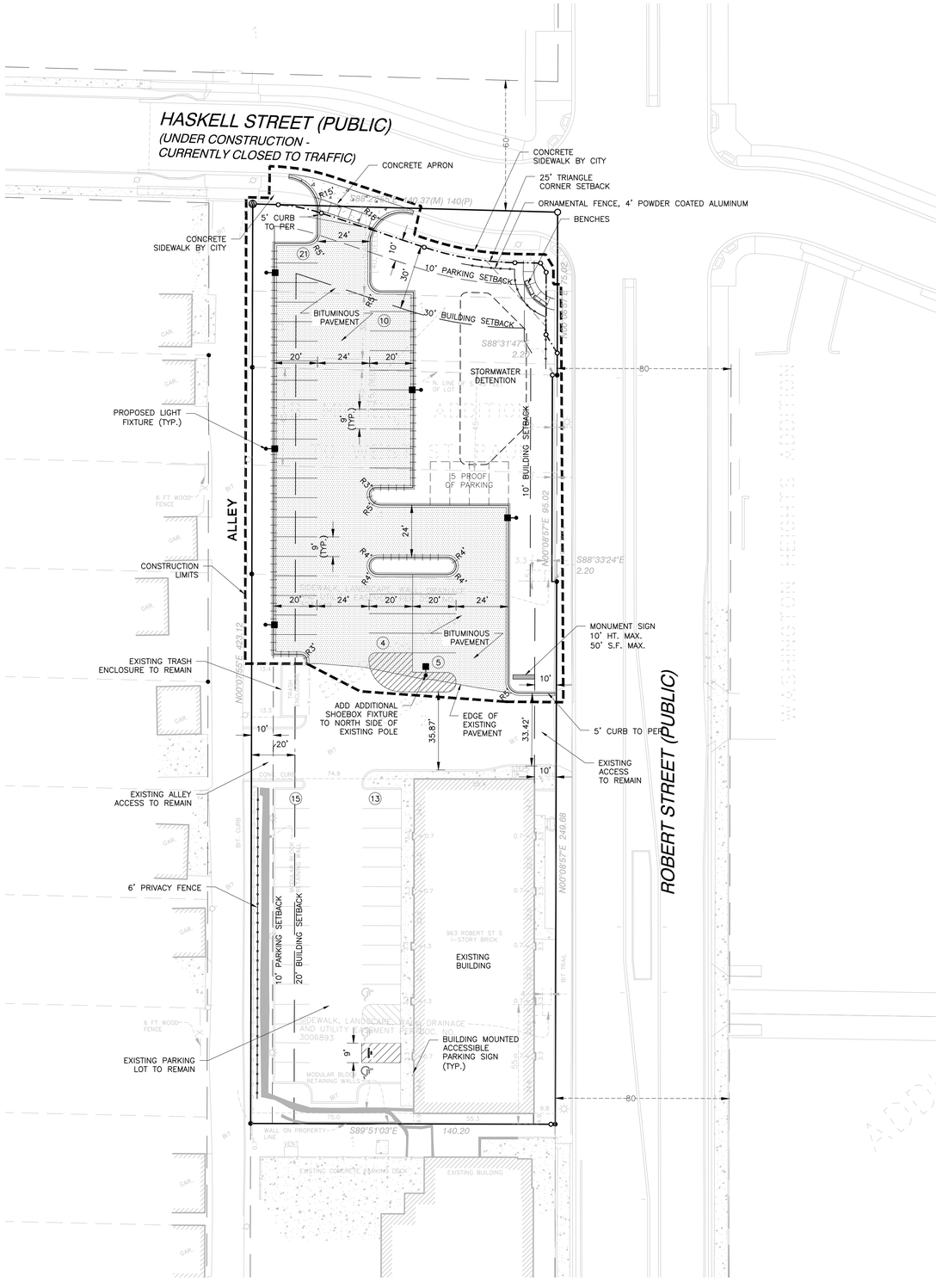
VICINITY MAP
SECTION 17, T28, R22
NOT TO SCALE

THE EAST LINE OF BLOCK 1, EMERSON HILL IS ASSUMED TO HAVE A BEARING OF N00°08'57"E

- ● Denotes monument found 1/2 inch iron pipe
- ○ Denotes 1/2 inch x 18 inch iron monument set marked by license no. 18425 unless otherwise shown
- ◉ Denotes set BP copper plug marked by license no. 18425

Scale in feet
0 30 60 90
SCALE: ONE INCH EQUALS 30 FEET

ALLIANT ENGINEERING



SITE DATA

ZONING:

CURRENT B-5
PROPOSED B-5

LOT SUMMARY:

EXISTING LOT AREA	58,900 S.F., 1.35 AC
R.O.W. DEDICATION	2,101 S.F., 0.05 AC
PROPOSED LOT AREA	56,799 S.F., 1.30 AC

BUILDING SETBACK = FRONT 10'-40', SIDE 0', SIDE ADJ. TO STREET 10'-30', REAR 20'

PARKING SETBACK = FRONT (NOT PERMITTED), SIDE 0', SIDE ADJ. TO STREET (NOT PERMITTED CLOSER TO CORNER THAN THE BLDG), REAR 10'

EXISTING IMPERVIOUS AREA	25,228 S.F., 0.58 AC, 42.8%
PROPOSED IMPERVIOUS AREA*	41,344 S.F., 0.95 AC, 72.8%

*CALCULATIONS ARE LIMITED TO SURFACES WITHIN PRIVATE PROPERTY LINES. ACCESSES WITHIN THE R.O.W ARE NOT INCLUDED IN THE ABOVE.

PARKING DATA:

BUILDING AREA
EXISTING RETAIL BUILDING = 5,546 S.F.

CITY OF WEST ST. PAUL – PARKING REQUIREMENTS:
FOR BUILDINGS THAT ARE 10,000 SQUARE FEET OR LESS AT LEAST 1 OFFSTREET PARKING SPACE FOR EVERY 200 SQUARE FEET OF FLOOR AREA.

PARKING SPACES REQUIRED	
TOTAL =	28 SPACES
PARKING SPACES PROVIDED	
EXISTING =	28 SPACES
PROPOSED =	40 SPACES
SUBTOTAL =	68 SPACES
PROOF OF PARKING =	5 SPACES
TOTAL =	73 SPACES

(INCLUDES 3 ACCESSIBLE PARKING SPACES)

SITE PLAN NOTES:

1. DIMENSIONS ARE TO FACE OF BUILDING AND/OR FACE OF CURB.
2. CONTINUOUS CONCRETE CURB AND GUTTER WHICH CHANGES TYPE SHALL HAVE A FIVE FOOT TRANSITION.
3. ALL CONCRETE CURB AND GUTTER ADJACENT TO CONCRETE WALK BE SEPARATED BY A 1/2 INCH EXPANSION JOINT AND CAULKED.
4. STRIPING SHALL BE 4 INCH WHITE UNLESS NOTED OTHERWISE.
5. ALL WORK WITHIN THE R.O.W. SHALL COMPLY WITH THE CITY OF WEST ST. PAUL AND/OR DAKOTA COUNTY ENGINEERING DESIGN STANDARDS.
6. ALL CURB AND GUTTER TO BE CONCRETE B612 CURB EXCEPT WHERE OTHERWISE NOTED.
7. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES, SUCH AS EXISTING GUTTER GRADES AT THE PROPOSED DRIVEWAY, PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM THE PLANS.
8. REFER TO PHOTOMETRIC PLAN FOR LIGHTING LOCATIONS, FOOTCANDLE CALCULATIONS AND SPECIFICATIONS.
9. INSTALL CURB AND GUTTER JOINTS AS FOLLOWS:
   1. ALIGN JOINTS ACROSS ABUTTING SIDEWALKS, CURBS, AND PAVEMENTS PAYING PARTICULAR ATTENTION TO SPACING OF EXPANSION JOINTS AND SPECIAL SCORING PATTERNS INDICATED ON PLANS.
   2. DIVIDE PANELS INTO NOMINALLY EQUAL AREAS WITH CONTRACTION JOINTS UNLESS INDICATED OTHERWISE.
   3. SAWN JOINTS ARE PERMITTED ONLY AS INDICATED ON THE PLANS OR TO INCREASE THE DEPTH OF TOOLED CONTRACTION JOINTS FOR THE CONTRACTOR'S CONVENIENCE.
   A. EXPANSION JOINTS
   1. INSTALL TRANSVERSE JOINTS AT THE FOLLOWING NOMINAL INTERVALS
      a. SIDEWALKS AND MAINTENANCE STRIPS: 40 FEET
      b. CURBS: 60 FEET, 5 FEET EACH SIDE OF CURB DRAIN INLETS, END OF CURVED SECTIONS
   2. INSTALL LATERAL JOINTS AGAINST ABUTTING SURFACES WHERE CONCRETE IS CONFINED BETWEEN OR PENETRATED WITH RIGID STRUCTURES OR FURNISHINGS SUCH AS BUILDINGS AND STOOPS, PLANTERS, POLE SUPPORTS OR BASES, UTILITIES AND SLEEVES, THICKER PAVEMENT SECTIONS, ETC.
   B. CONTRACTION JOINTS
   1. INSTALL JOINTS AT THE FOLLOWING NOMINAL INTERVALS.
      a. SIDEWALKS AND MAINTENANCE STRIPS: 5 FEET
      b. CURBS AND APRONS: 10 FEET, 6 FEET ON CURVED SECTIONS
   2. TOOL OR SAW JOINTS TO 1/3 THE NOMINAL THICKNESS OF THE PAVEMENT SECTION OR CURB.
10. CONTRACTOR SHALL COORDINATE PRIVATE/PUBLIC UTILITIES RELOCATES, SUCH AS TRAFFIC SIGNAL HANDHOLES, AND WIRING, ETC.

GENERAL NOTES:

1. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
3. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION AND REMOVAL OF ALL EXISTING STRUCTURES WHICH INTERFERE WITH NEW WORK AS SHOWN.
4. ALL DIMENSIONS, GRADES, EXISTING AND PROPOSED INFORMATION SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO INFORMATION SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
5. CONTRACTOR SHALL PROTECT ADJOINING PROPERTIES AND STRUCTURES FROM HAZARDS ASSOCIATED WITH THEIR CONSTRUCTION ACTIVITIES & SHALL BE RESPONSIBLE FOR ALL DAMAGES TO PROPERTIES AND STRUCTURES THAT OCCUR AS A RESULT OF THESE ACTIVITIES.
6. CONTRACTOR SHALL NOT IMPEDE EXISTING TRAFFIC CIRCULATION TO ADJACENT PROPERTIES.
7. CONTRACTOR SHALL PERFORM SWEEPING ON PRIVATE PARKING AREAS AND PUBLIC STREETS AT LEAST ONCE A WEEK, IF NEEDED.
8. CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE TO PREVENT AND ELIMINATE ANY DUST NUISANCE OCCASIONED BY AND DURING CONSTRUCTION, UNTIL THE PROJECT HAS BEEN COMPLETED.
9. CONTRACTOR SHALL PROVIDE TEMPORARY STREET SIGNS, LIGHTING, AND ADDRESSES DURING CONSTRUCTION PERIOD.
10. ALL CONSTRUCTION AND POST CONSTRUCTION PARKING SHALL BE ON-SITE, NO ON-STREET PARKING/LOADING/UNLOADING ALLOWED.
11. ALL PUBLIC SIDEWALKS SHALL NOT BE OBSTRUCTED DURING CONSTRUCTION UNLESS APPROVED BY CITY ENGINEER.
12. STORAGE OF MATERIALS OR EQUIPMENT SHALL NOT BE ALLOWED ON PUBLIC STREETS OR WITHIN PUBLIC RIGHT OF WAY.
13. CONTRACTOR TO PROVIDE TEMPORARY TRAFFIC CONTROL IN COMPLIANCE WITH MnDOT TEMPORARY TRAFFIC CONTROL ZONE LAYOUT-FIELD MANUAL, LATEST EDITION, FOR ANY CONSTRUCTION IN PUBLIC ROW.
14. A FIELD INSPECTION BY OWNERS REPRESENTATIVE, OR 3RD PARTY INSPECTOR OF ALL CURB, SIDEWALK AND PAVEMENT SUBGRADE, STRING LINES AND FORM WORK BY GENERAL CONTRACTOR OR OTHER APPROVED REPRESENTATIVE IS REQUIRED PRIOR TO ANY PAVEMENT INSTALLATION.

LEGEND:

- CORNER SETBACK LINE
- PARKING SETBACK LINE
- BUILDING SETBACK LINE
- PROPERTY LINE EXISTING
- PROPERTY LINE PROPOSED
- B612 CURB AND GUTTER
- OUTFALL B612 CURB AND GUTTER
- BITUMINOUS PAVEMENT
- CONCRETE PAVEMENT

PAVING NOTES:

1) AGGREGATE BASE SHALL BE COMPACTED USING SPECIFIED DENSITY METHOD.
2) A FIELD INSPECTION BY OWNERS REPRESENTATIVE, OR 3RD PARTY INSPECTOR OF ALL CURB, SIDEWALK AND PAVEMENT SUBGRADE, STRING LINES AND FORM WORK BY GENERAL CONTRACTOR OR OTHER APPROVED REPRESENTATIVE IS REQUIRED PRIOR TO ANY PAVEMENT INSTALLATION.
3) REFER TO GEOTECHNICAL REPORT FOR ALL SOIL CORRECTION AND COMPACTION REQUIREMENTS AS WELL AS TESTING DIRECTION.

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SITE PLAN

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CLARK WICKLUND, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY	DATE

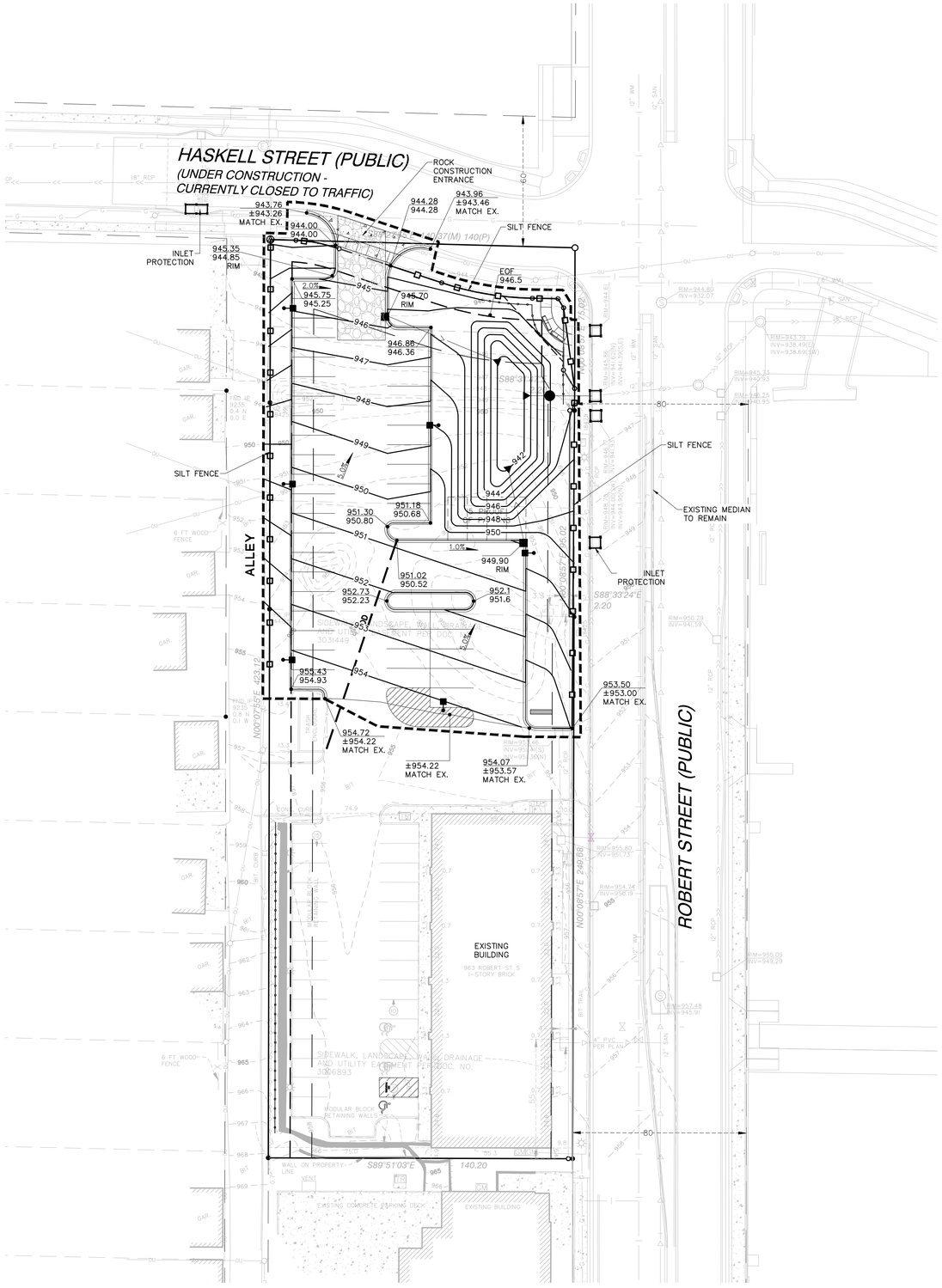
DATE	ISSUE
5-27-16	PLANNING SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MK
DRAWN:	JG
PROJECT NO:	212-0116

C-3.0

Drawing name: X:\2012\120116\plan sheets\Planning Submittal\120116site.dwg May 27, 2016 - 11:20am



GRADING NOTES:

1. ALL PAVEMENTS SHALL SLOPE AWAY FROM PROPOSED BUILDING.
2. ACCESSIBLE PARKING SPACES AND ACCESS AISLE NOT TO EXCEED 2.0% IN ANY DIRECTION.
3. ALL CURB AND GUTTER AT ACCESSIBLE PARKING SPACES TO BE DEPRESSED WITH CURB TAPER, PER DETAIL.
4. THE CONTRACTOR SHALL KEEP THE ADJACENT ROADWAYS FREE OF DEBRIS AND PREVENT THE OFF-SITE TRACKING OF SOIL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY/COUNTY.
5. NOTIFY GOPHER STATE ONE CALL, AT (800)252-1166, 48 HOURS PRIOR TO START OF CONSTRUCTION.
6. ALL IMPROVEMENTS TO CONFORM WITH CITY AND COUNTY CONSTRUCTION STANDARDS SPECIFICATION, LATEST EDITION.
7. ROCK CONSTRUCTION ENTRANCES SHALL BE PROVIDED AT ALL CONSTRUCTION ACCESS POINTS.
8. CONTRACTOR TO KEEP A COPY OF THE FINAL DRAINAGE REPORT ON SITE AT ALL TIMES.
9. REFER TO GEOTECHNICAL REPORT AND PROJECT MANUAL, FOR SOIL CORRECTION REQUIREMENTS AND TESTING REQUIREMENTS.
10. STRIP TOPSOIL PRIOR TO ANY CONSTRUCTION. REUSE STOCKPILE ON SITE.
11. REFER TO SITE DESIGN CRITERIA SECTION OF PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
12. CONTRACTOR TO LOOSEN SUBSOIL WITHIN ALL PROPOSED INFILTRATION AREAS TO A DEPTH OF 24 INCHES OR GREATER, TO A MAXIMUM COMPACTION OF 85% STANDARD PROCTOR DENSITY.
15. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.

EROSION AND SEDIMENT CONTROL MAINTENANCE PROGRAM

1. INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. IMMEDIATELY REPAIR FAILED OR FAILING SILT FENCE.
2. REPLACEMENT – FABRIC SHALL BE REPLACED PROMPTLY WHEN IT DECOMPOSES OR BECOMES INEFFECTIVE BEFORE THE BARRIER IS NO LONGER NECESSARY.
3. SEDIMENT REMOVAL – SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. ANY SEDIMENT REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER FABRIC IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH EXISTING GRADE, PREPARED, AND SEEDED WITH THE APPROPRIATE SEED MIX, AS DIRECTED BY THE ENGINEER.
5. REMOVAL OF SILT FENCE – SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPWARD SLOPING AREA HAS BEEN PERMANENTLY STABILIZED. IF THE UPWARD SLOPING AREA IS TO BE EXPOSED LONGER THAN SIX (6) MONTHS, THAT AREA SHALL BE COVERED WITH TEMPORARY VEGETATION WHEN FIRST EXPOSED.

EROSION CONTROL SCHEDULE

1. PRIOR TO ANY CONSTRUCTION OR DEMOLITION, SILT FENCE AND FILTERS SHALL BE INSTALLED AS SHOWN TO INTERCEPT RUNOFF.
2. IMMEDIATELY FOLLOWING GRADING OF SIDE SLOPES, WOOD FIBER BLANKET (OR OTHER SLOPE STABILIZING METHOD APPROVED BY ENGINEER) SHALL BE APPLIED OVER APPROVED SEED MIXTURE AND A MINIMUM OF 4" TOPSOIL.
3. ALL EROSION CONTROL INSTALLATIONS SHALL REMAIN IN PLACE AND BE MAINTAINED IN GOOD CONDITION BY THE CONTRACTOR UNTIL THE SITE HAS BEEN RE-VEGETATED. CONTRACTOR MAY REMOVE NECESSARY SILT FENCING/FILTERS TO CONSTRUCT ROADWAYS, WHILE MAINTAINING ADEQUATE EROSION CONTROL IN ADJACENT AREA.
4. SUFFICIENT TOPSOIL SHALL BE STOCKPILED OR PROVIDED TO ALLOW FOR THE REPLACEMENT OF 4" OF TOPSOIL FOR DISTURBED AREAS TO BE RE-VEGETATED.
5. THE CONTRACTOR SHALL SCHEDULE SITE GRADING, UTILITY INSTALLATION AND ROADWAY CONSTRUCTION SO THAT THE GENERAL SITE CAN BE MULCHED AND RE-SEEDED SOON AFTER DISTURBANCE. AREAS THAT WILL NOT BE SUBJECT TO CONSTRUCTION TRAFFIC SHALL BE SEEDED AND MULCHED OR SODDED WITHIN THREE (3) DAYS OF BEING DISTURBED.
6. THE GRASSES UTILIZED IN THE SEED AND SOD AREAS SHALL BE OF A SHADE TOLERANT TYPE APPROVED BY THE DEPARTMENT OF TRANSPORTATION.

GRADING LEGEND:

947	EXISTING CONTOUR
947	PROPOSED CONTOUR
944.00 / 944.00	TOP OF CURB / FLOW LINE
944.00 TW / 944.00 BW	TOP OF WALL ELEVATION / BOTTOM OF WALL ELEVATION
DD	DRAINAGE DIVIDE DIRECTION OF DRAINAGE
	SILT FENCE
	INLET PROTECTION
	CONSTRUCTION LIMITS

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GRADING AND DRAINAGE PLAN

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CLARK WICKLUND, PE

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PROJECT TEAM DATA

DESIGNED: MK
DRAWN: JG
PROJECT NO: 212-0116

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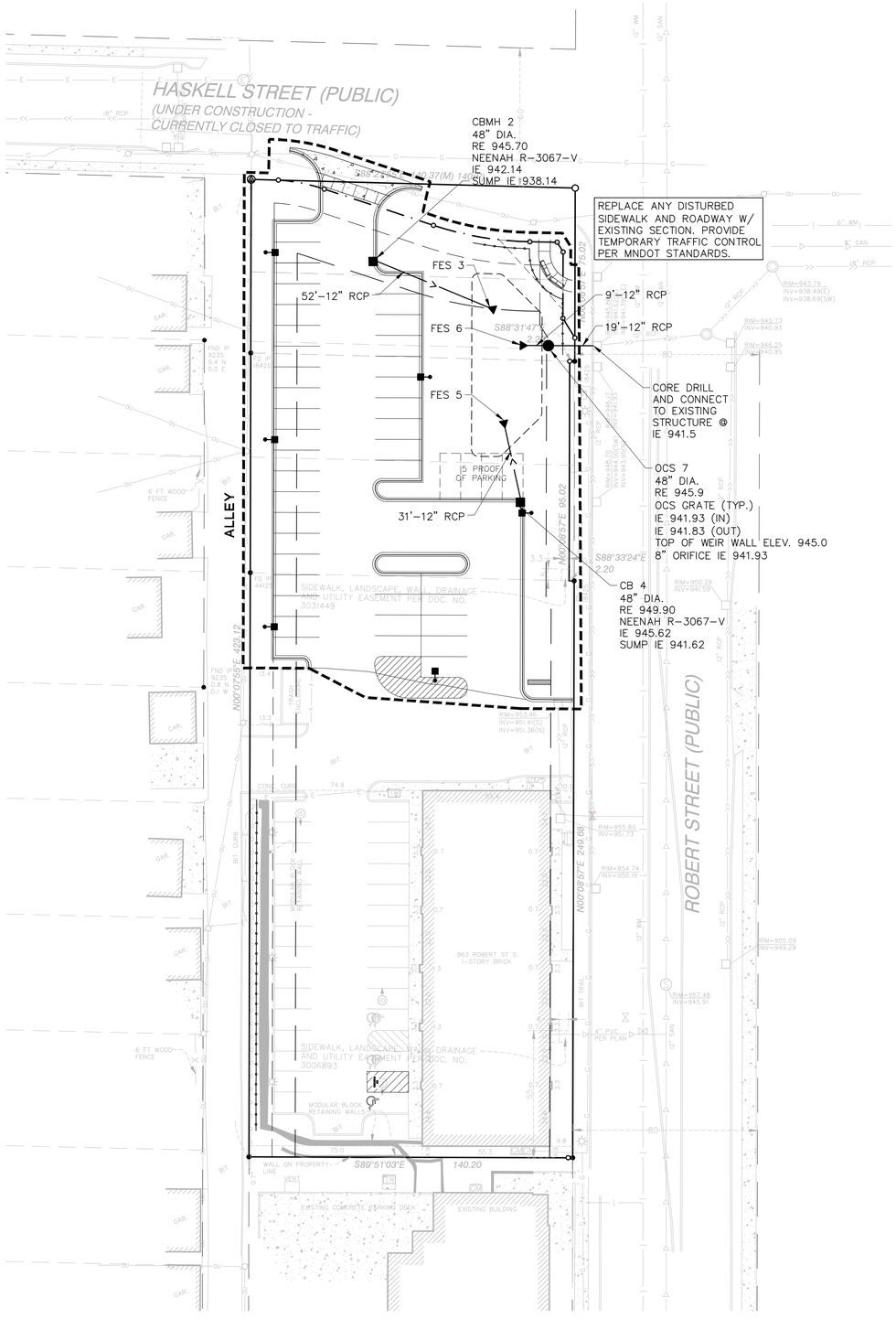
Drawing name: X:\2012\120116\plan sheets\Planning Submittal\120116grad.dwg May 27, 2016 – 11:21am



UTILITY NOTES:

1. EXISTING UTILITIES, SERVICE LOCATIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD AND WITH CITY OF WEST ST. PAUL, PRIOR TO CONSTRUCTION.
2. MAINTAIN 18" VERTICAL AND 6' HORIZONTAL SEPARATION AT ALL PIPE CROSSINGS.
3. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS PRIOR TO THE START OF CONSTRUCTION.
4. UTILITY CONTRACTOR TO PROVIDE POLYSTYRENE INSULATION FOR ALL STORM SEWER AND WATERMAIN CROSSINGS WHERE VERTICAL OR HORIZONTAL SEPARATION IS LESS THAN 6'.
5. ALL UTILITY WORK WITHIN THE R.O.W. SHALL COMPLY WITH CITY OF WEST ST. PAUL ENGINEERING DESIGN STANDARDS.
6. NOTIFY GOPHER STATE ONE CALL, 1(800)252-1166, 48 HOURS IN ADVANCE OF ANY UTILITY WORK.
7. NOTIFY UTILITY LOCATE COMPANY 48 HOURS IN ADVANCE OF ANY UTILITY WORK.
8. PROVIDE TEMPORARY TRAFFIC CONTROL IN COMPLIANCE WITH MNDOT "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS-FIELD MANUAL" LATEST EDITION, FOR ANY UTILITY CONSTRUCTION WITHIN PUBLIC R.O.W.
9. SEWER SERVICE SHALL BE 4" PVC, SDR 35, ASTM 3034 USE BENDS & FITTINGS AS REQUIRED.
10. THRUST BLOCKS SHALL BE PLACED AT FITTINGS, TEES, BENDS, CROSSES, PLUGS, ETC...
11. CONTRACTOR TO MARK ENDS OF UTILITY STUBS WITH A WOOD 4X4 POST (UPON COMPLETION OF EACH PHASE). BLUE FOR WATER AND RED FOR SANITARY.
12. ALL STORM SEWER PIPE LENGTHS ARE MEASURED FROM THE CENTER OF THE STRUCTURES.

UTILITY LEGEND:

- PROPOSED STORM SEWER
- PROPOSED CATCH BASIN
- PROPOSED STORM MANHOLE
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE/CATCH BASIN
- EXISTING HYDRANT

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SITE PLAN & PRELIMINARY PLAT SUBMITTAL
UTILITY PLAN

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PROJECT TEAM DATA

DESIGNED:	MK
DRAWN:	JG
PROJECT NO:	212-0116

C-5.0

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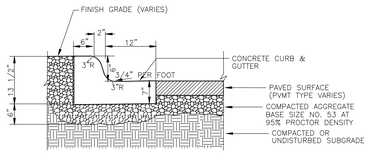

1 B612 CURB AND GUTTER
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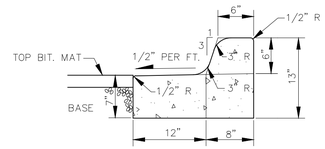
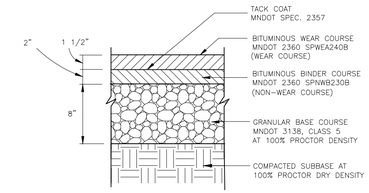
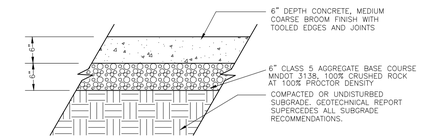


2 B612 CONCRETE CURB AND GUTTER OUTFALL
NO SCALE



3 BITUMINOUS PAVEMENT
NO SCALE



4 CONCRETE PAVEMENT
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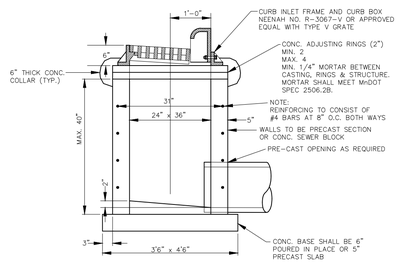
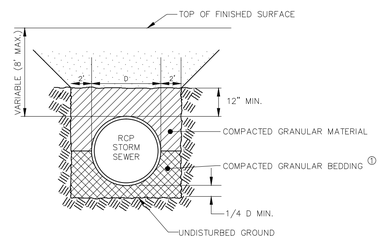
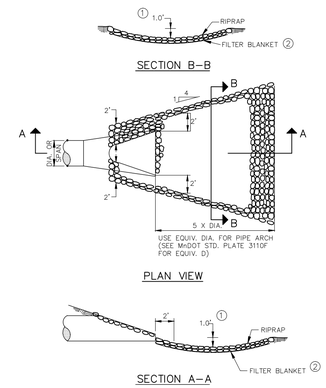


5 RECTANGULAR CATCH BASIN (2'x3')
NO SCALE



① GRANULAR BEDDING AND BACKFILL MATERIALS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. ALL BEDDING AND BACKFILL SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PIPE.

6 CONCRETE PIPE BEDDING
NO SCALE

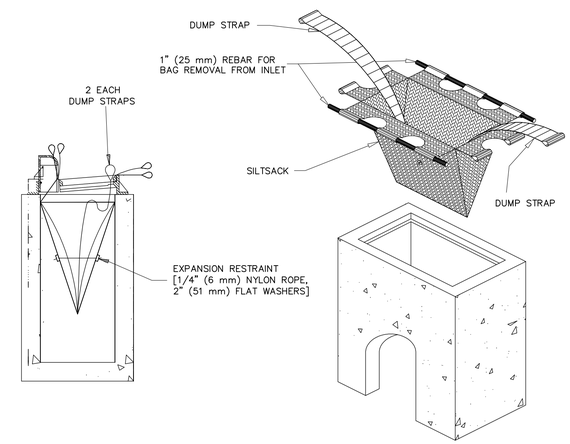


NOTES:

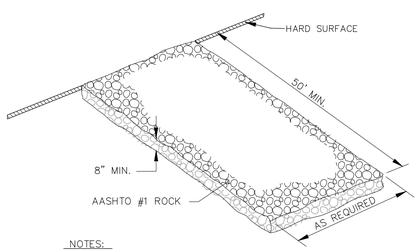
① FOR PIPE GREATER THAN OR EQUAL TO 48", USE 2'0"

② FILTER BLANKET SHALL BE GEOTEXTILE FABRIC, MnDOT SPEC. 3601 UNLESS OTHERWISE SPECIFIED IN THE PLANS THE FABRIC SHOULD COVER THIS AREA OF RIPRAP AND EXTEND UNDER THE CULVERT APRON 3 FT.

7 RIPRAP AT FLARED END SECTION
NO SCALE



8 INLET PROTECTION, SEDIMENT FILTER SACK
NO SCALE

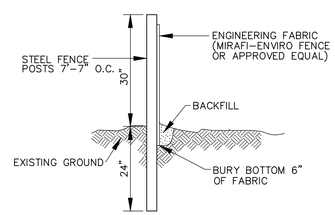


NOTES:

ROCK SIZE SHOULD BE AASHTO #1 ROCK

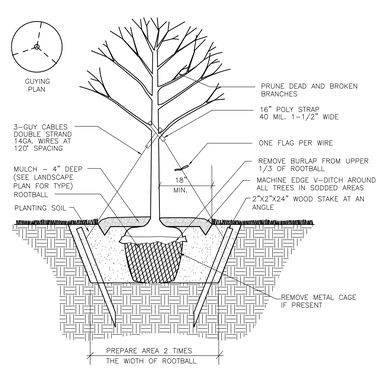
A GEOTEXTILE FABRIC SHALL BE USED UNDER THE ROCK TO PREVENT MIGRATION OF THE UNDERLYING SOIL INTO THE STONE.

9 TEMPORARY ROCK ENTRANCE
NO SCALE



CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL EROSION CONTROL MATERIALS FOLLOWING TURF ESTABLISHMENT

10 SILT FENCE
NO SCALE



11 TREE PLANTING DETAIL
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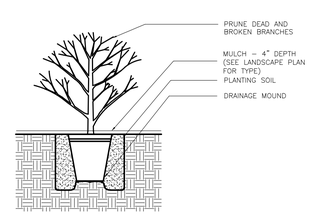

12 SHRUB PLANTING DETAIL
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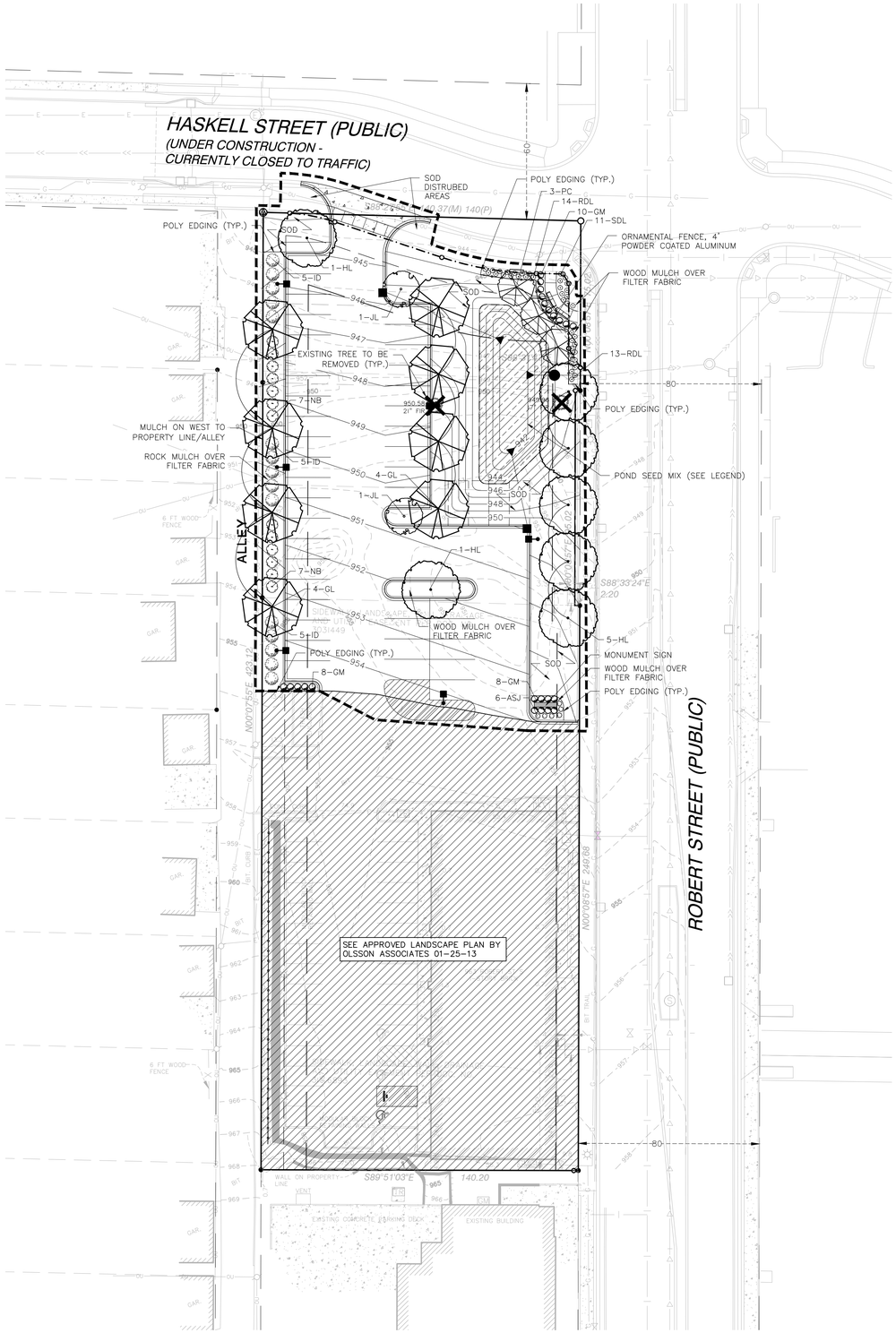
C-6.0

Drawing name: X:\2012\120116\plan sheets\Planning Submittal\120116detail.dwg May 27, 2016 - 11:22am



QTY	KEY	COMMON NAME/SCIENTIFIC NAME	SIZE	REMARKS
OVERSTORY TREES				
8	GL	Greenspire Linden / Tilia cordata 'Greenspire'	2.5" Cal. B&B	Straight Trunk, No V-Crotch
7	HL	Skyline Honeylocust / Gleditisia triacanthos var. inermis 'Skyline'	2.5" Cal. B&B	Straight Trunk, No V-Crotch
ORNAMENTAL TREES				
2	JL	Japanese Tree Lilac / Syringa reticulata	2.5" cal. B&B	Straight Trunk, No V-Crotch
3	PC	Prairie Rose Crabapple / Malus 'Prairie Rose'	2.5" cal. B&B	Straight Trunk, No V-Crotch
SHRUBS				
13	GM	Goldmound Spirea / Spirea x 'Goldmound'	18" ht. cont.	Min. 5 canes at ht. specified.
15	ID	Isanti Dogwood / Cornus sericea 'Isanti'	24" ht. cont.	Min. 5 canes at ht. specified.
13	NB	Summer Wine Ninebark / Physocarpus opulifolis 'Seward'	24" ht. cont.	Min. 5 canes at ht. specified.
PERENNIALS				
27	RDL	Ruby Stella Daylily / Hemerocallis 'Ruby Stella'	1 gal. cont.	
11	SDL	Stella Supreme Daylily / Hemerocallis 'Stella Supreme'	1 gal. cont.	
6	SAJ	Autumn Joy Sedum / Sedum x 'Autumn Joy'	1 gal. cont.	

NOTE:
OVERSTORY AND ORNAMENTAL TREES ARE TO BE 2.5" AT 4' ABOVE GRADE PER CITY ORDINANCE, SECTION 5.9(4)

LEGEND:

- DECIDUOUS OVERSTORY TREES
- FLOWERING & EVERGREEN SHRUBS
- PERENNIALS
- POND SEED MIX
- POLY EDGING
- EXISTING CONIFEROUS TREE TO BE REMOVED

LANDSCAPE REQUIREMENTS

PROTECTIVE BUFFER SETBACK
REQUIREMENT: PER 20 L.F. OF PROPERTY LINE. ONE (1) 2.5" DIA. TREE (MEASURED 4' ABOVE CALIPER GRADE) OR ONE (1) 6' HT. CONIFER TREE, PLUS GROUNDCOVER, SHRUBS, IRRIGATION.

TREES REQUIRED:* 28 TREES
(551 L.F. / 20 = 27.55)

TREE PROVIDED: 20 TREES

6' HT. SCREEN ADJACENT TO "R" USE
REQUIREMENT: ALONG WEST PROPERTY LINES

PROVIDED: 29 SHRUBS (±6')
4 TREES

PARKING LOT ISLAND LANDSCAPING
REQUIREMENT: ONE (1) 2.5" DIA. TREE (MEASURED 4' ABOVE CALIPER GRADE), GROUND COVER, GRASS OR SHRUBS, & IRRIGATION

REQUIRED: 2 TREES

PROVIDED: 2 TREES

*PROPERTY LINE CALCULATIONS DO NOT INCLUDE AREA COVERED BY PREVIOUSLY APPROVED LANDSCAPE PLAN.

LANDSCAPE NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR CALLING GOPHER STATE ONE CALL AT 651–454–0002 FOR LOCATING ALL UNDERGROUND UTILITIES AND AVOID DAMAGE TO UTILITIES DURING THE COURSE OF THE WORK.
2. INSTALL 4" MIN. TOP SOIL TO ALL SOD, SEED AND SHRUB AREAS. FINE GRADE ALL SOD AND SEED AREAS. INSTALL 12" PLANTING SOIL TO ALL PERENNIAL AREAS.
3. STAKE OR MARK ALL PLANT MATERIAL LOCATIONS PRIOR TO INSTALLATION. HAVE OWNERS REPRESENTATIVE APPROVE ALL STAKING PRIOR TO INSTALLATION.
4. ALL SHRUB AREAS UNLESS SPECIFIED AS OTHER, TO BE BED MULCHED WITH 4" DEPTH OF DOUBLE SHREDDED HARDWOOD MULCH OVER FILTER FABRIC, UNLESS SPECIFIED AS OTHER. POLY–EDGER TO BE VALLEY VIEW BLACK DIAMOND OR APPROVED EQUAL.
5. ROCK MULCH TO BE 1 1/2" DEPTH RIVER ROCK WHERE SPECIFIED.
6. INSTALL 4–6" DEPTH DOUBLE SHREDDED HARDWOOD MULCH AROUND ROOT SAUCER OF ALL TREES ISOLATED FROM PLANT BEDS.
7. PLANTING SOIL SHALL BE 1:1:1 CONSISTING OF 33% SELECT LOAMY TOPSOIL, 33% PEAT MOSS, 33% PIT RUN SAND.
8. COMPLETELY GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF ACCEPTANCE. MAKE ALL REPLACEMENTS PROMPTLY (AS PER DIRECTION OF OWNER).
9. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.
10. ALL TREE TRUNKS SHALL BE WRAPPED WITH BROWN CREPE TREE WRAP. APPLY WRAP IN NOVEMBER AND REMOVE IN APRIL.
11. MAINTAIN ALL PLANT MATERIALS, INCLUDING WATERING, UNTIL THE TIME OF ACCEPTANCE.
12. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR.
13. STAKING AND GUYING OF TREES OPTIONAL: MAINTAIN PLUMBNESS OF TREES FOR DURATION OF WARRANTY PERIOD.
14. SWEEP AND WASH ALL PAVED SURFACES AND REMOVE ALL DEBRIS RESULTING FROM LANDSCAPE OPERATIONS.
15. SUPPLY DESIGN AND INSTALLATION OF AN IRRIGATION SYSTEM TO PROVIDE COVERAGE OF SOD AND PLANTING AREAS. SOD AND SHRUB AREAS TO BE ON SEPERATE ZONES. PROVIDE RAIN SENSOR. USE RAINBIRD OR APPROVED EQUAL COORDINATE WITH G.C.
16. GENERAL CONTRACTOR SHALL FOLLOW THE COUNTY/STATE SOIL & EROSION CONTROL SPECIFICATIONS FOR DISTURBED AREA STABILIZATION.

SEEDING NOTES:

POND SEED MIX: MN STATE SEED MIX 33–361 (STORMWATER NORTHEAST).
SEEDING RATE TO BE 35.0 LBS/ACRE (PURE LIVE SEED).

APPLY SEED PER THE FOLLOWING (REFER TO MN STATE SEED MIX MANUAL):

1. MULCH SEEDED AREAS WITH MNDOT TYPE 3 (MCIA CERTIFIED WEED FREE) MULCH AT A RATE OF 1 TON PER ACRE WITHIN 48 HOURS OF SEEDING. MULCH SHOULD THEN BE DISC ANCHORED TO KEEP IT FROM BLOWING AWAY.
4. SITE TO BE PREPARED BY LOOSENING TOPSOIL TO A MINIMUM DEPTH OF 3 INCHES. THE SITE TO BE HARROWED OR RAKED FOLLOWING SEEDING, AND THEN PACKED USING A CULTI–PACKER OR EQUIVALENT. SEE MNDOT SEEDING MANUAL FOR REFERENCE.
5. SEEDING SHALL BE APPLIED FROM APRIL 15 – JULY 20 OR SEPTEMBER 20 – FREEZE UP.IF HYDROSEEDING UTILIZE APPROXIMATELY 500 GALLONS OF WATER PER ACRE. REFER TO MN/DOT SPEC 3884 FOR PROPER INSTALLATION OF HYDRO–SEED. ALL NATIVE SEEDS USED ON THIS PROJECT SHALL BE CERTIFIED TO BE OF MINNESOTA ORIGIN BY THE MINNESOTA CROP IMPROVEMENT ASSOCIATION (MCIA).
6. MAINTAIN SEEDED AREAS BY WATERING, REMULCHING AND REPLANTING AS NECESSARY TO ESTABLISH A UNIFORMLY DENSE STAND OF THE SPECIFIED GRASSES UNTIL ACCEPTED.
7. ANY AREAS FAILING TO ESTABLISH A STAND SHALL BE RESEEDED, REFERTILIZED AND REMULCHED WHENEVER 70% VEGETATIVE COVER IS NOT ACHIEVED. RESEEDING SHALL CONFORM IN ALL RESPECTS TO THESE SPECIFICATIONS. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE WORK AREAS RESULTING FROM EROSION AND/OR EQUIPMENT. THE CONTRACTOR SHALL REPAIR DAMAGE, INCLUDING REGRADING, RESEEDING, ETC. AS NECESSARY, BEFORE SIGNIFICANT DAMAGE OCCURS.

FOR REVIEW ONLY
PRELIMINARY
NOT FOR CONSTRUCTION

N

0 15 30 60
SCALE IN FEET

ALLIANT ENGINEERING
233 Park Ave S, Ste 300
Minneapolis, MN 55415
612.758.3080 MAIN
612.758.3099 FAX
www.alliant-inc.com

EMERSON HILL COMMERCIAL
967 SOUTH ROBERT STREET
WEST ST. PAUL, MINNESOTA
SITE PLAN & PRELIMINARY PLAT SUBMITTAL
LANDSCAPE PLAN

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 LANDSCAPE ARCHITECT under the laws of the State of MINNESOTA

CLARK WICKLUND, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

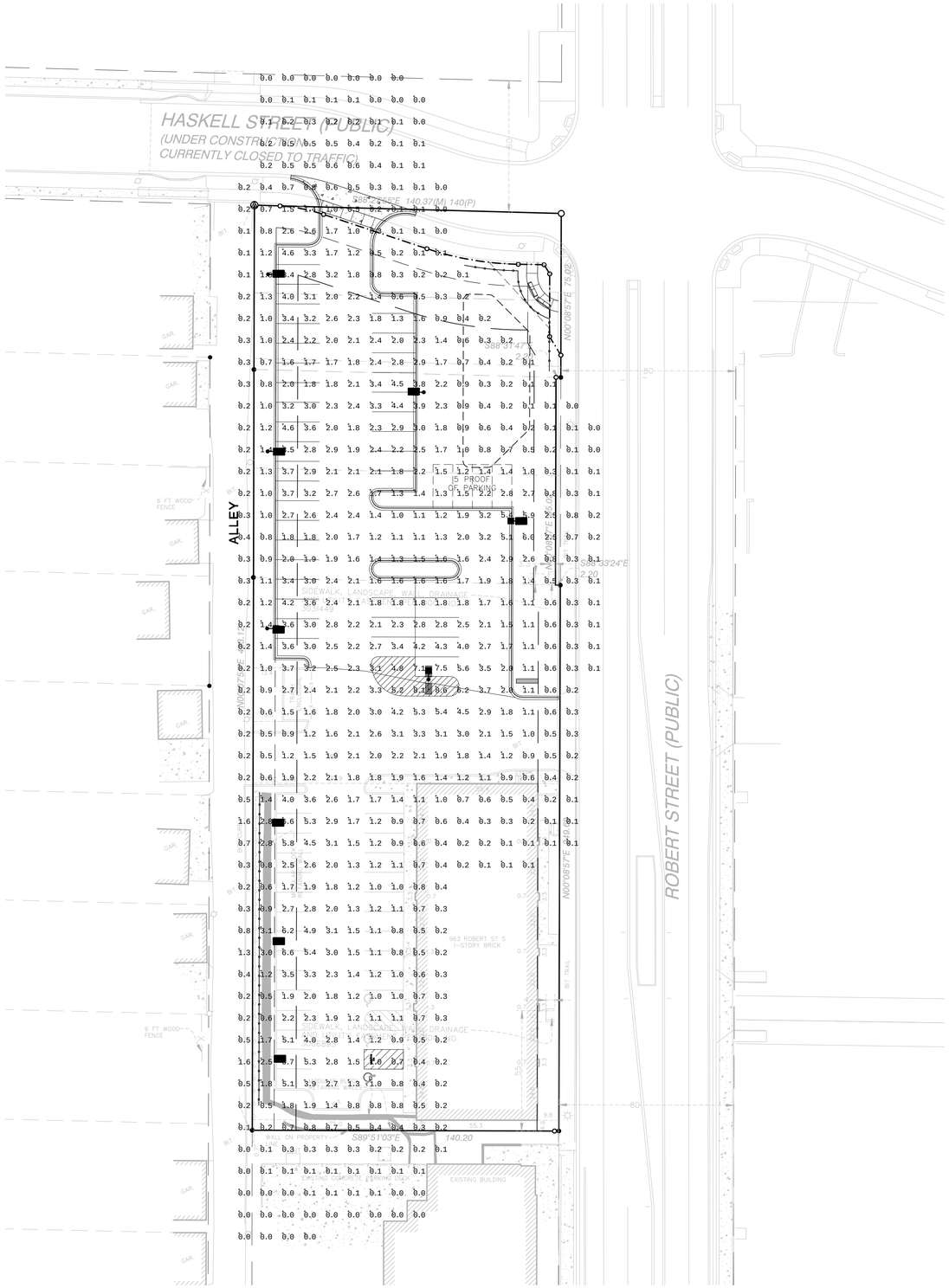
DATE	ISSUE
5–27–16	PLANNING SUBMITTAL

PROJECT TEAM DATA

DESIGNED: JG
DRAWN: JG
PROJECT NO: 212–0116

L–1.0

Drawing name: X:\2012\120116\plan sheets\Planning Submittal\120116land.dwg May 27, 2016 – 11:23am



Luminaire Schedule							
Symbol	Qty	Label	Arrangement	LLF	Description	Arr. Watts	Lum. Lumens
	1	AA	SINGLE	0.750	LUMARK MPTR-3F-250 MOUNT ON 20FT POLE WITH 2FT BASE	283	15105
	1	BB2	BACK-BACK	0.750	LUMARK MPTR-3S-250 MOUNT ON EXSIT 20FT POLE WITH 1FT BASE	566	17015
	3	CC	SINGLE	0.750	LUMARK MPTR-3S-250-XX-HS MOUNT ON 20FT POLE WITH 2FT BASE	283	11451
	1	DD	SINGLE	0.750	LUMARK MPTR-4F-250 MOUNT ON 20FT POLE WITH 2FT BASE	283	12467
	3	FF	SINGLE	0.750	EXIST 250W MH TYPE IV ON EXIST POLE AT 21FT	283	12467

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE GROUND	Illuminance	Fc	1.43	8.6	0.0	N.A.	N.A.
NORTH PARKING	Illuminance	Fc	2.53	7.5	1.0	2.53	7.50
SOUTH PARKING	Illuminance	Fc	2.34	6.7	0.7	3.34	9.57

Luminaire Location Summary						
LumNo	Label	X	Y	Z	Orient	Tilt
24	CC	9796.1	5612.8	22	0	0
25	CC	9796.3	5531.4	22	0	0
26	CC	9796.1	5450	22	0	0
27	BB2	9864.7	5426.9	21	90	0
28	AA	9857.9	5558.9	22	180	0
30	DD	9907	5499.7	22	180.349	0
31	FF	9795.9	5361.7	21	0	0
32	FF	9796.2	5307.5	21	0	0
33	FF	9796.7	5253.7	21	0	0

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N

0 15 30 60
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EMERSON HILL COMMERCIAL

967 SOUTH ROBERT STREET
WEST ST. PAUL, MINNESOTA

SITE PLAN & PRELIMINARY PLAT SUBMITTAL
PHOTOMETRIC PLAN

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

CLARK WICKLUND, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
5-27-16	PLANNING SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MK
DRAWN: EMK
PROJECT NO: 212-0116

P-1.0

Drawing name: X:\2012\120116\plan sheets\Planning Submittal\120116photo.dwg May 27, 2016 - 11:24am

CITY OF WEST ST. PAUL
DAKOTA COUNTY, MINNESOTA

RESOLUTION NO. 16-

A RESOLUTION APPROVING THE SITE PLAN FOR A PARKING LOT EXPANSION AT 963 ROBERT ST. (SHERMAN & ASSOCIATES)

WHEREAS, a Final Site Plan has been submitted to the City for the properties legally described as:

N 40 FT OF LOT 1, BLOCK 8 MICHEL B ADDITION

S 30 FT OF LOT1 AND N 40 FT OF LOT 2, BLOCK 8 MICHEL B ADDITION

THE S 40 FT OFLOT 2, BLOCK 8 MICHEL B ADDITION EX THE E 2.20 FT OF THE S 45 FT OF SAID LOT 2, BLOCK 8

LOT 3, BLOCK 8 MICHEL B ADDITION EX THE EAST 2.20 FT OF SAID LOT 3, BLOCK 8

LOT 2, BLOCK 1 EMERSON HILL

WHEREAS, a public hearing concerning the Site Plan was held before the West St. Paul Planning Commission on September 20, 2016; and

WHEREAS, the West St. Paul Planning Commission voted 3-3 that the City Council of West St. Paul approve the Site Plan.

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF WEST ST. PAUL that the Site Plan requested by Sherman & Associates is hereby approved subject to the following conditions:

1. Council approval of the corresponding Plat application.
2. The applicant shall obtain all applicable building and sign permits for the approved site improvements.
3. The applicant shall meet the screening requirement for the west property by providing a six-foot maintenance free fence as outlined in Section 153.032(E)(4).
4. The property owner shall record a shared parking easement benefitting 993 Robert St. for overflow parking. In addition, the property owner shall include signage in the parking lot of 993 Robert St. stating that overflow parking is available in the parking lot at 963 Robert.
5. The applicant shall revise the lighting plan to meet the zero-foot candle requirement at the south and west property lines.

6. The applicant shall revise the site plan to include a landscaped curbed island in the western row of parking.
7. The applicant shall adhere to the recommendations outlined in the attached memos provided by the City Civil Engineer, the Environmental Committee, and MnDOT.

Passed by the City Council of the City of West St. Paul this 26th day of September, 2016.

Ayes: Nays:

Attest:

_____ _____

Dave Meisinger, Mayor Chantal Doriott, City Clerk

CITY OF WEST ST. PAUL
DAKOTA COUNTY, MINNESOTA

RESOLUTION NO. 16-

A RESOLUTION APPROVING THE
FINAL PLAT FOR 943-963 ROBERT ST
(SHERMAN & ASSOCIATES)

WHEREAS, a Final Plat has been submitted to the City for properties legally described as:

N 40 FT OF LOT 1, BLOCK 8 MICHEL B ADDITION

S 30 FT OF LOT1 AND N 40 FT OF LOT 2, BLOCK 8 MICHEL B ADDITION

THE S 40 FT OFLOT 2, BLOCK 8 MICHEL B ADDITION EX THE E 2.20 FT OF THE S 45 FT OF SAID LOT 2, BLOCK 8

LOT 3, BLOCK 8 MICHEL B ADDITION EX THE EAST 2.20 FT OF SAID LOT 3, BLOCK 8

LOT 2, BLOCK 1 EMERSON HILL

WHEREAS, a public hearing concerning the Final Plat was held before the West St. Paul Planning Commission on September 20, 2016; and

WHEREAS, the proposed Final Plat is in accordance with the Subdivision requirements; and

WHEREAS, the West St. Paul Planning Commission voted 3-3 that the City Council of West St. Paul approve the Final Plat.

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF WEST ST. PAUL that the Final Plat for lots currently addressed 943-963 Robert St. (Sherman & Associates) is hereby approved subject to the following conditions:

1. Council approval of the corresponding Site Plan application.
2. The applicant shall record the plat at Dakota County within one year of City approval

Passed by the City Council of the City of West St. Paul this 26th day of September, 2016.

Ayes: Nays:

Attest:

_____ _____

David Meisinger, Mayor Chantal Doriott, City Clerk

TO:	Mayor and City Council
THROUGH:	Matt Fulton, City Manager
	Jim Hartshorn, Comm. Dev. Dir.
FROM:	Ben Boike, Assistant Comm. Dev. Dir.
DATE:	September 26, 2016
SUBJECT:	Site Plan Review – 1675 Livingston Ave

City of West St. Paul

BACKGROUND INFORMATION:

The Dakota County Community Development Agency (CDA) is requesting Site Plan approval in order to expand their existing parking lot at 1675 Livingston Ave. The applicant is proposing to modify the existing parking lot fronting the apartment building by adding 13 additional parking stalls off the west side of the existing drive aisle (see attached plan). The property currently has 40 parking stalls and therefore relies heavily on on-street parking on Livingston Ave. The proposed parking lot addition would help to alleviate the dependency on on-street parking.

For more detailed information on the proposed application please see the attached Planning Commission report and plan.

Planning Commission
The Planning Commission met in regular session on September 20, 2016 and held a public hearing. No one from the public wished to speak on the item.

The Commission discussed concerns regarding the limited off-street parking available and the reliance of Livingston Ave for on-street parking and inquired whether or not the applicant has thought about adding additional parking to the rear of the building. The applicant stated that they have explored options and that they believe the additional 13 stalls will meet their needs.

The Commission voted 6-0 to recommend APPROVAL of the Site Plan Amendment subject to the submitted plan and the recommendations as proposed by Staff.

FISCAL IMPACT:

		Amount
Fund:		
Department:		
Account:		**N/A**

STAFF RECOMMENDATION:

Staff recommends that the City Council hold the public hearing and approve the Site Plan subject to the following conditions:

1. The applicant shall obtain all applicable building permits for the parking lot addition.
2. The applicant shall submit a revised site plan that includes the dimension of the drive aisle adjacent to the newly proposed row of parking. Should the drive aisle not meet the minimum drive aisle width of 22 ft., the applicant shall revise the plan to meet the requirement.
3. The applicant shall submit a landscape plan adhering to the tree replacement requirement in Section 153.031(4) of the Zoning Ordinance.
4. The applicant shall adhere to the recommendations outlined in the attached memos provided by the Environmental Committee and City Civil Engineer.

TO: Planning Commission

FROM: Ben Boike, Assistant Comm. Dev. Dir.

DATE: September 20, 2016

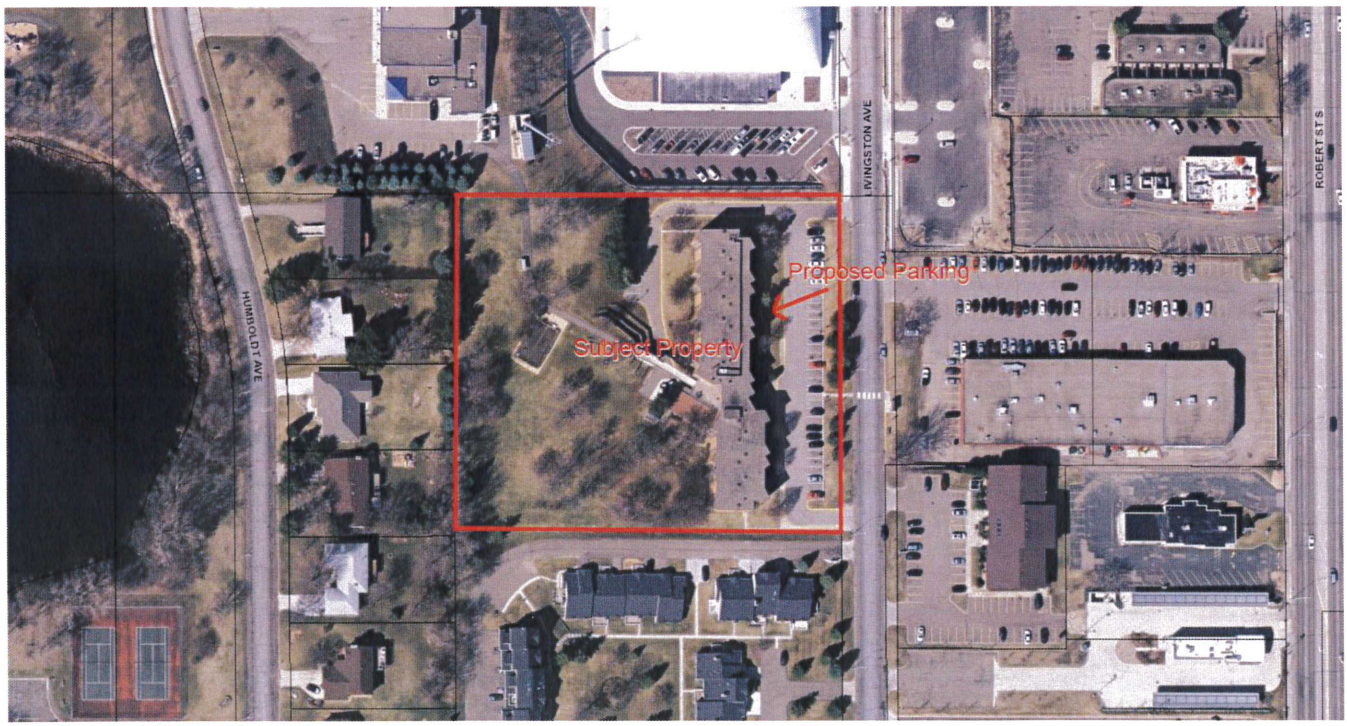
SUBJECT: Site Plan Review – 1675 Livingston Ave

City of West St. Paul

REQUEST

The Dakota County Community Development Agency (CDA) is requesting Site Plan approval in order to expand their existing parking lot at 1675 Livingston Ave. The applicant is proposing to add 13 new parking stalls adjacent to the front door off the existing parking lot drive aisle fronting the building.

Attachments:
Applications/ Notice
Memo from the Environment Committee & Civil Engineer
Copies of submitted plans



EXISTING LAND USES

The subject property currently consists of a County owned apartment building. The adjacent use to the north is occupied by the City of WSP sports dome. Adjacent properties to the east are occupied by commercial uses. Adjacent properties to the south are occupied by townhomes and adjacent properties to the west are occupied by single-family homes.

ZONING

The subject property and adjacent properties to the south are zoned R4, Multiple-family Residential. The adjacent property to the north is zoned B6, Town Center Mixed-use. Adjacent properties to the east are zoned B6, Town Center Mixed-use and B3, General Business. Adjacent properties to the west are zoned R1, Single family.

ANALYSIS

Proposal

The applicant is proposing to modify the existing parking lot fronting the apartment building by adding 13 additional parking stalls off the west side of the existing drive aisle (see attached plan). The property currently has 40 parking stalls and therefore relies heavily on on-street parking on Livingston Ave. The proposed parking lot addition would help to alleviate the dependency on on-street parking.

Parking Requirements

The zoning ordinance requires two parking stalls per unit, half of which must be enclosed. The complex includes a total of 80 units. Therefore, per code, the property requires a total of 160 parking stalls (80 enclosed). The existing property has a total of 40 parking stalls (0 enclosed).

The development of the property predates the parking requirement. As a result, the existing parking lot is considered legal non-conforming. With that said, the apartment is designated for low-to-moderate income persons who are 62 years of age and older, handicapped or disabled, near elderly (50 years or older) and single persons. In the past, the facility housed mostly seniors without cares however the tenants are becoming younger so the demand for parking has increased.

As mentioned, the apartment currently relies on Livingston Ave for overflow parking, so the proposed parking will not only bring the property closer to compliance, but also help relieve the property's reliance on on-street parking.

Retaining Wall

A short retaining wall is required (4 ft. max height) as the proposed parking stalls cut into an existing hill.

Setbacks

The proposed parking addition meets all setback requirements.

Drive Aisle/Parking Stall Dimensions

The submitted plan does not indicate whether or not the existing drive aisle meets the minimum width requirement of 20 ft. for two-way traffic. Staff is recommending a condition of approval requiring that the applicant revise the plans to include the drive aisle width. Should the drive aisle not meet the minimum requirement, the applicant shall also revise the plans to meet the minimum requirement.

The proposed parking stalls meet the minimum dimensions of 9 ft. x 20 ft.

Curbing
The proposed parking lot modification will include B612 curbing as required by the Zoning Ordinance.

Landscaping
The submitted plan calls for the removal of three quality trees. The Zoning Ordinance requires that all tree removed be replaced at 30 percent the total caliper inches removed. As a result, Staff is recommending a condition of approval requiring the applicant to submit a landscape plan adhering to Section 153.031(4) of the Zoning Ordinance.

Environmental Committee Review
The Environmental Committee reviewed the proposed landscape plan at their September 7, 2016 meeting. The Committee recommended that the replacement trees be planted in front of the building between the parking lot and Livingston Ave, but not in the right-of-way. They also recommend that a variety of trees be planted that both native tree species and that have a high salt tolerance. Some possible species recommended include Amur Maple, Eastern Red Cedar, and Honeylocust. The EC unanimously voted to approve the site plan, with an additional comment that they strongly encourage the developer to use "pollinator friendly" native plants that were not treated with "neonicotinoids".

Engineering Review
The City Engineer has provided a memo with six (6) recommended conditions pertaining to the Site Plan (see attached memo). Staff is recommending a condition of approval that the applicant adhere to the recommendations in the memo. The conditions are as follows:

1. Permits from the appropriate regulatory agencies must be obtained, including but not limited to the MPCA, Dakota County, MnDOT, etc.
2. Pedestrian ramps abutting Livingston Ave to be MnDOT ADA compliant. Include MnDOT Standard Plan 5-297.250 (Sheets 1-5) in final plan set.
3. Please provide hydrologic calculations that the proposed increased impervious pavement will not alter the existing discharge rates for 2, 10, 100-year storm events. Refer to West St. Paul Surface Water Management Plan for more information.
4. Show adjacent plat, parcels, property lines, easements, etc.
5. Identify the benchmark used.
6. Install inlet protection on all downstream catch basins.

STAFF RECOMMENDATION
Staff recommends APPROVAL of the SITE PLAN subject to the submitted site plan and to the following conditions:

1. The applicant shall obtain all applicable building permits for the parking lot addition.
2. The applicant shall submit a revised site plan that includes the dimension of the drive aisle adjacent to the newly proposed row of parking. Should the drive aisle not meet the minimum drive aisle width of 20 ft., the applicant shall revise the plan to meet the requirement.

3. The applicant shall submit a landscape plan adhering to the tree replacement requirement in Section 153.031(4) of the Zoning Ordinance.
4. The applicant shall adhere to the recommendations outlined in the attached memos provided by the Environmental Committee and City Civil Engineer.

CITY OF WEST ST. PAUL

1616 HUMBOLDT AVENUE, WEST ST. PAUL, MN 55118-3972

MUNICIPAL CENTER 651-552-4100 POLICE 651-552-4200
PARKS/RECREATION 651-552-4150 FIRE 651-552-4176
FAX 651-552-4190 TDD 651-552-4222

SITE PLAN APPLICATION

Filing Fee: $275.00

Escrow Amount: $1300.00

TOTAL FEES $1,575.00

(OFFICE USE ONLY)

CASE NO. 16-
DATE RECEIVED 8/25/16
RECEIPT #
60 DAY DATE 10/24/16

1. STREET ADDRESS OF PARCEL 1675 LIVINGSTON AVE.

2. NAME OF APPLICANT VINCE MARKELL Phone # 651.675.4507

3. ADDRESS OF APPLICANT 1228 TOWN CENTRE DR. EAGAN, MN 55123 Email VMARKELL@DAKOTACDA.STATE.MN.US

4. NAME OF OWNER DAKOTA COUNTY CDA Phone # 651.675.4400

5. ADDRESS OF OWNER 1228 TOWN CENTRE DR. EAGAN, MN 55123 Email

6. LEGAL/PID # 42-02000-58-012

7. PRESENT ZONING R-4 MULTIPLE FAMILY RESIDENTIAL

8. PROPOSED USE OF PARCEL R-4. WE ARE PROPOSING TO INCREASE OFF STREET PARKING BY ADDING (13) PARKING SPACES. EXISTING PARKING IS 6,996 SF. NEW PARKING IS 2,550 SF. THUS, AN INCREASE OF 36%.

9. WHAT WILL BE THE EFFECT ON EXISTING AND ANTICIPATED TRAFFIC CONDITIONS, INCLUDING PARKING FACILITIES ON ADJACENT STREETS THE PROPOSED PARKING WOULD REDUCE ON-STREET PARKING.

EXHIBITS REQUIRED

1. An electronic copy as well as four (4) 22x34 and twenty (20) 11x17 copies in sets and folded plans, showing application information as follows:
   a. A survey scaled and dimensioned site plan showing pertinent existing conditions such as parking layout, access provisions, structure locations, drainage, lot area, and yard dimensions, including but not limited to the surrounding parcels within 150 feet.

   b. A complete set of preliminary drawings prepared and signed by a registered Civil Engineer, Architect, and/or Landscape Architect showing:

      (i) A site plan indicating parking layout, access provisions, structure locations, any fences, walls, or other screening, including height and type of material, landscaping, drainage, trees and shrubbery including types and locations, and sizes.
      ~~(ii) Building Elevations including finishes on all buildings all sides.~~ NOT REQUIRED.
      (iii) All lighting provisions on site, including type, location, and lumens affecting the surrounding parcels and streets.
      (iv) Curb type and location on site.
      (v) Proposed plans for sidewalk to service, parking, recreation and service areas within the site.

ACKNOWLEDGE AND SIGNATURE

The undersigned hereby represents upon all penalties of law, for the purpose of inducing the City of West St Paul to take action herein requested, that all statements herein are true and that all work herein mentioned will be done in accordance with the Ordinances and all Codes of the City of West St Paul and the State of Minnesota.

Vincent E. Marshell — 651.675.4507

Signature of Owner (Required) — Phone Number

Signature of Applicant (If different) — Phone Number

NOTE: All Materials relevant to this Application must be filed on or before the dates listed on the Operating Procedures for Applicants page. The Planning Commission holds its regular meeting at 7:00pm on the third Tuesday of each month.

LAPSE OF SITE PLAN: An approved Site Plan shall lapse and become null and void six months following the date on which the Site Plan was approved, unless prior to the expiration of six months a building permit is issued by the Building Official and construction is commenced and diligently pursued toward completion on the subject site. An approved Site Plan may be renewed once for a period of one year by the City Council.

FEES

1. The fees to be paid by each applicant for each zoning request shall be as prescribed by the City Council. Fees shall be payable at the time applications are filed with the Zoning Administrator and are not refundable unless the application is withdrawn prior to being sent for legal publication and notice. There shall be no fee in the case of applications filed in the public interest by the City Council or by the Planning Commission. Fees shall include application fee, filing fees, consultant, legal, planning, and engineering fees.

2. Applicants shall deposit with the City, together with the application filing fees, the sums required by Council resolution toward prepayment of the Consultants and Attorney's expenses and all costs to be billed and charged to the City. The prepayment amounts shall be a credit toward all reasonable fees and expenses charged by the Consultants to the City in the investigation report and recommendation to the City Council concerning the application. All reasonable expenses and fees in excess of the deposit, shall be paid by the applicant to the City within 30 days of final action on the matter by the City. If not paid within 30 days, the account shall be deemed delinquent. If the fees and expenses incurred by the City from the Consultants are less than the amount of deposit, such excess shall be returned to the applicant upon final action by the City in said manner.

City of West St. Paul
PUBLIC WORKS & PARKS/ENG

Memorandum

TO: Ben Boike, Assistant Community Development Director/City Planner

FROM: Darin Rezac, Civil Engineer

DATE: September 14, 2016

SUBJECT: Site Review Colleen Loney Parking Expansion

The engineering department has completed its review of the above-referenced project. In conjunction with the site plan approval, the following conditions must be met.

RECOMMENDED CONDITIONS OF APPROVAL

1. Permits from the appropriate regulatory agencies must be obtained, including but not limited to the MPCA, Dakota County, MnDOT, etc.
2. Pedestrian ramps abutting Livingston Ave to be MnDOT ADA compliant. Include MnDOT Standard Plan 5-297.250 (Sheets 1-5) in final plan set.
3. Please provide hydrologic calculations that the proposed increased impervious pavement will not alter the existing discharge rates for 2, 10, 100-year storm events. Refer to West St. Paul Surface Water Management Plan for more information.
4. Show adjacent plat, parcels, property lines, easements, etc.
5. Identify the benchmark used.
6. Install inlet protection on all downstream catch basins.

C: Ross Beckwith, City Engineer/Public Works & Parks Director
Chuck Price, Engineering Tech III

TO: Asst. Community Dev. Dir.
THROUGH: Asst. Parks & Recreation Dir.
FROM: Environmental Committee
DATE: September 14, 2016

SUBJECT:

CASE #16-11 – Site Plan review for 1675 Livingston Ave

BACKGROUND INFORMATION:

At the September 7, 2016 Environmental Committee (EC) meeting, members reviewed the Site Plan submitted by the Dakota County CDA to construct an addition to their parking lot at 1675 Livingston Ave. The EC members liked the overall plan and the addition of more off street parking. They agreed with the Assistant Community Development Director's recommendations. They recommend trees be planted in front of the building between the parking lot and Livingston Ave, but not in the right-of-way. The also recommend that a variety of trees be planted that both native tree species and that have a high salt tolerance. Some possible species recommended include Amur Maple, Eastern Red Cedar, and Honeylocust. The EC unanimously voted to approve the site plan, with an additional comment that they strongly encourage the developer to use "pollinator friendly" native plants that were not treated with "neonicotinoids".

RECOMMENDATION:

Environmental Committee members approve the site plan for redevelopment of 1675 Livingston Ave with the recommendations listed above.

CITY OF
WEST ST. PAUL

City Hall
1616 Humboldt Avenue
West St. Paul, MN
55118-3972
651-552-4100
FAX 651-552-4190
TDD 651-322-2323
www.wspmn.gov

CITY OF WEST ST. PAUL
NOTICE OF PUBLIC HEARINGS

TO WHOM IT MAY CONCERN:

The listed items below will be public hearings at the Planning Commission meeting on September 20, 2016 at 7:00 pm and public hearings at the Council meeting on September 26, 2016 at 6:30 p.m.:

Case #16-11 – Application for Site Plan review to modify (expand) the existing parking lot at 1675 Livingston Ave – Dakota County CDA

Interested persons will be heard at the meeting. If you have any questions, please contact City Planner Ben Boike at 651-552-4134. If you need any type of accommodation to participate in the meeting, please contact the ADA Coordinator at 651-552-4102 at least 5 (five) business days prior to the meeting.

Chantal M. Doriott
City Clerk
City of West St. Paul

Published: September 11, 2016

CITY OF WEST ST. PAUL
DAKOTA COUNTY, MINNESOTA

RESOLUTION NO. 16-

A RESOLUTION APPROVING THE SITE PLAN FOR A PARKING LOT MODIFICATION AT 1675 LIVINGSTON AVE (DAKOTA COUNTY CDA)

WHEREAS, a Final Site Plan has been submitted to the City for property legally described as:

PT OF SW 1/4 BEG 660 FT S & 525 FT W OF NE COR OF NW 1/4 OF SW 1/4 S 362.42 FT W 422.19 FT N 362.41 FT E 419.18 FT TO BEG SECTION 20 TWN 28 RANGE 22

WHEREAS, a public hearing concerning the Site Plan was held before the West St. Paul Planning Commission on September 20, 2016; and

WHEREAS, the West St. Paul Planning Commission has recommended that the City Council of West St. Paul approve the Site Plan.

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF WEST ST. PAUL that the Site Plan requested by the Dakota County CDA is hereby approved subject to the following conditions:

1. The applicant shall obtain all applicable building permits for the parking lot addition.
2. The applicant shall submit a revised site plan that includes the dimension of the drive aisle adjacent to the newly proposed row of parking. Should the drive aisle not meet the minimum drive aisle width of 20 ft., the applicant shall revise the plan to meet the requirement.
3. The applicant shall submit a landscape plan adhering to the tree replacement requirement in Section 153.031(4) of the Zoning Ordinance.
4. The applicant shall adhere to the recommendations outlined in the attached memos provided by the Environmental Committee and City Civil Engineer.

Passed by the City Council of the City of West St. Paul this 26th day of September, 2016.

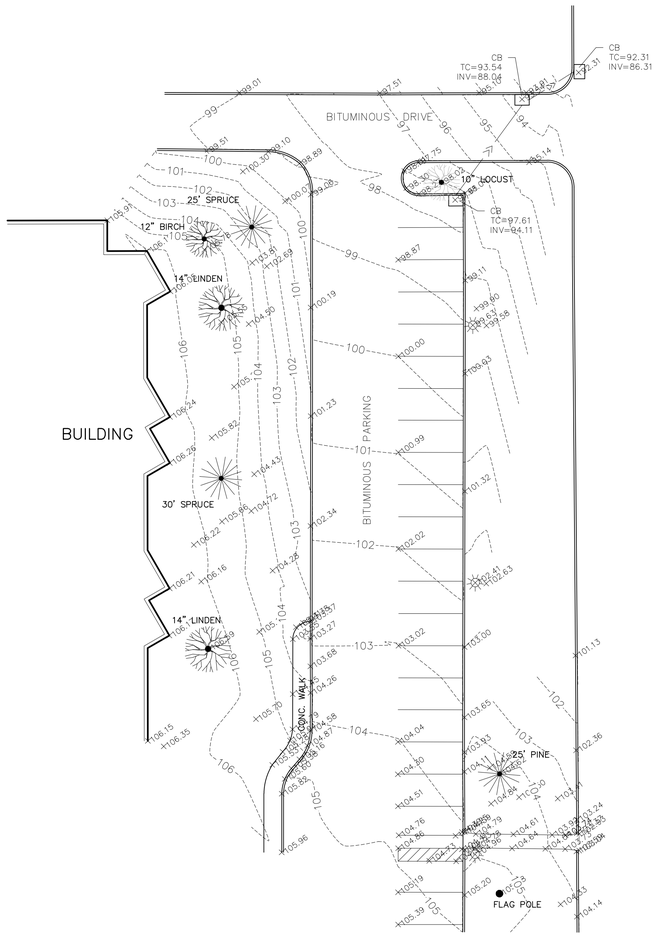
Ayes: Nays:

Attest:

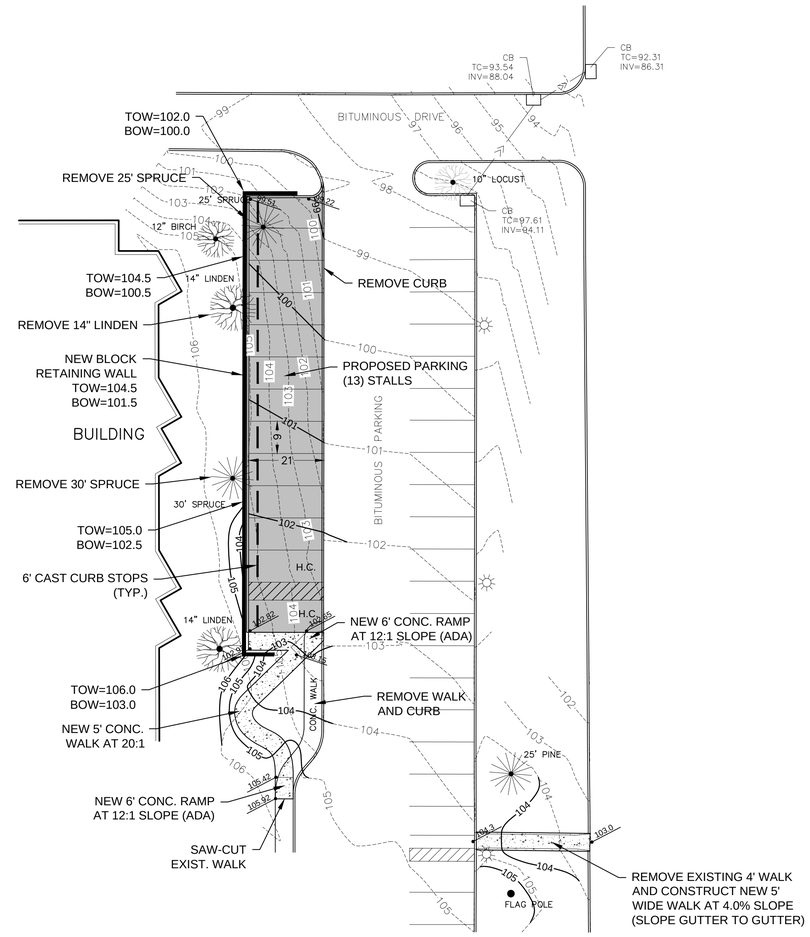
Dave Meisinger, Mayor

Chantal Doriott, City Clerk

EXISTING SITE



PROPOSED SITE



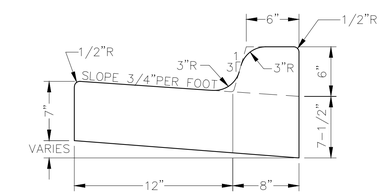
SCALE IN FEET

0 10 20 30 40 60

ELEVATIONS ARE ASSUMED DATUM

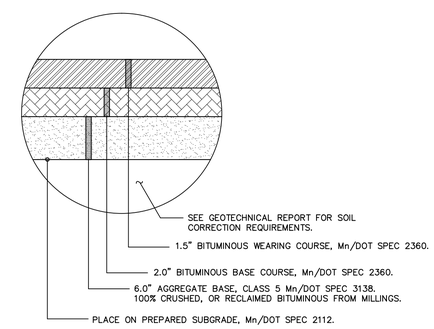
NOTES

1) UTILITIES SHOWN ARE APPROXIMATE LOCATION. LOCATIONS OF UNDERGROUND UTILITIES COMPILED FROM VISUAL EVIDENCE (FLAGGING & PAINT MARKS) AND RECORD DRAWINGS (DESIGN & AS-BUILT). CALL GOPHER STATE ONE CALL AT 811 FOR ALL UTILITY, GAS LINE, AND ELECTRICAL LINE LOCATIONS PRIOR TO EXCAVATION.
2) TOPOGRAPHIC SURVEY COMPLETED IN JULY 2016.
3) INSTALL SILT FENCE AS NEEDED.
4) RE-VEGETATE THE SITE WITHIN 48 HOURS OF FINAL GRADING.
5) THE STREET MUST BE CLEARED OR DEBRIS AT THE END OF EACH DAY. ADDITIONAL SWEEPING WILL BE REQUIRED DURING THE HAULING PROCESS. ALL STREETS MUST BE MAINTAINED TO SAFE DRIVING CONDITIONS.
6) ALL EXISTING CATCH BASINS MUST BE CLEANED, AND THAT THEIR RESPECTIVE INLETS/OUTLETS BE PROTECTED TO ALLOW FOR PROPER DRAINAGE.
7) PROPOSED SLOPES AS SHOWN ARE NOT GREATER THAN 3:1.
8) USE "CITY OF WEST ST. PAUL UTILITY AND STREET CONSTRUCTION STANDARDS AND SPECIFICATIONS".
9) PROPOSED PARKING SURFACE SHALL BE 5% (20:1) OR LESS.



B612 CURB & GUTTER

NOT TO SCALE



BITUMINOUS PAVEMENT SECTION

NOT TO SCALE

REVISIONS	
7-28-16	WALK TO STREET

PROJ. NO:	216090
DRAWN:	GDJ
CHECKED:	GDJ
SCALE:	AS SHOWN
FIELD BOOK:	A
DATE:	7-7-16

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 and Land Surveyor under the laws of the State of Minnesota.

Signature: Grant D. Jacobson License No: 23189

Print Name: GRANT D. JACOBSON Date: 7-28-16

JACOBSON
ENGINEERS & SURVEYORS

jacobson@engrsurv.com (952) 469-4328
21029 HERON WAY LAKEVILLE, MN 55044
FAX (952) 469-4624

PREPARED FOR:

Dakota County, CDA
Attn: Vince Markell
1228 Town Centre Drive
Eagan, MN 55123

TOPOGRAPHIC SURVEY AND SITE GRADING PLAN

COLLEEN LONEY MANOR – WEST ST. PAUL, MN

SHEET NO. C-1 / 1

Jul. 28, 16
216090-1

RESOLUTION NO. 16-88

WEST ST. PAUL
DAKOTA COUNTY, MINNESOTA

A RESOLUTION AUTHORIZING THE SETTLEMENT OF PARCEL 100 REGARDING THE EASEMENT ACQUISITIONS FOR THE ROBERT STREET IMPROVEMENT PROJECT

WHEREAS, the City has been negotiating with property owners along Robert Street for easements in order to complete the Robert Street Improvement Project ("Project"); and

WHEREAS, the owner of Parcel 100, located at 1170 S. Robert Street ("Owner") agreed to a negotiated settlement as full and final satisfaction of all claims related to the Project; and

NOW, THEREFORE, BE IT RESOLVED by the West St. Paul City Council that the attorney for the City is authorized to settle the easement acquisition with a payment of $160,000 to the Owner of Parcel 100, with the additional authorization to reduce the landscaping requirement to two (2) trees in front of the Owner's property within the City's easement, as well as attorney fees, costs, certain site modifications and approvals, and other non-monetary terms and conditions.

Adopted by the City Council of the City of West St. Paul this 12th day of September, 2016.

Ayes: 4 Nays: 1

VETO dtm 9/12/16

David Meisinger, Mayor

Attest:

Chantal Doriott, City Clerk

Mayor David Meisinger

September 12, 2016

City Clerk Chantal Doriott, City of West Saint Paul

Madame Clerk,

Per Chapter II section 2.06 of the city charter, please allow this notice to serve as my VETO of the resolution approving the One Hundred Sixty Thousand ($160,000.00) easement acquisition settlement approved by the council at its September 12th regularly scheduled council meeting. This settlement was for parcel #100 as part of the S. Robert Street project.

As Mayor, I refuse to allow the use of Thirty Thousand ($30,000.00) tax payer dollars to pay for two (2) trees. The owner of this parcel agreed to accept an offer of One Hundred Thirty Thousand ($130,000.00) with no trees, yet the council rejected that offer in lieu of a higher offer that included the two (2) trees.

Without these two (2) trees the road will still be safe, useful and attractive to potential redevelopment, all of which were reasons given by the council for the work and the city will have spent Thirty Thousand ($30,000.00) less then had the two (2) trees been included.

Respectfully submitted

Mayor David Meisinger

TO: Mayor and City Council
FROM: Matt Fulton, City Manager
DATE: September 26, 2016
SUBJECT: Veto of Resolution 16-88 Authorizing Easement Acquisitions for Robert Street Project Parcel 100

BACKGROUND INFORMATION : Per City Charter the City Council is provided an opportunity to consider overriding Mayor Meisinger's veto of Resolution No. 16-88 Authorizing Easement Acquisitions for Parcel 100 of the Robert Street Improvement project.

DISCUSSION : As provided for in the City Charter, Mayor Meisinger vetoed the City Council's 9/12/16 action authorizing for settlement of parcel 100 easement acquisitions related to the Robert Street improvement project. As provided for in the City's Charter, the City Council can override the veto if five members of the City Council vote in the affirmative to do so. If the veto is not overridden, the City Council will need to consider the appropriate steps to take in considering easement acquisitions for said parcel of the Robert Street project.

FISCAL IMPACT: Is contingent upon outcome as outlined above.

		Amount
Fund:		
Department:		
Account:		

STAFF REQUEST FOR CONSIDERATION Council consideration regarding the Mayor's veto of Resolution No. 16-88 Authorizing Settlement of Easement Acquisitions for Parcel 100 of the Robert Street Improvement project.

TO: Mayor and City Council

THROUGH: Matt Fulton, City Manager

FROM: Joan Carlson, Finance Director

DATE: September 26, 2016

SUBJECT: 2017 Preliminary Budget and Maximum Levy

City of West St. Paul

BACKGROUND INFORMATION:

Pursuant to State Law, the City is required to declare a maximum 2017 property tax levy no later than September 30, 2016. Preliminary budget and levy options were presented to the Council at the September 12th and 26th Open Council Work Sessions. The 2017 preliminary property tax levy options are detailed in the table below:

Fund	2016	2017 Original Proposal	2017 – Revised Option 1	2017 – Revised Option 2
General Fund	$8,818,285	$9,700,000	$9,650,000	9,550,000
EDA Fund	300,000	300,000	300,000	300,000
Insurance Fund	150,000	150,000	150,000	150,000
Debt Service Funds	2,606,576	2,793,542	2,793,542	2,793,542
Capital Funds	290,000	250,000	250,000	250,000
Total Levy	$12,164,861	$13,193,542	$13,143,542	$13,043,542
Percent Increase	4.77%	8.46%	8.05%	7.22%

Option 1: This option uses the savings from reduced health insurance premiums to allow the hiring of two new police officers on January 1st, 2017 instead of the originally proposed staggered starts of April 1st and July 1st; and reduces the proposed levy by .41%.

Option 2: This option utilizes the proposed staggered starts for the police officers and reduces the proposed levy by 1.23%.

The General Fund is the major operating fund of the city. A summary of major changes for 2017 is outlined below.

	2017 - Original Proposal	2017 – Revised Option 1	2017 – Revised Option 2
2016 Adopted General Fund Budget	**$12,741,898**	**$12,741,898**	**$12,741,898**
Health insurance premium	311,957	120,000	120,000
Salaries/Benefits	244,153	248,653	248,653
Fire contract	164,695	164,695	164,695
2 new police officers	105,000	205,000	105,000
Harmon Park expenses	32,000	32,000	32,000
Dispatch contract	25,000	25,000	25,000
Community survey	20,000	20,000	20,000
Miscellaneous	11,602	11,602	11,602
2017 Proposed General Fund Budget	**13,656,305**	**13,568,848**	**13,468,848**

FISCAL IMPACT: Preliminary impact is as outlined above. Council will have until December to review the budget and levy with staff and make additional revisions in an effort to reduce the impact to residents.

STAFF RECOMMENDATION:

Staff recommends approving a 2017 preliminary budget and maximum levy for certification to the county auditor.

General Fund

	2016 Budget	2017 Original Proposal	2017 Revised Option 1	2017 Revised Option 2	Change Option 1	Change Option 2
Revenue						
Property Taxes	8,818,285	9,700,000	9,650,000	9,550,000	(50,000)	(150,000)
Other Taxes	1,235,500	1,189,000	1,189,000	1,189,000	-	-
Licenses and Permits	519,500	598,000	583,000	583,000	(15,000)	(15,000)
Intergovernmental Revenues	484,500	485,000	467,000	467,000	(18,000)	(18,000)
Charges for Services	639,205	652,197	652,197	652,197	-	-
Fines & Forfeits	125,000	122,500	122,500	122,500	-	-
Miscellaneous	231,908	174,608	172,151	172,151	(2,457)	(2,457)
Other Financing Sources	688,000	735,000	733,000	733,000	(2,000)	(2,000)
	12,741,898	13,656,305	13,568,848	13,468,848	(87,457)	(187,457)
Expenditures						
Mayor and Council	120,652	140,061	120,061	120,061	(20,000)	(20,000)
Charter Commission	1,500	1,400	1,400	1,400	-	-
City Manager / City Clerk	778,375	678,822	679,570	679,570	748	748
Marketing and Communications	-	142,535	160,030	160,030	17,495	17,495
Elections	28,575	3,126	3,126	3,126	-	-
Finance	378,370	400,025	393,080	393,080	(6,945)	(6,945)
Legal	360,000	354,000	354,000	354,000	-	-
Planning & Comm Devlep	317,275	343,110	334,760	334,760	(8,350)	(8,350)
Recycling Dept	23,250	28,307	28,307	28,307	-	-
Information Technology	437,225	439,747	433,142	433,142	(6,605)	(6,605)
City Hall Building	205,610	208,905	210,655	210,655	1,750	1,750
PW Facility	63,000	63,257	63,257	63,257	-	-
Police	4,324,825	4,636,940	4,510,190	4,510,190	(126,750)	(126,750)
Communications Center	638,065	662,889	662,889	662,889	-	-
Fire	2,125,394	2,290,089	2,290,089	2,290,089	-	-
Building Inspections	415,635	422,440	413,440	413,440	(9,000)	(9,000)
Civil Defense	15,295	16,995	16,995	16,995	-	-
Engineering	204,004	219,865	211,865	211,865	(8,000)	(8,000)
Streets	1,225,598	1,248,935	1,226,135	1,226,135	(22,800)	(22,800)
Street Lighting	132,025	142,025	142,025	142,025	-	-
Human Resources	88,775	138,562	138,562	138,562	-	-
Parks and Recreation	823,450	936,770	925,270	925,270	(11,500)	(11,500)
Unallocated	35,000	137,500	250,000	150,000	112,500	12,500
	12,741,898	13,656,305	13,568,848	13,468,848	(87,457)	(187,457)
net	-	-	-	-		

EDA Fund

	2016 Budget	2017 Original Proposal	2017 Revised Option 1	2017 Revised Option 2	Change Option 1	Change Option 2
Revenue						
Tax - Ad Valorem-Current	300,000	300,000	300,000	300,000	-	-
Investment - Interest	10,000	5,000	5,000	5,000	-	-
Other Interest Earnings	50,000	50,000	50,000	50,000	-	-
Misc Revenue - All Other	6,000	10,000	10,000	10,000	-	-
	366,000	365,000	365,000	365,000	-	-
Expenditures						
Salaries - Full Time Reg	121,000	124,000	124,000	124,000	-	-
Contributions - PERA	9,100	9,875	9,875	9,875	-	-
Contributions - FICA	9,250	10,100	10,100	10,100	-	-
Contributions - Health In	13,200	19,600	17,250	17,250	(2,350)	(2,350)
Contributions - OthGrpIns	330	360	360	360	-	-
Office Supplies	300	300	300	300	-	-
Supplies - General	500	500	500	500	-	-
Auditing Services	2,000	2,000	2,000	2,000	-	-
Legal Fees	15,000	15,000	15,000	15,000	-	-
Travel,Conference,Schools	5,000	4,715	4,715	4,715	-	-
Advertising	5,000	5,000	5,000	5,000	-	-
Postage	500	500	500	500	-	-
Printing & Publishing	1,000	1,000	1,000	1,000	-	-
Insurance - Gen Liability	1,500	1,500	1,500	1,500	-	-
Contractual Services	74,125	74,125	74,125	74,125	-	-
Subscriptions,Memberships	775	775	775	775	-	-
Misc Expenses	1,500	1,500	1,500	1,500	-	-
Business Subsidy	175,000	150,000	150,000	150,000	-	-
	435,080	420,850	418,500	418,500	(2,350)	(2,350)
net	(69,080)	(55,850)	(53,500)	(53,500)		

TO: Mayor and City Council

THROUGH: City Manager

FROM: Public Works & Parks Dir./City Engineer

DATE: September 26, 2016

SUBJECT: Consider Access Changes at 141 Wentworth Avenue

City of West St. Paul

BACKGROUND INFORMATION:
As part of the Robert Street project a concrete median was installed along Wentworth Avenue (County Road 8) which runs in front of Arrow Mowers. Arrow Mowers gets many deliveries from large semis. Prior to the median installation, the delivery practice was to drive forward into the property and then back out onto Wentworth Avenue to exit. This was not a safe or legal practice. They should have been required to change delivery methods years ago as the property owner is required to make their own property work for the lot size they are operating on. Another way trucks exited was to make a U-turn in the parking lot, however this was not preferred by the owner as it wrecked his parking lot pavement.

Once the median was installed on Wentworth Ave. as part of the Robert Street Project, the property owner claimed it was hard to get large semi delivery trucks in/out of his business. Staff contacted Dakota County to get permission for increasing the driveway access width at Arrow Mowers along Wentworth Avenue. Dakota County granted this request and allowed their maximum access width at the curb to be installed here. The additional curb cut was installed for a minimal cost.

The property owner claims to still have difficulty getting semis in and out currently. He has asked about constructing a secondary access onto Crawford Drive. Crawford Drive is a city street, but the property between Arrow Mowers and Crawford Drive is owned by Dakota County as it was part of the Wentworth Library property. Dakota County has stated they would entertain (not promise) the idea of either granting an easement across their property or possibly turning over the land to the city if a secondary access was pursued. The property owner is looking to the City to pay for the additional access.

An option to improve the internal operations of Arrow Motor's parking lot would be for them to remove some of the trees in the northwest corner of their property. This would give semis more room to turn around. Using smaller delivery trucks would also resolve this long outstanding issue.

The property owner is intending to be at the Council meeting to address the Council on this matter.

FISCAL IMPACT:
The estimated cost of constructing an entrance to Crawford Drive, is $24,000.

STAFF RECOMMENDATION:
Staff recommendation is to not add additional costs to the Robert Street Project.

TO: Mayor and City Council

THROUGH: City Manager

FROM: Public Works & Parks Director/City Engineer

DATE: September 26, 2016

SUBJECT: Approve Change Order for Lift Station 5 & 6 Project #16-2

City of West St. Paul

BACKGROUND INFORMATION:
As part of the City's Lift Station 5 & 6 and forcemain replacement project, changes were encountered in the field. As a result, change orders are required to complete the work.

In order to supply power to Lift Station 6, the overhead electrical service had to be re-connected from the pole to the generator building. The pole is owned by the city, not Xcel Energy, and therefore the work done was by Pember's electrical subcontractor.

FISCAL IMPACT:
This project was bid at $1.1M which was 36% lower than the engineer's estimate. Change Order #5 is for $8,962.80. The total contract changes to date are $46,076.28 or 4.2% of the construction contract amount. The City's current CIP lists a total budget of $2.1M for this project. This change order is well within the budgeted CIP amount.

		Amount
Fund:	**602**	
Department:	**49450**	
Account:	**40530**	**$ 8,962.80**

STAFF RECOMMENDATION:
Staff recommends that the City Council approve Change Order #5 in the amount of $8,962.80 Lift Station 5 & 6 Project #16-2.

TO: Mayor and City Council

THROUGH: City Manager

FROM: Public Works & Parks Director/City Engineer

DATE: September 26, 2016

City of West St. Paul

SUBJECT: Correction of procedural error and Receive Feasibility Report & Call Public Improvement Hearing for 2017 Street Improvements Project #17-1

BACKGROUND INFORMATION:
The City Council ordered the street reconstruction projects identified below at their meeting on July 8 and August 8, 2016. While the City Council ordered a feasibility report to be completed, the Council did not formally approve a resolution to that effect, which is required by MN Statutes 429. Staff has provided a resolution with this staff report to correct this procedural oversite.

Attached is a copy of the feasibility report completed by the City's consultant, Bolton & Menk, Inc. for the above-referenced project. The report evaluates the feasibility of proposed improvements to:

Street	**From**	**To**
Charlton Ave.	Marie Ave.	Trunk Hwy 110
Bidwell St.	Marie Ave.	Crusader Ave.
Edgewood Ln.	Charlton St.	East end
Sherwood Ct.	Charlton St.	East end
Humboldt Ave.	Wentworth Ave.	Marie Ave.
Kraft Rd.	Humboldt Ave.	Livingston Ave.
Fox Ridge Dr.	Livingston Ave.	Livingston Ave.
Fox Ridge Ct.	Fox Ridge Drive	West end
Runge Ln.	Smith Ave.	Charlton St.
Edith Dr.	Smith Ave.	Bellows St.

The report contains a description of the proposed improvements, a preliminary cost estimate for the project of $8.7M, a preliminary assessment roll/map, and a proposed project schedule.

Staff intends to hold neighborhood meetings on October 18 and 19 with property owners of the project areas. Staff will provide a summary of the neighborhood meetings to Council at the public hearing for this project.

Council is also requested to call the public improvement hearing for the project for October 24, 2016. Per state statute, the City Council must call the improvement hearing and publish the hearing date twice, at least three days before the improvement hearing. Staff intends to publish the notice in the October 9th and 16th editions of the *South West Review*. This schedule provides just over one week between the improvement hearing and the last publication date.

FISCAL IMPACT:
The preliminary total project cost is $8.7M of which $1.1M is new watermain for which the City will be reimbursed by St. Paul Regional Water Service. Therefore, the updated CIP amount is $7.6M for this project.

		Amount
Fund:	**402**	
Department:	**43121**	
Account:		**$7.6M**

STAFF RECOMMENDATION:
Staff recommends that the City Council approve the following:
1. Formally order the feasibility study for the proposed 2017 street reconstruction projects;
2. Receive the attached feasibility report;
3. Set the improvement hearing date on the 2017 Street Improvements Project for October 24, 2016.

CITY OF WEST ST. PAUL
DAKOTA COUNTY, MINNESOTA

RESOLUTION NO. 16-__

ORDERING PREPARATION OF FEASIBILITY STUDY FOR 2017 STREET AVENUE IMPROVEMENTS PROJECT # 17-1

WHEREAS, it is proposed to improve the following streets by street reconstruction, including aggregate base, bituminous surfacing, concrete curb and gutter and concrete driveway approaches, pursuant to Minnesota Statutes, Section 429.011 to 429.111:

Street	**From**	**To**
Charlton Ave.	Marie Ave.	Trunk Hwy 110
Bidwell St.	Marie Ave.	Crusader Ave.
Edgewood Ln.	Charlton St.	East end
Sherwood Ct.	Charlton St.	East end
Humboldt Ave.	Wentworth Ave.	Marie Ave.
Kraft Rd.	Humboldt Ave.	Livingston Ave.
Fox Ridge Dr.	Livingston Ave.	Livingston Ave.
Fox Ridge Ct.	Fox Ridge Drive	West end
Runge Ln.	Smith Ave.	Charlton St.
Edith Dr.	Smith Ave.	Bellows St.

The feasibility report will recommend a course of improvement for the roadways, any utility improvements, provide a cost estimate, and preliminary assessment information.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF WEST ST. PAUL, MINNESOTA:

That the proposed improvement be referred to Ross Beckwith, City Engineer, for study and that he is instructed to report to the Council with all convenient speed advising the Council in a preliminary way as to whether the proposed improvement is necessary, cost-effective, and feasible and as to whether it should best be made as proposed or in connection with some other improvements, and the estimated cost of the improvements as recommended.

Adopted by the City Council of the City of West St. Paul this 26th day of September 2016.

_____ Attest: _____

David Meisinger, Mayor Chantal Doriott, City Clerk

CITY OF WEST ST. PAUL
DAKOTA COUNTY, MINNESOTA

RESOLUTION NO. 16-__

RECEIVING FEASILIBILITY REPORT AND
CALLING HEARING ON IMPROVEMENT
2017 STREET IMPROVEMENT PROJECT #17-1

WHEREAS, pursuant to a resolution of the Council adopted September 26, 2016, a report has been prepared by Bolton & Menk, Inc. with reference to the improvement by street reconstruction, including aggregate base, bituminous surfacing, concrete curb and gutter and concrete driveway approaches, pursuant to Minnesota Statutes, Section 429.011 to 429.111.

Street	**From**	**To**
Charlton Ave.	Marie Ave.	Trunk Hwy 110
Bidwell St.	Marie Ave.	Crusader Ave.
Edgewood Ln.	Charlton St.	East end
Sherwood Ct.	Charlton St.	East end
Humboldt Ave.	Wentworth Ave.	Marie Ave.
Kraft Rd.	Humboldt Ave.	Livingston Ave.
Fox Ridge Dr.	Livingston Ave.	Livingston Ave.
Fox Ridge Ct.	Fox Ridge Drive	West end
Runge Ln.	Smith Ave.	Charlton St.
Edith Dr.	Smith Ave.	Bellows St.

WHEREAS, the report provides information regarding whether the proposed project is necessary, cost-effective, and feasible.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WEST ST. PAUL, MINNESOTA:

1. The Council will consider the improvement to before mentioned streets 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 the improvement of $7.5M.

2. A public hearing shall be held on such proposed improvement of October 24, 2016 in the Council Chambers of the Municipal Center at 6:30 p.m. and the City 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 West St. Paul this 26th day of September, 2016.

_____ Attest: _____
David Meisinger, Mayor Chantal Doriott, City Clerk

Real People. Real Solutions.

Feasibility Report for

2017 Street Improvements

City of West St. Paul, MN

City Project No. 17-1
BMI Project No. T18.112193

September 2016

Submitted by:
Bolton & Menk, Inc.
12224 Nicollet Avenue
Burnsville, MN 55337
P: 952-890-0509
F: 952-890-8065

Certification

Feasibility Report

for

2017 Street Improvements Project

City of West St. Paul, MN

City Project No. 17-1
BMI Project No. T18.112193

September 2016

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.

By: _____
Brian Hilgardner, P.E.
License No. 42875

Date: September 21, 2016

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1.0 INTRODUCTION

This report examines the proposed street and utility improvements for the City of West St Paul's 2017 Street Improvements Project (City Project No.17-1). This project is part of the City's ongoing annual street improvement program.

This report presents street improvements consisting of two methods: full street reconstruction (with replacement of curb & gutter, water main replacement, storm sewer improvements, sanitary sewer improvements, street light improvements, replacement of existing driveway aprons, and addition of pedestrian facilities in accordance with Pedestrian and Bicycle Master Plan) and street rehabilitation (with full-depth reclamation of existing pavement, spot replacement of concrete curb & gutter, spot replacement of residential driveway aprons, sanitary sewer improvements, and drainage improvements).

The following streets are proposed for full reconstruction and utility improvements:

- Edith Drive between Smith Avenue and Charlton Street & between Charlton Street and Bellows Street
- Humboldt Avenue between Marie Avenue and Wentworth Avenue
- Kraft Road between Humboldt Avenue and Livingston Avenue
- Fox Ridge Road between Livingston Avenue North and Livingston Avenue South
- Fox Ridge Court between Fox Ridge Road and west end
- Bidwell Street between Marie Avenue and Crusader Avenue
- Edgewood Lane between Charlton Street and east end
- Sherwood Court between Charlton Street and east end
- Charlton Street between Highway 110 and to just north of Marie Avenue

The following street is proposed for street rehabilitation (full-depth reclamation):

- Runge Lane between Smith Avenue and Charlton Street

This report also presents pedestrian improvements to Humboldt Avenue, Kraft Road, Bidwell Street and Charlton Street. The improvements include sidewalks and bike lanes.

See Figures 1 & 2 in Appendix A for proposed project location and improvements map.

This report will review the existing conditions in the project area and discuss, in detail, the proposed improvements. It will also provide preliminary cost estimates for the proposed improvements with financing for the Project coming from a combination of assessments, the City's Stormwater Utility Fund, the City's Sanitary Sewer Fund, St. Paul Water Fund, Minnesota State-Aid and the City's bond sale process.

If the City decides to proceed with the proposed street and utility improvements described in this report, it is anticipated construction would begin in 2017 as shown in the project schedule found on Page 33.

2.0 FULL STREET RECONSTRUCTION

2.1 EDITH DRIVE

2.1.1 Existing Conditions

Edith Drive, from Smith Avenue to Charlton Street and from Charlton Street to Bellows Street, is a local residential road in West St. Paul. The road runs west/east in the central portion of the City and serves the residential single family homes on and around it.

Edith Drive exists as a 36-foot wide bituminous roadway delineated with concrete curb and gutter on both sides. Roadway width is measured curb face to curb face. There are no sidewalks or trails in place along Edith Drive and mature trees are found within the boulevard on both sides. On street parking is allowed on both sides of the road for the entire length. There are four (4) total existing street lights within the street corridor of Edith Drive: at the intersection of Smith Avenue, at the mid-block between Smith Avenue and Galvin Avenue, at the intersection of Galvin Avenue, and at the intersection of Charlton Street. City records show that the roadway was reconstructed in 1990.

The bituminous pavement within the study area shows wear and distress due to traffic loading as well as typical weathering effects experienced with aged bituminous pavement. The existing pavement contains transverse cracking, longitudinal cracking, potholes and significant patching. A total of seven (7) soil borings and three (3) pavement cores were completed along Edith Drive, by Northern Technologies, Inc., to determine the existing bituminous section. See Appendix E for the completed pavement core locations and logs. The existing bituminous pavement thickness ranges from 2.5 to 4 inches and the existing Aggregate base thickness ranges from 3 to 6 inches.

In 2006, the City of West St. Paul began a Pavement Management System which included an entire survey of every street in the City. Each site survey gathered road distress data such as the number of potholes, the number and size of cracks, and other statistics which describe the condition of the pavement. This information was then used to compute a Pavement Condition Index (PCI) for each street section. The PCI is a tool for comparing streets when considering where roadway improvements are most needed within the City. The street PCI is a number between 0-100, with 100 being the best or signifying a newly paved street and 0 being the worst. In the pavement industry, it's generally agreed that streets with a PCI ≤ 65 need some improvements. Streets in need of a mill and overlay or other forms of rehabilitation generally have a PCI in the range of 45-65, while streets with a PCI ≤ 45 typically require a complete reconstruction.

A pavement condition survey for Edith Drive was completed in 2013 and 2015. From the survey, the following PCI was generated:

Table 1 – Edith Drive

From Street	To Street	2013 PCI	2015 PCI
Smith Avenue	Galvin Avenue	-	8
Galvin Avenue	Charlton Street	-	41
Charlton Street	Bellows Street	44	-

There is an existing 6-inch diameter cast iron watermain which runs the entire length of Edith Drive from Smith Avenue to Charlton Street and on Edith from Charlton Street to Bellows Street. The water system in the study area is owned and operated by St. Paul Regional Water Services. There are water services to residents that vary from ¾-inch to 1-inch and are comprised mostly of copper. City records show watermain improvements were constructed in 1955.

There are two existing 8-inch vitrified clay pipe (VCP) sanitary sewer main, one of which runs east to west along the entire length of Edith Drive starting at upstream manhole at Charlton Street and ending downstream at manhole at Smith Avenue, and the other runs west to east beginning at upstream manhole east of Charlton Street and ending downstream at manhole at Bellows Street. The existing condition of the sanitary sewer system was documented by videotaping of the sewer main and televising revealed the presence of significant inflow and/or infiltration along the entire length of Edith Avenue. This appears to be primarily due to poor pipe joints as wells as cracks and root growth in the sewer pipe. These conditions can lead to a significant decrease in capacity and cause sewage backups if left untreated. City records show sanitary sewer improvements were constructed in 1955.

There are two existing storm sewer systems within Edith Drive consisting of catch basin structures at each roadway intersection and mid-block between Galvin Avenue and Smith Avenue. Edith Drive is split into three different drainage basins within the study area. The first system consists of catch basin structures at Charlton Street where Edith Drive surface drains from a high point east of Galvin Avenue to the east towards Charlton Street. The second system consists of catch basin structures at Galvin Avenue intersection where collected storm water flows west down Edith Drive to a pair of catch basin structures on-grade at mid-block between Galvin Avenue and Smith Avenue and where flow continues west to catch basin structures at Smith Avenue intersection. The segment east of Charlton Street flows east to Bellows Street. City records show storm sewer improvements were constructed in 1990.

See Figure 4C in Appendix A for existing watermain, sanitary sewer and storm sewer for Edith Drive.

2.1.2 **Proposed Street Improvements**

Based on the roadway age, surface deterioration, and PCI rating, and sub-soils the proposed improvements for Edith Drive is a complete reconstruction of the existing road section. The new roadway is proposed to be constructed with all new concrete curb and gutter between Charlton Street and Bellows Street, and between Smith Avenue and Charlton Street to improve drainage. The new roadway width is proposed to be a consistent width of 36-feet curb face to curb face. The new roadway horizontal alignment and vertical profile is expected to remain similar to the existing roadway. The street will be reconstructed to a minimum 7-ton design requirement. The proposed road section will include 4.0-inches of bituminous pavement (2 layers of 2-inches each) over 8.0-inches of aggregate based over 12.0-inches of select granular, for a total thickness of 24.0-inches. Additional subgrade excavation may be needed, this will be determined in the field. Subsurface drain tile would be installed at the bottom of the street section under the curb line between to ensure the new roadway section will remain free draining, helping to reduce stress on pavement from freeze thaw action. The existing concrete driveway aprons will be removed and replaced with new concrete aprons. All disturbed boulevard areas will be restored with 5.0-inches of topsoil and new sod.

In the future, fiber optic lines are planned to be added along Edith Drive. To prepare for this future installment it is proposed that 2-inch conduit be buried along the south side of Edith Drive, from Charlton Street to Bellows Street.

2.1.3 **Proposed Street Lighting**

No improvements are recommended as part of the proposed project.

2.1.4 **Proposed Sanitary Sewer Improvements**

Based on the sewer pipe age, material type, and televising results, the proposed improvements for the existing sanitary sewer along Edith Drive will be full length lining of the existing mains, from Smith Avenue to Bellows Street, with a cured-in-place pipe (CIPP). All existing sanitary sewer manholes will have the casting/cover replaced along with installing Inflow/Infiltration (I/I) barriers. One manhole has been identified to be in need of a rehabilitation due to I/I issues and/or corrosion from sewer gases. Trenchless T-liners will be installed at needed service locations.

The Edith Drive sanitary sewer system is within a City sewershed where the City still has an I/I surcharge amount to spend on sewer system repairs. The I/I surcharge is a Met Council calculated charge for excess I/I based on sewer flow metering from prior storm events. A meeting was held in early January 2016 to inform residents of the need to complete televised inspection of their private service lines draining to the Edith Drive sewer system. The private service line consists of any pipe between the residence/business and the sewer main. Any private service lines that need repairs need to be completed prior to the street project. The City currently has an I/I ordinance allowing for televising of private service lines and a visual inspection of the sump pump and piping (if applicable).

2.1.5 **Proposed Watermain Improvements**

St. Paul Regional Water Services completed a review of the existing water system in Edith Drive and determined that a complete replacement of the existing watermain from Smith Avenue to Charlton Street, and from Charlton Street to Bellows Street with a new 8-inch ductile iron pipe (DIP) is recommended as part of the proposed project. It is also recommended that the westerly 90-feet of watermain at Smith Avenue be re-aligned into the roadway section. No other water services or watermain is proposed to be replaced.

2.1.6 **Proposed Storm Sewer Improvements**

Existing catch basins along Edith Drive are recommended to be removed and replaced with new catch basins meeting current City standards. Existing catch basins and storm sewer manholes within Edith Drive will be evaluated for potential improvement needs during project final design. After review, if recommendation is removal and replacement of any existing catch basin or manhole structure, all new structures will meet current City standards.

2.2 HUMBOLDT AVENUE

2.2.1 Existing Conditions

Humboldt Avenue, from Marie Avenue to Wentworth Avenue, is a local residential road in West St. Paul. The road runs north/south in the south portion of the City and serves the residential single and multi-family homes, Marthaler Park, and City Hall with direct access to it.

Humboldt Avenue exists as a 36-foot wide bituminous roadway delineated by concrete curb and gutter on both sides. Roadway width is measured curb face to curb face. There is no existing trails and only a small portion of sidewalk along the west side. The sidewalk starts at the pedestrian trail connection in Marthaler Park and continues north to Wentworth Avenue. Mature trees line both sides of the corridor located both within and outside the Right of Way. On street parking is allowed on both sides of the road the entire length, except for the area directly adjacent to the City Police Department where parking is prohibited. Currently, the segment has (16) total existing street lights along the west side spaced approximately 170 feet apart along the entire length, including at the intersections of Marie Avenue, Kraft Road, and Wentworth Avenue. City records show that the roadway was constructed in 1971.

The bituminous pavement within the study area shows wear and distress due to traffic loading as well as typical weathering effects experienced with aged bituminous pavement. The existing pavement contains large transverse cracking, rutting, potholes and significant alligator-type cracking. Alligator cracking in pavement is a tell-tale sign of subgrade problems. A total of eight (8) soils borings and four (4) pavement cores were completed along Humboldt Avenue, by Northern Technologies, Inc., to determine the existing roadway section. See Appendix E for the completed soil boring and pavement core locations and logs. The existing bituminous pavement thickness ranges from 3.25 to 11 inches, but the majority of the samples are between 6 and 9.5 inches. The aggregate base thickness ranges from 2 to 6.5 inches, but the majority of the samples range from 2 to 4 inches. Existing subgrade soils found beneath the aggregate base consisted of clayey sand and silty sand and were found to be in moist condition.

In 2006, the City of West St. Paul began a Pavement Management System which included an entire survey of every street in the City. Each site survey gathered road distress data such as the number of potholes, the number and size of cracks, and other statistics which describe the condition of the pavement. This information was then used to compute a Pavement Condition Index (PCI) for each street section. The PCI is a tool for comparing streets when considering where roadway improvements are most needed within the City. The street PCI is a number between 0-100, with 100 being the best or signifying a newly paved street and 0 being the worst. In the pavement industry, it's generally agreed that streets with a PCI ≤ 65 need some improvements. Streets in need of a mill and overlay or other forms of rehabilitation generally have a PCI in the range of 45-65, while streets with a PCI ≤ 45 typically require a complete reconstruction.

A pavement condition survey for Humboldt Avenue was completed in 2013 and 2015. From the survey, the following PCI was generated:

Table 2 – Humboldt Avenue			
From Street	**To Street**	**2013 PCI**	**2015 PCI**
Marie Avenue	**Kraft Road**	**21**	**18**
Kraft Road	**Wentworth Avenue**	**33**	**18**

There is an existing 6-inch diameter cast iron watermain which runs the entire length of Humboldt Avenue from Marie Avenue to Wentworth Avenue. The water system in the study area is owned and operated by St. Paul Regional Water Services. There are water services to residents that vary from ¾-inch to 2-inch and are comprised mostly of copper. There is also a 3-inch diameter cast iron water service to the City Hall building. City records show watermain improvements were constructed in 1968 and 1970.

There are two existing sanitary sewer mains within Humboldt Avenue. The first is an existing 8-inch diameter vitrified clay pipe (VCP) sanitary sewer main which runs south to north along Humboldt Avenue starting upstream at a manhole at Marie Avenue and ending downstream at a manhole at Kraft Road. The second is an existing 8-inch diameter VCP sanitary sewer main which runs south to north along Humboldt Avenue starting upstream at a manhole 200-feet north of Kraft Road and ending downstream at a manhole at Wentworth Avenue. The existing condition of the sanitary sewer system was documented by videotaping of the sewer main and televising revealed the presence of significant inflow and/or infiltration along the entire length of Humboldt Avenue. This appears to be primarily due to poor pipe joints as wells as cracks and root growth in the sewer pipe. These conditions can lead to a significant decrease in capacity and cause sewage backups if left untreated. City records show sanitary sewer improvements were constructed in 1968 and 1970.

There are three existing storm sewer systems within Humboldt Avenue consisting of catch basins, manhole structures, and pond inlets and outlets. Humboldt Avenue generally surface drains within the study area from a middle high point to both the north and south ends. The first storm system consists of catch basin structures at Marie Avenue intersection where collected storm water flows north to a pair of catch basin structures at a roadway low point near Humboldt Pond where collected storm water, including water from an inlet pipe from Humboldt Pond flows north to catch basin structures at Kraft Road intersection. At Kraft Road intersection the storm sewer system turns and collected storm water flows east down Kraft Road. The second storm sewer system consists of a pair of catch basin structures on-grade near Marthaler Pond that direct outlet into the pond. The third storm sewer system consists of catch basin structures at Wentworth Avenue intersection where collected storm water flows west down Wentworth Avenue. City records show storm sewer improvements were constructed in 1968 and 1970.

See Figure 4A in Appendix A for existing watermain, sanitary sewer and storm sewer for Humboldt Avenue.

2.2.2 **Proposed Street Improvements**

Based on the roadway age, surface deterioration, PCI rating, and sub-soils, the proposed improvement for Humboldt Avenue is a complete reconstruction of the existing road section. The new roadway width is proposed to match the existing width of 36-feet curb face to curb face. The new roadway horizontal alignment and vertical profile is expected to remain similar to the existing roadway. The street will be reconstructed to a minimum 7-ton design requirement. The proposed road section will include 4.0-inches of bituminous pavement (2 layers of 2-inches each) over 8.0-inches of aggregate based over 12.0-inches of select granular, for a total thickness of 24.0-inches. Additional subgrade excavation may be needed, this will be determined in the field. Subsurface drain tile would be installed at the bottom of the street section under the curb line to ensure the new roadway section will remain free draining, helping to reduce stress on pavement from freeze thaw action. The existing concrete curb and gutter and existing driveway aprons will be removed and replaced with new concrete. All disturbed boulevard areas will be restored with 5.0-inches of topsoil and new sod.

In the future, fiber optic lines are planned to be added along Humboldt Avenue. To prepare for this future installment it is proposed that 2 inch conduit be buried along the west side of Humboldt Avenue, from Wentworth Avenue to Marie Avenue.

2.2.3 **Proposed Concrete Sidewalk**

A 5-foot wide concrete sidewalk with approximately 5-foot boulevards is proposed to be placed along both sides of the roadway along Humboldt Avenue between Marie Avenue and Wentworth Avenue. The sidewalk location follows the City map for planned future sidewalk installations and design will follow the American with Disabilities Act (ADA) standards.

The concrete sidewalk will provide residents an opportunity to use off-road forms of transportation and will enable a more active lifestyle. The sidewalk will provide users a safer environment compared to the current on-road way. The proposed sidewalk will provide connections to existing sidewalks at Wentworth Avenue, connections to proposed and future sidewalks at Kraft Road, and future sidewalk connections at Marie Avenue.

See Figure 3 for location of sidewalk.

2.2.4 **Proposed Street Lighting Improvements**

The existing street lighting is proposed to be replaced with all new street lights along the entire length of Humboldt Avenue. The new street lighting is proposed to be of similar style as the new street lighting used on the previous 2015 Marie Avenue improvements project and will include the installation of two new control panels, located at the intersections of Kraft Road and Wentworth Avenue. The new street lighting is proposed to be installed on the west side of the roadway matching the existing light pole locations.

In addition the City Park Department has requested a separate metered electric service be installed to a shelter building located on the north end of Marthaler Park that is proposed to be incorporated into the new street lighting conduit and control panel system along Humboldt Avenue.

See Figure 5 in Appendix A for lighting layout illustrating existing conditions and proposed improvements for Humboldt Avenue along with approximate intervals.

2.2.5 **Proposed Sanitary Sewer Improvements**

Based on the sewer pipe age, material type, and televising results, the proposed improvements for the existing sanitary sewer along Humboldt Avenue will be full length lining of the existing main with a cured-in-place pipe (CIPP). All existing sanitary sewer manholes will have the casting/cover replaced along with installing Inflow/Infiltration (I/I) barriers. Trenchless T-liners will be installed at needed service locations.

The Humboldt Avenue sanitary sewer system is within a City sewershed where the City still has an I/I surcharge amount to spend on sewer system repairs. The I/I surcharge is a Met Council calculated charge for excess I/I based on sewer flow metering from prior storm events. A meeting was held in early January 2016 to inform residents of the need to complete televised inspection of their private service lines draining to the Humboldt Avenue sewer system. The private service line consists of any pipe between the residence/business and the sewer main. Any private service lines that need repairs need to be completed prior to the street project. The City currently has an I/I ordinance allowing for televising of private service lines and a visual inspection of the sump pump and piping (if applicable).

2.2.6 **Proposed Watermain Improvements**

St. Paul Regional Water Services completed a review of the existing water system in Humboldt Avenue and determined that a complete replacement of the existing watermain from Wentworth Avenue to approximately 440-feet south of Kraft Road with a new 8-inch ductile iron pipe (DIP) is recommended as part of the proposed project. The existing water service to City Hall is proposed to be replaced with a new 4-inch DIP service and the service at 1583 Humboldt Avenue is proposed to be abandoned. In addition the first hydrant north of Marie Avenue and the first hydrant south of Kraft Road are proposed to be replaced. No other water services or watermain is proposed to be replaced.

2.2.7 **Proposed Storm Sewer Improvements**

Existing catch basins along Humboldt Avenue are recommended to be removed and replaced with new catch basins meeting current City standards. The existing manholes and storm sewer pipe network will be analyzed based on hydraulic performance and structural condition during final design. After analysis, any existing manhole or storm sewer pipe determined under sized or at risk for failure is recommended to be removed and replaced as part of the proposed project.

2.3 KRAFT ROAD

2.3.1 Existing Conditions

Kraft Road, from Humboldt Avenue to Livingston Avenue, is a local residential road in West St. Paul. The road runs west/east in the south portion of the City and serves the residential single and multi-family homes with direct access to it.

Kraft Road exists as a 36-foot wide bituminous roadway delineated by concrete curb and gutter on both sides. Roadway width is measured curb face to curb face. There are no sidewalks or trails in place along Kraft Road and a few mature trees are found within the boulevard on both sides. On street parking is allowed on both sides of the road the entire length. Currently, the segment has four (4) total existing street lights along the north side spaced approximately 170 feet apart along the entire length, including at the intersections of Humboldt Avenue and Livingston Avenue. City records show that the roadway was constructed in 1971.

The bituminous pavement within the study area shows wear and distress due to traffic loading as well as typical weathering effects experienced with aged bituminous pavement. The existing pavement contains large transverse cracking, rutting, potholes, and significant alligator-type cracking. Alligator cracking in pavement is a tell-tale sign of subgrade problems. A total of two (2) soils borings and one (1) pavement core were completed along Kraft Road, by Northern Technologies, Inc., to determine the existing roadway section. See Appendix E for the completed soil boring and pavement core locations and logs. The existing bituminous pavement thickness ranges from 8.25 to 8.75 inches and aggregate base thickness ranges from 1 to 5 inches. Existing subgrade soils found beneath the aggregate base consisted of clayey sand and silty sand and were found to be in moist condition.

In 2006, the City of West St. Paul began a Pavement Management System which included an entire survey of every street in the City. Each site survey gathered road distress data such as the number of potholes, the number and size of cracks, and other statistics which describe the condition of the pavement. This information was then used to compute a Pavement Condition Index (PCI) for each street section. The PCI is a tool for comparing streets when considering where roadway improvements are most needed within the City. The street PCI is a number between 0-100, with 100 being the best or signifying a newly paved street and 0 being the worst. In the pavement industry, it's generally agreed that streets with a PCI ≤ 65 need some improvements. Streets in need of a mill and overlay or other forms of rehabilitation generally have a PCI in the range of 45-65, while streets with a PCI ≤ 45 typically require a complete reconstruction.

A pavement condition survey for Kraft Road was completed in 2013. From the survey, the following PCI was generated:

Table 3 – Kraft Road		
From Street	**To Street**	**2013 PCI**
Humboldt Avenue	**Livingston Avenue**	**43**

There is an existing 8-inch diameter cast iron watermain which runs the entire length of Kraft Road from Humboldt Avenue to Livingston Avenue. The water system in the study area is owned and operated by St. Paul Regional Water Services. There are water services to residents that vary from ¾-inch to 2-inch and are comprised mostly of copper. City records show watermain improvements were constructed in 1966.

There is an existing 8-inch vitrified clay pipe (VCP) sanitary sewer main which runs west to east along the entire length of Kraft Road starting upstream at a manhole on Humboldt Avenue and ending downstream at a manhole on Livingston Avenue. The existing condition of the sanitary sewer system was documented by videotaping of the sewer main and televising revealed the presence of significant inflow and/or infiltration along the entire length of Kraft Road. This appears to be primarily due to poor pipe joints as wells as cracks and root growth in the sewer pipe. These conditions can lead to a significant decrease in capacity and cause sewage backups if left untreated. City records show sanitary sewer improvements were constructed in 1966.

There is an existing storm sewer system within Kraft Road consisting of catch basin structures at each roadway intersection. Kraft Road surface drains within the study area from west to east towards Livingston Avenue. At the Livingston Avenue intersection the collected storm water flows east within storm sewer towards Robert Street. City records show storm sewer improvements were constructed in 1970.

See Figure 4A in Appendix A for existing watermain, sanitary sewer and storm sewer for Kraft Road.

2.3.2 **Proposed Street Improvements**

Based on the roadway age, surface deterioration, PCI rating, and sub-soils, the proposed improvement for Kraft Road is a complete reconstruction of the existing road section. The new roadway width is proposed to match the existing width of 36-feet curb face to curb face. The new roadway horizontal alignment and vertical profile is expected to remain similar to the existing roadway. The proposed road section will include 4.0-inches of bituminous pavement (2 layers of 2-inches each) over 8.0-inches of aggregate based over 12.0-inches of select granular, for a total thickness of 24.0-inches. Additional subgrade excavation may be needed, this will be determined in the field. Subsurface drain tile would be installed at the bottom of the street section under the curb line to ensure the new roadway section will remain free draining, helping to reduce stress on pavement from freeze thaw action. The existing concrete curb and gutter and existing driveway aprons will be removed and replaced with new concrete. All disturbed boulevard areas will be restored with 5.0-inches of topsoil and new sod.

In the future, fiber optic lines are planned to be added along Kraft Road. To prepare for this future installment it is proposed that 2 inch conduit be buried along the South side of Kraft Road, from Humboldt Avenue to Livingston Avenue.

2.3.3 **Proposed Concrete Sidewalk**

A 5-foot wide concrete sidewalk with an approximately 5-foot wide boulevard is proposed to be placed along both sides of the roadway along Kraft Road between Humboldt Avenue and Livingston Avenue. The sidewalk location follows the City map for planned future sidewalk installations and design will follow the American with Disabilities Act (ADA) standards.

The concrete sidewalk will provide residents an opportunity to use off-road forms of transportation and will enable a more active lifestyle. The sidewalk will provide users a safer environment compared to the current on-road way. The proposed sidewalk will provide connections to proposed and future sidewalks at Humboldt Avenue and future sidewalks at Livingston Avenue.

See Figure 3 for location of sidewalk.

2.3.4 **Proposed Street Lighting Improvements**

The existing street lighting is proposed to be replaced with all new street lights along the entire length of Kraft Road. The new street lighting is proposed to be of similar style as the street lighting used on the 2015 Marie Avenue improvements project. The new street lighting is proposed to be installed on the north side of the roadway matching the existing light pole locations.

See Figure 5 in Appendix A for lighting layout illustrating existing conditions and proposed improvements for Kraft Road along with approximate intervals.

2.3.5 **Proposed Sanitary Sewer Improvements**

Based on the sewer pipe age, material type, and televising results, the proposed improvements for the existing sanitary sewer along Kraft Road will be full length lining of the existing main with a cured-in-place pipe (CIPP). All existing sanitary sewer manholes will have the casting/cover replaced along with installing Inflow/Infiltration (I/I) barriers. Trenchless T-liners will be installed at needed service locations.

The Kraft Road sanitary sewer system is within a City sewershed where the City still has an I/I surcharge amount to spend on sewer system repairs. The I/I surcharge is a Met Council calculated charge for excess I/I based on sewer flow metering from prior storm events. A meeting was held in early January 2016 to inform residents of the need to complete televised inspection of their private service lines draining to the Kraft Road sewer system. The private service line consists of any pipe between the residence/business and the sewer main. Any private service lines that need repairs need to be completed prior to the street project. The City currently has an I/I ordinance allowing for televising of private service lines and a visual inspection of the sump pump and piping (if applicable).

2.3.6 **Proposed Watermain Improvements**

St. Paul Regional Water Services completed a review of the existing water system in Kraft Road and determined that a complete replacement of the existing watermain from Humboldt Avenue to Livingston Avenue with a new 8-inch ductile iron pipe (DIP) is recommended as part of the proposed project. No other water services or watermain is proposed to be replaced.

2.3.7 **Proposed Storm Sewer Improvements**

Existing catch basins located at each roadway intersection along Kraft Road are recommended to be removed and replaced with new catch basins meeting current City standards. The existing manholes and storm sewer pipe network will be analyzed based on hydraulic performance and structural condition during final design. After analysis, any existing manhole or storm sewer pipe determined under sized or at risk for failure is recommended to be removed and replaced as part of the proposed project.

2.4 FOX RIDGE ROAD & FOX RIDGE COURT

2.4.1 Existing Conditions

Fox Ridge Road, from Livingston Avenue N to Livingston Ave S, is a local residential road in the south portion of West St. Paul. The roadway alignment is shaped like the letter 'C' connecting to Livingston Avenue on both ends and contains the cul-de-sac of Fox Ridge Court. Fox Ridge Road and Fox Ridge Court serve both single and multi-family residential homes with direct access to them.

Fox Ridge Road exists as a 36-foot wide bituminous roadway delineated by concrete curb and gutter on both sides. Roadway width is measured curb face to face. There are no sidewalks or trails in place along Fox Ridge Road and trees are found within the boulevard on both sides of the street. On street parking is allowed on both sides of the road the entire length for both Fox Ridge Road and Court. There are four (4) total existing street lights within the street corridor of Fox Ridge Road: at the intersection of Livingston Avenue N, at the intersection of Fox Ridge Court, at the mid-block between Fox Ridge Court and Livingston Avenue S, and at the intersection of Livingston Avenue S. Fox Ridge Court exists as a 36-foot wide bituminous roadway delineated by concrete curb and gutter on both sides ending with a 48-foot radius cul-de-sac with concrete curb and gutter. The radius is measured to face of curb. There is one (1) existing street light within the street corridor of Fox Ridge Court and it is located at the beginning of the cul-de-sac. City records show the roadway for both Fox Ridge Road and Court was constructed in 1983.

The bituminous pavement within the study area exhibits wear and distress due to traffic loadings as well as typical weathering effects experienced with aged asphalt pavement. The existing pavement contains large transverse cracking, significant alligator-type cracking, rutting, and potholes. Alligator cracking in pavement is a tell-tale sign of subgrade problems. A total of four (4) soil borings and three (3) pavement cores were completed along Fox Ridge Road and Fox Ridge Court, by Northern Technologies, Inc., to determine the existing roadway section. See Appendix E for the completed soil boring and pavement core locations and logs. The existing bituminous pavement thickness ranges from 4.25 to 5.75 inches and aggregate base thickness ranges from 6 to 7 inches for Fox Ridge Road. The existing bituminous pavement thickness ranges from 2.25 to 4.5 inches and aggregate base thickness ranges from 5 to 6.5 inches for Fox Ridge Court. Existing subgrade soils found beneath the aggregate base consisted of clayey sand and silty sand and were found to be in either a wet or moist condition.

In 2006 the City of West St. Paul began a Pavement Management System which included a site survey of every street in the City. Each site survey gathered road distress data such as the number of potholes, the number and size of cracks, and other statistics which describe the condition of the pavement. This information was then used to compute a Pavement Condition Index (PCI) for each street section. The PCI is a tool for comparing streets when considering where roadway improvements are most needed within the City. The street PCI is a number between 0-100, with 100 being the best or signifying a newly paved street and 0 being the worst. In the pavement industry, it's generally agreed that streets with a PCI ≤ 65 need some improvement. Streets in need of a mill and overlay or other form of rehabilitation generally have a PCI in the range of 45-65, while streets with a PCI ≤ 45 usually require a complete reconstruction.

A pavement condition survey for Fox Ridge Road and Court was completed in 2012 and 2015. From the survey, the following PCI was generated:

Table 4 – Fox Ridge Road			
From Street	**To Street**	**2012 PCI**	**2015 PCI**
Livingston Avenue N	Fox Ridge Court	46	31
Fox Ridge Court	Livingston Avenue S	42	29

Table 5 – Fox Ridge Court			
From Street	**To Street**	**2012 PCI**	**2015 PCI**
Fox Ridge Road	Cul-de-Sac	29	30

There is an existing 6-inch diameter ductile iron watermain which runs the entire length of Fox Ridge Road. An existing 6-inch diameter ductile iron watermain serves Fox Ridge Court connecting into the Fox Ridge Road watermain. The water system is owned and operated by St. Paul Regional Water Services. City records show watermain improvements were constructed in 1982.

There is an existing 8-inch diameter vitrified clay pipe (VCP) sanitary sewer main which runs north to south along Fox Ridge Road starting upstream at a manhole at Fox Ridge Court and ending downstream at a manhole at Livingston Ave S. An existing 8-inch diameter VCP sanitary sewer main serves Fox Ridge Court connecting into the Fox Ridge Road sewer main. The existing condition of the sanitary sewer system was documented by videotaping of the sewer main and televising revealed the existing condition is good. City records show sanitary sewer improvements were constructed in 1982.

There is an existing storm sewer system within Fox Ridge Road and Court consisting of catch basin structures at only the roadway low point. The roadway low point is located 300 feet west of Livingston Avenue S. Fox Ridge Road is split into two different drainage basins. The north and central portion surface drain to the south towards the roadway low point. The south portion surface drains to the east towards Livingston Avenue S. Fox Ridge Court surface drains to the east towards Fox Ridge Road. From the low point the collected storm water flows within storm sewer southwest to final discharge in low area north of Humboldt Ave cul-de-sac.

See Figure 4B in Appendix A for existing watermain, sanitary sewer and storm sewer for Fox Ridge Road and Fox Ridge Court.

2.4.2 **Proposed Street Improvements**

Based on the roadway age, surface deterioration, PCI rating, and sub-soils, the proposed improvement for Fox Ridge Road and Court is a complete reconstruction of the existing road section. The new roadway width is proposed to match the existing width of 36-feet curb face to curb face. The new roadway horizontal alignment and vertical profile is expected to remain similar to the existing roadway. The street will be reconstructed to a minimum 7-ton design requirement. The proposed road section will include 4.0-inches of bituminous pavement (2 layers of 2-inches each) over 8.0-inches of aggregate based over 12.0-inches of select granular, for a total thickness of 24.0-inches. Additional subgrade excavation may be needed, this will be determined in the field. Subsurface drain tile would be installed at the bottom of the street section under the curb line to ensure the new roadway section will remain free draining, helping to reduce stress on pavement from freeze thaw action. All disturbed boulevard areas will be restored with 5.0-inches of topsoil and new sod.

In the future, fiber optic lines are planned to be added along Fox Ridge Road and Fox Ridge Court. To prepare for this future installment it is proposed that 2-inch conduit be buried along Fox Ridge Road and Fox Ridge Court. The conduit will start at Livingston Avenue N, go along the north side of Fox Ridge Road, around Fox Ridge Court, and continue around the outside of the Fox Ridge Road loop, ending at Livingston Avenue S.

2.4.3 **Proposed Sanitary Sewer Improvements**

Based on the televising results of the existing sanitary sewer main no improvements are recommended to the sewer pipe as part of the proposed project. All existing sanitary sewer manholes will have the casting/cover replaced along with installing Inflow/Infiltration (I/I) barriers. Trenchless T-liners will be installed at needed service locations.

The Fox Ridge Road and Court sanitary sewer system is within a City sewershed where the City still has an I/I surcharge amount to spend on sewer system repairs. The I/I surcharge is a Met Council calculated charge for excess I/I based on sewer flow metering from prior storm events. A meeting was held in early January 2016 to inform residents of the need to complete televised inspection of their private service lines draining to the Fox Ridge Road and Court sewer system. The private service line consists of any pipe between the residence/business and the sewer main. Any private service lines that need repairs need to be completed prior to the street project. The City currently has an I/I ordinance allowing for televising of private service lines and a visual inspection of the sump pump and piping (if applicable).

2.4.4 **Proposed Watermain Improvements**

St. Paul Regional Water Services completed a review of the existing water system in Fox Ridge Road and Court and determined no improvements are necessary as part of the proposed project.

2.4.5 **Proposed Storm Sewer Improvements**

Existing catch basins located at low point in Fox Ridge Road are recommended to be removed and replaced with new catch basins meeting current City standards. The existing manholes and storm sewer pipe network will be analyzed based on hydraulic performance and structural condition during final design. After analysis, any existing manhole or storm sewer pipe determined under sized or at risk for failure is recommended to be removed and replaced as part of the proposed project.

2.5 BIDWELL STREET

2.5.1 Existing Conditions

Bidwell Street, from Marie Avenue to Crusader Avenue, is a local residential road in West St. Paul. The road runs north/south in the south portion of the City and serves the residential single family homes with direct access to it.

Bidwell Street exists as a 34-foot wide bituminous roadway delineated by concrete curb and gutter on both sides. Pavement width is measured curb face to curb face. There are no sidewalks or trails in place along Bidwell Avenue and mature trees are found within the boulevard on both sides of the street for the entire length. There are (3) existing street lights within the street corridor of Bidwell Street: at the intersection of Marie Avenue, at the intersection of Oakview Road, and at the intersection of Crusader Avenue. City records show watermain and sanitary sewer improvements were completed in 1970. Records show storm sewer and roadway improvements were completed in 1979.

The bituminous pavement within the study area exhibits wear and distress due to traffic loadings as well as typical weathering effects experienced with aged asphalt pavement. The existing pavement contains large transverse cracking (cracks running perpendicular across the roadway) and significant alligator-type cracking. Alligator cracking in pavement is a tell-tale sign of subgrade problems. A total of (3) soil borings were completed along Bidwell Street by Braun Intertec to determine the existing roadway section. An additional two (2) soil borings were completed by Northern Technologies. See Appendix E for the completed soil boring locations and logs. The existing bituminous pavement thickness ranges from 4.0 to 8.5 inches and the aggregate base thickness ranges from 2.0 to 24.0 inches. Existing subgrade soils found beneath the aggregate base consisted of clayey sand and were found to be in either a wet or moist condition.

In 2006 the City of West St. Paul began a Pavement Management System which included a site survey of every street in the City. Each site survey gathered road distress data such as the number of potholes, the number and size of cracks, and other statistics which describe the condition of the pavement. This information was then used to compute a Pavement Condition Index (PCI) for each street section. The PCI is a tool for comparing streets when considering where roadway improvements are most needed within the City. The street PCI is a number between 0-100, with 100 being the best or signifying a newly paved street and 0 being the worst. In the pavement industry, it's generally agreed that streets with a PCI ≤ 65 need some improvement. Streets in need of a mill and overlay or other form of rehabilitation generally have a PCI in the range of 45-65, while streets with a PCI ≤ 45 usually require a complete reconstruction.

A pavement condition survey for Bidwell Street was completed in 2015 and from the survey a PCI was generated:

Table 6 – Bidwell Street		
From Street	**To Street**	**2015 PCI**
Crusader Avenue	**Oakview Road**	**1**
Oakview Road	**Marie Avenue**	**1**

There is an existing 6-inch diameter cast iron watermain which runs the entire length of Bidwell Street. The water system in the study area is owned and operated by St. Paul Regional Water Services.

There is an existing 8-inch diameter vitrified clay pipe (VCP) sanitary sewer main which runs north to south along the entire length of Bidwell Street starting upstream at a manhole at Marie Avenue and ending downstream at a manhole at Crusader Avenue. The existing condition of the sanitary sewer system was documented by videotaping of the sewer main and televising revealed the presence of significant inflow and/or infiltration along the entire length of Bidwell Street. This appears to be primarily due to poor pipe joints as well as cracks and root growth in the sewer pipe. The televising also documented sags in the sewer pipe at some locations. These conditions can lead to a significant decrease in capacity and cause sewage backups if left untreated.

There is an existing storm sewer system within Bidwell Street consisting of catch basin structures at each roadway intersection and along the roadway segment. Bidwell Street surface drains within the study area from both the north and south end to the roadway low point located approximately 120 feet north of Crusader Avenue. From the low point the collected storm water flows within storm sewer south to Crusader Avenue then flows east in Crusader Avenue and is discharged into the school pond.

2.5.2 **Proposed Street Improvements**

Based on the roadway age, surface deterioration, PCI rating, and sub-soils, the proposed improvements for Bidwell Street is a complete reconstruction of the existing road section. The new roadway width is proposed to match the existing width of 34-feet curb face to curb face. The new roadway horizontal alignment and vertical profile is expected to remain similar to the existing roadway. The street will be reconstructed to a minimum 7-ton design requirement. The proposed road section will include 4.0-inches of bituminous pavement (2 layers of 2-inches each) over 8.0-inches of aggregate base over 12.0-inches of select granular, for a total thickness of 24.0-inches. Additional subgrade excavation may be needed, this will be determined in the field. Subsurface drain tile would be installed at the bottom of the street section under the curb line to help ensure the new roadway section will remain free draining, helping to reduce stress on pavement from freeze thaw action. All disturbed boulevard areas will be restored with 5.0-inches of topsoil and new sod.

In the future, fiber optic lines are planned to be added along Bidwell Street. To prepare for this future installment it is proposed that 2 inch conduit be buried along the east side of Bidwell Street from Marie Avenue to Crusader Avenue.

2.5.3 **Proposed Concrete Sidewalk**

A 5-foot wide concrete sidewalk with an approximately 5-foot wide boulevard is proposed to be placed along one side of the roadway. The sidewalk location follows the City map for planned future sidewalk installations and design will follow the American with Disabilities Act (ADA) standards. The proposed sidewalk will require removal of mature trees, existing landscaping and possible retaining walls. Which side of the street the sidewalk is located, the extent of the removals and other design aspects will be determined during the final design phase.

The concrete sidewalk will provide residents an opportunity to use off-road forms of transportation and will enable a more active lifestyle. The sidewalk will provide users a safer environment compared to the current on-road way. The proposed sidewalk will provide connections to the existing trail on Marie Avenue and a future sidewalk at Crusader Avenue.

2.5.4 **Proposed Sanitary Sewer Improvements**

Based on the sewer pipe age, material type, and televising results, the proposed improvements for the existing sanitary sewer along Bidwell Street will be full length lining of the existing main with a cured-in-place pipe (CIPP). The manhole at the intersection with Crusader Avenue will need to be replaced due to corrosion from an incoming 10" forcemain. All existing sanitary sewer manholes will have the casting/cover replaced along with installing Inflow/Infiltration (I/I) barriers. Trenchless T-liners will be installed at needed service locations.

Bidwell Street sanitary sewer system is within a City sewershed where the City still has an I/I (Inflow/Infiltration) surcharge amount to spend on sewer system repairs. The I/I surcharge is a Met Council calculated charge for excess I/I based on sewer flow metering from prior storm events. A meeting was held in October 2012 to inform residents of the need to complete televised inspection of their private service lines draining to Bidwell Street sewer system. The private service line consists of any pipe between the residence and the sewer main. Any private service lines that need repairs can be coordinated and completed with the street project. The City currently has an I/I ordinance allowing for the inspection of private service lines.

2.5.5 **Proposed Watermain Improvements**

St. Paul Regional Water Services completed a review of the existing water system in Bidwell Street and determined a complete replacement of the existing watermain from Marie Avenue to Crusader Avenue with new 8-inch ductile iron pipe (DIP) is recommended as part of the proposed project. No other water services or watermain is proposed to be replaced.

2.5.6 **Proposed Storm Sewer Improvements**

Existing catch basins along Bidwell Street are recommended to be removed and replaced with new catch basins meeting current City standards. The existing manholes and storm sewer pipe network will be analyzed based on hydraulic performance and structural condition during final design. After analysis, any existing manhole or storm sewer pipe determined under sized or at risk for failure is recommended to be removed and replaced as part of the proposed project.

See Figure 4A in Appendix A for layout illustrating existing conditions and proposed improvements for Bidwell Street.

2.6 EDGEWOOD LANE

2.6.1 Existing Conditions

Edgewood Lane, from Charlton Street to dead-end, is a local residential road in West St. Paul. The existing dead-end lacks an adequate roadway turnaround area and currently requires the use of a private residential driveway in order to turn around. The road runs both west/east and north/south in the southern portion of the City and serves only the residential single family homes with direct access to it.

Edgewood Lane exists as a variable width of 12 to 24-foot wide bituminous/gravel roadway with no curb and gutter on either side. Only the first 600-feet of roadway, from Charlton Street to the east, has bituminous pavement, the remaining portion of Edgewood Lane is gravel surfaced. Roadway width is measured from approximate edge of pavement or gravel. There are no sidewalks or trails in place along Edgewood Lane and mature trees are found right up to the road along both sides for the entire length. There is (1) existing street light at the intersection of Edgewood Lane and Charlton Street. The City records show that the paved portion of roadway was constructed in 1961.

The bituminous pavement within the study area shows wear and distress due to traffic loading as well as typical weathering effects experienced with aged bituminous pavement. The existing pavement contains large transverse cracking and significant potholes, in some areas the existing pavement has broken down completely with appearance similar to gravel. A total of four (4) soils borings and two (2) pavement cores were completed along Edgewood Lane, by Northern Technologies, Inc., to determine the existing roadway section. See Appendix E for completed soil boring and pavement core locations and logs. The existing bituminous pavement thickness ranges from 2.25 to 3.5 inches and aggregate base thickness ranges from 2 to 8 inches. Existing subgrade soils found beneath the aggregate base consisted of clayey sand and silty sand and were found to be in moist condition.

In 2006, the City of West St. Paul began a Pavement Management System which included an entire survey of every street in the City. Each site survey gathered road distress data such as the number of potholes, the number and size of cracks, and other statistics which describe the condition of the pavement. This information was then used to compute a Pavement Condition Index (PCI) for each street section. The PCI is a tool for comparing streets when considering where roadway improvements are most needed within the City. The street PCI is a number between 0-100, with 100 being the best or signifying a newly paved street and 0 being the worst. In the pavement industry, it's generally agreed that streets with a PCI ≤ 65 need some improvements. Streets in need of a mill and overlay or other forms of rehabilitation generally have a PCI in the range of 45-65, while streets with a PCI ≤ 45 typically require a complete reconstruction.

A pavement condition survey for Edgewood Lane was completed in 2015. From the survey, the following PCI was generated:

Table 7 – Edgewood Lane		
From Street	**To Street**	**2015 PCI**
Charlton Street	Dead-End	10

There is an existing 6-inch diameter cast iron watermain which runs along a portion of Edgewood Lane starting approximately 575-feet east of Charlton Street to the roadway dead end. The water system in the study area is owned and operated by St. Paul Regional Water Services. There are water services to residents that vary from ¾-inch to 1-inch and are comprised mostly of copper. City records show watermain improvements were constructed in 1972 and 2000.

There are two existing sanitary sewer mains within Edgewood Lane, both consisting of either vitrified clay pipe (VCP) or polyvinyl chloride (PVC). The first is an existing 8-inch diameter sanitary sewer main which runs north to south starting upstream at a manhole approximately 575-feet east of Charlton Street and ending downstream at a manhole just north of the local pond. The second is an existing 8-inch diameter sanitary sewer main which runs south to north starting upstream at a manhole at the roadway dead-end and ending downstream at the same manhole just north of the local pond. From this manhole the sanitary sewer main turns and runs east towards Oakview Road within a dedicated utility easement. The existing condition of the sanitary sewer system was documented by videotaping of the sewer main and televising revealed the presence of significant inflow and/or infiltration along the entire length of Bidwell Street. This appears to be primarily due to poor pipe joints as well as cracks and root growth in the sewer pipe. The televising also documented sags in the sewer pipe at some locations. These conditions can lead to a significant decrease in capacity and cause sewage backups if left untreated. City records show sanitary sewer improvements were constructed in 1972 and 2000.

There is an existing storm sewer system within Edgewood Lane consisting of catch basin structures only at the Charlton Street intersection and two other roadway culvert crossings, one located at the local pond and one located approximately 300-feet to the north. Edgewood Lane is split into two different drainage basins. The west and north portion surface drains from a roadway high point approximately 600-feet east of Charlton Street to the west back towards Charlton Street. The east and south portion surface drains from the same roadway high point to the south towards the local pond. City records show storm sewer improvements were constructed in 1961 and 2010.

See Figure 4B in Appendix A for existing watermain, sanitary sewer and storm sewer for Edgewood Lane.

2.6.2 **Proposed Street Improvements**

Based on the roadway age, surface deterioration, drainage issues, PCI rating, and sub-soils, the proposed improvement for Edgewood Lane includes two options. Option 1 is a complete reconstruction and Option 2 includes turning the entire length into a gravel road.

Option 1

With this option, the new roadway is proposed to be constructed with new concrete curb and gutter to improve drainage and support the edge of pavement. The new roadway width is proposed to be a consistent width of 24-feet curb face to curb face which is a consistent width compared to Oakview Road to the north. The new horizontal alignment and vertical profile is expected to remain similar to the existing roadway. The street will be reconstructed to a minimum 7-ton design requirement. The proposed road section will include 4.0-inches of bituminous pavement (2 layers of 2-inches each) over 8.0-inches of aggregate based over 12.0-inches of select granular, for a total thickness of 24.0-inches. Additional subgrade excavation may be needed, this will be determined in the field. Subsurface drain tile would be installed at the bottom of the street section under the curb line to ensure the new roadway section will remain free draining, helping to reduce stress on pavement from freeze thaw action. The existing driveway aprons will be removed and replaced with new concrete. All disturbed boulevard areas will be restored with 5.0-inches of topsoil and new sod.

In the future, fiber optic lines are planned to be added along Edgewood Lane. To prepare for this future installment it is proposed that 2 inch conduit be buried along the north/east side of Edgewood Lane, from Charlton Street to the dead-end.

In addition, in order to improve the lack of an adequate roadway turnaround at the dead end of Edgewood Lane, a new turnaround option has been reviewed and is shown in Figure 6 in Appendix A. Based on the encroachment of the local pond footprint into the Right-of-Way at the south end of Edgewood Lane, the only feasible space for a new roadway turnaround is just north of the local pond on the north/east side of Edgewood Lane. It is recommended that the reconstruction of Edgewood Lane include an adequate turnaround, with primary benefit being to city maintenance and public service users. The final turnaround configuration and placement will be determined during final design.

Option 2

With this option, the new roadway is proposed to be constructed as a rural section with ditches to convey storm water and with a gravel surface. The new roadway width is proposed to be a consistent width of 24-feet. The new horizontal alignment and vertical profile is expected to remain similar to the existing roadway. The proposed road will be regraded to build back a crown to improve drainage along with grading ditches and adding culverts. Substantial tree loss will occur due to providing proper drainage ditches and additional culverts, the amount of disturbance will be determined in final design. The proposed roadway will include 6.0-inches of new gravel surface. All disturbed boulevard areas will be restored with 5.0-inches of topsoil and seed.

This option includes more maintenance than a paved street with curb and gutter. The roadway will need to be graded to repair washouts and to remove potholes along with adding gravel on a regular schedule. Due to the gravel surface, drainage ditches fill up with gravel and need to be cleaned to provide appropriate drainage. Based on the level of continued maintenance of both the roadway and ditches, this option is not recommended.

In the future, fiber optic lines are planned to be added along Edgewood Lane. To prepare for this future installment it is proposed that 2 inch conduit be buried along the north/east side of Edgewood Lane, from Charlton Street to the dead-end.

2.6.3 **Proposed Sanitary Sewer Improvements**

Based on the sewer pipe ages, material types, and televising results, the proposed improvements for the existing sanitary sewers along Edgewood Lane will be full length lining of the existing mains with a cured-in-place pipe (CIPP). All existing sanitary sewer manholes will have the casting/cover replaced along with installing Inflow/Infiltration (I/I) barriers. Trenchless T-liners will be installed at needed service locations.

The Edgewood Lane sanitary sewer system is within a City sewershed where the City still has an I/I surcharge amount to spend on sewer system repairs. The I/I surcharge is a Met Council calculated charge for excess I/I based on sewer flow metering from prior storm events. A meeting was held in early January 2016 to inform residents of the need to complete televised inspection of their private service lines draining to the Edgewood Lane sewer system. The private service line consists of any pipe between the residence/business and the sewer main. Any private service lines that need repairs need to be completed prior to the street project. The City currently has an I/I ordinance allowing for televising of private service lines and a visual inspection of the sump pump and piping (if applicable).

2.6.4 **Proposed Watermain Improvements**

St. Paul Regional Water Services completed a review of the existing water system in Edgewood Lane and determined that a complete replacement of the existing watermain from approximately 243 Edgewood Lane to roadway dead-end with a new 6-inch ductile iron pipe (DIP) is recommended as part of the proposed project. The installation of a new 8-inch DIP watermain from Charlton Street to 600-feet east is also recommended as part of the proposed project. No other water services or watermain is proposed to be replaced.

2.6.5 **Proposed Storm Sewer Improvements**

Existing catch basins located at Charlton Street are recommended to be removed and replaced with new catch basins meeting current City standards. A new storm sewer network will be required based on the addition of the new roadway curb and gutter and the existing storm sewer culverts will be analyzed based on hydraulic performance and structural condition during final design. After analysis, any existing manhole or storm sewer pipe determined under sized or at risk for failure is recommended to be removed and replaced as part of the proposed project.

2.7 **SHERWOOD COURT**

2.7.1 **Existing Conditions**

Sherwood Court, from Charlton Street to dead-end, is a local residential road in West St. Paul. The road runs both east/west and north/south in the southern portion of the City and serves only the residential single family homes with direct access to it.

Sherwood Court exists as a 36-foot wide bituminous roadway delineated by concrete curb and gutter on both sides ending with a 48-foot radius cul-de-sac with concrete curb and gutter. The radius is measured to face of curb. There are no sidewalks or trails in place along Sherwood Court. Mature trees are found in the boulevard on both sides of the road for the entire length, also in some areas right up to the road. There is (2) existing street lights along Sherwood Court: at the intersection of Sherwood Court and Charlton Street and

at mid-block between Charlton Street and the dead-end. The City records show that the paved portion of roadway was constructed in 1978.

The bituminous pavement within the study area shows wear and distress due to traffic loading as well as typical weathering effects experienced with aged bituminous pavement. The existing pavement contains settlement/grade depressions, transverse cracking, and alligator-type cracking. Alligator cracking in pavement is a tell-tale sign of subgrade problems. A total of four (4) soils borings were completed along Sherwood Court, by Northern Technologies, Inc., to determine the existing roadway section. See Appendix E for completed soil boring and pavement core locations and logs. The existing bituminous pavement thickness ranges from 12 to 24 inches and aggregate base thickness ranges from 4 to 6 inches. Existing subgrade soils found beneath the aggregate base consisted of clayey sand and silty sand and were found to be in moist condition.

In 2006, the City of West St. Paul began a Pavement Management System which included an entire survey of every street in the City. Each site survey gathered road distress data such as the number of potholes, the number and size of cracks, and other statistics which describe the condition of the pavement. This information was then used to compute a Pavement Condition Index (PCI) for each street section. The PCI is a tool for comparing streets when considering where roadway improvements are most needed within the City. The street PCI is a number between 0-100, with 100 being the best or signifying a newly paved street and 0 being the worst. In the pavement industry, it's generally agreed that streets with a PCI ≤ 65 need some improvements. Streets in need of a mill and overlay or other forms of rehabilitation generally have a PCI in the range of 45-65, while streets with a PCI ≤ 45 typically require a complete reconstruction.

A pavement condition survey for Sherwood Court was completed in 2015. From the survey, the following PCI was generated:

Table 8 – Sherwood Court		
From Street	**To Street**	**2015 PCI**
Charlton Street	Dead-End	20

There is an existing 6-inch diameter cast iron watermain that serves the properties on Sherwood Court. The watermain connects to existing watermain on Charlton Street and Edgewood Lane. The majority of the watermain runs outside the south side of the roadway within easements. It runs alongside the existing sanitary sewer. The water system in the study area is owned and operated by St. Paul Regional Water Services. There are water services to residents that vary from ¾-inch to 1-inch and are comprised mostly of copper. City records show watermain improvements were constructed in 1978.

There are three (3) existing sanitary sewer mains within Sherwood Court, each consisting of either vitrified clay pipe (VCP). The first is an existing 8-inch diameter sanitary sewer main which runs east to west starting upstream at a manhole north of the cul-de-sac and ending downstream at a manhole at Charlton Street. The second is an existing 8-inch diameter sanitary sewer main which runs north to south starting upstream at a manhole at the approximately 273-feet north of dead-end and ending downstream at the manhole north of the cul-de-sac. The third sanitary sewer main runs south to north, starting upstream at a manhole at the dead-end and ending downstream at the manhole north of the cul-de-sac. The existing condition of the sanitary sewer system was documented by videotaping of the sewer main and televising revealed the presence of significant inflow and/or infiltration along the

entire length of Sherwood Court. This appears to be primarily due to poor pipe joints as well as cracks and root growth in the sewer pipe. The televising also documented sags in the sewer pipe at some locations. These conditions can lead to a significant decrease in capacity and cause sewage backups if left untreated. City records show sanitary sewer improvements were constructed in 1978.

There is an existing storm sewer system within Sherwood Court consisting of catch basin structures only at the Charlton Street intersection and just north of the cul-de-sac. The entire roadway drains to Charlton Street except the cul-de-sac, which gets picked up by existing catch basin that empty into a wetland. City records show storm sewer improvements were constructed in 1978. The north side of the roadway regular experiences wet conditions.

See Figure 4B in Appendix A for existing watermain, sanitary sewer and storm sewer for Sherwood Court.

2.7.2 **Proposed Street Improvements**

Based on the roadway age, surface deterioration, PCI rating, and sub-soils, the proposed improvement for Sherwood Court is a complete reconstruction of the existing road section. The new roadway is proposed to be constructed with new concrete curb and gutter to improve drainage and support the edge of pavement. The new roadway width is proposed to be a consistent width of 36-feet curb face to curb face. The new roadway horizontal alignment and vertical profile is expected to remain similar to the existing roadway. The street will be reconstructed to a minimum 7-ton design requirement. The proposed road section will include 4.0-inches of bituminous pavement (2 layers of 2-inches each) over 8.0-inches of aggregate based over 12.0-inches of select granular, for a total thickness of 24.0-inches. Additional subgrade excavation may be needed, this will be determined in the field. Subsurface drain tile would be installed at the bottom of the street section under the curb line to ensure the new roadway section will remain free draining, helping to reduce stress on pavement from freeze thaw action. The existing driveway aprons will be removed and replaced with new concrete. All disturbed boulevard areas will be restored with 5.0-inches of topsoil and new sod.

In the future, fiber optic lines are planned to be added along Sherwood Court. To prepare for this future installment it is proposed that 2 inch conduit be buried along the north/east side of Sherwood Court, from Charlton Street to the dead-end.

2.7.3 **Proposed Sanitary Sewer Improvements**

Based on the sewer pipe ages, material types, and televising results, the proposed improvements for the existing sanitary sewers along Sherwood Court will be lining of the majority of the existing main with a cured-in-place pipe (CIPP). Three manholes have been identified to be need of a rehabilitation due to I/I issues and/or corrosion from sewer gases. Sanitary sewer manholes will have the casting/cover replaced along with installing Inflow/Infiltration (I/I) barriers. Trenchless T-liners will be installed at needed service locations.

The Sherwood Court sanitary sewer system is within a City sewershed where the City still has an I/I surcharge amount to spend on sewer system repairs. The I/I surcharge is a Met Council calculated charge for excess I/I based on sewer flow metering from prior storm events. A meeting was held in early January 2016 to inform residents of the need to complete televised inspection of their private service lines draining to the Sherwood Court sewer system. The private service line consists of any pipe between the residence/business and the sewer main. Any private service lines that need repairs need to be completed prior to the street project. The City currently has an I/I ordinance allowing for televising of private service lines and a visual inspection of the sump pump and piping (if applicable).

2.7.4 **Proposed Watermain Improvements**

St. Paul Regional Water Services completed a review of the existing water system in Sherwood Court and determined that a complete replacement of the existing watermain from Charlton Street to approximately 675-feet east of Charlton Street with a new 8-inch ductile iron pipe (DIP) is recommended as part of the proposed project along with service replacement.

2.7.5 **Proposed Storm Sewer Improvements**

Existing catch basins located at Sherwood Court are recommended to be removed and replaced with new catch basins meeting current City standards. The existing manholes and storm sewer pipe network will be analyzed based on hydraulic performance and structural condition during final design. After analysis, any existing manhole or storm sewer pipe determined under sized or at risk for failure is recommended to be removed and replaced as part of the proposed project.

Additional draintile, stormwater structures and infiltration areas will need to be installed to address the wet area on the north side of the roadway.

2.8 **CHARLTON STREET**

2.8.1 **Existing Conditions**

Charlton Street, from Highway 110 to Marie Avenue, is a collector road in West St. Paul. The road runs north/south in the south portion of the City and serves the residential single and multi-family homes with direct access to it. The roadway is also designated a Municipal State Aid Street (MSAS) route and s such is eligible for Municipal State Aid (MSA).

Charlton Street exists as a 36-foot wide bituminous roadway delineated by concrete curb and gutter on both sides. Roadway width is measured curb face to curb face. There is an existing sidewalk on the west side. On street parking is allowed on the west side of the road the entire length. Currently, the segment has five (5) total existing street lights along the east side at each intersection along the entire length, and between Oakview Road and Edgewood Lane. City records show that the roadway was constructed in 1988.

The bituminous pavement within the study area shows wear and distress due to traffic loading as well as typical weathering effects experienced with aged bituminous pavement. The existing pavement contains large transverse cracking, longitudinal cracking, rutting, and potholes. A total of eight (8) soils borings were completed along Charlton Street, by Northern Technologies, Inc., to determine the existing roadway section. See Appendix E for the completed soil boring and pavement core locations and logs. The existing bituminous pavement thickness ranges from 12 to 18 inches and aggregate base thickness ranges from 5 to 6 inches. Existing subgrade soils found beneath the aggregate base consisted of clayey sand and silty sand and were found to be in moist condition.

In 2006, the City of West St. Paul began a Pavement Management System which included an entire survey of every street in the City. Each site survey gathered road distress data such as the number of potholes, the number and size of cracks, and other statistics which describe the condition of the pavement. This information was then used to compute a Pavement Condition Index (PCI) for each street section. The PCI is a tool for comparing streets when considering where roadway improvements are most needed within the City. The street PCI is a number between 0-100, with 100 being the best or signifying a newly paved street and 0 being the worst. In the pavement industry, it's generally agreed that streets with a PCI ≤ 65 need some improvements. Streets in need of a mill and overlay or other forms of rehabilitation generally have a PCI in the range of 45-65, while streets with a PCI ≤ 45 typically require a complete reconstruction.

A pavement condition survey for Charlton Road was completed in 2015. From the survey, the following PCI was generated:

Table 9 – Charlton Street		
From Street	**To Street**	**2015 PCI**
Highway 110	Mendota Road	13
Mendota Road	Charlton Ridge	20
Charlton Ridge	Sherwood Court	21
Sherwood Court	Edgewood Lane	24
Edgewood Lane	Oakview Road	24
Oakview Road	Marie Avenue W	33

There is an existing 8-inch diameter cast iron watermain which runs the entire length of Charlton Street. The water system in the study area is owned and operated by St. Paul Regional Water Services. There are water services to residents that vary from ¾-inch to 2-inch and are comprised mostly of copper. City records show watermain improvements were constructed in 1988.

There is an existing 8-inch vitrified clay pipe (VCP) sanitary sewer main which runs North to South along Charlton Street starting upstream at a manhole on Marie Avenue and ending downstream at a manhole south of Sherwood Court. Beginning upstream at the same manhole south of Sherwood Court and continuing downstream to Highway 110 there is 10-inch sanitary sewer. The existing condition of the sanitary sewer system was documented by videotaping of the sewer main and televising revealed the presence of significant inflow and/or infiltration as well as mineral deposits along the entire length of Charlton Street. This appears to be primarily due to poor pipe joints, crack, root growth, and a broken pipe. These conditions can lead to a significant decrease in capacity and cause sewage backups if left untreated. City records show sanitary sewer improvements were constructed in 1964 and 1968.

There is an existing storm sewer system within Charlton Street consisting of catch basin structures along the roadway, including at each roadway intersection. Charlton Street surface drains within the study area from north to south towards Highway 110. City records show storm sewer improvements were constructed in 1988.

See Figure 4D in Appendix A for existing watermain, sanitary sewer and storm sewer for Charlton Street.

2.8.2 **Proposed Street Improvements**

Based on the roadway age, surface deterioration, PCI rating, and sub-soils, the proposed improvement for Charlton Street is a complete reconstruction of the existing road section. The new roadway width is proposed to match the existing width of 36-feet curb face to curb face. The new roadway will consist of two 11-foot driving lanes two 5-1/2 foot bike lanes. The roadway will meet MSA design requirements for a two-lane roadway. The street will be reconstructed to a minimum 9-ton design requirement. The new roadway horizontal alignment and vertical profile is expected to remain similar to the existing roadway. The geotechnical evaluation was not completed at the time of this report, however based on past City projects the proposed road section will include 4.0-inches of bituminous pavement (2 layers of 2-inches each) over 8.0-inches of aggregate based over 12.0-inches of select granular, for a total thickness of 24.0-inches. This road section will be verified based on geotechnical recommendations as part of the final design. Additional subgrade excavation may be needed,

this will be determined in the field. Subsurface drain tile would be installed at the bottom of the street section under the curb line to ensure the new roadway section will remain free draining, helping to reduce stress on pavement from freeze thaw action. In addition, the existing driveway aprons will be removed and replaced with new concrete. The existing concrete sidewalk will have cracked or damaged panels repaired along with the repair of any tripping hazards. All disturbed boulevard areas will be restored with 5.0-inches of topsoil and new sod.

In the future, fiber optic lines are planned to be added along Charlton Street. To prepare for this future installment it is proposed that 2-inch conduit be buried along the west side of Charlton Street, from Highway 110 to Marie Avenue.

2.8.3 **Proposed Traffic Calming**

To reduce traffic speeds on the roadway, a variety of options were examined for the roadway. Reducing the travel lanes to 11 feet wide and marking the bike lanes can reduce the speed on the roadway. Also, adding boulevard trees can create a visual affect by making the corridor narrower and thus reducing speeds. These options create a feel of a narrower roadway.

2.8.4 **Proposed Sanitary Sewer Improvements**

Based on the sewer pipe age, material type, and televising results, the proposed improvements for the existing sanitary sewer along Charlton Street will be lining the majority of the existing sewer. Trenchless T-liners will be installed at needed service locations.

The Charlton Street sanitary sewer system is within a City sewershed where the City still has an I/I surcharge amount to spend on sewer system repairs. The I/I surcharge is a Met Council calculated charge for excess I/I based on sewer flow metering from prior storm events. A meeting was held in early January 2016 to inform residents of the need to complete televised inspection of their private service lines draining to the Charlton Street sewer system. The private service line consists of any pipe between the residence/business and the sewer main. Any private service lines that need repairs need to be completed prior to the street project. The City currently has an I/I ordinance allowing for televising of private service lines and a visual inspection of the sump pump and piping (if applicable).

2.8.5 **Proposed Watermain Improvements**

St. Paul Regional Water Services completed a review of the existing water system in Charlton Street and determined that a complete replacement of the existing watermain from Mendota Road and Marie Avenue with a new 8-inch ductile iron pipe (DIP) is recommended as part of the proposed project. No other water services or watermain is proposed to be replaced.

2.8.6 **Proposed Storm Sewer Improvements**

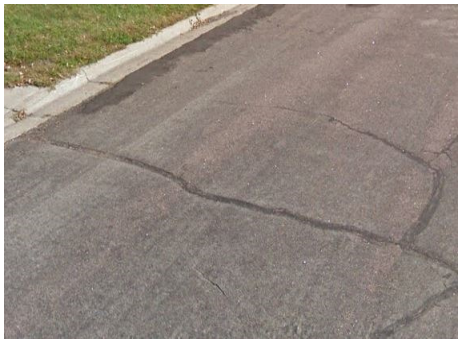
Existing catch basins located at each roadway intersection along Charlton Street are recommended to be removed and replaced with new catch basins meeting current City standards. The existing manholes and storm sewer pipe network will be analyzed based on hydraulic performance and structural condition during final design. After analysis, any existing manhole or storm sewer pipe determined under sized or at risk for failure is recommended to be removed and replaced as part of the proposed project. The analysis will comply with State-Aid standards.

3.0 STREET REHABILITATION (FULL-DEPTH RECLAMATION)

3.1 RUNGE LANE

3.1.1 Existing Conditions

Runge Lane, from Smith Avenue to Charlton Street, is a local residential road in West St. Paul. The road runs west/east in the central portion of the City and serves the residential single family homes on and around it.



Runge Lane exists as a 36-foot wide bituminous roadway delineated with concrete curb and gutter on both sides. Roadway width is measured curb face to curb face. There are no existing sidewalks and a small portion of bituminous trail along the south side located within the Weschcke Park. Mature trees are found within the boulevard on both sides. There are three (3) total existing street lights within the street corridor: at the intersection of Smith Avenue, at the intersection of Galvin Avenue, and at the intersection of Charlton Street. City records show that the roadway was constructed in 1972 and reconstructed in 1990.

The bituminous pavement within the study area shows wear and distress due to traffic loading as well as typical weathering effects experienced with aged bituminous pavement. The existing pavement contains some transverse cracking, longitudinal cracking, and potholes. A total of three (3) pavement cores were completed along Runge Lane, by Northern Technologies, Inc., to determine the existing bituminous section. See Appendix E for the completed pavement core locations and logs. The existing bituminous pavement thickness ranges from 3.5 to 4.25 inches and the aggregate base thickness ranges from 2.5 to 5.25 inches.

In 2006, the City of West St. Paul began a Pavement Management System which included an entire survey of every street in the City. Each site survey gathered road distress data such as the number of potholes, the number and size of cracks, and other statistics which describe the condition of the pavement. This information was then used to compute a Pavement Condition Index (PCI) for each street section. The PCI is a tool for comparing streets when considering where roadway improvements are most needed within the City. The street PCI is a number between 0-100, with 100 being the best or signifying a newly paved street and 0 being the worst. In the pavement industry, it's generally agreed that streets with a PCI ≤ 65 need some improvements. Streets in need of a mill and overlay or other forms of rehabilitation generally have a PCI in the range of 45-65, while streets with a PCI ≤ 45 typically require a complete reconstruction.

A pavement condition survey for Runge Lane was completed in 2015. From the survey, the following PCI was generated:

Table 10 – Runge Lane

From Street	To Street	2015 PCI
Smith Ave	Galvin Ave	34
Galvin Ave	Charlton St	46

There is an existing 6-inch diameter cast iron watermain which runs the entire length of Runge Lane from Smith Avenue to Charlton Street. The water system in the study area is owned and operated by St. Paul Regional Water Services. There are water services to residents that vary from ¾-inch to 1-inch and are comprised mostly of copper. City records show watermain improvements were constructed in 1968.

There is an existing 8-inch vitrified clay pipe (VCP) sanitary sewer main which runs east to west along the entire length of Runge Lane starting at upstream manhole approximately 75-feet west of Charlton Street and ending downstream at manhole at Smith Avenue. The existing condition of the sanitary sewer system was documented by videotaping of the sewer main and televising revealed the presence of significant inflow and/or infiltration along the entire length of Runge Lane. This appears to be primarily due to poor pipe joints as wells as cracks and root growth in the sewer pipe. These conditions can lead to a significant decrease in capacity and cause sewage backups if left untreated. City records show sanitary sewer improvements were constructed in 1968.

There is an existing storm sewer system within Runge Lane consisting of catch basin structures at Galvin Avenue and Smith Avenue intersections. Runge Lane surface drains within the study area from high point at Charlton Street intersection west towards catch basin structures at Galvin Avenue where collected storm water flows west to catch basin structures at Smith Avenue intersection. There is an excess amount of sump pump discharge from the adjacent homes into the front yards and onto the street. City records show storm sewer improvements were constructed in 1990.

See Figure 4C in Appendix A for existing watermain, sanitary sewer and storm sewer for Runge Lane.

3.1.2 **Proposed Street Improvements**

Based on the roadway age, surface deterioration, and PCI rating, the proposed improvement for Runge Lane is a full depth-reclamation of the entire road section. The roadway width is proposed to remain a width of 36-feet curb face to curb face. The roadway horizontal alignment and vertical profile is expected to remain similar to the existing roadway. The full-depth reclaim will recycle all of the aggregate base and asphalt pavement to form the new roadway base. If there are any spots that are deemed as unacceptable base soil in the field, those areas will excavated to a further depth in order to remove and replace the affected soils. The road will then be graded and paved with an initial 2.0-inch bituminous base course. Additionally, any cracked/damaged/heaved existing concrete curb and gutter and driveway aprons will be removed and replaced with new concrete. Following the completion of all bituminous base patching and concrete work, a final 2.0-inch bituminous pavement overlay for the entire length of Runge Lane will be completed. All disturbed boulevard areas will be restored with 5.0-inches of topsoil and new sod.

3.1.3 **Proposed Sanitary Sewer Improvements**

Based on the sewer pipe age, material type, and televising results, the proposed improvements for the existing sanitary sewer along Runge Lane will be full length lining of the existing main with a cured-in-place pipe (CIPP). All existing sanitary sewer manholes will have the casting/cover replaced along with installing Inflow/Infiltration (I/I) barriers. Trenchless T-liners will be installed at needed service locations.

The Runge Lane sanitary sewer system is within a City sewershed where the City still has an I/I surcharge amount to spend on sewer system repairs. The I/I surcharge is a Met Council calculated charge for excess I/I based on sewer flow metering from prior storm events. A meeting was held in early January 2016 to inform residents of the need to complete televised inspection of their private service lines draining to the Runge Lane sewer system. The private service line consists of any pipe between the residence/business and the sewer main. Any private service lines that need repairs need to be completed prior to the street project. The City currently has an I/I ordinance allowing for televising of private service lines and a visual inspection of the sump pump and piping (if applicable).

3.1.4 **Proposed Watermain Improvements**

St. Paul Regional Water Services completed a review of the existing water system in Runge Lane and determined no improvements are necessary as part of the proposed project.

3.1.5 **Proposed Storm Sewer Improvements**

Existing catch basins and storm sewer manholes within Runge Lane will be evaluated for potential improvement needs during project final design. After review if recommendation is removal and replacement of any existing catch basin or manhole structure all new structures will meet current City standards.

Due the excessive sump pump discharge, yard drain boxes will be installed for the homeowner to connect their sump pump into. These yard drain boxes will be connect to existing draintile and storm sewer to convey the water into the storm sewer system.

4.0 ESTIMATED COSTS/FINANCING

The estimated project cost to complete the improvements proposed herein are presented below. These costs include estimated construction costs, a 10% contingency, and 16% overhead cost: financial (2%), legal (2%), administrative (2%), and engineering (10%).

These cost estimates are based upon public construction cost information. Since the consultant has no control over the cost of labor, materials, competitive bidding process, weather conditions, and other factors affecting the cost of construction, all cost estimates are opinions for general information of the client and no warranty or guarantee as to the accuracy of construction cost estimates is made. It is recommended that costs for project financing should be based upon actual, competitive bid prices with reasonable contingencies.

4.1 STREET RECONSTRUCTION COST ESTIMATE

EDITH DRIVE, HUMBOLDT AVENUE, KRAFT ROAD, FOX RIDGE ROAD & FOX RIDGE COURT, BIDWELL LANE, EDGEWOOD LANE, CHARLTON STREET AND SHERWOOD COURT

Table 11 – Estimated Cost Summary

(See Appendix B for Detailed Cost Estimate)

Location	Construction Cost	Contingency Cost (10%)	Overhead Cost (16%)	Total Estimated Cost
Edith Dr	$1,222,400	$122,200	$215,100	**$1,559,700**
Humboldt Ave	$1,456,900	$145,700	$256,400	**$1,859,000**
Kraft Rd	$360,400	$36,000	$63,400	**$459,800**
Fox Ridge Rd & Fox Ridge Ct	$446,200	$44,700	$78,500	**$569,400**
Bidwell Ln	$759,900	$76,000	$133,800	**$969,700**
Edgewood Ln (Option 1)	$494,500	$49,500	$87,000	**$631,000**
Charlton St	$1,385,700	$138,600	$243,900	**$1,768,200**
Sherwood Ct	$432,700	$43,300	$76,100	**$552,100**
TOTALS	**$6,558,700**	**$656,000**	**$1,154,200**	**$8,368,900**

Table 12 – Edgewood Lane Option 2 Cost Summary

Location	Construction Cost	Contingency Cost (10%)	Overhead Cost (16%)	Total Estimated Cost
Edgewood Ln (Option 2)	$263,000	$26,300	$46,300	**$335,600**
TOTAL PROJECT	**$263,000**	**$26,300**	**$46,300**	**$335,600**

Table 13 – Funding Summary

Item	Total Estimated Cost	Assessments	City Share	St. Paul Regional Water
Sanitary Sewer	**$994,600**	$0	$994,600	$0
Watermain	**$1,141,000**	$0	$0	$1,141,000
Storm Sewer	**$637,400**	$0	$637,400	$0
Concrete Walk	**$223,300**	$0	$223,300	$0
Street	**$5,190,400**	$1,297,600	$3,892,800	$0
Street Lighting	**$182,200**	$0	$182,200	$0
TOTALS	**$8,368,900**	**$ 1,297,600**	**$ 5,930,300**	**$1,141,000**

A portion of the costs associated with the street improvements will be assessed per the City's Public Facilities & Special Assessment Policy as found in Appendix D. All properties that are adjacent to Edith Drive, Humboldt Avenue, Kraft Road, Fox Ridge Road along with the adjacent cul-de-sac of Fox Ridge Court, Bidwell Ln, Edgewood Lane, and Sherwood Court are proposed to be assessed at the calculated street reconstruction assessment rate of $52 Per foot. The street assessments are proposed to be assessed over a 10-year period at approximately 4.6% interest.

Assessments are proposed for the benefited properties as shown on the assessment maps and preliminary assessment roll found in Appendix C. The proposed assessments herein are consistent with past practice and current Public Facilities & Special Assessment Policy. The proposed project assessments and funding summary are based on preliminary estimated projects costs and may be revised at the time of final assessment hearing.

4.2 STREET REHABILITATION COST ESTIMATE (RUNGE LANE)

Table 14 – Estimated Cost Summary

(See Appendix B for Detailed Cost Estimate)

Location	Construction Cost	Contingency Cost (10%)	Overhead Cost (16%)	Total Estimated Cost
Runge Ln	$258,000	$25,800	$45,400	**$329,200**
TOTALS	**$258,000**	**$25,800**	**$45,400**	**$329,200**

Table 15 – Funding Summary

Item	Total Estimated Cost	Assessments	City Share	St. Paul Regional Water
Sanitary Sewer	**$108,000**	$0	$108,000	$0
Watermain	**$1,300**	$0	$0	$1,300
Storm Sewer	**$17,100**	$0	$17,100	$0
Street	**$202,800**	$50,700	$152,100	$0
TOTALS	**$329,200**	**$50,700**	**$277,200**	**$1,300**

A portion of the costs associated with the street improvements will be assessed per the City's Public Facilities & Special Assessment Policy as found in Appendix D. All properties that are adjacent to Runge Lane are proposed to be assessed at the calculated street rehabilitation assessment rate of $23

per foot. The street assessments are proposed to be assessed over a 10-year period at approximately 4.6% interest.

Assessments are proposed for the benefited properties as shown on the assessment maps and preliminary assessment roll found in Appendix C. The proposed assessments herein are consistent with past practice and current Public Facilities & Special Assessment Policy. The proposed project assessments and funding summary are based on preliminary estimated projects costs and may be revised at the time of final assessment hearing.

4.3 TOTAL PROJECT COST ESTIMATE

Table 16 – Funding Summary for TOTAL PROJECT

Item	Total Estimated Cost	Assessments	City Share	St. Paul Regional Water
Sanitary Sewer	**$1,102,600**	$0	$1,102,600	$0
Watermain	**$1,142,300**	$0	$0	$1,142,300
Storm Sewer	**$654,500**	$0	$654,500	$0
Concrete Walk	**$223,300**	$0	$223,300	$0
Street	**$5,393,200**	$1,348,300	$4,057,500	$0
Street Lighting	**$182,200**	$0	$182,200	$0
TOTALS	**$8,698,100**	**$1,348,300**	**$5,993,300**	**$1,142,300**

5.0 PROJECT SCHEDULE

The proposed project schedule is shown below:

Receive Feasibility (Preliminary Engineering) Report*..... September 26, 2016

Call for Public Hearing* ..... September 26, 2016

Send Hearing Notice to Residents ..... October 4, 2016

Send Neighborhood Info Meeting Notice to Residents ..... October 4, 2016

Send Hearing Notice to SW Review ..... October 4, 2016

Hearing Notice is published in SW Review (Again on 10/16/16) ..... October 9, 2016

Hold Neighborhood Info Meeting ..... October 18, 2016

Public Improvement Hearing; Order Project & Preparation of Plans* ..... October 24, 2016

Approve Plans & Specs; Authorize Ad for Bids ..... February 6, 2017

Order Preparation of Proposed Assessment* ..... February 6, 2017

Get Ad for Bid to Quest CDN & SW Review ..... February 7, 2017

Advertise SW Review (Repeat publication on 2/26/17)..... February 19, 2017

Open Bids at 11am ..... March 1, 2017

Call Assessment Hearing for 6/13* ..... March 20, 2017

Send Assessment Notice to SW Review ..... April 3, 2017

Mail Assessment Notices..... April 3, 2017

Assessment Notice Published in SW Review ..... April 9, 2017

Assessment Hearing, Award Bid* ..... April 24, 2017

Preconstruction Meeting..... May 11, 2017

Construction Start ..... May 15, 2017

* City Council Meeting

6.0 EASEMENTS AND PERMITS

It is expected that all of the proposed improvements will be limited to the existing street right-of-way and easements.

Permits and approvals may be required from the following:

- Minnesota Pollution Control Agency (MPCA) – General Storm Water Permit for Construction Activities under the National Pollutant Elimination System (NPDES) program
- Minnesota Local/State/Federal Application Forms for Water/Wetland Project – permit for construction activities within wetlands
- Dakota County – work within right-of-way permit at Wentworth Avenue (County Road 8) as part of Humboldt Avenue improvements

7.0 CONCLUSION

From an engineering standpoint, this project, as proposed, is feasible, cost effective, and necessary. It can best be accomplished by letting competitive bids for the work under one contract in order to complete the work in an orderly and efficient manner. The City, its financial consultant, and the persons assessed will have to determine the economic feasibility of the proposed improvements.

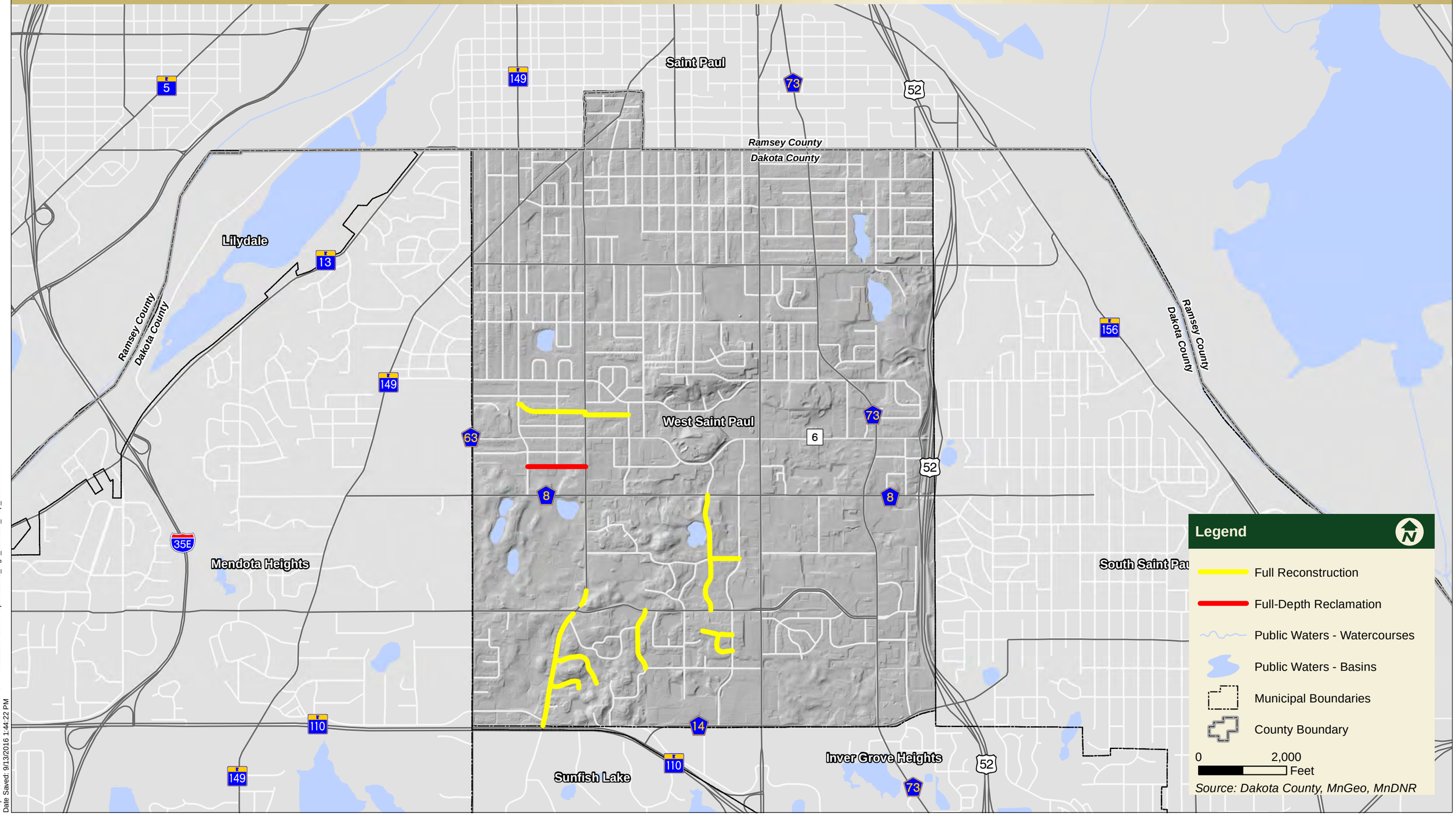
Appendix A: Figures

2017 STREET IMPROVEMENTS (CP 17-1)

City of West St Paul

FIGURE 1 - LOCATION MAP

September 2016



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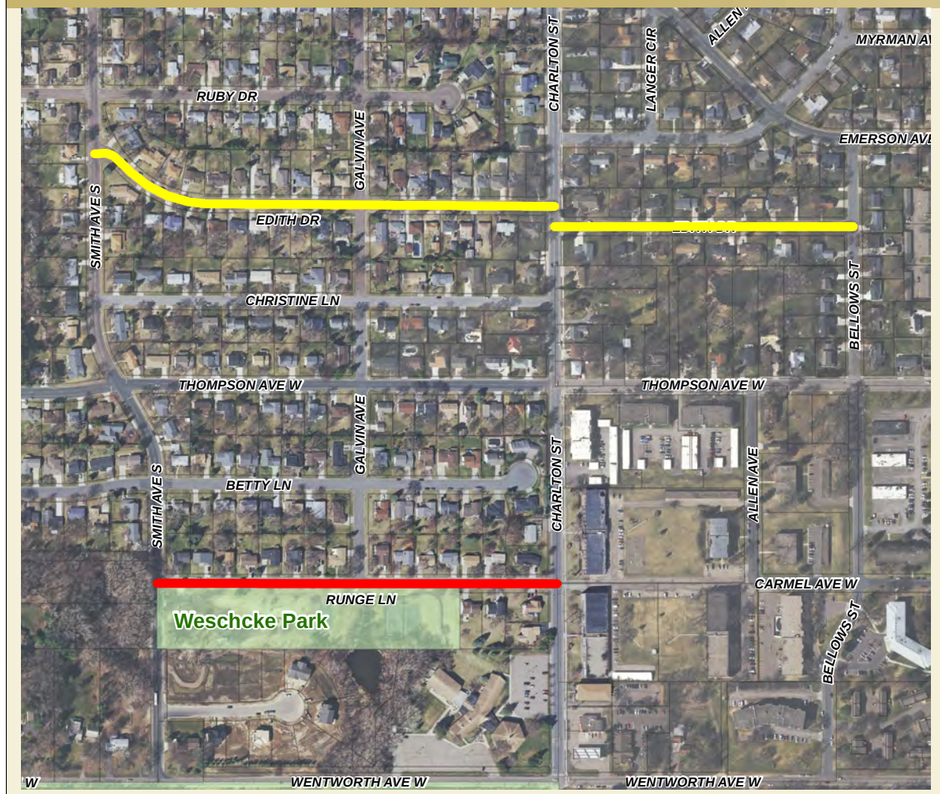
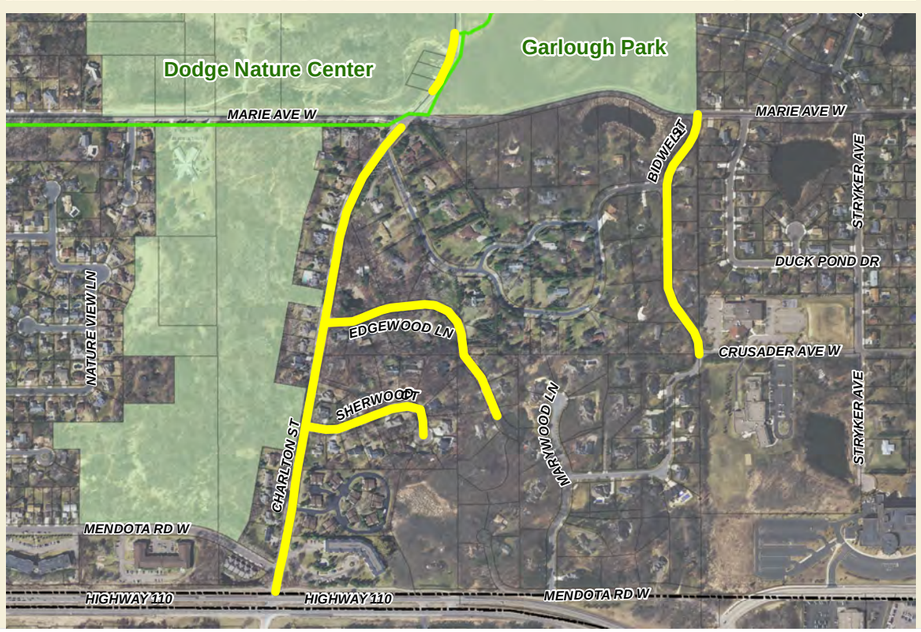
2017 STREET IMPROVEMENTS (CP 17-1)

City of West St Paul

FIGURE 2 - PROJECT LOCATIONS

September 2016





Legend

- Full Reconstruction
- Full-Depth Reclamation
- Regional Trails
- Parks

Source: Dakota County, MnGeo, MnDNR

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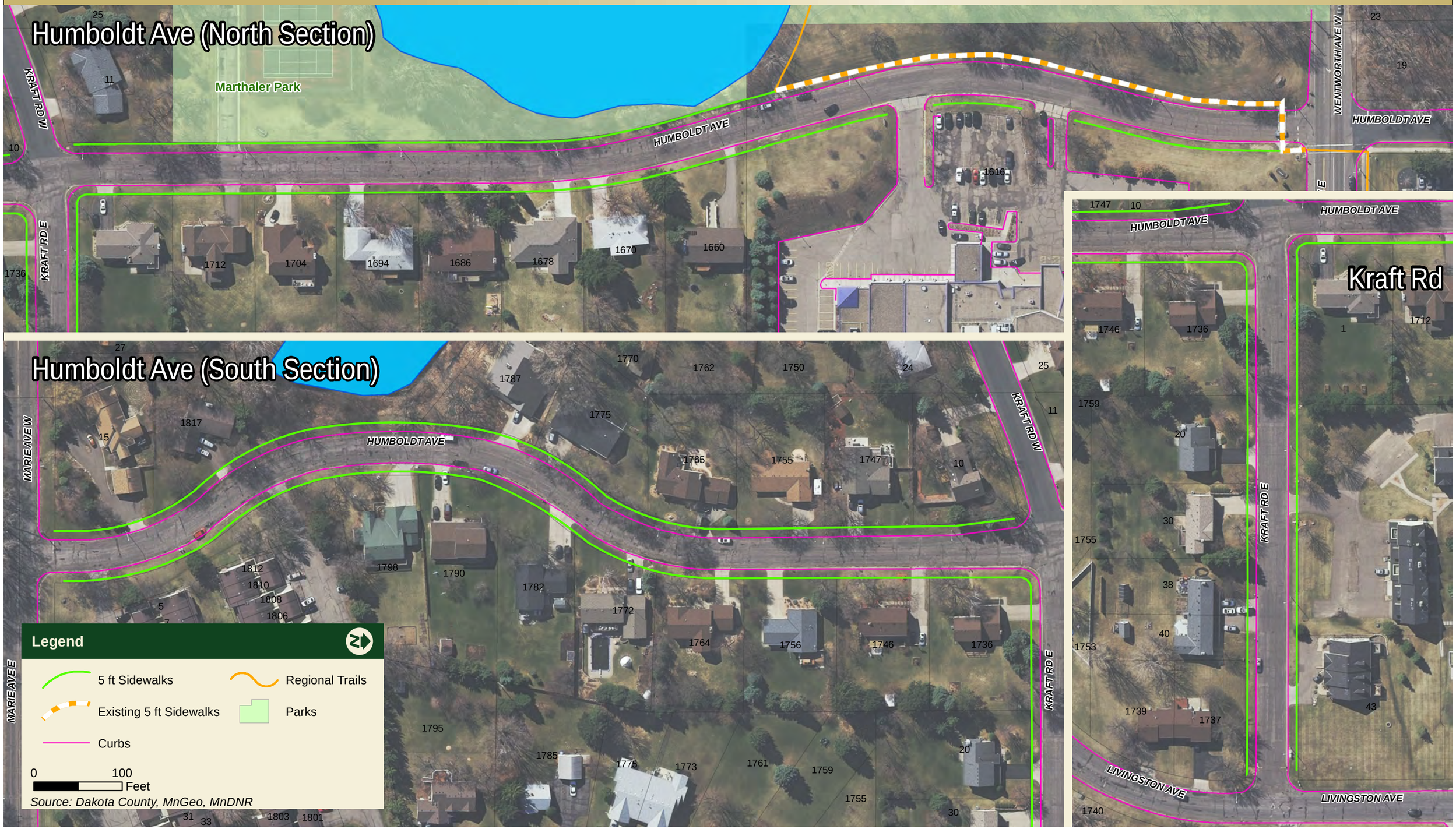
2017 STREET IMPROVEMENTS (CP 17-1)

City of West St Paul

FIGURE 3 - PEDESTRIAN IMPROVEMENTS

September 2016



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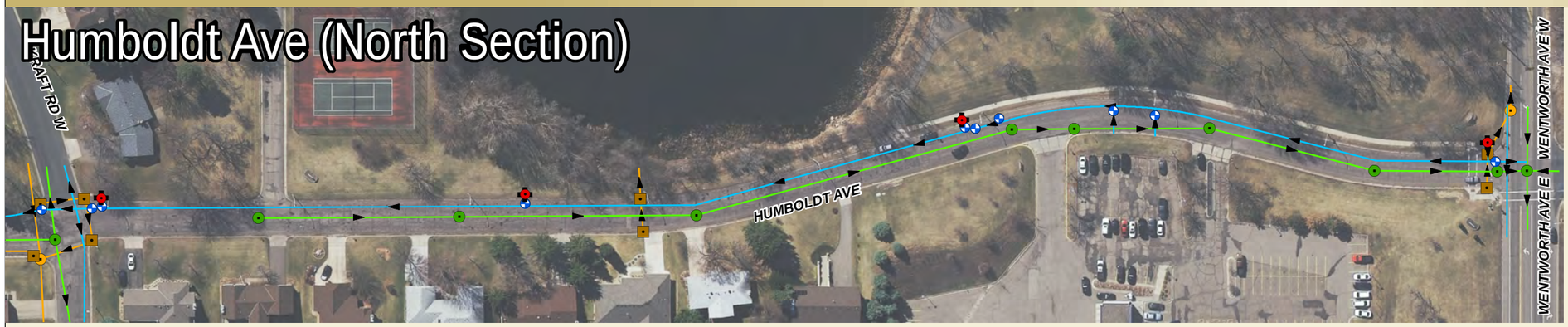
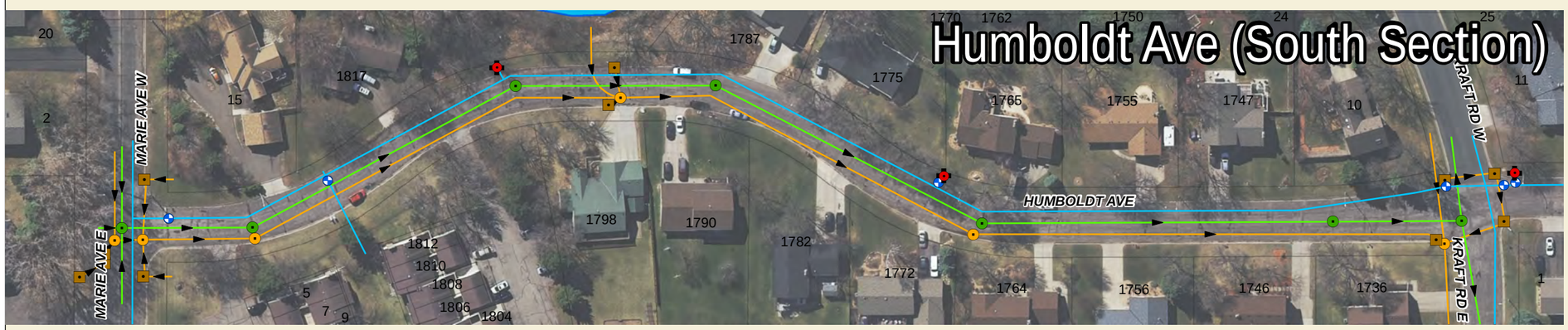
2017 STREET IMPROVEMENTS (CP 17-1)

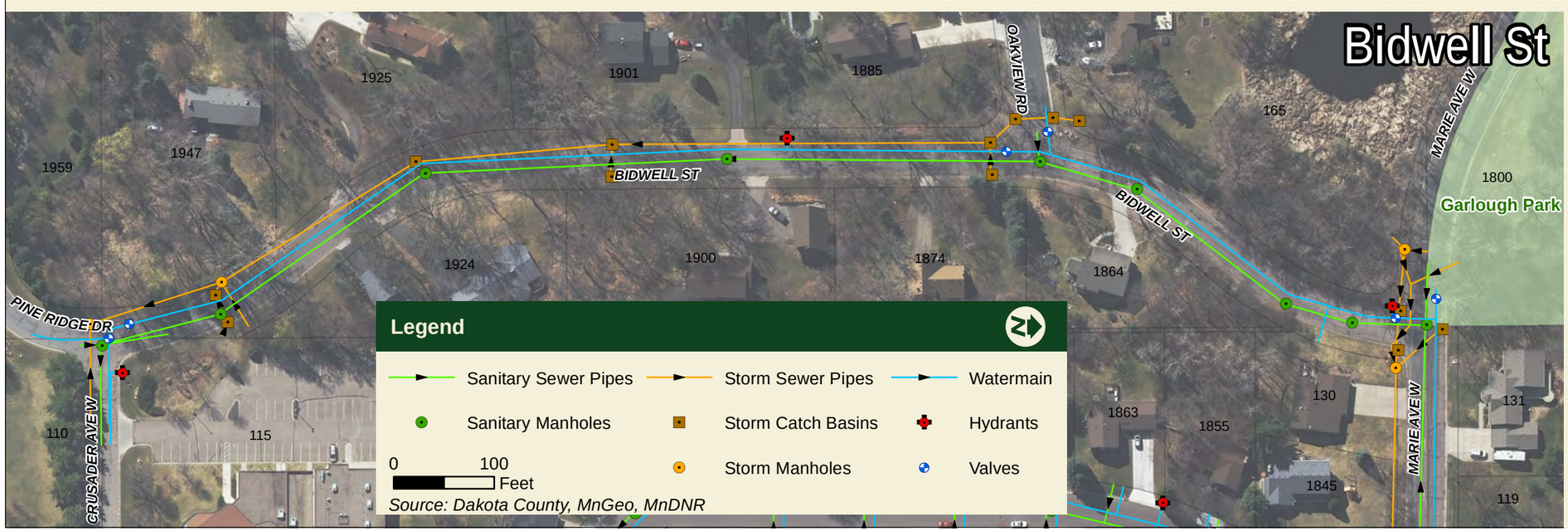
City of West St Paul

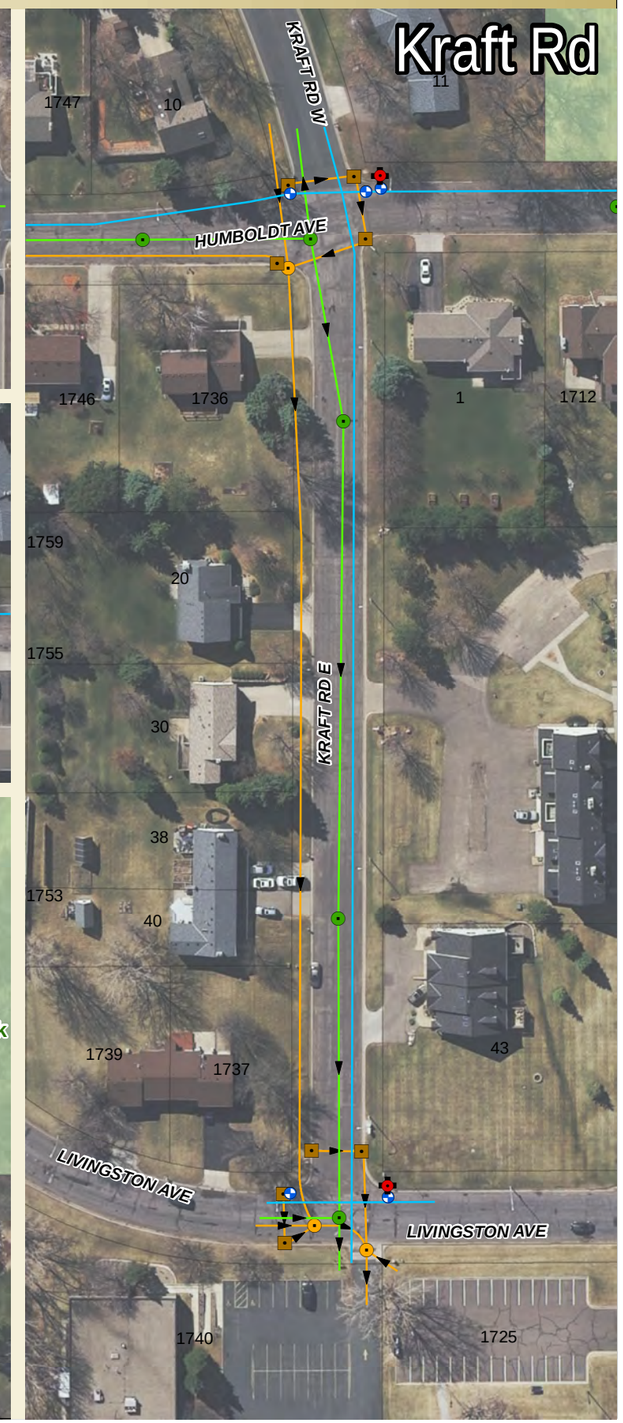
FIGURE 4A - PROJECT UTILITIES

September 2016









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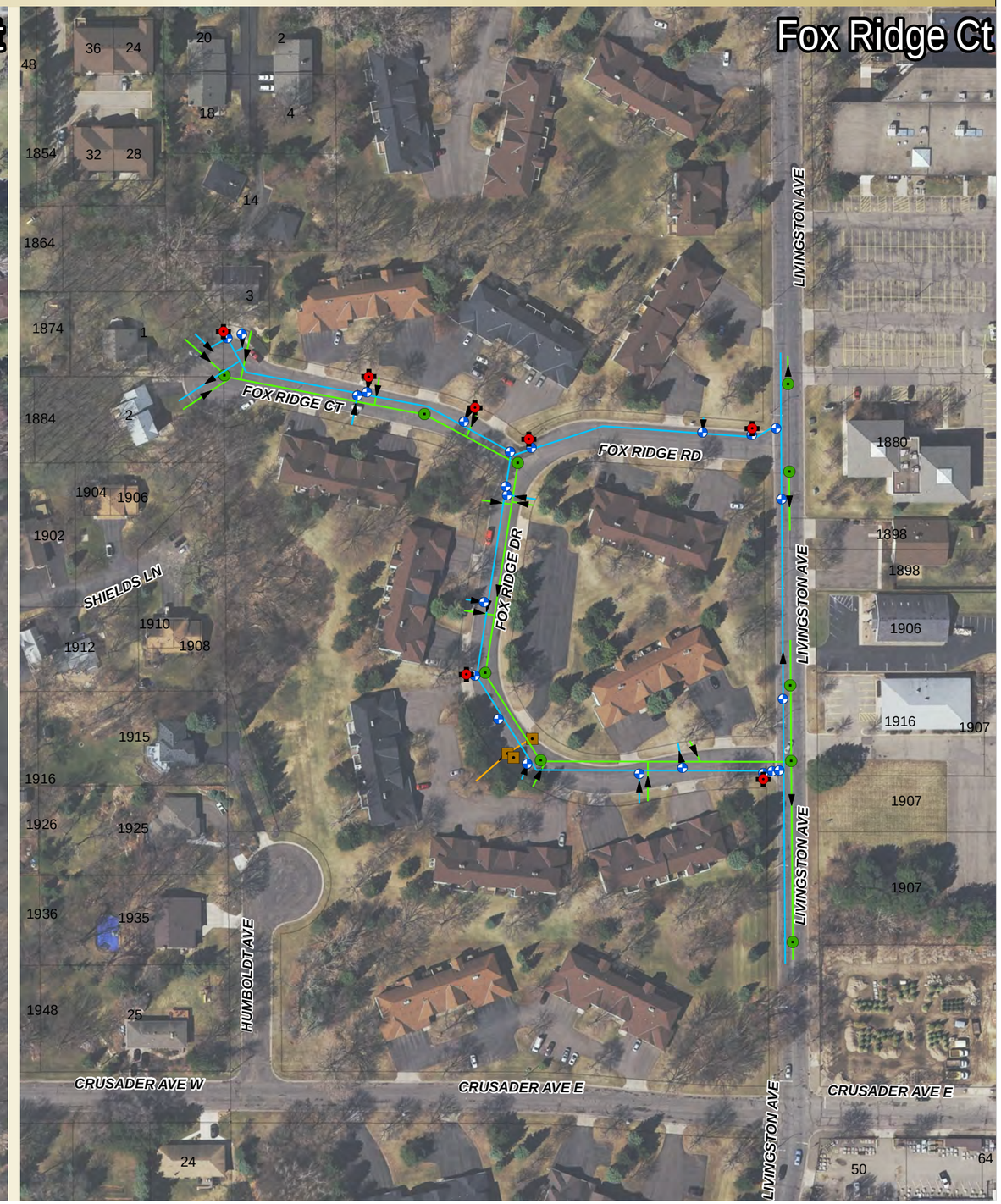
2016 STREET IMPROVEMENTS (CP 16-1)

City of West St Paul

FIGURE 4B - PROJECT UTILITIES

September 2016



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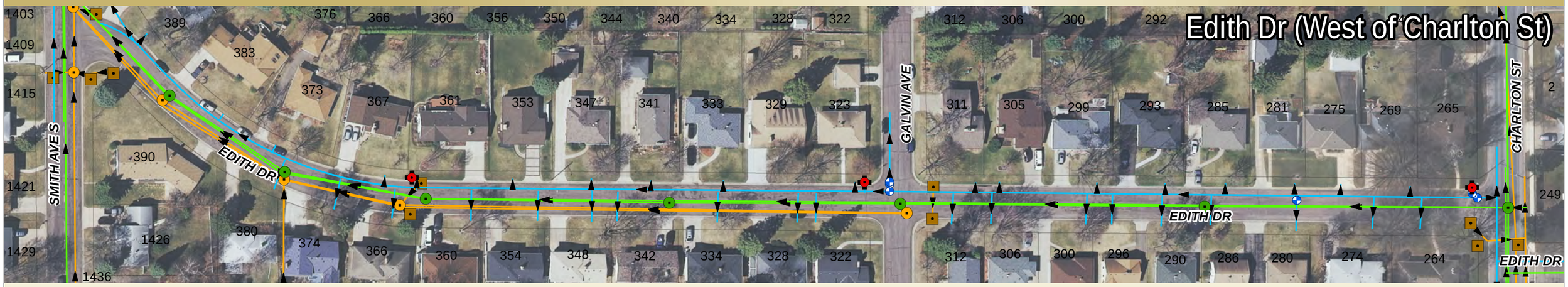
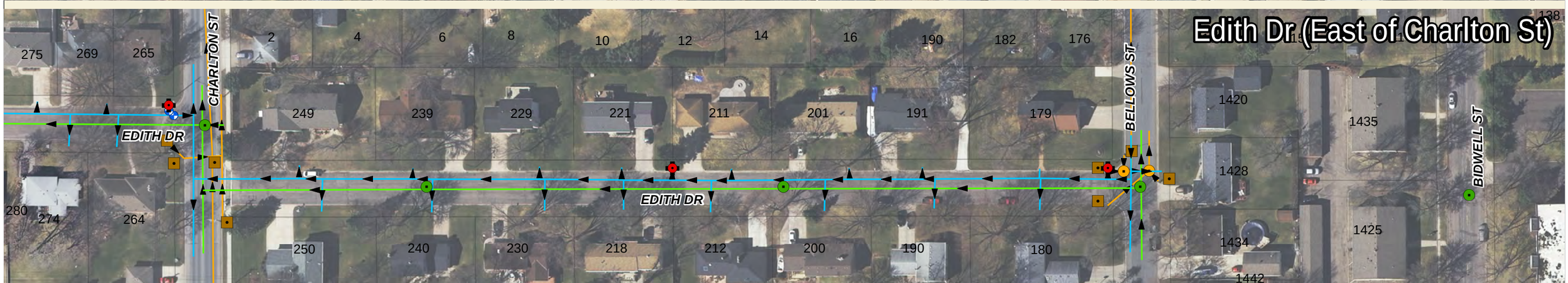
2017 STREET IMPROVEMENTS (CP 17-1)

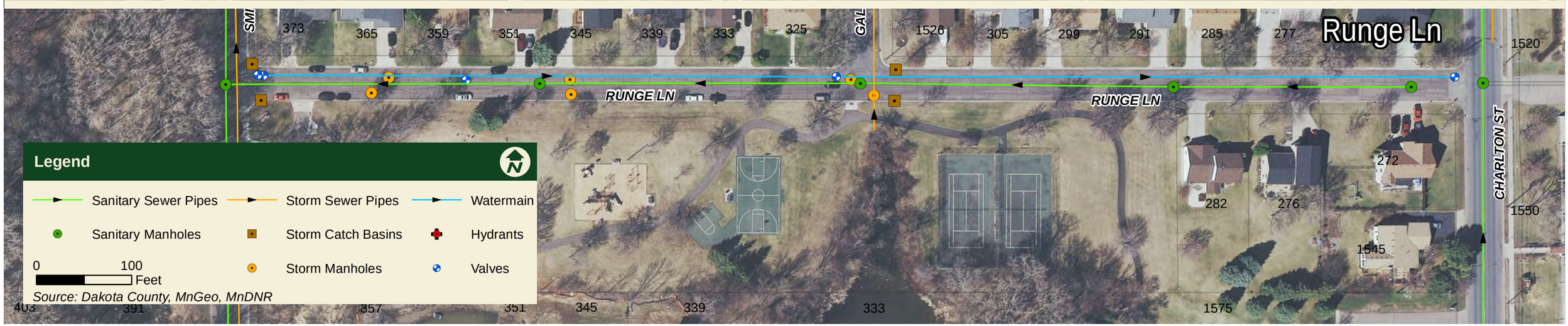
City of West St Paul

FIGURE 4C - PROJECT UTILITIES

September 2016







Legend

- Sanitary Sewer Pipes
- Storm Sewer Pipes
- Watermain
- Sanitary Manholes
- Storm Catch Basins
- Hydrants
- Storm Manholes
- Valves

0 100 Feet

Source: Dakota County, MnGeo, MnDNR

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2017 STREET IMPROVEMENTS (CP 17-1)

City of West St Paul

FIGURE 4D - PROJECT UTILITIES

September 2016

Legend

- Sanitary Sewer Pipes
- Storm Sewer Pipes
- Watermain
- Sanitary Manholes
- Storm Catch Basins
- Hydrants
- Storm Manholes
- Valves

0 150 300 Feet

Source: Dakota County, MnGeo, MnDNR

Map Document: \\metrosouth1\gis\WSTP\T18112193\ESRI\Maps\112193_Fig4D_Project_Utilities_11x17L.mxd
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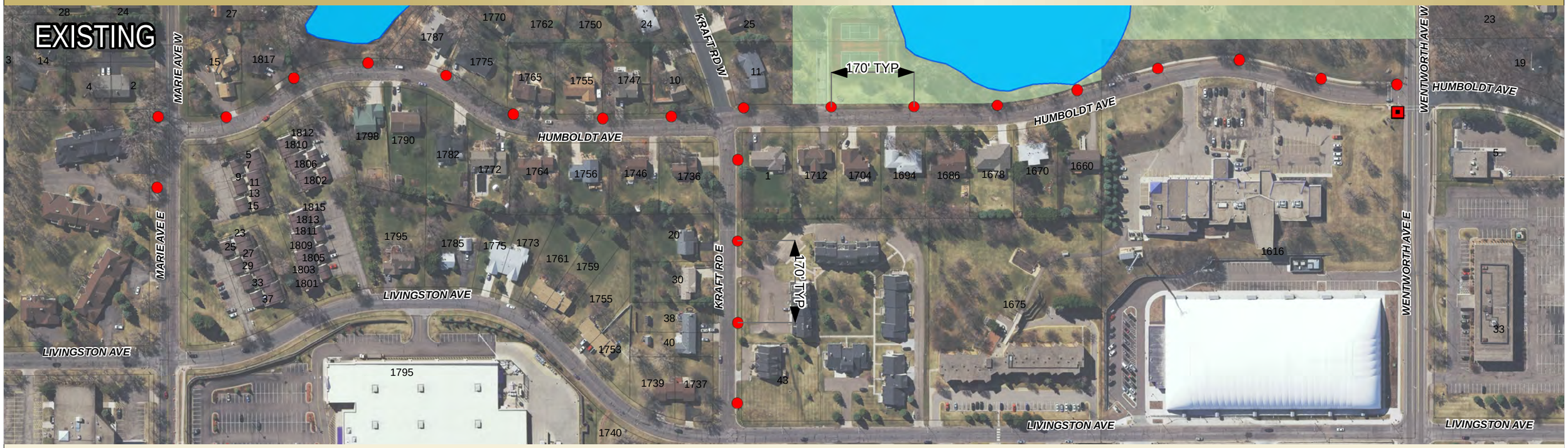
2016 STREET IMPROVEMENTS (CP 16-1)

City of West St Paul

FIGURE 5 - PROPOSED LIGHTING

September 2016



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2017 STREET IMPROVEMENTS (CP 17-1)

City of West St Paul

FIGURE 6 - EDGEWOOD LN TURN AROUND

September 2016

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Appendix B: Preliminary Cost Estimate

ENGINEER'S ESTIMATE

2017 STREET IMPROVEMENTS PROJECT

CITY OF WEST ST PAUL, MINNESOTA

BMI PROJECT NO. T18.112193

SCHEDULE "A" - STREETS

ITEM NO.	SPEC NO.	ITEM DESCRIPTION	PROJECT TOTALS				HUMBOLDT AVENUE RECONSTRUCTION		KRAFT ROAD RECONSTRUCTION		FOX RIDGE ROAD RECONSTRUCTION		FOX RIDGE COURT RECONSTRUCTION		EDGEWOOD LANE RECONSTRUCTION		RUNGE LANE RECLAIM		EDITH DRIVE RECONSTRUCTION		BIDWELL ST RECONSTRUCTION		SHERWOOD CT RECONSTRUCTION		CHARLTON ST RECONSTRUCTION	
			UNIT	UNIT PRICE	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS
1	2021.501	MOBILIZATION	LUMP SUM	$ 300,000.00	1.00	$300,000.00	0.20	$60,000.00	0.06	$18,000.00	0.06	$18,000.00	0.02	$6,000.00	0.08	$24,000.00	0.02	$6,000.00	0.16	$48,000.00	0.12	$36,000.00	0.08	$24,000.00	0.20	$60,000.00
2	2101.502	CLEAR AND GRUB	EACH	$ 400.00	54.00	$21,600.00	15	$6,000.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	10.00	$4,000.00	0.00	$0.00	8.00	$3,200.00	8.00	$3,200.00	10.00	$4,000.00	3.00	$1,200.00
3	2104.501	REMOVE CURB & GUTTER	LF	$ 2.00	24727.00	$49,454.00	5300	$10,600.00	1240.00	$2,480.00	1925.00	$3,850.00	863.00	$1,726.00	0.00	$0.00	386.00	$772.00	4994.00	$9,988.00	2900.00	$5,800.00	1744.00	$3,488.00	5375.00	$10,750.00
4	2104.503	REMOVE CONCRETE WALK	SF	$ 1.50	7383.00	$11,074.50	3452	$5,178.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	50.00	$75.00	0.00	$0.00	0.00	$0.00	3881.00	$5,821.50
5	2104.505	REMOVE CONCRETE PAVEMENT (VALLEY GUTTER)	SY	$ 9.00	50.00	$450.00	0	$0.00	0.00	$0.00	50.00	$450.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
6	2104.503	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SY	$ 1.50	1132.00	$1,698.00	100	$150.00	0.00	$0.00	62.00	$93.00	138.00	$207.00	277.00	$415.50	0.00	$0.00	100.00	$150.00	50.00	$75.00	24.00	$36.00	381.00	$571.50
7	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	$ 5.00	3830.00	$19,150.00	825	$4,125.00	216.00	$1,080.00	414.00	$2,070.00	211.00	$1,055.00	0.00	$0.00	117.00	$585.00	1124.00	$5,620.00	177.00	$885.00	278.00	$1,390.00	468.00	$2,340.00
8	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LF	$ 4.00	2806.00	$11,224.00	563	$2,252.00	155.00	$620.00	300.00	$1,200.00	149.00	$596.00	0.00	$0.00	88.00	$352.00	1012.00	$4,048.00	176.00	$704.00	236.00	$944.00	127.00	$508.00
9	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	$ 2.25	2467.00	$5,550.75	266	$598.50	88.00	$198.00	232.00	$522.00	22.00	$49.50	240.00	$540.00	150.00	$337.50	330.00	$742.50	184.00	$414.00	66.00	$148.50	889.00	$2,000.25
10	2104.523	SALVAGE & REINSTALL MAILBOX	EACH	$ 75.00	89.00	$6,675.00	26	$1,950.00	1.00	$75.00	7.00	$525.00	8.00	$600.00	1.00	$75.00	0.00	$0.00	16.00	$1,200.00	8.00	$600.00	4.00	$300.00	18.00	$1,350.00
11	2104.523	SALVAGE SIGN & REINSTALL STREET SIGN	EACH	$ 100.00	15.00	$1,500.00	2	$200.00	2.00	$200.00	1.00	$100.00	1.00	$100.00	2.00	$200.00	0.00	$0.00	2.00	$200.00	1.00	$100.00	1.00	$100.00	3.00	$300.00
12	2105.501	COMMON EXCAVATION	CY	$ 13.00	44982.00	$584,766.00	9250	$120,250.00	2096.00	$27,248.00	2951.00	$38,363.00	1489.00	$19,357.00	3062.00	$39,806.00	0.00	$0.00	7705.00	$100,165.00	5331.00	$69,303.00	2825.00	$36,725.00	10273.00	$133,549.00
13	2105.507	SUBGRADE EXCAVATION (CORRECTION)	CY	$ 14.00	14733.00	$206,262.00	2000	$28,000.00	400.00	$5,600.00	600.00	$8,400.00	149.00	$2,086.00	1300.00	$18,200.00	1000.00	$14,000.00	1600.00	$22,400.00	2184.00	$30,576.00	1500.00	$21,000.00	4000.00	$56,000.00
14	2105.522	SELECT GRANULAR BORROW (12")	CY	$ 13.00	21412.00	$278,356.00	4143	$53,859.00	934.00	$12,142.00	1475.00	$19,175.00	745.00	$9,685.00	1531.00	$19,903.00	0.00	$0.00	3852.00	$50,076.00	2184.00	$28,392.00	1412.00	$18,356.00	5136.00	$66,768.00
15	2105.522	GRANULAR BACKFILL (SUBGRADE CORRECTION)	CY	$ 14.00	14733.00	$206,262.00	2000	$28,000.00	400.00	$5,600.00	600.00	$8,400.00	149.00	$2,086.00	1300.00	$18,200.00	1000.00	$14,000.00	1600.00	$22,400.00	2184.00	$30,576.00	1500.00	$21,000.00	4000.00	$56,000.00
16	2105.604	GEOTEXTILE FABRIC TYPE V	SY	$ 1.50	6906.00	$10,359.00	1243	$1,864.50	280.00	$420.00	443.00	$664.50	223.00	$334.50	459.00	$688.50	482.00	$723.00	1157.00	$1,735.50	655.00	$982.50	423.00	$634.50	1541.00	$2,311.50
17	2123.61	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	$ 75.00	114.00	$8,550.00	26	$1,950.00	10.00	$750.00	10.00	$750.00	0.00	$0.00	0.00	$0.00	14.00	$1,050.00	14.00	$1,050.00	14.00	$1,050.00	0.00	$0.00	26.00	$1,950.00
18	2211.501	AGGREGATE BASE CLASS 5 (8") (100% CRUSHED LIMESTONE)	TON	$ 13.00	30662.00	$398,606.00	6090	$79,170.00	1373.00	$17,849.00	2169.00	$28,197.00	1095.00	$14,235.00	2251.00	$29,263.00	0.00	$0.00	5664.00	$73,632.00	3208.00	$41,704.00	2076.00	$26,988.00	6736.00	$87,568.00
19	2232.501	RECLAMATION (12" DEPTH)	S Y	$ 5.00	4837.00	$24,185.00	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	4837.00	$24,185.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
20	2502.541	4" PERF PVC PIPE DRAIN	LF	$ 8.00	27368.00	$218,944.00	5300	$42,400.00	1240.00	$9,920.00	1925.00	$15,400.00	851.00	$6,808.00	2770.00	$22,160.00	0.00	$0.00	4994.00	$39,952.00	2900.00	$23,200.00	1744.00	$13,952.00	5644.00	$45,152.00
21	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL	$ 3.50	3238.00	$11,333.00	622	$2,177.00	141.00	$493.50	221.00	$773.50	106.00	$371.00	190.00	$665.00	277.00	$969.50	542.00	$1,897.00	301.00	$1,053.50	213.00	$745.50	625.00	$2,187.50
22	2360.501	TYPE SP 12.5 WEARING COURSE MIXTURE (3,B) (2")	TON	$ 65.00	6814.00	$442,910.00	1308	$85,020.00	297.00	$19,305.00	465.00	$30,225.00	223.00	$14,495.00	400.00	$26,000.00	583.00	$37,895.00	1141.00	$74,165.00	634.00	$41,210.00	448.00	$29,120.00	1315.00	$85,475.00
23	2360.502	TYPE SP 12.5 NON WEAR COURSE MIXTURE (3,B) (2")	TON	$ 65.00	6814.00	$442,910.00	1308	$85,020.00	297.00	$19,305.00	465.00	$30,225.00	223.00	$14,495.00	400.00	$26,000.00	583.00	$37,895.00	1141.00	$74,165.00	634.00	$41,210.00	448.00	$29,120.00	1315.00	$85,475.00
24	2360.503	TYPE SP 9.5 WEAR CRS MIX (3,B) 2 1/2" THICK DRIVEWAY	SY	$ 20.00	1027.00	$20,540.00	100	$2,000.00	0.00	$0.00	56.00	$1,120.00	17.00	$340.00	302.00	$6,040.00	0.00	$0.00	100.00	$2,000.00	50.00	$1,000.00	21.00	$420.00	381.00	$7,620.00
25	2506.602	ADJUST FRAME & RING CASTING	EACH	$ 350.00	85.00	$29,750.00	15	$5,250.00	2.00	$700.00	3.00	$1,050.00	4.00	$1,400.00	2.00	$700.00	15.00	$5,250.00	13.00	$4,550.00	11.00	$3,850.00	8.00	$2,800.00	12.00	$4,200.00
26	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SY	$ 45.00	3834.00	$172,530.00	831	$37,395.00	216.00	$9,720.00	414.00	$18,630.00	210.00	$9,450.00	0.00	$0.00	117.00	$5,265.00	1123.00	$50,535.00	176.00	$7,920.00	279.00	$12,555.00	468.00	$21,060.00
27	2531.501	CONCRETE CURB AND GUTTER DESIGN B618	LF	$ 11.00	27751.00	$305,261.00	5300	$58,300.00	1240.00	$13,640.00	1925.00	$21,175.00	851.00	$9,361.00	2770.00	$30,470.00	383.00	$4,213.00	4994.00	$54,934.00	2900.00	$31,900.00	1744.00	$19,184.00	5644.00	$62,084.00
28	2531.604	6" CONCRETE VALLEY GUTTER	SY	$ 70.00	57.00	$3,990.00	0	$0.00	0.00	$0.00	57.00	$3,990.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
29	2540.601	TEMPORARY MAILBOXES	LUMP SUM	$ 6,000.00	1.00	$6,000.00	0	$1,200.00	0.06	$360.00	0.06	$360.00	0.02	$120.00	0.08	$480.00	0.02	$120.00	0.16	$960.00	0.12	$720.00	0.08	$480.00	0.20	$1,200.00
30	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 35,000.00	1.00	$35,000.00	0	$7,000.00	0.06	$2,100.00	0.06	$2,100.00	0.02	$700.00	0.08	$2,800.00	0.02	$700.00	0.16	$5,600.00	0.12	$4,200.00	0.08	$2,800.00	0.20	$7,000.00
31	2521.501	4" CONCRETE WALK	SF	$ 3.50	46529.00	$162,851.50	25900	$90,650.00	6765.00	$23,677.50	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	50.00	$175.00	9194.00	$32,179.00	0.00	$0.00	4620.00	$16,170.00
32	2531.618	TRUNCATED DOMES	SF	$ 40.00	302.00	$12,080.00	100	$4,000.00	16.00	$640.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	20.00	$800.00	24.00	$960.00	0.00	$0.00	142.00	$5,680.00
33	2571.501	CONIFEROUS TREE 7' HT COUNT	EACH	$ 350.00	21.00	$7,350.00	5	$1,750.00	0.00	$0.00	1.00	$350.00	1.00	$350.00	0.00	$0.00	0.00	$0.00	8.00	$2,800.00	2.00	$700.00	4.00	$1,400.00	0.00	$0.00
34	2571.502	TREE 2.5" CAL B&B (VARIETY - SEE SPEC)	EACH	$ 350.00	41.00	$14,350.00	10	$3,500.00	0.00	$0.00	1.00	$350.00	1.00	$350.00	6.00	$2,100.00	0.00	$0.00	8.00	$2,800.00	6.00	$2,100.00	6.00	$2,100.00	3.00	$1,050.00
35	2573.502	SILT FENCE, TYPE MACHINE SLICED	LF	$ 2.00	4200.00	$8,400.00	500	$1,000.00	300.00	$600.00	200.00	$400.00	200.00	$400.00	1500.00	$3,000.00	0.00	$0.00	500.00	$1,000.00	500.00	$1,000.00	300.00	$600.00	200.00	$400.00
36	2573.530	STORM DRAIN INLET PROTECTION	EACH	$ 400.00	64.00	$25,600.00	12	$4,800.00	2.00	$800.00	3.00	$1,200.00	3.00	$1,200.00	6.00	$2,400.00	4.00	$1,600.00	10.00	$4,000.00	8.00	$3,200.00	4.00	$1,600.00	12.00	$4,800.00
37	2573.533	SEDIMENT CONTROL LOG, TYPE WOOD FIBER	LF	$ 1.50	1560.00	$2,340.00	100	$150.00	100.00	$150.00	100.00	$150.00	100.00	$150.00	700.00	$1,050.00	0.00	$0.00	100.00	$150.00	100.00	$150.00	60.00	$90.00	200.00	$300.00
38	2573.535	TEMPORARY ROCK CONSTRUCTION ENTRANCE	EACH	$ 1,500.00	19.00	$28,500.00	2	$3,000.00	1.00	$1,500.00	1.00	$1,500.00	1.00	$1,500.00	1.00	$1,500.00	0.00	$0.00	4.00	$6,000.00	4.00	$6,000.00	1.00	$1,500.00	4.00	$6,000.00
39	2575.505	SODDING TYPE LAWN/W 5" TOP SOIL	SY	$ 6.00	23513.00	$141,078.00	4534	$27,204.00	1061.00	$6,366.00	1647.00	$9,882.00	728.00	$4,368.00	2370.00	$14,220.00	330.00	$1,980.00	4273.00	$25,638.00	2481.00	$14,886.00	1490.00	$8,940.00	4599.00	$27,594.00
40	2545.523	2 IN NON-METALLIC CONDUIT (FIBER & ELECTRIC SERVICE)	LF	$ 6.50	13375.00	$86,937.50	3450	$22,425.00	650.00	$4,225.00	1000.00	$6,500.00	850.00	$5,525.00	1400.00	$9,100.00	0.00	$0.00	970.00	$6,305.00	1400.00	$9,100.00	875.00	$5,687.50	2780.00	$18,070.00
41	2545.553	HANDHOLE	EACH	$ 700.00	40.00	$28,000.00	12	$8,400.00	2.00	$1,400.00	3.00	$2,100.00	3.00	$2,100.00	4.00	$2,800.00	0.00	$0.00	3.00	$2,100.00	3.00	$2,100.00	2.00	$1,400.00	8.00	$5,600.00
42	2582.501	PAVT MSSG (BIKE SYMBOL) EPOXY	EACH	$ 250.00	20.00	$5,000.00	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	20.00	$5,000.00
43	2582.502	4" SOLID LINE EPOXY	LF	$ 0.25	5400.00	$1,350.00	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	5400.00	$1,350.00
44	2582.502	4" BROKEN LINE EPOXY	LF	$ 0.35	825.00	$288.75	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	825.00	$288.75
45	0	REMOVE & REPLACE SIGN	EACH	$ 500.00	85.00	$42,500.00	14	$7,000.00	5.00	$2,500.00	5.00	$2,500.00	12.00	$6,000.00	6.00	$3,000.00	2.00	$1,000.00	12.00	$6,000.00	9.00	$4,500.00	6.00	$3,000.00	14.00	$7,000.00
SCHEDULE "A" - STREETS					**PROJECT TOTAL =**	**$4,401,600.00**		**$903,800.00**		**$209,700.00**		**$280,800.00**		**$137,600.00**		**$309,800.00**		**$158,900.00**		**$711,300.00**		**$483,500.00**		**$296,700.00**		**$909,800.00**
10% CONTINGENCY						**$440,500.00**		**$90,400.00**		**$21,000.00**		**$28,100.00**		**$13,800.00**		**$31,000.00**		**$15,900.00**		**$71,200.00**		**$48,400.00**		**$29,700.00**		**$91,000.00**
SCHEDULE "A" - STREETS					**PROJECT SUB TOTAL =**	**$4,842,100.00**		**$994,200.00**		**$230,700.00**		**$308,900.00**		**$151,400.00**		**$340,800.00**		**$174,800.00**		**$782,500.00**		**$531,900.00**		**$326,400.00**		**$1,000,800.00**

ENGINEER'S ESTIMATE

2017 STREET IMPROVEMENTS PROJECT

CITY OF WEST ST PAUL, MINNESOTA

BMI PROJECT NO. T18.112193

SCHEDULE "B" - SANITARY SEWER

ITEM NO.	SPEC NO.	ITEM DESCRIPTION	PROJECT TOTALS				HUMBOLDT AVENUE RECONSTRUCTION		KRAFT ROAD RECONSTRUCTION		FOX RIDGE ROAD RECONSTRUCTION		FOX RIDGE COURT RECONSTRUCTION		EDGEWOOD LANE RECONSTRUCTION		RUNGE LANE RECLAIM		EDITH DRIVE RECONSTRUCTION		BIDWELL ST RECONSTRUCTION		SHERWOOD CT RECONSTRUCTION		CHARLTON ST RECONSTRUCTION	
			UNIT	UNIT PRICE	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS
46	2503.602	CUT PROTRUDING END	EACH	$ 600.00	10.00	$6,000.00	3	$1,800.00	0	$0.00	0	$0.00	0	$0.00	2	$1,200.00	0.00	$0.00	2	$1,200.00	3.00	$1,800.00	0.00	$0.00	0.00	$0.00
47	2503.602	CIPP T-LINER	EACH	$ 2,400.00	159.00	$381,600.00	28	$67,200.00	2	$4,800.00	0	$0.00	0	$0.00	10	$24,000.00	16.00	$38,400.00	53	$127,200.00	9.00	$21,600.00	8.00	$19,200.00	33.00	$79,200.00
48	2503.603	8" SANITARY SEWER LINER	LF	$ 34.00	11075.00	$376,550.00	2500	$85,000.00	700	$23,800.00	0	$0.00	0	$0.00	800	$27,200.00	1250.00	$42,500.00	2300	$78,200.00	1675.00	$56,950.00	600.00	$20,400.00	1250.00	$42,500.00
49	2506.516	CASTING ASSEMBLY (SANITARY)	EACH	$ 800.00	56.00	$44,800.00	5	$4,000.00	3	$2,400.00	3	$2,400.00	0	$0.00	7	$5,600.00	3.00	$2,400.00	11	$8,800.00	7.00	$5,600.00	5.00	$4,000.00	12.00	$9,600.00
50	2506.602	SEAL MANHOLE	EACH	$ 4,200.00	5.00	$21,000.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0.00	$0.00	1	$4,200.00	0.00	$0.00	4.00	$16,800.00	0.00	$0.00
51	2506.602	RECONSTRUCT SANITARY MANHOLE	EACH	$ 1,400.00	14.00	$19,600.00	2	$2,800.00	0	$0.00	1	$1,400.00	0	$0.00	2	$2,800.00	1.00	$1,400.00	2	$2,800.00	3.00	$4,200.00	1.00	$1,400.00	2.00	$2,800.00
52	2506.603	CONSTRUCT SANITARY SEWER MANHOLE (48" DIA)	LF	$ 850.00	17.00	$14,450.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0.00	$0.00	0	$0.00	17.00	$14,450.00	0.00	$0.00	0.00	$0.00
SCHEDULE "B" - SANITARY SEWER					**PROJECT TOTAL =**	**$864,000.00**		**$160,800.00**		**$31,000.00**		**$3,800.00**		**$0.00**		**$60,800.00**		**$84,700.00**		**$222,400.00**		**$104,600.00**		**$61,800.00**		**$134,100.00**
10% CONTINGENCY						**$86,500.00**		**$16,100.00**		**$3,100.00**		**$400.00**		**$0.00**		**$6,100.00**		**$8,500.00**		**$22,200.00**		**$10,500.00**		**$6,200.00**		**$13,400.00**
SCHEDULE "B" - SANITARY SEWER					**PROJECT SUB TOTAL =**	**$950,500.00**		**$176,900.00**		**$34,100.00**		**$4,200.00**		**$0.00**		**$66,900.00**		**$93,200.00**		**$244,600.00**		**$115,100.00**		**$68,000.00**		**$147,500.00**

SCHEDULE "C" - WATERMAIN

ITEM NO.	SPEC NO.	ITEM DESCRIPTION	PROJECT TOTALS				HUMBOLDT AVENUE RECONSTRUCTION		KRAFT ROAD RECONSTRUCTION		FOX RIDGE ROAD RECONSTRUCTION		FOX RIDGE COURT RECONSTRUCTION		EDGEWOOD LANE RECONSTRUCTION		RUNGE LANE RECLAIM		EDITH DRIVE RECONSTRUCTION		BIDWELL ST RECONSTRUCTION		SHERWOOD CT RECONSTRUCTION		CHARLTON ST RECONSTRUCTION	
			UNIT PRICE	UNIT PRICE	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS
53	2504.602	ADJUST VALVE BOX	EACH	$200.00	59.00	$11,800.00	12	$2,400.00	3	$600.00	15	$3,000.00	5	$1,000.00	2	$400.00	5	$1,000.00	5	$1,000.00	6.00	$1,200.00	1.00	$200.00	5.00	$1,000.00
54	2504.603	WATER MAIN TRENCH (EXCAVATE/BACKFILL)	LF	$26.00	10592.00	$275,392.00	1900	$49,400.00	725	$18,850.00	0	$0.00	0	$0.00	980	$25,480.00	0	$0.00	2595	$67,470.00	1305.00	$33,930.00	563.00	$14,638.00	2524.00	$65,624.00
55	2504.603	SERVICE TRENCH (EXCAVATE/BACKFILL)	LF	$26.00	200.00	$5,200.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0.00	$0.00	200.00	$5,200.00	0.00	$0.00
56	2451.503	GRANULAR TRENCH BACKFILL (WATERMAIN)	CY	$22.00	24329.00	$535,238.00	4375	$96,250.00	1650	$36,300.00	0	$0.00	0	$0.00	2235	$49,170.00	0	$0.00	5965	$131,230.00	3000.00	$66,000.00	1296.00	$28,512.00	5808.00	$127,776.00
57	2451.509	AGGREGATE PIPE BEDDING (WATERMAIN)	CY	$25.00	1234.00	$30,850.00	380	$9,500.00	20	$500.00	0	$0.00	0	$0.00	196	$4,900.00	0	$0.00	78	$1,950.00	38.00	$950.00	16.00	$400.00	506.00	$12,650.00
58	2504.604	F&I WATERMAIN 2" INSULATION	SY	$45.00	816.00	$36,720.00	150	$6,750.00	150	$6,750.00	0	$0.00	0	$0.00	150	$6,750.00	0	$0.00	150	$6,750.00	16.00	$720.00	50.00	$2,250.00	150.00	$6,750.00
SCHEDULE "C" - WATERMAIN					**PROJECT TOTAL =**	**$895,200.00**		**$164,300.00**		**$63,000.00**		**$3,000.00**		**$1,000.00**		**$86,700.00**		**$1,000.00**		**$208,400.00**		**$102,800.00**		**$51,200.00**		**$213,800.00**
10% CONTINGENCY						**$89,500.00**		**$16,400.00**		**$6,300.00**		**$300.00**		**$100.00**		**$8,700.00**		**$100.00**		**$20,800.00**		**$10,300.00**		**$5,100.00**		**$21,400.00**
SCHEDULE "C" - WATERMAIN					**PROJECT SUB TOTAL =**	**$984,700.00**		**$180,700.00**		**$69,300.00**		**$3,300.00**		**$1,100.00**		**$95,400.00**		**$1,100.00**		**$229,200.00**		**$113,100.00**		**$56,300.00**		**$235,200.00**

SCHEDULE "D" - STORM SEWER

ITEM NO.	SPEC NO.	ITEM DESCRIPTION	PROJECT TOTALS				HUMBOLDT AVENUE RECONSTRUCTION		KRAFT ROAD RECONSTRUCTION		FOX RIDGE ROAD RECONSTRUCTION		FOX RIDGE COURT RECONSTRUCTION		EDGEWOOD LANE RECONSTRUCTION		RUNGE LANE RECLAIM		EDITH DRIVE RECONSTRUCTION		BIDWELL ST RECONSTRUCTION		SHERWOOD CT RECONSTRUCTION		CHARLTON ST RECONSTRUCTION	
			UNIT PRICE	UNIT PRICE	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS
59	2104.501	REMOVE SEWER PIPE (STORM)	LF	$12.00	2841.00	$34,092.00	798	$9,576.00	197	$2,364.00	90	$1,080.00	0	$0.00	180	$2,160.00	0	$0.00	323	$3,876.00	382.00	$4,584.00	37.00	$444.00	834.00	$10,008.00
60	2104.509	REMOVE CATCH BASIN	EACH	$250.00	60.00	$15,000.00	12	$3,000.00	2	$500.00	3	$750.00	0	$0.00	2	$500.00	4	$1,000.00	10	$2,500.00	10.00	$2,500.00	4.00	$1,000.00	13.00	$3,250.00
61	2501.511	15" RC PIPE SEWER CLASS V	LF	$35.00	3580.00	$125,300.00	955	$33,425.00	197	$6,895.00	108	$3,780.00	0	$0.00	360	$12,600.00	20	$700.00	389	$13,615.00	460.00	$16,100.00	90.00	$3,150.00	1001.00	$35,035.00
62	2506.502	CONSTRUCT CATCHBASIN 2'X3' BOX	EACH	$1,600.00	57.00	$91,200.00	8	$12,800.00	1	$1,600.00	3	$4,800.00	0	$0.00	4	$6,400.00	4	$6,400.00	7	$11,200.00	7.00	$11,200.00	4.00	$6,400.00	19.00	$30,400.00
63	2506.502	CONSTRUCT CATCHBASIN MANHOLE 48"	EACH	$2,000.00	34.00	$68,000.00	8	$16,000.00	1	$2,000.00	2	$4,000.00	0	$0.00	2	$4,000.00	0	$0.00	7	$14,000.00	7.00	$14,000.00	3.00	$6,000.00	4.00	$8,000.00
64	2451.503	GRANULAR TRENCH BACKFILL (STORM SEWER)	CY	$22.00	4999.00	$109,978.00	1220	$26,840.00	252	$5,544.00	138	$3,036.00	0	$0.00	461	$10,142.00	50	$1,100.00	894	$19,668.00	590.00	$12,980.00	115.00	$2,530.00	1279.00	$28,138.00
65	2451.509	AGGREGATE PIPE BEDDING (STORM SEWER)	CY	$25.00	211.00	$5,275.00	33	$825.00	6	$150.00	11	$275.00	0	$0.00	12	$300.00	8	$200.00	90	$2,250.00	14.00	$350.00	3.00	$75.00	34.00	$850.00
66	2506.516	CASTING ASSEMBLY (STORM)	EACH	$1,000.00	20.00	$20,000.00	2	$2,000.00	1	$1,000.00	2	$2,000.00	0	$0.00	0	$0.00	4	$4,000.00	3	$3,000.00	2.00	$2,000.00	2.00	$2,000.00	4.00	$4,000.00
67	0	CLEAN SANITARY & STORM SEWER	LF	$3.00	14685.00	$44,055.00	5178	$15,534.00	649	$1,947.00	93	$279.00	0	$0.00	366	$1,098.00	0	$0.00	3397	$10,191.00	1762.00	$5,286.00	467.00	$1,401.00	2773.00	$8,319.00
SCHEDULE "D" - STORM SEWER					**PROJECT TOTAL =**	**$512,900.00**		**$120,000.00**		**$22,000.00**		**$20,000.00**		**$0.00**		**$37,200.00**		**$13,400.00**		**$80,300.00**		**$69,000.00**		**$23,000.00**		**$128,000.00**
10% CONTINGENCY						**$51,200.00**		**$12,000.00**		**$2,200.00**		**$2,000.00**		**$0.00**		**$3,700.00**		**$1,300.00**		**$8,000.00**		**$6,900.00**		**$2,300.00**		**$12,800.00**
SCHEDULE "D" - STORM SEWER					**PROJECT SUB TOTAL =**	**$564,100.00**		**$132,000.00**		**$24,200.00**		**$22,000.00**		**$0.00**		**$40,900.00**		**$14,700.00**		**$88,300.00**		**$75,900.00**		**$25,300.00**		**$140,800.00**

ENGINEER'S ESTIMATE

2017 STREET IMPROVEMENTS PROJECT

CITY OF WEST ST PAUL, MINNESOTA

BMI PROJECT NO. T18.112193

SCHEDULE "E" - STREET LIGHTING

ITEM NO.	SPEC NO.	ITEM DESCRIPTION	PROJECT TOTALS				HUMBOLDT AVENUE RECONSTRUCTION		KRAFT ROAD RECONSTRUCTION		FOX RIDGE ROAD RECONSTRUCTION		FOX RIDGE COURT RECONSTRUCTION		EDGEWOOD LANE RECONSTRUCTION		RUNGE LANE RECLAIM		EDITH DRIVE RECONSTRUCTION		BIDWELL ST RECONSTRUCTION		SHERWOOD CT RECONSTRUCTION		CHARLTON ST RECONSTRUCTION	
			UNIT PRICE	UNIT PRICE	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS	QUANTIY	TOTAL COSTS
68	2545.511	LIGHTING UNIT TYPE SPECIAL 1	EACH	$3,450.00	20.00	$69,000.00	16	$55,200.00	4	$13,800.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
69	2545.515	LIGHTING FOUNDATION DESIGN E MODIFIED	EACH	$1,200.00	20.00	$24,000.00	16	$19,200.00	4	$4,800.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
70	2545.523	2 IN NON-METALLIC CONDUIT (LIGHTING)	LF	$6.50	3059.00	$19,883.50	2259	$14,683.50	800	$5,200.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
71	2545.523	3 IN NON-METALLIC CONDUIT (LIGHTING)	LF	$10.00	348.00	$3,480.00	300	$3,000.00	48	$480.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
72	2545.531	UNDERGROUND WIRE 1 CONDUCTOR NO. 2	LF	$4.30	451.00	$1,939.30	191	$821.30	260	$1,118.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
73	2545.531	UNDERGROUND WIRE 1 CONDUCTOR NO. 6	LF	$1.17	3160.00	$3,697.20	2560	$2,995.20	600	$702.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
74	2545.541	CITY SERVICE CABINET	EACH	$4,100.00	2.00	$8,200.00	1	$4,100.00	1	$4,100.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
75	2545.545	EQUIPMENT PAD B (MOD)	EACH	$1,000.00	2.00	$2,000.00	1	$1,000.00	1	$1,000.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
76	2545.553	HANDHOLE	EACH	$700.00	15.00	$10,500.00	10	$7,000.00	5	$3,500.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
SCHEDULE "E" - STREET LIGHTING					**PROJECT TOTAL =**	**$142,700.00**		**$108,000.00**		**$34,700.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**
10% CONTINGENCY						**$14,300.00**		**$10,800.00**		**$3,500.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**
SCHEDULE "E" - STREET LIGHTING					**PROJECT SUB TOTAL =**	**$157,000.00**		**$118,800.00**		**$38,200.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**

SCHEDULE "A" - STREETS	**$4,842,100.00**		**$994,200.00**		**$230,700.00**		**$308,900.00**		**$151,400.00**		**$340,800.00**		**$174,800.00**		**$782,500.00**		**$531,900.00**		**$326,400.00**		**$1,000,800.00**
SCHEDULE "B" - SANITARY SEWER	**$950,500.00**		**$176,900.00**		**$34,100.00**		**$4,200.00**		**$0.00**		**$66,900.00**		**$93,200.00**		**$244,600.00**		**$115,100.00**		**$68,000.00**		**$147,500.00**
SCHEDULE "C" - WATERMAIN	**$984,700.00**		**$180,700.00**		**$69,300.00**		**$3,300.00**		**$1,100.00**		**$95,400.00**		**$1,100.00**		**$229,200.00**		**$113,100.00**		**$56,300.00**		**$235,200.00**
SCHEDULE "D" - STORM SEWER	**$564,100.00**		**$132,000.00**		**$24,200.00**		**$22,000.00**		**$0.00**		**$40,900.00**		**$14,700.00**		**$88,300.00**		**$75,900.00**		**$25,300.00**		**$140,800.00**
SCHEDULE "E" - STREET LIGHTING	**$157,000.00**		**$118,800.00**		**$38,200.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**		**$0.00**
PROJECT SUB TOTALS - W/10% CONTINGENCY	**$7,498,400.00**		**$1,602,600.00**		**$396,500.00**		**$338,400.00**		**$152,500.00**		**$544,000.00**		**$283,800.00**		**$1,344,600.00**		**$836,000.00**		**$476,000.00**		**$1,524,300.00**
16% OVERHEAD	**$1,199,700.00**		**$256,400.00**		**$63,400.00**		**$54,100.00**		**$24,400.00**		**$87,000.00**		**$45,400.00**		**$215,100.00**		**$133,800.00**		**$76,200.00**		**$243,900.00**
PROJECT GRAND TOALS	**$8,698,100.00**		**$1,859,000.00**		**$459,900.00**		**$392,500.00**		**$176,900.00**		**$631,000.00**		**$329,200.00**		**$1,559,700.00**		**$969,800.00**		**$552,200.00**		**$1,768,200.00**

Appendix C: Preliminary Assessment Roll & Maps

PRELIMINARY ASSESSMENT ROLL
2017 Street Improvement Project - West St. Paul #17-1
Bidwell Street

Date: September 15, 2016

Preliminary per foot assessment rate: $ 52.00

Parcel # on Map	Parcel ID	Site Address	Owner	Owner Address	City/State/Zip	Street Frontage (ft) Actual	Street Frontage (ft) Assessable	Assessment Amount	Notes
1	421710000300	1947 BIDWELL ST	EMIL & MARIA K PFENDER	1947 BIDWELL ST	WEST SAINT PAUL MN 55118-4417	191	191	$ 9,932.00	
2	421710000291	1925 BIDWELL ST	JOHN B JR BELLOWS	1925 BIDWELL	WEST SAINT PAUL MN 55118-4417	268	268	$ 13,936.00	
3	421710000280	1901 BIDWELL ST	BRADY J WALZ	1901 BIDWELL ST	WEST SAINT PAUL MN 55118	240	240	$ 12,480.00	
4	421710000270	1885 BIDWELL ST	JOHN H TSTE & MARY L PETERSEN	1885 BIDWELL ST	WEST SAINT PAUL MN 55118-4417	399	299	$ 15,548.00	100' credit
5	421711001070	165 OAKVIEW RD	GEORGE & LYNNE MITSHULIS	165 OAKVIEW RD	WEST SAINT PAUL MN 55118	535	535	$ 27,820.00	100' credit
6	420300003010	115 CRUSADER AVE	EMANUEL EVANG LUTH CH OF ST PAUL INC	115 CRUSADER AVE	WEST SAINT PAUL MN 55118-4461	105	105	$ 5,460.00	
7	421711002310	1924 BIDWELL ST	NET MINISTRIES INC	110 CRUSADER AVE	WEST SAINT PAUL MN 55118	371	371	$ 19,292.00	
8	421711002320	1900 BIDWELL ST	JOSEPH G & AMANDA M MOLLNER	1900 BIDWELL ST	WEST SAINT PAUL MN 55118-4414	267	267	$ 13,884.00	
9	421711002332	1874 BIDWELL ST	JULITA JARMILLO	1874 BIDWELL ST	WEST SAINT PAUL MN 55118-4414	190	190	$ 9,880.00	
10	421711002331	1864 BIDWELL ST	JOHN A TORRES	1864 BIDWELL ST	WEST SAINT PAUL MN 55118-4414	300	300	$ 15,600.00	
11	424745501010	130 MARIE AVE	THOMAS H & NANCY J WICK	130 MARIE AVE	WEST SAINT PAUL MN 55118-3808	119	19	$ 988.00	100' credit
					TOTAL	**2985**	**2785**	**$ 144,820.00**	

PRELIMINARY ASSESSMENT ROLL
2017 Street Improvement Project - West St. Paul #17-1
Charlton Street

Date: September 15, 2016

Preliminary per foot assessment rate: $ 52.00

Parcel # on Map	Parcel ID	Site Address	Owner	Owner Address	City/State/Zip	Street Frontage (ft) Actual	Street Frontage (ft) Assessable	Assessment Amount	Notes
1	424817501050	366 MENDOTA RD W	EUGENE E & PATRICIA KARELS	366 MENDOTA RD W	WEST SAINT PAUL MN 55118-4754	23	23	$ 1,196.00	
2	424817501040	368 MENDOTA RD W	JACQUELINE L GARDNER	368 MENDOTA RD W	WEST SAINT PAUL MN 55118-4755	23	23	$ 1,196.00	
3	424817501030	370 MENDOTA RD W	MICHAEL & LORRI SMITH	370 MENDOTA RD W	WEST SAINT PAUL MN 55118-4756	23	23	$ 1,196.00	
4	424817501020	372 MENDOTA RD W	KRISTINE A PETERSON	372 MENDOTA RD W	WEST SAINT PAUL MN 55118-4757	23	23	$ 1,196.00	
5	424817501010	374 MENDOTA RD W	SAMUEL D GRAMENTZ	374 MENDOTA RD W	WEST SAINT PAUL MN 55118-4758	23	23	$ 1,196.00	
6	425060004050	2047 CHARLTON ST	ROGER J & SUSAN M VERDUZCO	2047 CHARLTON ST	WEST SAINT PAUL MN 55118-4463	200	200	$ 10,400.00	
7	425060004040	2033 CHARLTON ST	JEFFREY J & PENNY J AFFOLTER	2033 CHARLTON ST	WEST SAINT PAUL MN 55118-4463	100	100	$ 5,200.00	
8	425060004030	2027 CHARLTON ST	JOSEPH A HOGLUND KLEIN	2027 CHARLTON ST	WEST ST PAUL MN 55118	100	100	$ 5,200.00	
9	425060004020	2017 CHARLTON ST	KATHRYN S TERHORST	2017 CHARLTON ST	WEST SAINT PAUL MN 55118-4467	100	100	$ 5,200.00	
10	425060004010	2007 CHARLTON ST	JOHN G WOOD	2007 CHARLTON ST	WEST SAINT PAUL MN 55118-4467	125	125	$ 6,500.00	
11	425060000010		THOMAS IRVINE DODGE FOUNDATION	THOMAS I DODGE NATURE CTR	WEST SAINT PAUL MN 55118-3848	458	458	$ 23,816.00	
12	425060003050	1965 CHARLTON ST	JENS& KORIN HENRICKSON	1965 CHARLTON ST	WEST SAINT PAUL MN 55118-4419	90	90	$ 4,680.00	
13	425060003040	1957 CHARLTON ST	VICTOR H ARTEAGA	1957 CHARLTON ST	WEST SAINT PAUL MN 55118	90	90	$ 4,680.00	
14	425060003030	1949 CHARLTON ST	TIMOTHY J VITELLI	1949 CHARLTON AVE	WEST SAINT PAUL MN 55118-4419	90	90	$ 4,680.00	
15	425060003020	1941 CHARLTON ST	DAVID A BUGG	1941 CHARLTON ST	WEST SAINT PAUL MN 55118	90	90	$ 4,680.00	
16	425060003010	1933 CHARLTON ST	ZAPPA JANE F LIVING TRUST	1933 CHARLTON ST	WEST SAINT PAUL MN 55118	90	90	$ 4,680.00	
17	425060002070	1917 CHARLTON ST	R DAVID JR & DOINA C LARKIN	1917 CHARLTON ST	WEST SAINT PAUL MN 55118-4419	90	90	$ 4,680.00	
18	425060002060	1909 CHARLTON ST	JEFFREY J & DEBORAH LENTSCH	1909 CHARLTON AVE	WEST SAINT PAUL MN 55118-4419	90	90	$ 4,680.00	
19	425060002051	1901 CHARLTON ST	BRUCE C & JEAN M JOHNSON	1901 CHARLTON ST	WEST SAINT PAUL MN 55118-4419	180	180	$ 9,360.00	
20	425060002030	1885 CHARLTON ST	MARLIN R & NANCY L PIERSON	1885 CHARLTON ST	WEST SAINT PAUL MN 55118-4419	90	90	$ 4,680.00	
21	425060002020	1877 CHARLTON ST	JEFFREY J & LILA G HERSCHBACH	1877 CHARLTON ST	WEST SAINT PAUL MN 55118	91	91	$ 4,732.00	
22	425060002010	1869 CHARLTON ST	LINDA M TOUSEY	1869 CHARLTON ST	WEST SAINT PAUL MN 55118-4419	93	93	$ 4,836.00	
23	420300037010	1863 CHARLTON ST	ERIC L & DAWN R BAUMEISTER	1863 CHARLTON AVE	WEST SAINT PAUL MN 55118-4419	116	116	$ 6,032.00	
24	425060001010	300 MARIE AVE W	KENNETH & SHERI TAYLOR	300 MARIE AVE W	WEST SAINT PAUL MN 55118-3847	219	219	$ 11,388.00	
25	420190065010	1795 CHARLTON ST	THOMAS IRVINE DODGE FDN	365 MARIE AVE W	WEST SAINT PAUL MN 55118-3848	74	74	$ 3,848.00	
26	420190066010		THOMAS IRVINE DODGE FDN	365 MARIE AVE W	WEST SAINT PAUL MN 55118-3848	132	132	$ 6,864.00	
27	420190066020	1815 CHARLTON ST	JERRY R FUSCO	1815 CHARLTON ST	WEST SAINT PAUL MN 55118	72	72	$ 3,744.00	
28	420190066030	1811 CHARLTON ST	JAMES L & MARY C KOON	1811 CHARLTON ST	WEST ST PAUL MN 55118	70	70	$ 3,640.00	
29	420300034013	2060 CHARLTON RDG	LANDMARK TWO PTNSHP	1349 ROBERT ST S STE 101	WEST SAINT PAUL MN 55118-2441	282	282	$ 14,664.00	
30	421717501010	2048 CHARLTON RDG	SCOTT E & LOUANN M GOODNOUGH	2048 CHARLTON RDG	WEST SAINT PAUL MN 55118	19	19	$ 988.00	
31	421717501020	2046 CHARLTON RDG	ANDREW J SCHEIBER & MARY LOU SABIN	2046 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
32	421717501030	2044 CHARLTON RDG	SUSAN L ABALAN & ANGELA M A OCONNELL	2044 CHARLTON RIDGE	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
33	421717501040	2042 CHARLTON RDG	HIDEKI YAMADA & JANELL YAMADA SCHILMAN	2042 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
34	421717501050	2040 CHARLTON RDG	LOIS F WIGGIN	2040 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
35	421717501060	2038 CHARLTON RDG	JOHN B & SANDRA R COSGROVE	2038 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
36	421717501070	2036 CHARLTON RDG	ERIC L & KATHLEEN A WOOD	2036 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
37	421717501080	2034 CHARLTON RDG	PATRICIA J SPAHN	2034 CHARLTON RDG	WEST SAINT PAUL MN 55118	19	19	$ 988.00	
38	421717501090	2032 CHARLTON RDG	PATRICIA A WEBER	2032 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
39	421717501100	2030 CHARLTON RDG	ALLEN R TSTE KUSS	2260 SUMMIT AVE	SAINT PAUL MN 55105	19	19	$ 988.00	
40	421717501110	2028 CHARLTON RDG	MARGARET E KELSCH	2028 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
41	421717501120	2026 CHARLTON RDG	MAX G & BEVERLY J TSTE KROLL	2026 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
42	421717501130	2024 CHARLTON RDG	JAMES E WELLS	2024 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
43	421717501140	2022 CHARLTON RDG	STELLA C TSTE LUNDQUIST	2022 CHARLTON RDG	WEST SAINT PAUL MN 55118	19	19	$ 988.00	
44	421717501150	2020 CHARLTON RDG	ROBERT R & BETTY JO LAURITSEN	2020 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
45	421717501160	2018 CHARLTON RDG	ALICE SCHLETTY	2018 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
46	421717501200	2016 CHARLTON RDG	SUSAN RICO	2016 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
47	421717501190	2014 CHARLTON RDG	BRYAN E DAVIS	2014 CHARLTON RDG	WEST ST PAUL MN 55118	19	19	$ 988.00	
48	421717501170	2012 CHARLTON RDG	IGOR OSTROVSKY	2317 PARKWOODS RD	ST LOUIS PARK MN 55416	19	19	$ 988.00	
49	421717501180	2010 CHARLTON RDG	RAYMOND J & ARLENE B KEMPE	2010 CHARLTON RDG	WEST SAINT PAUL MN 55118-4402	19	19	$ 988.00	
50	426515101160	330 SHERWOOD CT	JOCELYN HECHTL	330 SHERWOOD CT	WEST SAINT PAUL MN 55118	302	202	$ 10,504.00	100' credit
51	426515101020	325 SHERWOOD CT	KELLI FERBER	325 SHERWOOD CT	WEST SAINT PAUL MN 55118-4434	270	170	$ 8,840.00	100' credit

52	426515101010	1974 CHARLTON ST	LAURA J DEXTER	1974 CHARLTON ST	WEST SAINT PAUL MN 55118-4420	104	104	$	5,408.00	
53	427330001020	1964 CHARLTON ST	VICTOR A & BRENDA J CORBETT	1964 CHARLTON	WEST SAINT PAUL MN 55118-4420	25	25	$	1,300.00	
54	427330001010	1960 CHARLTON ST	MICHAEL & JANEEN MCALLISTER	1960 CHARLTON ST	WEST SAINT PAUL MN 55118-4420	120	120	$	6,240.00	
55	421710000153	320 EDGEWOOD LN	DAVID M & PATTI L SCOTT	320 EDGEWOOD LN	WEST SAINT PAUL MN 55118	257	157	$	8,164.00	100' credit
56	421710000160	315 EDGEWOOD LN	SCOTT J HUGHES	315 EDGEWOOD LN	WEST SAINT PAUL MN 55118-4430	847	747	$	38,844.00	100' credit
57	421710000170	280 OAKVIEW RD	DAVID A & MARY C VETTER	280 OAKVIEW DR	WEST SAINT PAUL MN 55118	382	382	$	19,864.00	
58	421710000130	289 OAKVIEW RD	JOHN E WENDT	289 OAKVIEW RD	WEST SAINT PAUL MN 55118-4433	160	160	$	8,320.00	
59	420190090010	1800 CHARLTON ST	CITY OF WEST SAINT PAUL	1616 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3905	400	400	$	20,800.00	
					TOTAL	**6494**	**6094**	**$**	**316,888.00**	

PRELIMINARY ASSESSMENT ROLL
2017 Street Improvement Project - West St. Paul #17-1
Edgewood Lane

Date: September 15, 2016

Preliminary per foot assessment rate: $ 52.00

Parcel # on Map	Parcel ID	Site Address	Owner	Owner Address	City/State/Zip	Street Frontage (ft) Actual	Street Frontage (ft) Assessable	Assessment Amount	Notes
1	421710000160	315 EDGEWOOD LN	SCOTT J HUGHES	315 EDGEWOOD LN	WEST SAINT PAUL MN 55118-4430	331	0	$ -	Charlton assessment roll
2	421710000190	264 OAKVIEW RD	ROBERT A KRATZKE	264 OAKVIEW RD	WEST SAINT PAUL MN 55118-4431	115	15	$ 780.00	100' credit
3	421710000200	256 OAKVIEW RD	JOHN M & DOROTHY D SCANLAN	256 OAKVIEW RD	WEST SAINT PAUL MN 55118-4431	299	199	$ 10,348.00	100' credit
4	421710000218	246 OAKVIEW RD	RONALD C & PAMELA IVERSON	246 OAKVIEW RD	WEST SAINT PAUL MN 55118-4431	63	0	$ -	63' credit
5	421710000217		MATTHEW J & COURTNEY POEPL	1745 JULIET AVE	SAINT PAUL MN 55105	137	137	$ 7,124.00	
6	421710000214	255 EDGEWOOD LN	DUANE J & HEATHER A CARLAND	243 EDGEWOOD LN	WEST SAINT PAUL MN 55118-4430	46	46	$ 2,392.00	
7	425360000010	243 EDGEWOOD LN	DUANE J & HEATHER A CARLAND	243 EDGEWOOD LN	WEST SAINT PAUL MN 55118-4430	185	185	$ 9,620.00	
8	425360000020	237 EDGEWOOD LN	CHRISTOPHER G & VANE WILLS	237 EDGEWOOD LN	WEST SAINT PAUL MN 55118	150	150	$ 7,800.00	
9	425360000110		ELGIN Y & YIHUA EVA LEE	246 EDGEWOOD LN	WEST SAINT PAUL MN 55118	170	170	$ 8,840.00	
10	425360000082	242 EDGEWOOD LN	ELGIN Y & YIHUA EVA LEE	242 EDGEWOOD LN	WEST SAINT PAUL MN 55118	60	60	$ 3,120.00	
11	425360000090	246 EDGEWOOD LN	DAVID MOGA	246 EDGEWOOD LN	WEST SAINT PAUL MN 55118-4429	129	129	$ 6,708.00	
12	425360000100	250 EDGEWOOD LN	DIANNE B HOPEN	250 EDGEWOOD LN	WEST SAINT PAUL MN 55118-4429	291	291	$ 15,132.00	
13	426515101060	260 EDGEWOOD LN	SYLVIA A DORSEY	260 EDGEWOOD LN	WEST SAINT PAUL MN 55118-4429	67	67	$ 3,484.00	
14	421710000140	270 EDGEWOOD LN	CHARLES E JONES	270 EDGEWOOD LN	WEST SAINT PAUL MN 55118	610	510	$ 26,520.00	100' credit
15	421710000152	310 EDGEWOOD LN	NORMA A FARAH	310 EDGEWOOD LN	WEST SAINT PAUL MN 55118-4429	174	174	$ 9,048.00	
16	421710000153	320 EDGEWOOD LN	DAVID M & PATTI L SCOTT	320 EDGEWOOD LN	WEST SAINT PAUL MN 55118	130	0	$ -	Charlton assessment roll
					TOTAL	**2957**	**2133**	**$ 110,916.00**	

PRELIMINARY ASSESSMENT ROLL
2017 Street Improvement Project - West St. Paul #17-1
Edith Drive

Date: September 15, 2016

Preliminary per foot assessment rate: $ 52.00

Parcel # on Map	Parcel ID	Site Address	Owner	Owner Address	City/State/Zip	Street Frontage (ft) Actual	Street Frontage (ft) Assessable	Assessment Amount	Notes
1	425670004051	389 EDITH DR	GUADALUPE J GONZALEZ	389 EDITH DR	WEST SAINT PAUL MN 55118	100	100	$ 5,200.00	
2	425670004070	383 EDITH DR	TANYA MARIE REED	383 EDITH DR	WEST SAINT PAUL MN 55118-3009	113	113	$ 5,876.00	
3	425670004080	373 EDITH DR	SAMUEL L GUINDON	373 EDITH DR	WEST SAINT PAUL MN 55118	96	96	$ 4,992.00	
4	425670004090	367 EDITH DR	MARLA J MORRIS	367 EDITH DR	WEST SAINT PAUL MN 55118	81	81	$ 4,212.00	
5	425670004110	361 EDITH DR	PEGGY L & DENNIS J CHIRHART	361 EDITH DR	WEST SAINT PAUL MN 55118-3009	86	86	$ 4,472.00	
6	425670004120	353 EDITH DR	PETER E & CATHERINE LAMANNA	353 EDITH DR	WEST SAINT PAUL MN 55118-3009	67	67	$ 3,484.00	
7	425670004130	347 EDITH DR	JUDITH A TSTE ODONNELL	347 EDITH DR	WEST SAINT PAUL MN 55118-3009	33	33	$ 1,716.00	
8	425670004140	341 EDITH DR	JOHN C & AMY L SCHNEIDER	341 EDITH DR	WEST SAINT PAUL MN 55118-3009	67	67	$ 3,484.00	
9	425670004150	333 EDITH DR	NOLAN R CORNELL	333 EDITH DR	WEST SAINT PAUL MN 55118	67	67	$ 3,484.00	
10	425670004160	329 EDITH DR	DAVID & AMANDA TESS	329 EDITH DR	WEST SAINT PAUL MN 55118	66	66	$ 3,432.00	
11	425670004170	323 EDITH DR	JAMES ZAINE	323 EDITH DR	WEST ST PAUL MN 55118	67	67	$ 3,484.00	
12	425670005010	311 EDITH DR	NATHAN R & RENEE C MILLER	311 EDITH DR	WEST SAINT PAUL MN 55118	60	60	$ 3,120.00	
13	425670005030	305 EDITH DR	MICHAEL & C NIEDERMAIER	305 EDITH DR	WEST SAINT PAUL MN 55118-3007	62	62	$ 3,224.00	
14	425670005040	299 EDITH DR	KERI M SEIGER	299 EDITH DR	WEST SAINT PAUL MN 55118-3007	77	77	$ 4,004.00	
15	425670005050	293 EDITH DR	WILLIAM J & CAROL A ZWINGER	293 EDITH DR	WEST SAINT PAUL MN 55118-3007	74	74	$ 3,848.00	
16	425670005060	285 EDITH DR	JAMES DWAIN HUNTER	285 EDITH DR	WEST SAINT PAUL MN 55118	70	70	$ 3,640.00	
17	425670005070	281 EDITH DR	ROBT & JILL DUSTERHOFT	281 EDITH DR	WEST SAINT PAUL MN 55118-3007	57	57	$ 2,964.00	
18	425670005080	275 EDITH DR	CAROL L LIND	275 EDITH DR	WEST SAINT PAUL MN 55118-3007	59	59	$ 3,068.00	
19	425670005090	269 EDITH DR	LINDA J LAROCK	269 EDITH DR	WEST SAINT PAUL MN 55118-3007	59	59	$ 3,068.00	
20	425670005100	265 EDITH DR	STEVEN A & TRINA WOLFSON	265 EDITH DR	WEST SAINT PAUL MN 55118-3007	63	63	$ 3,276.00	
21	426660001080	249 EDITH DR	GREGORY C & TERESA J SCHMIDT	249 EDITH DR	WEST SAINT PAUL MN 55118-2109	152	52	$ 2,704.00	100' credit
22	426660001070	239 EDITH DR	MARGARET K & MICHAEL KUCHERA	239 EDITH DR	WEST SAINT PAUL MN 55118-2109	104	104	$ 5,408.00	
23	426660001060	229 EDITH DR	PETER & NATALIE STROHMEIER	229 EDITH DR	WEST SAINT PAUL MN 55118	104	104	$ 5,408.00	
24	426660001050	221 EDITH DR	JOSEPH R & JUDY M MOTZKO	221 EDITH DR	WEST SAINT PAUL MN 55118-2109	104	104	$ 5,408.00	
25	426660001040	211 EDITH DR	RICHARD J & LORI R T OSENDORF	211 EDITH DR	WEST SAINT PAUL MN 55118	104	104	$ 5,408.00	
26	426660001030	201 EDITH DR	ANNA KATHERINE DUTKE	201 EDITH DR	WEST SAINT PAUL MN 55118	104	104	$ 5,408.00	
27	426660001020	191 EDITH DR	RAYMOND J & ANN M KOBLER	191 EDITH DR	WEST SAINT PAUL MN 55118-2109	104	104	$ 5,408.00	
28	426660001010	179 EDITH DR	PETER B BENEDICT	179 EDITH DR	WEST SAINT PAUL MN 55118	150	50	$ 2,600.00	100' credit
29	425670007020	390 EDITH DR	DANIEL J STOKMAN	390 EDITH DR	WEST SAINT PAUL MN 55118-3008	150	150	$ 7,800.00	
30	425670007051	380 EDITH DR	ROBERT C WONG	380 EDITH DR	WEST SAINT PAUL MN 55118-3008	72	72	$ 3,744.00	
31	425670007050	374 EDITH DR	JOHN D & POLLY J SNIDER	374 EDITH DR	WEST SAINT PAUL MN 55118-3008	70	70	$ 3,640.00	
32	425670007060	366 EDITH DR	VICKI E SCHMELING	366 EDITH DR	WEST SAINT PAUL MN 55118-3008	79	79	$ 4,108.00	
33	425670007070	360 EDITH DR	RICHARD & ANN MARIE ENDRIS	360 EDITH DR	WEST SAINT PAUL MN 55118-3008	68	68	$ 3,536.00	
34	425670007080	354 EDITH DR	RICHARD J TSTE & LO NOZEL	354 EDITH DR	WEST SAINT PAUL MN 55118-3008	68	68	$ 3,536.00	
35	425670007090	348 EDITH DR	KATHERINE A MILOS	348 EDITH DR	WEST SAINT PAUL MN 55118-3008	70	70	$ 3,640.00	
36	425670007100	342 EDITH DR	DAVID A LUND	342 EDITH DR	WEST SAINT PAUL MN 55118-3008	70	70	$ 3,640.00	
37	425670007110	334 EDITH DR	COURTNEY L NEWTON	334 EDITH DR	WEST SAINT PAUL MN 55118-3008	70	70	$ 3,640.00	
38	425670007120	328 EDITH DR	ADAM K SPINDELL	328 EDITH DR	WEST SAINT PAUL MN 55118-3008	70	70	$ 3,640.00	
39	425670007130	322 EDITH DR	PATRICIA E RENNER	322 EDITH DR	WEST SAINT PAUL MN 55118-3008	62	62	$ 3,224.00	
40	425670006010	312 EDITH DR	ELIZABETH C HOBBS	312 EDITH DR	WEST SAINT PAUL MN 55118-3006	60	60	$ 3,120.00	
41	425670006020	306 EDITH DR	MOLLY A GATTI	306 EDITH DR	WEST SAINT PAUL MN 55118	57	57	$ 2,964.00	
42	425670006030	300 EDITH DR	GLENN & SHEILA LANGFIELD	300 EDITH DR	WEST SAINT PAUL MN 55118-3006	57	57	$ 2,964.00	
43	425670006040	296 EDITH DR	BERNARD R JONES	296 EDITH DR	WEST SAINT PAUL MN 55118	57	57	$ 2,964.00	

44	425670006050	290 EDITH DR	DONALD BRUCE JOHNSON	290 EDITH DR	WEST SAINT PAUL MN 55118-3006	57	57	$ 2,964.00	
45	425670006060	286 EDITH DR	JOSEPH G LINDEBERG	286 EDITH DR	WEST SAINT PAUL MN 55118-3006	57	57	$ 2,964.00	
46	425670006070	280 EDITH DR	PATRICK W HUELLER	280 EDITH DR	WEST SAINT PAUL MN 55118	57	57	$ 2,964.00	
47	425670006090	274 EDITH DR	JONATHAN M SITZER	274 EDITH DR	WEST SAINT PAUL MN 55118	86	86	$ 4,472.00	
48	425670006100	264 EDITH DR	CAROL A TSTEE SCHREINER	264 EDITH DR	WEST SAINT PAUL MN 55118-3006	91	91	$ 4,732.00	
49	426660002080	250 EDITH DR	JOHN A & CAROLE J BABBITT	250 EDITH DR	WEST SAINT PAUL MN 55118-2110	152	52	$ 2,704.00	100' credit
50	426660002070	240 EDITH DR	DESDEMONA MORRIS	240 EDITH DR	WEST SAINT PAUL MN 55118	104	104	$ 5,408.00	
51	426660002060	230 EDITH DR	DONALD J & ELAINE HUBER	230 EDITH DR	WEST SAINT PAUL MN 55118-2110	104	104	$ 5,408.00	
52	426660002050	218 EDITH DR	RONALD & DEBRA BAIR	218 EDITH DR	WEST SAINT PAUL MN 55118-2110	104	104	$ 5,408.00	
53	426660002040	212 EDITH DR	RONALD S GNETZ	212 EDITH DR	WEST SAINT PAUL MN 55118-2110	104	104	$ 5,408.00	
54	426660002030	200 EDITH DR	LAWRENCE & JULIANA DZIEWECZYNSKI	200 EDITH DR	WEST SAINT PAUL MN 55118-2110	104	104	$ 5,408.00	
55	426660002020	190 EDITH DR	JACQUELINE J TSTE WILLWERSCHEID	190 EDITH DR	WEST SAINT PAUL MN 55118-2110	104	104	$ 5,408.00	
56	426660002010	180 EDITH DR	GREGORY J & KATHLEEN MOORE	180 EDITH DR	WEST SAINT PAUL MN 55118-2110	150	50	$ 2,600.00	100' credit
					TOTAL	**4704**	**4304**	**$ 223,808.00**	

PRELIMINARY ASSESSMENT ROLL
2017 Street Improvements Project - West St. Paul #17-1
Fox Ridge Road & Fox Ridge Drive

Date: September 15, 2016

Preliminary per foot assessment rate: $ 52.00

Parcel # on Map	PID	Site Address	Owner Name	Street Address	City, State, Zip	Street Frontage (ft) Actual	Street Frontage (ft) Assessable	Assessment Amount	Notes
1	424865005049	8 MARIE AVE E#101D	DAVID H & PATRICIA S WICK	8 MARIE AVE E UNIT D	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
2	424865005050	8 MARIE AVE E#102A	JANICE P TSTE SHELDON	8 MARIE AVE UNIT 102A	WEST SAINT PAUL MN 55118-5914	18	18	$ 936.00	
3	424865005051	8 MARIE AVE E#103C	LORETTA C JAVRA	8 MARIE AVE E UNIT C	WEST SAINT PAUL MN 55118-5944	18	18	$ 936.00	
4	424865005052	8 MARIE AVE E#104B	CLANCY INVESTMENTS LLC	7676 MILITARY RD	ST PAUL MN 55129	18	18	$ 936.00	
5	424865005053	6 MARIE AVE E#105C	BORISLAVA CHERVONENKO	6 MARIE AVE E UNIT 105C	WEST SAINT PAUL MN 55118-5915	18	18	$ 936.00	
6	424865005054	6 MARIE AVE E#106A	GARY & BARBARA WODKE	6 MARIE AVE E UNIT 106A	WEST ST PAUL MN 55118	18	18	$ 936.00	
7	424865005055	6 MARIE AVE E#107D	HEATHER M JOKINEN	6 MARIE AVE E	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
8	424865005056	6 MARIE AVE E#108A	KENNETH O WITTE	6 MARIE AVE E UNIT 108A	WEST SAINT PAUL MN 55118-5915	18	18	$ 936.00	
9	424865005057	12 MARIE AVE E#201D	MICHELLE H MOONEY	12 MARIE AVE E UNIT 201	WEST SAINT PAUL MN 55118-5912	18	18	$ 936.00	
10	424865005058	12 MARIE AVE E#202A	DENIS J FITZGERALD	12 MARIE AVE E APT 0202A	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
11	424865005059	12 MARIE AVE E#203C	PAUL MCGRATH	12 MARIE AVE E UNIT 203C	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
12	424865005060	12 MARIE AVE E#204B	ALICE S & CHARLES H FLYNN	12 MARIE AVE E	WEST SAINT PAUL MN 55118-5912	18	18	$ 936.00	
13	424865005061	10 MARIE AVE E#205C	SONIA ALBERT EASTMAN	10 MARIE AVE E UNIT C	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
14	424865005062	10 MARIE AVE E#206B	KELLIE M PAKKALA	8553 BEACON ALCV	WOODBURY MN 55125	18	18	$ 936.00	
15	424865005063	10 MARIE AVE E#207D	TERRACE & BARBARA OSBORNE	10 MARIE AVE UNIT 207	WEST SAINT PAUL MN 55118-5913	18	18	$ 936.00	
16	424865005064	10 MARIE AVE E#208A	MARY STRANDMARK	10 MARIE AVE E	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
17	424865005065	1845 LIVINGSTON AVE #301D	ELLEN M SNIDER	1845 LIVINGSTON	WEST SAINT PAUL MN 55118-3945	18	18	$ 936.00	
18	424865005066	1845 LIVINGSTON AVE #302A	ODILO J & BERNICE J PEINE	1845 LIVINGSTON AVE UNIT 1A	WEST SAINT PAUL MN 55118-3945	18	18	$ 936.00	
19	424865005067	1845 LIVINGSTON AVE #303C	LORRAINE FRIAS	1845 LIVINGSTON AVE UNIT C	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
20	424865005068	1845 LIVINGSTON AVE #304B	RUTH E LYONS	1845 LIVINGSTON AVE UNIT 304B	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
21	424865005069	22 MARIE AVE E#305C	JAMES D TSTE LENERTZ	c/o CHARLES LENERTZ, 22 MARIE AVE E APT C	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
22	424865005070	22 MARIE AVE E#306B	RUBEN & BARBARA BELLORIN	22 MARIE AVE E UNIT 306B	W ST PAUL MN 55118	18	18	$ 936.00	
23	424865005071	22 MARIE AVE E#307D	DAVID BELMARES	22 MARIE AVE E UNIT 307D	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
24	424865005072	22 MARIE AVE E#308A	BRADY ROTH	22 MARIA AVE E UNIT 308A	WEST ST PAUL MN 55118	18	18	$ 936.00	
25	424865005073	1859 LIVINGSTON AVE #401C	DANIEL NETTELL	1859 LIVINGSTON AVE UNIT 401C	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
26	424865005074	1859 LIVINGSTON AVE #402B	RICHARD & SHEILA VITELLI	1859 LIVINGSTON AVE APT B	WEST SAINT PAUL MN 55016	18	18	$ 936.00	
27	424865005075	1859 LIVINGSTON AVE #403D	JAMES THOMAS PITERA	1859 LIVINGSTON AVE # D	WEST SAINT PAUL MN 55118-3943	18	18	$ 936.00	
28	424865005076	1859 LIVINGSTON AVE #404A	LINA M SATH	565 ANNAPOLIS ST E	SAINT PAUL MN 55118	18	18	$ 936.00	
29	424865005081	1889 FOX RIDGE DR #501D	DONALD & RONALD H WAKEMAN	12102 TOMAHAWK TRL W	MEQUON WI 53097	18	18	$ 936.00	
30	424865005082	1889 FOX RIDGE DR #502A	SHARON K MASLOSKI	1889 FOX RIDGE DR UNIT A	WEST SAINT PAUL MN 55118-3967	18	18	$ 936.00	
31	424865005083	1889 FOX RIDGE DR #503C	JUDITH M BENJAMIN	1889 FOX RIDGE DR	WEST SAINT PAUL MN 55118-3960	18	18	$ 936.00	
32	424865005084	1889 FOX RIDGE DR #504B	GLENNYS REYNOLDS	457 16TH AVE N	SOUTH ST PAUL MN 55075-2140	18	18	$ 936.00	
33	424865005085	1871 LIVINGSTON AVE #505C	IRMA H KRECH	1871 LIVINGSTON AVE UNIT C	WEST SAINT PAUL MN 55118-3944	18	18	$ 936.00	
34	424865005086	1871 LIVINGSTON AVE #506B	DAVID C SAUNDERS	1871 LIVINGSTON AVE UNIT B	WEST SAINT PAUL MN 55118-3944	18	18	$ 936.00	
35	424865005087	1871 LIVINGSTON AVE #507D	ANNE MARIE JOHNSON	1871 LIVINGSTON AVE	W ST PAUL MN 55108	18	18	$ 936.00	
36	424865005088	1871 LIVINGSTON AVE #508A	MARCELLA H MIELS TST	1871 LIVINGSTON AVE UNIT 508A	WEST SAINT PAUL MN 55118-3944	18	18	$ 936.00	
37	424865005089	13 FOX RIDGE CT #601D	RITA M BLAND	13 FOX RIDGE CT UNIT 601D	WEST SAINT PAUL MN 55118-3978	18	18	$ 936.00	
38	424865005090	13 FOX RIDGE CT #602A	REBECCA LYNN GRAINGER	13 FOX RIDGE CT APT 602A	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
39	424865005091	13 FOX RIDGE CT #603C	IBRAHIM & BELLA ISSA	13 FOX RIDGE CT UNIT 603C	WEST ST PAUL MN 55118	18	18	$ 936.00	
40	424865005092	13 FOX RIDGE CT #604B	TIMOTHY BREMNER	13 FOX RIDGE CT UNIT B	WEST SAINT PAUL MN 55118-3978	18	18	$ 936.00	
41	424865005093	15 FOX RIDGE CT #605C	CATHLEEN M FABIAN	% THOMAS ALLEN, 1535 LIVINGSTON AVE	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
42	424865005094	15 FOX RIDGE CT #606B	NANCY A MUNKHOLM	15 FOX RIDGE CT UNIT 606B	WEST SAINT PAUL MN 55118-3975	18	18	$ 936.00	
43	424865005095	15 FOX RIDGE CT #607D	ROBERT T CALTON	15 FOX RIDGE CT UNIT 0607	WEST SAINT PAUL MN 55118-3968	18	18	$ 936.00	
44	424865005096	15 FOX RIDGE CT #608A	LILLIAN D ALEMAN	15 FOX RIDGE CT UNIT 608A	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
45	424865005097	5 FOX RIDGE CT #701D	EMMA L SKOG	5 FOX RIDGE CT UNIT D	WEST SAINT PAUL MN 55118-5940	18	18	$ 936.00	
46	424865005098	5 FOX RIDGE CT #702A	ROBERT J ABBOTT	5 FOX RIDGE CT UNIT A	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
47	424865005099	5 FOX RIDGE CT #703C	MARY L NIELSEN	5 FOX RIDGE CT UNIT C	WEST SAINT PAUL MN 55118-5940	18	18	$ 936.00	
48	424865005100	5 FOX RIDGE CT #704A	CAROL JANE KAISER	5 FOX RIDGE CT UNIT B	WEST ST PAUL MN 55118	18	18	$ 936.00	
49	424865005101	7 FOX RIDGE CT #705C	ERIC C HOLT	7 FOX RIDGE CT UNIT C	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
50	424865005102	7 FOX RIDGE CT #706B	REBECCA DUNFEE	7 FOX RIDGE CT UNIT 706B	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
51	424865005103	7 FOX RIDGE CT #707D	KATHLEEN F VONDRASEK	7 FOX RIDGE CT UNIT D	WEST SAINT PAUL MN 55118-5939	18	18	$ 936.00	
52	424865005104	7 FOX RIDGE CT #708A	RICHARD F CRUZ	7 FOX RIDGE CT	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
53	424865005105	1888 FOX RIDGE DR #801D	VALARIE AXTELL	1888 FOX RIDGE DR UNIT D	WEST SAINT PAUL MN 55118-3963	18	18	$ 936.00	
54	424865005106	1888 FOX RIDGE DR #802A	ROBERTO EVANGELISTA	1888 FOX RIDGE DR UNIT A	WEST SAINT PAUL MN 55118-3963	18	18	$ 936.00	
55	424865005107	1888 FOX RIDGE DR #803C	BRUCE H COPPOCK	1698 DODD RD	MENDOTA HEIGHTS MN 55118	18	18	$ 936.00	
56	424865005108	1888 FOX RIDGE DR #804B	AVIS MERHAR	1888 FOX RIDGE DR UNIT 804B	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
57	424865005109	1890 FOX RIDGE DR #805C	MEREDITH ANN FRITZ	1890 FOX RIDGE DR UNIT 805C	WEST SAINT PAUL MN 55118	18	18	$ 936.00	

58	424865005110	1890 FOX RIDGE DR #806B	LEO M MONZEL	1890 FOX RIDGE DR APT B	WEST SAINT PAUL MN 55118-3959	18	18	$ 936.00	
59	424865005111	1890 FOX RIDGE DR #807D	LYNN URBANO	1890 FOX RIDGE DR UNIT 807D	WEST SAINT PAUL MN 55118-3974	18	18	$ 936.00	
60	424865005112	1890 FOX RIDGE DR #808A	ARLENE J HAGLAND	1890 FOXRIDGE DR	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
61	424865005113	1934 FOX RIDGE DR #901D	THOMAS E DARLING	1934 FOX RIDGE DR UNIT D	WEST SAINT PAUL MN 55118-3950	18	18	$ 936.00	
62	424865005114	1934 FOX RIDGE DR #902A	JODI C DOWELL	1934 FOX RIDGE DR UNIT A	WEST SAINT PAUL MN 55118-3993	18	18	$ 936.00	
63	424865005115	1934 FOX RIDGE DR #903C	LISA NAHKALA	1934 FOX RIDGE DR UNIT 903C	WEST ST PAUL MN 55118	18	18	$ 936.00	
64	424865005116	1934 FOX RIDGE DR #904B	PATRICIA L LANE	1934 FOX RIDGE DR UNIT B	WEST SAINT PAUL MN 55118-3993	18	18	$ 936.00	
65	424865005117	1936 FOX RIDGE DR #905C	PETER G BRANDL	1936 FOX RIDGE DR UNIT C	WEST SAINT PAUL MN 55118-3996	18	18	$ 936.00	
66	424865005118	1936 FOX RIDGE DR #906B	JAMES KUEPPERS	4544 BLOOMBERG CIR	INVER GROVE HEIGHTS MN 55076	18	18	$ 936.00	
67	424865005119	1936 FOX RIDGE DR #907D	ALVENE M TSTE BRIGUET	1936 FOX RIDGE DR	WEST SAINT PAUL MN 55118-3951	18	18	$ 936.00	
68	424865005120	1936 FOX RIDGE DR #908A	ARTHUR W & LAURA B GROSSMANN	1936 FOX RIDGE DR UNIT A	WEST SAINT PAUL MN 55118-3996	18	18	$ 936.00	
69	424865005121	6 FOX RIDGE CT #1001D	AMANDA LAWRENCE	6 FOX RIDGE CT UNIT D	WEST SAINT PAUL MN 55118-5942	18	18	$ 936.00	
70	424865005122	6 FOX RIDGE CT #1002A	YVONNE TSTE HAIN	6 FOX RIDGE CT UNIT A	WEST SAINT PAUL MN 55118-4942	18	18	$ 936.00	
71	424865005123	6 FOX RIDGE CT #1003C	ROSS C HERMAN	6 FOX RIDGE CT UNIT 1003C	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
72	424865005124	6 FOX RIDGE CT #1004B	MARGARET F MAXA	6 FOX RIDGE CT UNIT B	WEST SAINT PAUL MN 55118-5942	18	18	$ 936.00	
73	424865005125	4 FOX RIDGE CT #1005C	DIANE K WINTER	4 FOX RIDGE CT UNIT C	WEST SAINT PAUL MN 55118-5941	18	18	$ 936.00	
74	424865005126	4 FOX RIDGE CT #1006B	JAMES T & MARY M GOWAN	4 FOX RIDGE CT UNIT B	WEST SAINT PAUL MN 55118-5941	18	18	$ 936.00	
75	424865005127	4 FOX RIDGE CT #1007D	FAUSTINO RIVERA	4 FOX RIDGE CT UNIT D	WEST SAINT PAUL MN 55118-5941	18	18	$ 936.00	
76	424865005128	4 FOX RIDGE CT #1008A	MARY BETH BENSON	1328 GREYSWOOD RD	ODENTON MD 21113	18	18	$ 936.00	
77	424865005129	1901 FOX RIDGE DR #1101D	FRANK STICKLER	1901 FOX RIDGE DR UNIT D	WEST SAINT PAUL MN 55118-3983	18	18	$ 936.00	
78	424865005130	1901 FOX RIDGE DR #1102A	DAVID V & DIANE M BACHTELL	13266 36TH AVE	CHIPPEWA FALLS WI 54729	18	18	$ 936.00	
79	424865005131	1901 FOX RIDGE DR #1103C	STEPHANIE J RICKETTS	1901 FOX RIDGE DR UNIT 1103C	WEST SAINT PAUL MN 55118-3957	18	18	$ 936.00	
80	424865005132	1901 FOX RIDGE DR #1104B	SCOTT D NIEMEYER	1901 FOX RIDGE DR UNIT 1104	WEST SAINT PAUL MN 55118-3983	18	18	$ 936.00	
81	424865005133	1899 FOX RIDGE DR #1105C	SUSAN M MYRAN	1899 FOX RIDGE DR UNIT C	WEST SAINT PAUL MN 55118-3979	18	18	$ 936.00	
82	424865005134	1899 FOX RIDGE DR #1106B	NORMAN R GELLERMAN	1899 FOX RIDGE DR UNIT B	WEST SAINT PAUL MN 55118-3979	18	18	$ 936.00	
83	424865005135	1899 FOX RIDGE DR #1107D	CHRIS MULLEN	1899 FOXRIDGE DR UNIT D	WEST SAINT PAUL MN 55118-3979	18	18	$ 936.00	
84	424865005145	1925 FOX RIDGE DR #1301D	VERONICA GENZ & NIKO ROBINSON	1925 FOX RIDGE DR UNIT 1301D	WEST ST PAUL MN 55118	18	18	$ 936.00	
85	424865005146	1925 FOX RIDGE DR #1302A	GARY A SANTORI	1925 FOX RIDGE DR UNIT A	WEST SAINT PAUL MN 55118-3990	18	18	$ 936.00	
86	424865005147	1925 FOX RIDGE DR #1303C	RYAN E MOORE	1925 FOX RIDGE DR UNIT C	WEST SAINT PAUL MN 55118-3990	18	18	$ 936.00	
87	424865005148	1925 FOX RIDGE DR #1304B	BERNARD J WAZLAWIK	1925 FOX RIDGE DR UNIT B	WEST SAINT PAUL MN 55118-3990	18	18	$ 936.00	
88	424865005149	1923 FOX RIDGE DR #1305C	ASHLEE M CASILLAS	1923 FOX RIDGE DR UNIT 1305C	WEST ST PAUL MN 55118	18	18	$ 936.00	
89	424865005150	1923 FOX RIDGE DR #1306B	JO ELLEN CHLEBECK	1923 FOX RIDGE DR UNIT B	WEST SAINT PAUL MN 55118-3989	18	18	$ 936.00	
90	424865005151	1923 FOX RIDGE DR #1307D	JESSICA & JOEL KNOEPFLER	1923 FOX RIDGE DR UNIT D	WEST SAINT PAUL MN 55118-3989	18	18	$ 936.00	
91	424865005152	1923 FOX RIDGE DR #1308A	ROBERT & MARY ELLEN GOSSELIN	1923 FOXRIDGE DR	WEST SAINT PAUL MN 55118-3954	18	18	$ 936.00	
92	424865005153	1935 FOX RIDGE DR #1401D	JOCEL MINDA B ALVAREZ	1935 FOX RIDGE DR UNIT 1401-D	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
93	424865005154	1935 FOX RIDGE DR #1402A	RHONDA L SCHWAN	1935 FOX RIDGE DR UNIT 1402A	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
94	424865005155	1935 FOX RIDGE DR #1403C	GEORGE C & BEVERLY M DERUSHA	1935 FOX RIDGE DR UNIT C	WEST SAINT PAUL MN 55118-3995	18	18	$ 936.00	
95	424865005156	1935 FOX RIDGE DR #1404B	LOUIS D & ROSEANNE H POWERS	1935 FOX RIDGE DR UNIT 1404	WEST SAINT PAUL MN 55118-3949	18	18	$ 936.00	
96	424865005157	1933 FOX RIDGE DR #1405C	DONNA J WEATHERLY	1933 FOX RIDGE DR UNIT C	WEST ST. PAUL MN 55118	18	18	$ 936.00	
97	424865005158	1933 FOX RIDGE DR #1406B	ABBY WENSMAN	1933 FOX RIDGE DR UNIT B	WEST SAINT PAUL MN 55118-3991	18	18	$ 936.00	
98	424865005159	1933 FOX RIDGE DR #1407D	JOELLEN A WEATHERLY	1933 FOX RIDGE DR UNIT D	WEST SAINT PAUL MN 55118-3991	18	18	$ 936.00	
99	424865005160	1933 FOX RIDGE DR #1408A	BEVERLY J WITTGENSTEIN	1933 FOX RIDGE DR UNIT A	WEST SAINT PAUL MN 55118-3991	18	18	$ 936.00	
100	424865005161	21 CRUSADER AVE E#1501D	JENNIFER M VESPER	21 CRUSADER AVE E UNIT D	WEST SAINT PAUL MN 55118-4477	18	18	$ 936.00	
101	424865005162	21 CRUSADER AVE E#1502A	MARY L SAILER	21 CRUSADER AVE UNIT A	WEST SAINT PAUL MN 55118-4477	18	18	$ 936.00	
102	424865005163	21 CRUSADER AVE E#1503C	CHARLES M & L WAGENKNECHT	21 CRUSADER AVE UNIT 1503C	WEST SAINT PAUL MN 55118-4455	18	18	$ 936.00	
103	424865005164	21 CRUSADER AVE E#1504B	LAWRENCE & DARLENE GRINDLAND	21 CRUSADER AVE UNIT B	WEST SAINT PAUL MN 55118-4455	18	18	$ 936.00	
104	424865005165	23 CRUSADER AVE E#1505C	MARY KAY BROWNLEE	23 CRUSADER AVE UNIT C	WEST SAINT PAUL MN 55118-4479	18	18	$ 936.00	
105	424865005166	23 CRUSADER AVE E#1506B	RICHARD H HAMMOND	23 CRUSADER AVE UNIT 1506B	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
106	424865005167	23 CRUSADER AVE E#1507D	GARY G KUHN	23 CRUSADER AVE	WEST SAINT PAUL MN 55118-4456	18	18	$ 936.00	
107	424865005168	23 CRUSADER AVE E#1508A	LEONARD C BOHRER	23 CRUSADER AVE UNIT 1508A	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
108	424865005169	5 CRUSADER AVE E#1601D	ERIN J DAHLQUIST	5 CRUSADER AVE E	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
109	424865005170	5 CRUSADER AVE E#1602A	JOSEPH & MARLYN D TURK	5 CRUSADER AVE UNIT 1602A	WEST ST PAUL MN 55118	18	18	$ 936.00	
110	424865005137	1915 FOX RIDGE DR #1201D	PATRICIA A MITSHULIS	1915 FOX RIDGE DR	WEST SAINT PAUL MN 55118-3953	18	18	$ 936.00	
111	424865005139	1915 FOX RIDGE DR #1203C	ANDREA C PRIVRATSKY	1915 FOX RIDGE DR UNIT 1203C	WEST SAINT PAUL MN 55118-3986	18	18	$ 936.00	
112	424865005140	1915 FOX RIDGE DR #1204B	WAYNE O & BETTY A SCHILLING	1915 FOX RIDGE DR UNIT B	WEST SAINT PAUL MN 55118-3986	18	18	$ 936.00	
113	424865005141	1913 FOX RIDGE DR #1205C	JENIFER C GRAYSON	1913 FOX RIDGE UNIT C	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
114	424865005142	1913 FOX RIDGE DR #1206B	STEPHEN W YOULAN	1913 FOX RDG DR UNIT B	WEST SAINT PAUL MN 55118-3985	18	18	$ 936.00	
115	424865005143	1913 FOX RIDGE DR #1207D	LAURIE J MAGRUM	1913 FOX RIDGE DR D	WEST SAINT PAUL MN 55118-3985	18	18	$ 936.00	
116	424865005144	1913 FOX RIDGE DR #1208A	OLIVIA WALKER-COCHRAN	1908 HARRIS AVE	SAN JOSE CA 95124	18	18	$ 936.00	
117	424865005138	1915 FOX RIDGE DR #1202A	LUCILLE A FINNEGAN	1915 FOX RIDGE DR UNIT A	WEST SAINT PAUL MN 55118-3986	18	18	$ 936.00	
118	424865005136	1899 FOX RIDGE DR #1108A	JAVIER ALMICAR LOPEZ	1899 FOX RIDGE DR UNIT 1108A	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
119	424865005175	7 CRUSADER AVE E#1607D	REBECCA NEAFUS	7 CRUSADER AVE E UNIT D	WEST ST PAUL MN 55118	18	18	$ 936.00	
120	424865005179	4 CRUSADER AVE E#1703C	CAROL JOYCE BLAISDELL LIVING TST	4 CRUSADER AVE UNIT C	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
121	424865005183	2 CRUSADER AVE E#1707D	DEBRA LOHMEYER	2 CRUSADER AVE UNIT D	WEST SAINT PAUL MN 55118-4466	18	18	$ 936.00	

122	424865005181	2 CRUSADER AVE E#1705C	EVANGELINA BELTRAN	2 CRUSADER AVE	WEST SAINT PAUL MN 55118-4466	18	18	$ 936.00	
123	424865005177	4 CRUSADER AVE E#1701D	JEFFREY SCOTT CAMPEAU	4 CRUSADER AVE UNIT 1701D	WEST SAINT PAUL MN 55118-4452	18	18	$ 936.00	
124	424865005176	7 CRUSADER AVE E#1608A	STEVEN A GRAMLING	7 CRUSADER AVE UNIT A	WEST SAINT PAUL MN 55118-4475	18	18	$ 936.00	
125	424865005182	2 CRUSADER AVE E#1706B	JOHN W III & KRISTIN SEEGER	2 CRUSADER AVE UNIT 1706-B	WEST SAINT PAUL MN 55118-4466	18	18	$ 936.00	
126	424865005172	5 CRUSADER AVE E#1604B	JOSEPH ANTHONY GRAMLING LIVING TRUST	5 CRUSADER E UNIT 1604B	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
127	424865005191	20 CRUSADER AVE E#1807D	JOSEPH M & ANITA M BUENO	310 BETTY LN	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
128	424865005189	20 CRUSADER AVE E#1805C	JOYCE C LI	20 CRUSADER AVE E UNIT 1805C	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
129	424865005192	20 CRUSADER AVE E#1808A	JULIE A KRESS	20 CRUSADER AVE UNIT 1808A	WEST SAINT PAUL MN 55118-4457	18	18	$ 936.00	
130	424865005187	22 CRUSADER AVE E#1803C	LANCE R MCMORROW	22 CRUSADER AVE UNIT 1803C	WEST SAINT PAUL MN 55118-4458	18	18	$ 936.00	
131	424865005186	22 CRUSADER AVE E#1802A	LAWRENCE J & KAY M BERTZ	22 CRUSADER AVE UNIT 1802A	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
132	424865005190	20 CRUSADER AVE E#1806B	MARDELL L MIKLYA	20 CRUSADER AVE UNIT B	WEST SAINT PAUL MN 55118-4457	18	18	$ 936.00	
133	424865005171	5 CRUSADER AVE E#1603C	MAUREEN A MAKENS	5 CRUSADER AVE UNIT C	WEST SAINT PAUL MN 55118-4474	18	18	$ 936.00	
134	424865005178	4 CRUSADER AVE E#1702A	MAUREEN E WAGNER	4 CRUSADER AVE E UNIT 1702A	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
135	424865005174	7 CRUSADER AVE E#1606B	PA R XIONG	7 CRUSADER AVE UNIT 1606B	WEST ST PAUL MN 55118	18	18	$ 936.00	
136	424865005188	22 CRUSADER AVE E#1804B	ROGER & JANET L CUCHNA	22 CRUSADER AVE UNIT 1804B	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
137	424865005184	2 CRUSADER AVE E#1708A	SANDRA G DAVIS	2 CRUSADER AVE UNIT A	WEST SAINT PAUL MN 55118-4466	18	18	$ 936.00	
138	424865005180	4 CRUSADER AVE E#1704B	STEVEN J & JILL WEINTRAUT	869 MENDAKOTA CT	MENDOTA HEIGHTS MN 55120	18	18	$ 936.00	
139	424865005173	7 CRUSADER AVE E#1605C	VICTORIA E GRAFF	7 CRUSADRES AVE UNIT C	WEST SAINT PAUL MN 55118	18	18	$ 936.00	
140	424865005185	22 CRUSADER AVE E#1801D	WESLEY W & MARY K PAULUS	22 CRUSADER AVE UNIT D	WEST SAINT PAUL MN 55118-4478	18	18	$ 936.00	
141	424865000010	3 FOX RIDGE CT	JAMES A & SHIRLEY M SCHULTZ	3 FOX RIDGE CT	WEST SAINT PAUL MN 55118-3928	81	81	$ 4,212.00	
142	423880001033		GLENN E ANDERSON	1864 STRYKER AVE	WEST SAINT PAUL MN 55118-4435	94	94	$ 4,888.00	
143	423880001043	1 FOX RIDGE CT	TONI T MUNOS	1 FOX RIDGE CT	WEST SAINT PAUL MN 55118-3928	142	142	$ 7,384.00	
144	423880001051	2 FOX RIDGE CT	ADAM F & ANGELA I BLANKLEY	2 FOX RIDGE CT	WEST SAINT PAUL MN 55118-3929	0	0		
					TOTALS	**2837**	**2837**	**$ 147,524.00**	

PRELIMINARY ASSESSMENT ROLL
2017 Street Improvement Project - West St. Paul #17-1
Humboldt Avenue

Date: September 15, 2016

Preliminary per foot assessment rate: $ 52.00

Parcel # on Map	Parcel ID	Site Address	Owner	Owner Address	City/State/Zip	Street Frontage (ft) Actual	Street Frontage (ft) Assessable	Assessment Amount	Notes
1	421860403176	15 MARIE AVE W	GREENLEAF PROPERTIES LLC	7560 SUSAN LN	MINNETRISTA MN 55364	114	14	$ 728.00	100' credit
2	421860403177	1817 HUMBOLDT AVE	RICHARD M ECKER	1817 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3907	133	133	$ 6,916.00	
3	421860403171		CITY OF WEST SAINT PAUL	1616 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3905	196	196	$ 10,192.00	
4	421860403174	1787 HUMBOLDT AVE	BARBARA O & RICHARD KRAFT	1787 HUMBOLDT AVE	WEST SAINT PAUL MN 55118	134	134	$ 6,968.00	
5	421860403175	1775 HUMBOLDT AVE	KATHLEEN J NEUMANN LIVING TRUST	1775 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3907	150	150	$ 7,800.00	
6	421860403010	1765 HUMBOLDT AVE	ELIZABETH & PAUL MALAY	1765 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3907	102	102	$ 5,304.00	
7	421860403020	1755 HUMBOLDT AVE	GEORGE W & LINDA BECKERS	1755 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3907	100	100	$ 5,200.00	
8	421860403030	1747 HUMBOLDT AVE	STEPHANIE M BOARD	1747 HUMBLOLDT AVE	WEST SAINT PAUL MN 55118-3907	95	95	$ 4,940.00	
9	421860403040	10 KRAFT RD W	ALEXANDER RYABININ	10 KRAFT RD W	WEST SAINT PAUL MN 55118-3817	122	22	$ 1,144.00	100' credit
10	421860404010	11 KRAFT RD W	KATHLEEN MANSUR	11 KRAFT RD W	WEST SAINT PAUL MN 55118-3816	119	19	$ 988.00	100' credit
11	420200056010		CITY OF WEST SAINT PAUL	1616 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3905	655	655	$ 34,060.00	
12	428382001010	5 MARIE AVE E	SHERI GONZALEZ	5 MARIE AVE E	WEST SAINT PAUL MN 55118	9	9	$ 468.00	
13	428382001020	7 MARIE AVE E	JERRED WITTE	7 MARIE AVE E	WEST SAINT PAUL MN 55118-3914	9	9	$ 468.00	
14	428382001030	9 MARIE AVE E	HEATHER R METCALF	9 MARIE AVE E	WEST SAINT PAUL MN 55118	9	9	$ 468.00	
15	428382001040	11 MARIE AVE E	JUAN MANUEL TORRES POOT	11 MARIE AVE E	WEST SAINT PAUL MN 55118	9	9	$ 468.00	
16	428382001050	13 MARIE AVE E	MICHAEL B WALKER	13 MARIE AVE E	WEST SAINT PAUL MN 55118-3914	9	9	$ 468.00	
17	428382001060	15 MARIE AVE E	JEFFREY MICHAEL STEFFES	7840 ALBERTA WAY	INVER GROVE HEIGHTS MN 55077	9	9	$ 468.00	
18	428382002010	23 MARIE AVE E	DAVID D & MARGARET A CUSTARD	256 CURTICE ST E	SAINT PAUL MN 55107	9	9	$ 468.00	
19	428382002020	25 MARIE AVE E	JAMES C MATTAINI	25 MARIE AVE E	WEST SAINT PAUL MN 55118-3941	9	9	$ 468.00	
20	428382002030	27 MARIE AVE E	MARY JANE ZASPEL	27 MARIE AVE E	WEST SAINT PAUL MN 55118-3941	9	9	$ 468.00	
21	428382002040	29 MARIE AVE E	THOMAS A GADOW	5975 ASHER AVE E	INVER GROVE HEIGHTS MN 55077	9	9	$ 468.00	
22	428382002050	31 MARIE AVE E	BERNARD H VANGREVENHOF	31 MARIE AVE E	WEST SAINT PAUL MN 55118	9	9	$ 468.00	
23	428382002060	33 MARIE AVE E	JASON M DALLY	33 MARIE AVE E	WEST SAINT PAUL MN 55118-3941	9	9	$ 468.00	
24	428382002070	35 MARIE AVE E	BREMER TRUST NATL ASSOC	PO BOX 986	SAINT CLOUD MN 56302-0986	9	9	$ 468.00	
25	428382002080	37 MARIE AVE E	MICHELLE J CASTILLO	37 MARIE AVE E	WEST SAINT PAUL MN 55118-3941	9	9	$ 468.00	
26	428382004010	1812 HUMBOLDT AVE	JULIA E MORENO	1812 HUMBOLDT AVE	WEST SAINT PAUL MN 55118	9	9	$ 468.00	
27	428382004020	1810 HUMBOLDT AVE	JAYNE D ENGSTROM	1810 HUMBOLT AVE W	SAINT PAUL MN 55118	9	9	$ 468.00	
28	428382004030	1808 HUMBOLDT AVE	ZOUA NHIA MOUA	1808 HUMBOLDT AVE	WEST SAINT PAUL MN 55118	9	9	$ 468.00	
29	428382004040	1806 HUMBOLDT AVE	ALVARO DOMINQUEZ	1806 HUMBOLDT AVE W	WEST SAINT PAUL MN 55118-3906	9	9	$ 468.00	
30	428382004050	1804 HUMBOLDT AVE	UBONG B USORO	1804 HUMBOLDT AVE	WEST SAINT PAUL MN 55118	9	9	$ 468.00	
31	428382004060	1802 HUMBOLDT AVE	MARION H DYCZKOWSKI	1802 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3906	9	9	$ 468.00	
32	428382003010	1815 LIVINGSTON AVE	GARY E HILL	1815 LIVINGSTON ST	WEST SAINT PAUL MN 55118-3911	9	9	$ 468.00	
33	428382003020	1813 LIVINGSTON AVE	SUSAN MIRANDA	1813 LIVINGSTON AVE	WEST SAINT PAUL MN 55118	9	9	$ 468.00	
34	428382003030	1811 LIVINGSTON AVE	JOAN E TRENERRY	1811 LIVINGSTON AVE W	SAINT PAUL MN 55118	9	9	$ 468.00	
35	428382003040	1809 LIVINGSTON AVE	LUISA BACON	1809 LIVINGSTON AVE	WEST SAINT PAUL MN 55118	9	9	$ 468.00	
36	428382003050	1807 LIVINGSTON AVE	KARLIEN ASPLUND	1807 LIVINGSTON AVE	WEST ST PAUL MN 55118	9	9	$ 468.00	
37	428382003060	1805 LIVINGSTON AVE	PAULINE M CARLSON	1805 LIVINGSTON AVE	WEST SAINT PAUL MN 55118-3911	9	9	$ 468.00	
38	428382003070	1803 LIVINGSTON AVE	ROBERT & KAREN M GAUSMAN	1803 LIVINGSTON AVE	WEST SAINT PAUL MN 55118-3911	9	9	$ 468.00	
39	428382003080	1801 LIVINGSTON AVE	THOMAS F ELLERBE	1801 LIVINGSTON AVE	WEST SAINT PAUL MN 55118-3911	9	9	$ 468.00	
40	421860501100	1798 HUMBOLDT AVE	RONALD A & NICOLE E MARFORI	1798 HUMBOLDT AVE	SAINT PAUL MN 55118	95	95	$ 4,940.00	
41	421860501110	1790 HUMBOLDT AVE	PHILIP F & LILA STEBER	1790 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3906	92	92	$ 4,784.00	
42	421860501120	1782 HUMBOLDT AVE	BRIAN & RHONDA KOPP	1782 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3906	103	103	$ 5,356.00	
43	421860501130	1772 HUMBOLDT AVE	SCOTT & GAY CAVANAUGH	1772 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3906	102	102	$ 5,304.00	
44	421860501140	1764 HUMBOLDT AVE	SHARON V VESEY	1764 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3906	100	100	$ 5,200.00	
45	421860402040	1756 HUMBOLDT AVE	MICHAEL WOODSON	1756 HUMBOLDT AVE	WEST SAINT PAUL MN 55118	105	105	$ 5,460.00	
46	421860402050	1746 HUMBOLDT AVE	JOLIE S CHEHADEH	1746 HUMBOLDT AVE	WEST SAINT PAUL MN 55118	105	105	$ 5,460.00	

47	421860402060	1736 HUMBOLDT AVE	PAUL A & BARBARA J MASLOW	1736 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3906	263	163	$	8,476.00	100' credit
48	421860405010	1 KRAFT RD E	DELBERT W GERDES	1 KRAFT RD E	WEST SAINT PAUL MN 55118	287	187	$	9,724.00	100' credit
49	426300001070	1712 HUMBOLDT AVE	RICHARD H & CHERYL A STADLER	1712 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3905	92	92	$	4,784.00	
50	426300001060	1704 HUMBOLDT AVE	TIMOTHY & ELIZABETH NOWAK	1704 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3905	93	93	$	4,836.00	
51	426300001050	1694 HUMBOLDT AVE	JAMES R & JOANN L ELLINGBOE	1694 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3905	93	93	$	4,836.00	
52	426300001040	1686 HUMBOLDT AVE	MARK T & REBECCA J KINSEL	1686 HUMBOLT AVE	WEST SAINT PAUL MN 55118-3905	93	93	$	4,836.00	
53	426300001030	1678 HUMBOLDT AVE	PIA C CASTELLINE	1678 HUMBOLDT AVE	WEST SAINT PAUL MN 55118	93	93	$	4,836.00	
54	426300001020	1670 HUMBOLDT AVE	JOSEPH R FERRER	1670 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3905	94	94	$	4,888.00	
55	426300001010	1660 HUMBOLDT AVE	JOHN M LAUGERMAN	1660 HUMBOLDT AVE	WEST SAINT PAUL MN 55118	97	97	$	5,044.00	
56	420200055010	1616-1655 HUMBOLDT AVE	CITY OF WEST SAINT PAUL	1616 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3905	1285	1285	$	66,820.00	
					TOTAL	**5364**	**4864**	**$**	**252,928.00**	

PRELIMINARY ASSESSMENT ROLL
2017 Street Improvement Project - West St. Paul #17-1
Kraft Road

Date: September 15, 2016

Preliminary per foot assessment rate: $ 52.00

Parcel # on Map	PID	Site Address	Owner Name	Street Address	City, State, Zip	Street Frontage (ft) Actual	Street Frontage (ft) Assessable	Assessment Amount	Notes
1	421860501010	20 KRAFT RD E	BYRON DALE NELSON	20 KRAFT RD E	WEST SAINT PAUL MN 55118-3935	100	100	$ 5,200.00	
2	421860501021	30 KRAFT RD E	MEIHUEI MCMENOMY	30 KRAFT RD E	WEST SAINT PAUL MN 55118-3935	85	85	$ 4,420.00	
3	421860501031	38 KRAFT RD E	JOHN LEE SKOLTE	40 KRAFT RD E	WEST SAINT PAUL MN 55118-3935	65	65	$ 3,380.00	
4	421860501032	40 KRAFT RD E	KATHLEEN ANN BYRNE	40 KRAFT RD E	WEST SAINT PAUL MN 55118-3935	50	50	$ 2,600.00	
5	421860501041	1737 LIVINGSTON AVE	JEFFREY A MILLER	1737 LIVINGSTON AVE	WEST SAINT PAUL MN 55118	137	137	$ 7,124.00	
6	420200058016	41 KRAFT RD E	DENNIS ALLEN GREGER	41 KRAFT RD E	WEST SAINT PAUL MN 55118	164	164	$ 8,528.00	
7	420200068001	1715 LIVINGSTON AVE #A	CHEE XIONG	1715 LIVINGSTON AVE UNIT A	WEST SAINT PAUL MN 55118	13	13	$ 676.00	
8	420200068003	1715 LIVINGSTON AVE #C	DANIEL DUNHAM	1715 LIVINGSTON AVE UNIT C	WEST SAINT PAUL MN 55113	13	13	$ 676.00	
9	420200068007	1705 LIVINGSTON AVE #B	DIAIB RICHARD SOPELLE	1705 LIVINGSTON AVE UNIT 7	WEST SAINT PAUL MN 55118-5905	13	13	$ 676.00	
10	420200068005	1715 LIVINGSTON AVE #E	DIANA A WALTER	1715 LIVINGSTON AVE E	SAINT PAUL MN 55118	13	13	$ 676.00	
11	420200068011	1705 LIVINGSTON AVE #F	DOROTHY D LINDQUIST	1705 LIVINGSTON AVE UNIT F	WEST SAINT PAUL MN 55118-5936	13	13	$ 676.00	
12	420200068014	1701 LIVINGSTON AVE #C	EARL E & SUSAN H WALKER	1701 LIVINGSTON AVE UNIT C	WEST SAINT PAUL MN 55118-5949	13	13	$ 676.00	
13	420200068015	1695 LIVINGSTON AVE #A	FREDERICK & ELIZABET ZAMARRIPA	1695 LIVINGSTON AVE UNIT A	WEST SAINT PAUL MN 55118	13	13	$ 676.00	
14	420200068006	1705 LIVINGSTON AVE #A	GEORGE A & ROSELYN E VOSS	1705 LIVINGSTON AVE UNIT A	WEST SAINT PAUL MN 55118-5936	13	13	$ 676.00	
15	420200068004	1715 LIVINGSTON AVE #D	GILBERT H KINNUNEN	1715 LIVINGSTON AVE UNIT D	WEST SAINT PAUL MN 55118-5937	13	13	$ 676.00	
16	420200068012	1701 LIVINGSTON AVE #A	JANET K GOOD	1701 LIVINGSTON AVE UNIT A	WEST SAINT PAUL MN 55118-5949	13	13	$ 676.00	
17	420200068008	1705 LIVINGSTON AVE #C	JASON P FLOODING	1705 LIVINGSTON AVE UNIT C	WEST SAINT PAUL MN 55118-5936	13	13	$ 676.00	
18	420200068002	1715 LIVINGSTON AVE #B	JENNA C LAMAN	1715 LIVINGSTON AVE UNIT B	WEST SAINT PAUL MN 55118	13	13	$ 676.00	
19	420200068018	1695 LIVINGSTON AVE #D	JOHN C SHEAHAN	1695 D LIVINGSTON AVE	WEST SAINT PAUL MN 55118-5935	13	13	$ 676.00	
20	420200068013	1701 LIVINGSTON AVE #B	KRISTEN L OLSRUD	1701 LIVINGSTON AVE UNIT B	WEST SAINT PAUL MN 55118-5949	13	13	$ 676.00	
21	420200068017	1695 LIVINGSTON AVE #C	LOIS L TSTE LUCIUS	1695 LIVINGSTON AVE UNIT C	WEST SAINT PAUL MN 55118-5935	13	13	$ 676.00	
22	420200068009	1705 LIVINGSTON AVE #D	RICHARD L BARRICK	1705 LIVINGSTON AVE UNIT D	WEST SAINT PAUL MN 55118-5936	13	13	$ 676.00	
23	420200068020	1691 LIVINGSTON AVE #B	RITA C KOTZ	1691 LIVINGSTON AVE UNIT B	WEST SAINT PAUL MN 55118-5927	13	13	$ 676.00	
24	420200068019	1691 LIVINGSTON AVE #A	SHARON A BLAISER	1691A LIVINGSTON AVE	WEST SAINT PAUL MN 55118-5927	13	13	$ 676.00	
25	420200068021	1691 LIVINGSTON AVE #C	STEPHEN EUGENE & HEL AZEVEDO	1691 LIVINGSTON AVE UNIT C	WEST SAINT PAUL MN 55118	13	13	$ 676.00	
26	420200068010	1705 LIVINGSTON AVE #E	THOMAS J HUSAK	1705 LIVINGSTON AVE UNIT E	WEST SAINT PAUL MN 55118-5936	13	13	$ 676.00	
27	420200068016	1695 LIVINGSTON AVE #B	TRACY SABEAN	1695 LIVINGSTON AVE UNIT B	WEST SAINT PAUL MN 55118-5935	13	13	$ 676.00	
					TOTAL	**874**	**874**	**$ 45,448.00**	

PRELIMINARY ASSESSMENT ROLL
2017 Street Improvement Project - West St. Paul #17-1
Runge Lane

Date: September 15, 2016

Preliminary per foot assessment rate: $ 23.00

Parcel # on Map	Parcel ID	Site Address	Owner	Owner Address	City/State/Zip	Street Frontage (ft) Actual	Assessable	Assessment Amount	Notes
1	425670108160	373 RUNGE LN	JUSTIN OHM	373 RUNGE LN	WEST ST PAUL MN 55118	73	73	$ 1,679.00	
2	425670108150	365 RUNGE LN	JAMES D TSTE & AGNES PETERSON	365 RUNGE LN	WEST SAINT PAUL MN 55118-2913	75	75	$ 1,725.00	
3	425670108140	359 RUNGE LN	KENNETH W & JEAN M MARBLE	359 RUNGE LN	WEST SAINT PAUL MN 55118-2913	75	75	$ 1,725.00	
4	425670108130	351 RUNGE LN	ROBERT C III SCHUEHLE	351 RUNGE LN	WEST SAINT PAUL MN 55118-2913	75	75	$ 1,725.00	
5	425670108120	345 RUNGE LN	JEFFREY J & JODY A GEISELHART	345 RUNGE LN	WEST SAINT PAUL MN 55118-2913	75	75	$ 1,725.00	
6	425670108110	339 RUNGE LN	GARY HOGAN	339 RUNGE LN	WEST SAINT PAUL MN 55118	75	75	$ 1,725.00	
7	425670108100	333 RUNGE LN	BRIAN BOLIER	333 RUNGE LN	WEST SAINT PAUL MN 55118	75	75	$ 1,725.00	
8	425670108090	325 RUNGE LN	JEANNE & JAY MAHER	325 RUNGE LN	WEST ST PAUL MN 55118	78	78	$ 1,794.00	
9	425670109080	1526 GALVIN AVE	GEORGE M KOLB	1526 GALVIN AVE	WEST SAINT PAUL MN 55118-2919	75	75	$ 1,725.00	
10	425670109070	305 RUNGE LN	DOUGLAS C & NANCY A SWINHART	305 RUNGE LN	WEST SAINT PAUL MN 55118-2912	75	75	$ 1,725.00	
11	425670109060	299 RUNGE LN	DENISE M WEBER	299 RUNGE LN	WEST SAINT PAUL MN 55118-2912	75	75	$ 1,725.00	
12	425670109050	291 RUNGE LN	JEANINE M BROWN	291 RUNGE LN	WEST SAINT PAUL MN 55118	75	75	$ 1,725.00	
15	424920000040	285 RUNGE LN	THOMAS W FLYNN	285 RUNGE LN	WEST SAINT PAUL MN 55118-2912	77	0	$ -	100' credit
13	424920000030	277 RUNGE LN	BARRY L & KAY F TSTE BROWN	277 RUNGE LN	WEST SAINT PAUL MN 55118	77	77	$ 1,771.00	
14	424920000020	267 RUNGE LN	FRANK L & PATRICIA GERTEN	267 RUNGE LN	WEST SAINT PAUL MN 55118-2912	138	138	$ 3,174.00	
16	420190039010	360 RUNGE LN	CITY OF WEST SAINT PAUL	1616 HUMBOLDT AVE	WEST SAINT PAUL MN 55118-3905	965	965	$ 22,195.00	
17	423090001010	282 RUNGE LN	DANIEL R STONE	282 RUNGE LN	WEST SAINT PAUL MN 55118-2915	76	76	$ 1,748.00	
18	423090001020	276 RUNGE LN	JAMES & PAMELA VASSEUR	276 RUNGE LN	WEST SAINT PAUL MN 55118-2915	75	75	$ 1,725.00	
19	423090001030	272 RUNGE LN	THOMAS & NANCY GOETTE	272 RUNGE LN	WEST SAINT PAUL MN 55118-2915	141	41	$ 943.00	100' credit
					TOTAL	**2450**	**2273**	**$ 52,279.00**	

PRELIMINARY ASSESSMENT ROLL
2017 Street Improvement Project - West St. Paul #17-1 9/14/2016
Sherwood Court

Date: September 15, 2016

Preliminary per foot assessment rate: $ 52.00

Parcel # on Map	Parcel ID	Site Address	Owner	Owner Address	City/State/Zip	Street Frontage (ft) Actual	Street Frontage (ft) Assessable	Assessment Amount	Notes
1	426515101020	325 SHERWOOD CT	KELLI FERBER	325 SHERWOOD CT	WEST SAINT PAUL MN 55118-4434	150	0	$ -	Charlton assessment
2	426515101030	311 SHERWOOD CT	JOELLE C MARCHIO	311 SHERWOOD CT	WEST SAINT PAUL MN 55118-4434	215	215	$ 11,180.00	
3	426515101040	300 EDGEWOOD LN	JONATHAN SCOTT HAMILTON	300 EDGEWOOD LN	WEST SAINT PAUL MN 55118-4429	137	137	$ 7,124.00	
4	426515101050	280 EDGEWOOD LN	ERIC C & MARY E SCHUBERT	280 EDGEWOOD LN	WEST SAINT PAUL MN 55118-4429	40	40	$ 2,080.00	
5	426515101060	260 EDGEWOOD LN	SYLVIA A DORSEY	260 EDGEWOOD LN	WEST SAINT PAUL MN 55118-4429	62	0	$ -	62' credit
6	426515101070	273 SHERWOOD CT	COLLEEN M LONEY	273 SHERWOOD CT	WEST SAINT PAUL MN 55118-4434	54	54	$ 2,808.00	
7	426515101080	269 SHERWOOD CT	TOM A & KARI L CIERZAN	269 SHERWOOD CT	WEST SAINT PAUL MN 55118-4434	119	119	$ 6,188.00	
8	426515101090	265 SHERWOOD CT	DEBORAH FROST	265 SHERWOOD CT	WEST SAINT PAUL MN 55118-4434	90	90	$ 4,680.00	
9	426515101100	270 SHERWOOD CT	MENACHEM MENDEL FELLER	270 SHERWOOD CT	WEST SAINT PAUL MN 55118-4434	93	93	$ 4,836.00	
10	426515101110	282 SHERWOOD CT	JOSEPH P & NANCY Y WERNER	282 SHERWOOD CT	WEST SAINT PAUL MN 55118-4434	106	106	$ 5,512.00	
11	426515101120	290 SHERWOOD CT	JENNA L MARFORI & ER LANG	290 SHERWOOD CT	WEST SAINT PAUL MN 55118-4434	291	191	$ 9,932.00	100' credit
12	426515101130	300 SHERWOOD CT	DAVID SIDNEY & LAURA PHILLIPS	300 SHERWOOD CT	WEST SAINT PAUL MN 55118-4434	110	110	$ 5,720.00	
13	426515101140	312 SHERWOOD CT	SUSAN MARGARET INGEBRIGTSEN	312 SHERWOOD CT	WEST SAINT PAUL MN 55118-4434	45	45	$ 2,340.00	
14	426515101150	322 SHERWOOD CT	MARVIN P JR & NANCY KARTH	322 SHERWOOD CT	WEST SAINT PAUL MN 55118-4434	80	80	$ 4,160.00	
15	426515101160	330 SHERWOOD CT	JOCELYN HECHTL	330 SHERWOOD CT	WEST SAINT PAUL MN 55118	90	0	$ -	Charlton assessment
					TOTAL	**1682**	**1280**	**$ 66,560.00**	

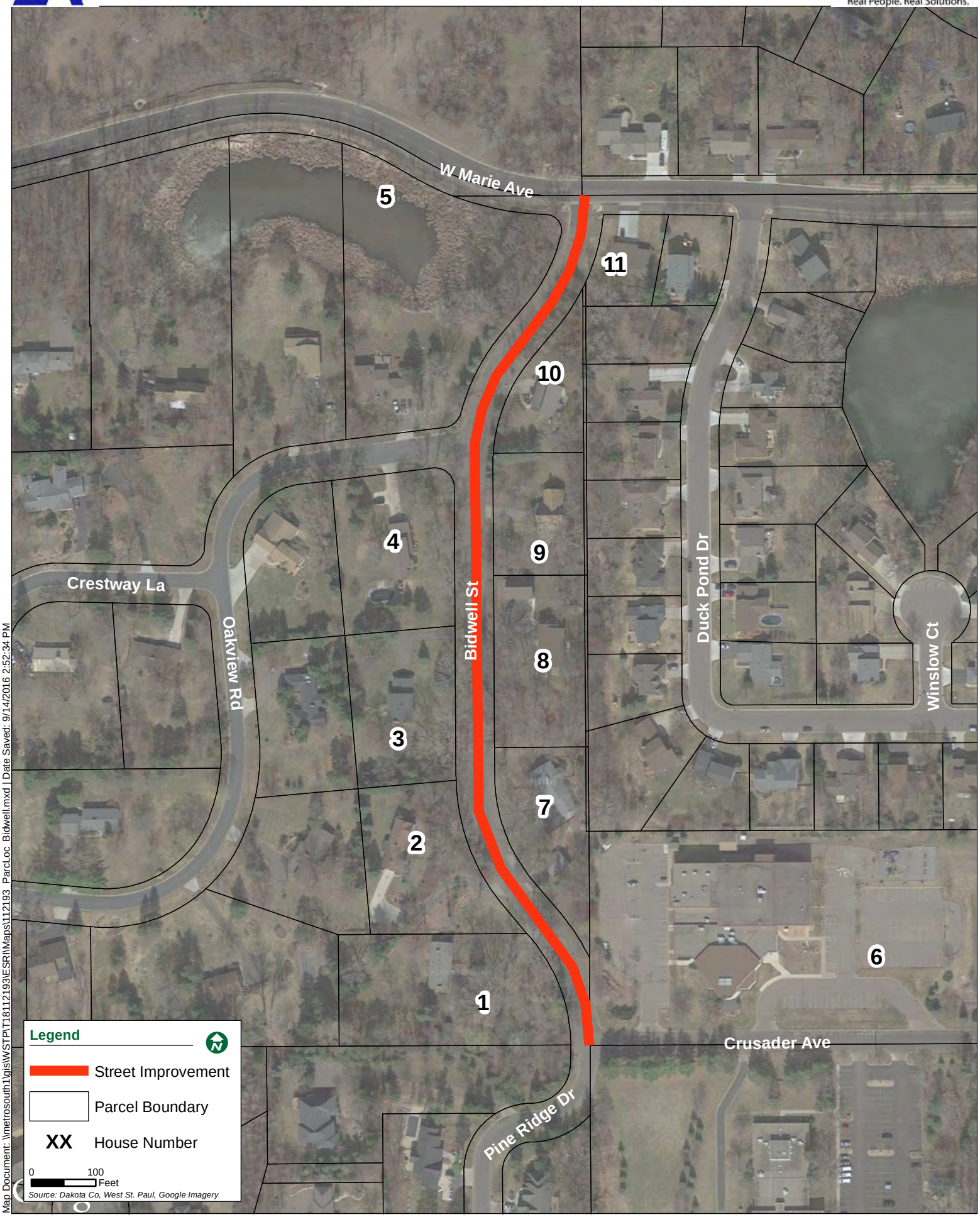
2017 Street Improvements

City of West Saint Paul

Bidwell St

September, 2016

BOLTON & MENK
Real People. Real Solutions.



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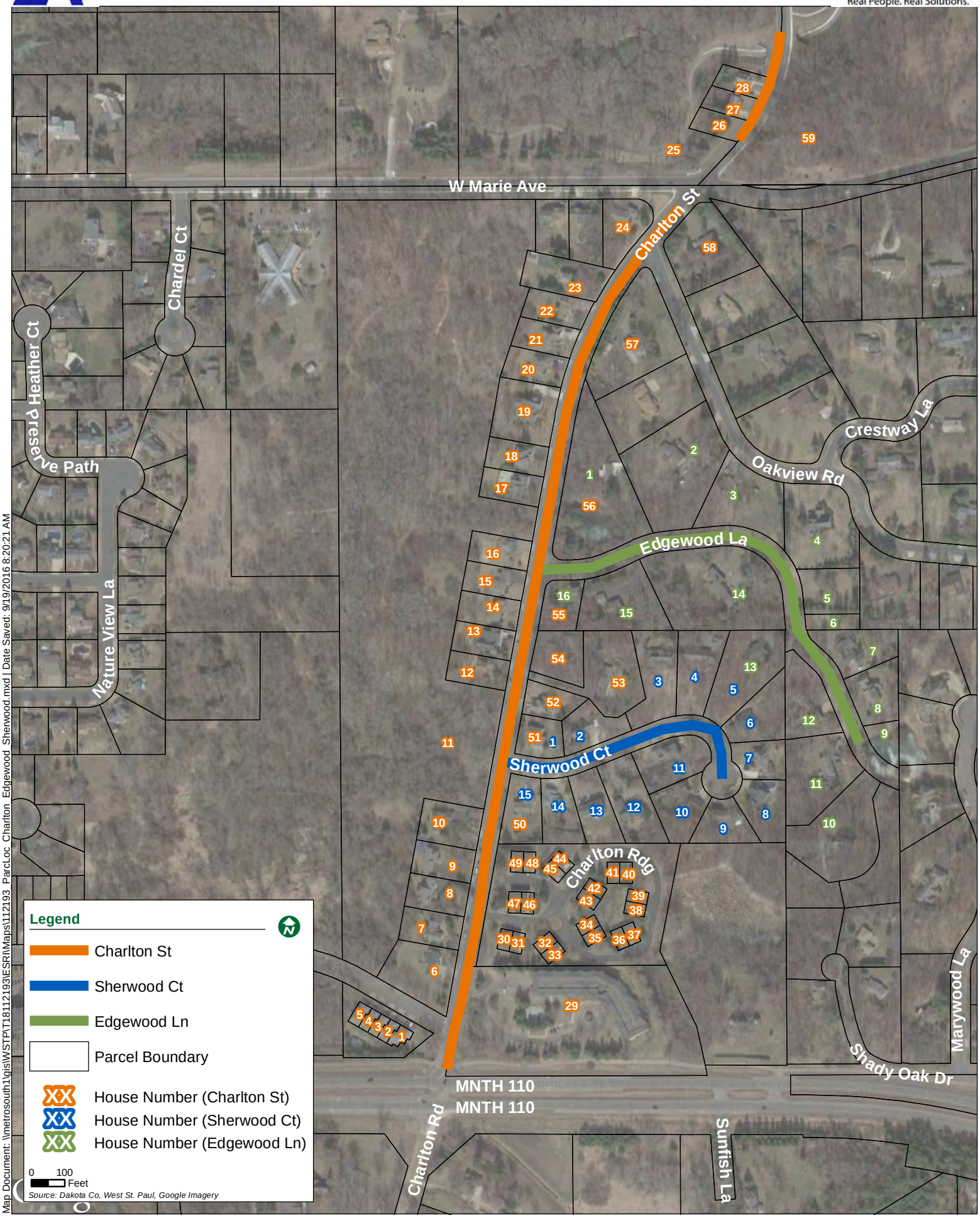
2017 Street Improvements

City of West Saint Paul

Charlton St, Edgewood La, & Sherwood Ct

September, 2016

BOLTON & MENK
Real People. Real Solutions.



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2017 Street Improvements

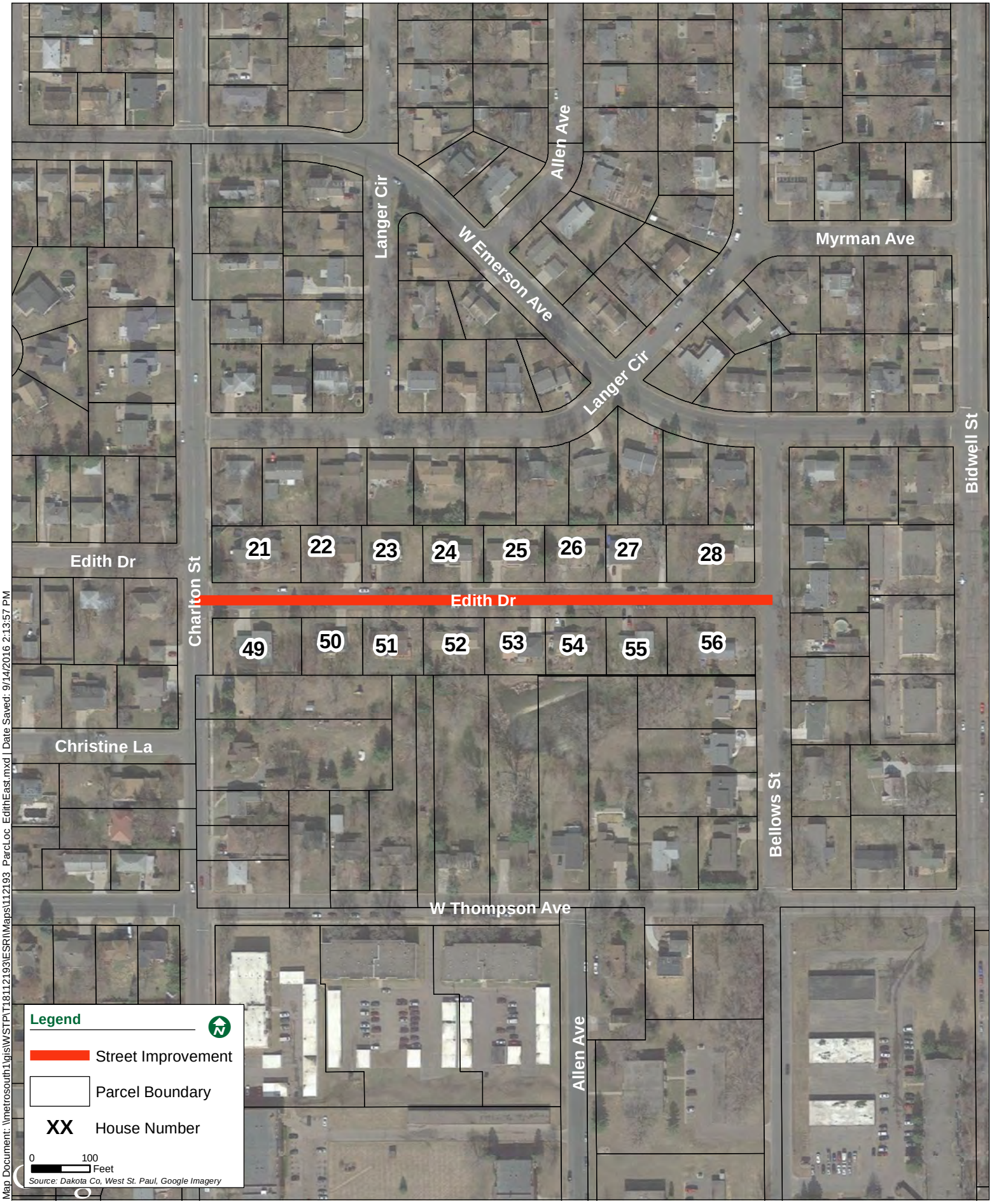
City of West Saint Paul

Edith Dr (East)

September, 2016

BOLTON & MENK

Real People. Real Solutions.



Map Document: \\metrosouth1\gis\WSTP\T18112193\ESRI\Maps\112193_ParcLoc_EdithEast.mxd | Date Saved: 9/14/2016 2:13:57 PM

2017 Street Improvements

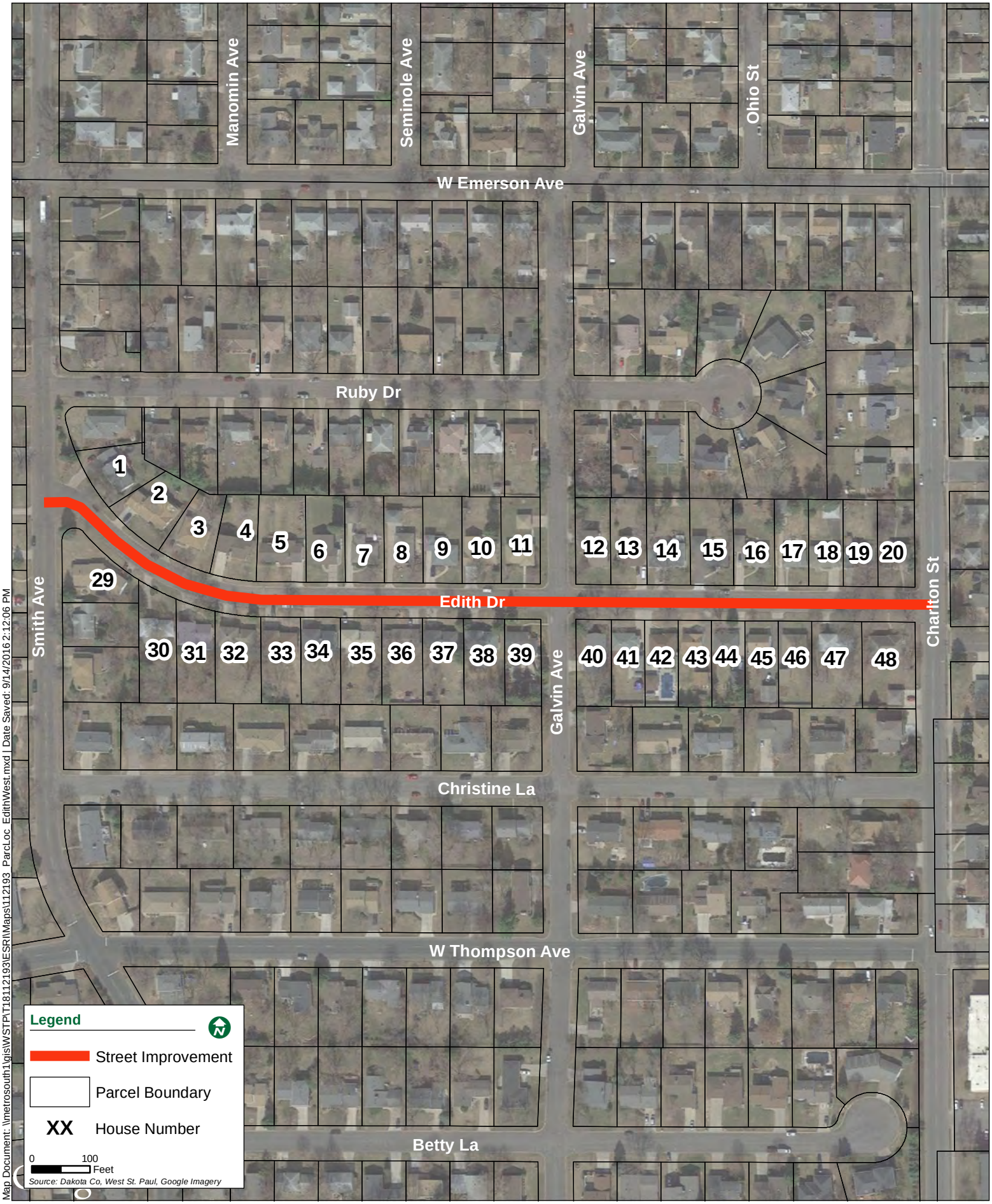
City of West Saint Paul

Edith Dr (West)

September, 2016

BOLTON & MENK

Real People. Real Solutions.



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2017 Street Improvements

City of West Saint Paul

Fox Ridge Ct & Fox Ridge Rd

September, 2016

BOLTON & MENK

Real People. Real Solutions.

Map Document: \\metrosouth1\gis\WSTP\T18112193\ESRI\Maps\112193_ParcLoc_FoxRidge.mxd | Date Saved: 9/19/2016 8:23:52 AM

2017 Street Improvements

City of West Saint Paul

Humboldt Ave & East Kraft Rd

September, 2016

BOLTON & MENK
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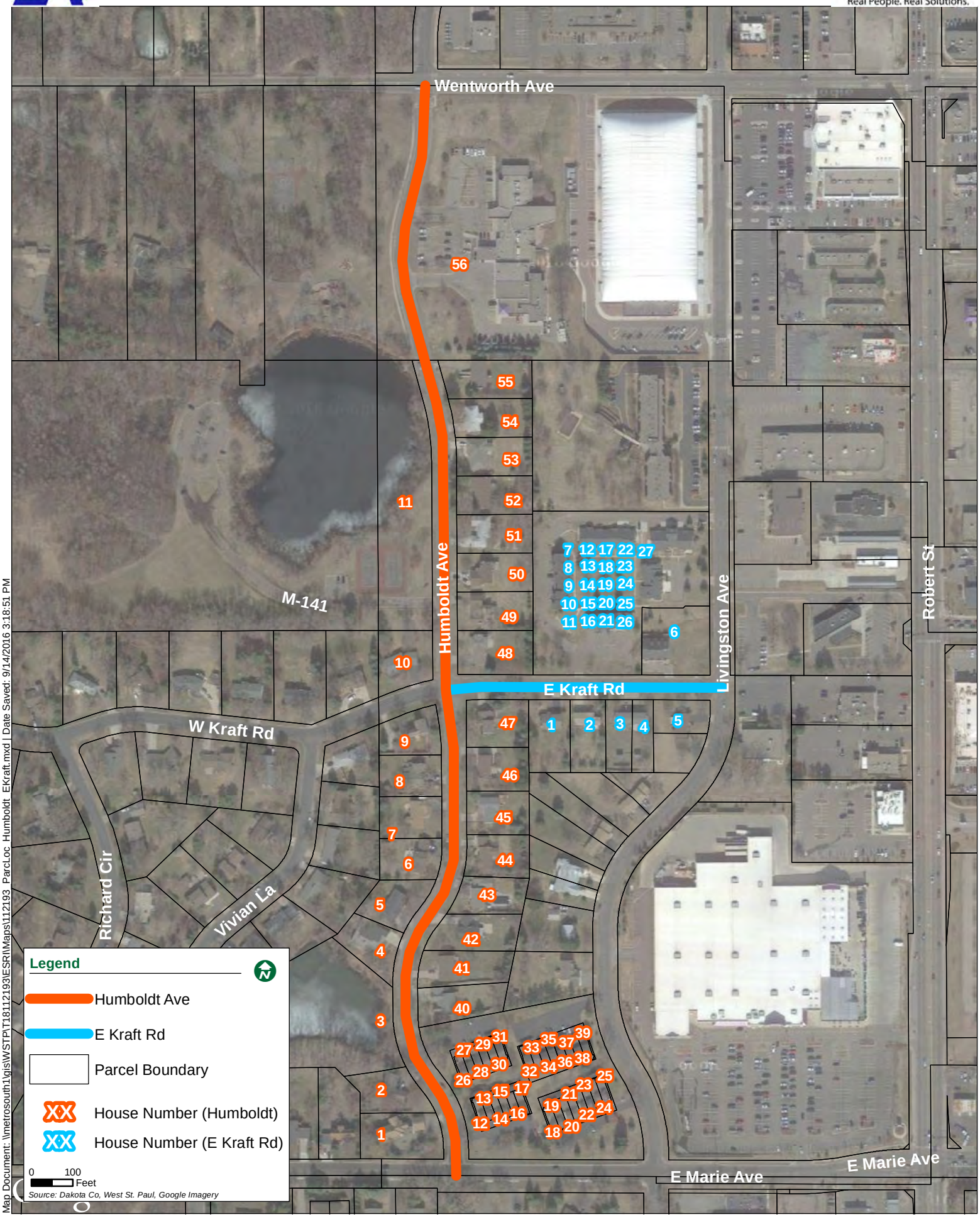

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2017 Street Improvements

City of West Saint Paul

Runge La

September, 2016

BOLTON & MENK

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Map Document: \\metrosouth1\gis\WSTP\T18112193\ESRI\Maps\112193_ParcLoc_Runge.mxd | Date Saved: 9/14/2016 2:15:55 PM

Appendix D: Public Facilities & Special Assessment Policy

Adopted 11/10/86

CITY OF WEST ST. PAUL

PUBLIC FACILITIES POLICY

(Revisions 4/3/89, 12/11/89, 4/23/90, 8/27/90, 11/12/91, 9/28/92, 11/22/93, 1/9/95, 4/10/95, 8/14/95, 11/12/96, 12/16/96, 10/27/97, 7/27/98, 8/13/01, 5/13/02, 6/23/03, 7/28/03, 8/8/05, 5/22/06, 3/12/07, 5/29/07, 6/14/10)

It is the policy of the City of West St. Paul to provide quality streets for the use of all taxpayers. Streets not meeting minimum quality standards by reason of age or damage will be scheduled for resurfacing or replacement (as needed) on an area basis.

It shall be City policy to subsidize the resurfacing/replacement program, so that owners shall be assessed a fixed amount per front foot. This amount shall be based on a 75/25 cost split, with the City funding 75% of the project cost and the remaining 25% to be assessed. No subsidy work will be done without such assessment. Assessments will run with terms up to ten (10) years to allow easier repayment.

Corner Lot Credit: The Total Assessable Footage (TAF) for a corner lot with both sides abutting work under this program shall be the total length of street frontage minus the lesser of the length of the longest side or 100 feet. Any allowable credit will not be applied until such time that the second side is considered for assessment. A similar credit may be applied to odd-shaped and/or double-frontage lots at the Council's discretion, except that double-frontage residential lots using, or potentially using, the rear street for garage access will be assessed at one-half the current street reconstruction rate for the rear lot width with no other credit allowed.

All streets receiving City subsidy money must have, or must have installed, "B" type concrete curb and gutter. However, for streets that currently do not have any concrete curb & gutter, are currently no more than 25-feet wide, & serve large lot (avg. lot 1 acre or more) residential areas, the City may consider other types of concrete curb & gutter.

Nothing in the foregoing policy shall prevent property owners from petitioning for work bringing their streets to minimum quality standards at their own expense, either outside the areas being currently done, or within those areas to standards different from those used in the subsidy program.

Although need will be the primary determining factor in setting the order of the work, another important factor will be citizen support of the program, evidenced by petitions.

Any proposed project which, after proper notice and hearing is voted on in the negative, may not be again considered for the resurfacing/replacement program until such time that all other segments in need of such work have received due consideration.

Underground lawn sprinklers and landscaping features which do not interfere with the public use of the street right-of-way may be installed and maintained in said right-of-way at the sole risk and expense of the owner of the adjacent property installing or maintaining the same. It is the responsibility of the owner of the adjacent property to promptly remove or move such sprinklers or landscaping features to facilitate the City's repair of reconstruction of its streets or utilities. The City of West St. Paul shall not be responsible for any damage to or the destruction of sprinklers or landscaping features within the public street right-of-way in its maintenance, repair or reconstruction of the street or any utilities therein.

POLICIES ON SIDEWALK REPLACEMENT AS PART OF THE RECONSTRUCTION PROGRAM

1. Sidewalk replacement should be coordinated in areas of street reconstruction when hazardous. The policy is 50% city participation and 50% property owner participation.

2. When 75% of a block has existing sidewalk and the area without sidewalk provides access to another sidewalk, the matter shall be referred to the Council for a hearing.

POLICY ON BOULEVARD TREES AS PART OF THE RECONSTRUCTION PROGRAM

Boulevard Trees: The City of West St. Paul will endeavor to protect and to preserve all boulevard trees within the City. Only those trees that have died or have been damaged to the extent that they present a hazard to persons or property will be removed by the City, however, abutting property owners may have their boulevard tree(s) removed by licensed contractors at their own expense.

City of West St. Paul

Special Assessment Policy

Revised 5/14/12

SECTION I – PURPOSE, POLICY, AND LIMITS

A. Purpose

The purpose of these Special Assessment Policies is to set forth the policies and procedures for the determination of benefit and the assessment of cost of the various public improvements which are constructed and installed by the City of West St. Paul pursuant to Minnesota law and the order of the City Council. These policies shall serve as a guide for current and future City Councils and for all persons concerned with such matters. It is the intent and purpose of these policies to provide for and insure consistent, uniform, fair and equitable treatment, insofar as is practical, lawful, and possible, of all property owners in regard to the assessment of cost for benefits to property for the various improvements within the City of West St. Paul, MN. These policies shall be used in conjunction with the City's Public Facilities Policy.

Definition

Special assessments are charges levied against real property for the cost of a public improvement that provides a "special benefit" to the properties that are assessed a charge. Special assessments are a direct function of the enhancement of value or the benefit which a specific improvement gives the property.

Special Assessment Uses

Special assessments may be used to pay the cost of all or a portion of public improvement projects including the maintenance and/or repair of the City's infrastructure. Improvement projects include, but are not necessarily limited to, the construction and/or reconstruction of, the installation and/or replacement of water main systems, sanitary sewer systems, storm sewer systems, road and street construction and/or reconstruction, construction and/or replacement of sidewalks, curbing and gutters.

The Benefit Principle

Special assessment may be levied only upon property receiving a special benefit from the improvement. The rate must be uniform and levied equally upon all property receiving special benefits. Assessment must be confined to property benefited, and THE AMOUNT OF THE ASSESSMENT MUST NOT EXCEED THE BENEFIT.

B. Procedures and Policy

The City shall follow the procedures set forth in MN Stat. Chapter 429. The statutes should be referred to particularly in determining publication and notice requirements. The City Council of the City of West St. Paul hereby declares that the Assessment Policies contained herein are the policies that the City is dedicated to follow as nearly as possible and practical.

C. Limits

The Council reserves the right to vary from these policies if the policies act to create obvious inequities, or where the assignment of benefit to a particular property is difficult because of an extreme and unusual situation, or if such variance is deemed to be in the best interest of the City.

D. Review and Modifications

The Council may, by resolution, modify this policy at any time.

SECTION II – SPECIFIC POLICIES RELATING TO SPECIAL ASSESSMENTS

A. Assessments

The total amount of assessment for a public improvement project shall not exceed the project cost and shall be apportioned equally among properties having the same general land use based on benefit. The project cost of an improvement includes the costs of all necessary construction work required to accomplish the improvement, including:

- Engineering Fees
- Legal Fees
- Administrative Fees
- Financing
- Other Contingent Costs
- Acquisition of Right-of-Way and Other Property

These costs will typically range from 16 to 20% of the total construction cost.

B. Assessment Period

The standard term of assessment for public improvements shall be based upon the type of improvement made, as listed on the following page. The term of any assessment will generally not exceed the term of a bond's duration when a bond is issued to finance the project's costs. Any assessment that is less than $100.00 shall be prepaid or shall be certified as the entire amount payable in one installment in the upcoming year. The Council may, however, establish a shorter or longer term if it is determined to be in the best interest of the City.

Type of Improvement	Allocation of Cost (City/Property Owner)	Assessment Period
Temporary Street Surfacing (including Storm Sewer, Curbs and Gutters)	Overlay/Rehab – 75/25 assessable by front footage Patching/Sealcoating – 0% assessable – considered maintenance	10 years
Permanent Street Surfacing (Including Storm Sewer, Curbs and Gutters)	New Construction – 100% assessable by front footage Rebuild – 75/25 assessable by front footage	10 years
Sanitary Sewer & Water Laterals (NEW only)	Assessed 100% - allocated equally per unit (benefiting property) Any costs for oversized service will be born by property requesting service	20 years
Sidewalks	New – 100% assessed Replacement – 50/50	10 years
Alleys	Assessed 10/90% using property linear footage along alleyway.	10 years

C. Interest Rate

The finance charges include all costs of financing the project. These costs include, but are not limited to financial consultant's fees, bond rating agency fee, bond attorney's fees, carrying cost and capitalized interest and shall be equal to the "project costs" of the current project, minus city cost and other financial assistance. The interest to be used for special assessments shall be determined by the interest rate of the City's most recently issued bond if that bond was issued within the previous two years. If the previous issue was more than two years prior to the assessment date, the rate shall be determined by the rate that the City would receive at the time of assessment as estimated by the City's bond counsel. Additionally, there shall be an additional two percent (200 basis points) added to the rate to account for the costs listed above, assessment prepayment and default. The rate shall not exceed the legal maximum as stated in M.S. 429.061.

D. Senior Citizen Deferrals

Special assessments for senior citizen homeowners may be deferred pursuant to MN Stat 435.193 to 435.195

E. Partial and Full Prepayments of Assessments

After the City Council has adopted the assessment roll in a local improvement hearing, the owner of any property specially assessed may, prior to certification of the assessment to the County Auditor, pay to the City Treasurer all or a portion of the assessment but not less than $100.00. The remaining unpaid balance (if any) shall be spread over the period of time established by the Council for installment payment of the assessment.

At any time after certification to the County Auditor, the owner of any property against which special assessment have been levied may pay the full amount of the remaining assessment. Interest accrued to December 31st of the year in which such a prepayment is made shall also be paid with the prepayment. If full payment is made prior to certification to the County Auditor, interest through December 31st shall be waived.

F. "Oversized" Facility Assessments

When trunk utility lines, collector or arterial streets or similar "oversized" improvements are constructed, the assessments to directly benefited properties (e.g., those properties receiving water service from a trunk water main) shall be based upon the equivalent cost of a non-oversized improvement.

The cost of the "oversized" portion of the improvement shall be assessed against a larger service area, shall be paid by the City or shall be funded by a combination of the two sources.

G. Private Developer Projects

A Private Developer Project is defined as: 1) A project where utilities are extended to a parcel of land where that parcel of land will be broken down into multiple parcels for the intent to sell the lots individually; or, 2) A single person purchases a parcel of land petitions for utilities to be extended and after construction does not homestead the property under the developers legal name for a minimum of one year.

The City will not cost participate in private developer projects through the special assessment policy.

I. Projects Completed with Costs Under Estimate

Improvement costs shall be assessed according their actual costs. Estimates shall not provide the basis for the assessment amount.

J. "Per Foot" Assessments for Streets and Road Improvements

Street improvements shall, in general, be assessed according to the front footage of the benefiting property adjacent to the improvement with the following consideration for corner lots:

> Corner Lot Credit: The Total Assessable Footage (TAF) for a corner lot with both sides abutting work under this program shall be the total length of street frontage minus the lesser of the length of the longest side or 100 feet. Any allowable credit will not be applied until such time that the second side is considered for assessment. A similar credit may be applied to odd-shaped and/or double-frontage lots at the Council's discretion, except that double-frontage residential lots using, or potentially using, the rear street for garage access will be assessed at one-half the current street reconstruction rate for the rear lot width with no other credit allowed.

When services are provided to common interest communities, town homes or condominiums, each parcel identification number shall be assessed as one parcel, with the front footage equally assessed to each unit.

K. "Per Parcel" Assessments for Water Systems and Sanitary Sewer Systems

Water and sanitary sewer improvement projects shall, in general, be assessed on a "per property parcel" basis, rather than a front footage basis. (This is also known as assessing on a unit basis.)

In the case where there are one or more parcels that are substantially larger than the typical parcel in an improvement project, the Council may assess multiple units to a particular parcel. In making such a multiple assessment, the Council shall consider the minimum lot size and/or frontage permitted by the zoning ordinance.

When services are provided to common interest communities, town homes or condominiums, each parcel identification number shall be assessed as one parcel. Common spaces within these complexes shall be assessed as one parcel if they are served with water and sanitary sewer services.

L. Project Costs to be Assessed

The total project cost to be assessed shall include any costs allowable under Minnesota Statutes Section 429.

M. Tax Forfeited Properties

Properties, which have been forfeited for non-payment of taxes, are subject to possible reassessment pursuant to MN Stat. Sec 429.071. The amount of special assessments subject to reassessment is determined by Council resolution following sale by the County for the tax-forfeited land. Following the sale of a tax forfeited property, the City may conduct an assessment hearing and re-assess the amount remaining unpaid on the original assessment. The assessment terms and conditions will be determined by the City Council. In reassessing such property, the City will follow the same procedure as for an original assessment under MN Stat. 429.061 including advance notice and public hearing.

N. Tax Exempt Properties

Government units including State agencies, cities, school districts, counties, private cemeteries, churches, hospitals, schools, and similar institutions must pay special assessments. Railroads are also not exempt from special assessments. Federal government entities shall be exempt from special assessments.

O. Reapportionment

Special assessments that have been levied against a tract of land that is subsequently subdivided may be reapportioned pursuant to MN Stat. Sec 429.071 and any applicable City Ordinances.

P. Deferred Assessments

Parcels certified as "Green Acres" by the County Assessor under MN Stat 273.111 may defer the assessment until such time as the property no longer meets the Green Acres requirements and no longer carries the designation. Any other deferral of assessments shall be allowed on a case-by-case basis to be approved by the City Council.

Q. Right to Appeal

Pursuant to MN Stat 429.081, any person aggrieved, who is not precluded by failure to object prior to or at the assessment hearing, or whose failure to object is due to a reasonable cause, may appeal to the district court by serving a notice upon the mayor or clerk of the City within 30 days after the adoption of the assessment.

R. Assessable Alley Properties

For an alley improvement project, only those lots that have an existing garage, driveway, or other reasonable access off the alley at the time of the public improvement hearing are to be assessed.

Appendix E: Soil Boring & Pavement Core Locations & Logs

Geotechnical Evaluation Report

City of West St. Paul
2013 Street Improvements
West St. Paul, Minnesota

Prepared for

City of West St. Paul

Professional Certification:
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.

Matthew S. Oman, PE
Associate Principal/Senior Engineer
License Number: 43893
January 4, 2013

MATTHEW S. OMAN
LICENSED PROFESSIONAL ENGINEER
43893
STATE OF MINNESOTA

Project SP-12-06953

Braun Intertec Corporation

BRAUN INTERTEC

Braun Intertec Corporation
1826 Buerkle Road
Saint Paul, MN 55110

Phone: 651.487.3245
Fax: 651.487.1812
Web: braunintertec.com

January 4, 2013

Project SP-12-06953

Mr. Matt Saam
City of West Saint Paul
1616 Humboldt Avenue
West St. Paul, MN 55118

Re: Report of Geotechnical Evaluation
2013 Street Improvements
West Saint Paul, Minnesota

Dear Mr. Saam:

We are pleased to present this Geotechnical Evaluation Report for your 2013 Street Improvements project. A summary of our results, and a summary of our recommendations in light of the geotechnical issues influencing design and construction, is presented below. More detailed information and recommendations follow.

Summary of Results

The table below shows the approximate thickness range for the pavement materials encountered by the borings on each of the streets.

Street	Number of Borings	Bituminous Thickness Range (in)	Aggregate Base Thickness Range (in)
Bidwell Street	3	4.0 - 8.5	2.0 - 24.0
Duck Pond Drive	4	4.5 – 4.75	6.0 – 9.5
Winslow Court	1	3.75	6.5
Stryker Avenue	3	6.0 – 8.0	7.0 – 9.5
Fox Ridge Court	2	4.5 – 4.75	5.0 – 9.0
Fox Ridge Road	3	4.5 – 4.75	4.0 – 7.0
Imperial Drive/Emerson Avenue	1	6.75	7.0

After penetrating the pavement materials, the 17 borings performed on the streets encountered fill and native soils consisting of clayey sand, lean clay, and poorly graded sand with silt.

Groundwater was observed in three of the borings during drilling. The soil samples retrieved from the borings were moist to waterbearing. Based on the variable soil conditions and our previous experience in this area, perched and trapped groundwater conditions should be expected for these projects. These conditions will vary in terms of extent and depth as well as seasonally.

Soil samples were taken near depths of 7 to 7.5 feet at the elevations of likely water main. Laboratory resistivity tests of these soils ranged from 1,000 to 4,600 ohm-cm and most were potentially corrosive.

Also included in the project were two pond borings located in the existing pond west of Stryker Avenue. Based on analytical results from our sampling and testing, excavated stormwater sediments from the sampled areas are suitable for unrestricted re-use.

Summary of Recommendations

The general nature of the materials encountered by the borings suggests that the soils in most areas are reasonably well-suited for pavement support. It is our opinion the pavements can generally be designed assuming clayey sand subgrade soils. However, there are areas where less-suitable soils exist where some subgrade improvements should be considered to improve stability, particularly if those areas will be excavated for new water main installations. The recommended corrections would include subcutting and replacing the less-suitable soils with compacted fill. Alternatively, if it is desired to reduce earthwork corrections in those areas, the pavement layers could be thickened to account for the weaker, less stable subgrade soils.

In addition, we recommend placing drain tile along the curb line in areas with undrainable silt and clay soils. Such drain tile would be placed at the bottom of the subcut and connected to storm sewer lines where possible to facilitate removal of subsurface water. Short sections of draintile should also be placed in low areas of the roadways to assist in draining the sand subbase materials.

The majority of the soils encountered by the borings consist of clayey soils that are susceptible to loss of strength if they are disturbed while they are saturated. Disturbed soils will either need to be moisture conditioned (dried) to near their optimum moisture contents and recompacted, or removed and replaced with compacted fill. The extent of these local corrections can likely be limited to a depth of about two feet below the finished subgrade elevation.

Groundwater was observed in three of the borings at a depth of 10 feet during drilling. We assume groundwater will not likely significantly impact the design or construction of the pavements or water mains. However, since the soils are typically layered, some perched water layers could be encountered during construction. Given the predominately fine- to medium-grained nature of the soils encountered, however, we anticipate that seepage could likely be controlled with a system of sumps and pumps.

Based on the soils encountered, for the 7-ton pavement design, we recommend a pavement section that includes 4 inches of bituminous pavement over 8 inches of aggregate base material. For the 9-ton pavement design, we recommend 3 1/2 inches bituminous over 6 inches of aggregate base.

Remarks

Thank you for making Braun Intertec your geotechnical consultant for this project. If you have questions about this report, or if there are other services that we can provide in support of our work to date, please call Amy Grothaus at 651.261.7122 or Matt Oman at 612.360.0752.

Sincerely,

BRAUN INTERTEC CORPORATION

Amy J. Grothaus
Project Manager/Engineer

Matthew S. Oman, PE
Associate Principal/Senior Engineer

Geo Report

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A. Introduction

A.1. Project Description

This Geotechnical Evaluation Report addresses the City of West Saint Paul (the City) proposed 2013 Street Improvement project. The locations of the streets targeted for improvements are illustrated in the Figure provided in the Appendix. As shown, the streets include:

- Bidwell Street from Crusader Avenue to Marie Avenue
- Duck Pond Drive from Stryker Avenue to Marie Avenue
- Winslow Court from Cul de sac to Duck Pond Drive
- Stryker Avenue from Crusader Avenue to Marie Avenue
- Fox Ridge Court from Cul de sac to Fox Ridge Road
- Fox Ridge Road from Livingston Avenue to Livingston Avenue

The above streets are to be reconstructed to a 7-ton pavement design. Soil resistivity tests were conducted on these streets to determine the corrosive nature of the soils.

Additionally, the intersection near Imperial Drive and Emerson Avenue is planned for realignment as part of the Robert Street Improvement Project. The pavement in this area is to be reconstructed to a 9-ton design.

An environmental assessment of the sediment in the existing pond located west of Stryker Avenue was evaluated for potential re-use or disposal purposes.

A.2. Purpose

The goals of our geotechnical evaluation are to acquire geotechnical information at desired soil boring locations, evaluate that information relative to the design and construction of new pavements and underground utilities, and to provide professional opinions and make recommendations relative to the pavement designs and the suitability of the soils for construction of the improvements.

In the pond area, the goal is to determine if the existing sediment material is regulated and to determine whether or not the in-place sediment can be re-used or must be disposed of in a solid waste or hazardous waste landfill once it is dredged from the pond.

A.3. Background Information and Reference Documents

To facilitate our evaluation, we reviewed the sketch that was provided by the City, which identified the requested 17 roadway and 2 pond soil boring locations. A CAD sketch with the as-staked boring locations is included in the Appendix.

A.4. Site Conditions

Our referenced documents and past project experience in the general area indicate that the pavements are likely underlain with natural and fill soils consisting of primarily mixed soils ranging from sand to silty sands to clays.

A.5. Scope of Services

Our scope of services for this project was submitted as a Proposal to Mr. Matt Saam of the City of West St. Paul on December 4, 2012. We received authorization to proceed from the City on December 11, 2012. Tasks completed in accordance with our authorized scope of services are described below.

Tasks performed in accordance with our authorized scope of services included:

- Staking and clearing exploration locations of underground utilities.
- Performing 17 penetration test borings to a depth of about 10 feet on the streets.
- Obtaining bulk samples of the geologic materials encountered near the typical 7-foot depth of water mains for 16 street borings for laboratory resistivity testing.
- Performing 2 hand auger borings in the pond area, extending them below the top of sediment material.
- Performing laboratory moisture content and particle size analysis tests on selected penetration test samples.
- Performing laboratory soil resistivity tests on the bulk samples.

- Preparing this report containing exploration logs, a summary of the geologic materials encountered, results of laboratory tests, recommendations for preparing pavement and underground utility subgrades (including excavation support if applicable, and the selection, placement and compaction of excavation backfill and other structural fill), and recommendations for the design of the new pavements.

We used our Global Positioning System (GPS) equipment to stake the exploration locations. The Dakota County coordinates and elevations are indicated on the log of boring sheets included in the Appendix.

Our scope of services was performed under the terms of our June 15, 2006, General Conditions.

B. Results

B.1. Exploration Logs

B.1.a. Log of Boring Sheets

Log of Boring sheets for our penetration test borings are included in the Appendix. The log sheets indicate the boring location and identify and describe the geologic materials that were penetrated. Also included are the results of penetration resistance tests performed within them, laboratory tests performed on samples retrieved from them and groundwater measurements where applicable.

Strata boundaries were inferred from changes in the penetration test samples and the auger cuttings. Because sampling was not performed continuously, the strata boundary depths are only approximate. The boundary depths likely vary away from the boring locations, and the boundaries themselves may also occur gradually rather than as abrupt transitions.

B.1.b. Geologic Origins

Geologic origins assigned to the materials shown on the logs and referenced within this report were based on: (1) a review of the background information and reference documents cited above, (2) visual classification of the various geologic material samples retrieved during the course of our subsurface exploration, (3) penetration resistance testing performed for the project, (4) laboratory test results, and (5) available common knowledge of the geologic processes and environments that have impacted the site and surrounding area in the past.

B.2. Geologic Profile

B.2.a. Pavement Materials

Table 1 below shows the pavement materials encountered by the borings.

Table 1. Pavement Materials Encountered By the Borings

Boring	Street	Bituminous (in)	Aggregate Base (in)
ST- 1	Bidwell Street	4.0	10.0
ST- 2	Bidwell Street	8.5	24.0
ST- 3	Bidwell Street	4.0	2.0
ST- 4	Duck Pond Drive	4.75	9.0
ST- 5	Duck Pond Drive	4.75	9.5
ST- 6	Duck Pond Drive	4.5	9.0
ST-7	Winslow Court	3.75	6.5
ST-8	Duck Pond Drive	4.5	6.0
ST-9	Stryker Avenue	8.0	9.5
ST-10	Stryker Avenue	6.25	7.0
ST-11	Stryker Avenue	6.0	8.0
ST-12	Fox Ridge Court	4.75	9.0
ST-13	Fox Ridge Court	4.5	5.0
ST-14	Fox Ridge Road	4.5	4.0
ST-15	Fox Ridge Road	4.75	7.0
ST-16	Fox Ridge Road	4.5	6.5
ST-17	Imperial Drive/Emerson Avenue	6.75	7.0

B.2.b. Geologic Materials

The majority of the soils encountered in our soil borings were mixed fill and natural soils below the aggregate base. The subgrade soils were generally glacial till that consisted of clayey sand (SC), lean clay (CL) and poorly graded sand with silt (SP-SM). The glacial soils were generally brown and were moist to wet, with waterbearing soil encountered at scattered locations.

Penetration resistance values recorded in the granular natural soils ranged from 6 blows per foot (BPF) to 42 blows, but generally ranged from 12 to 25 BPF, indicating they were mostly medium dense.

Penetration resistance values recorded in the cohesive natural soils ranged from 7 to 10 BPF, indicating they were medium to rather stiff in consistency.

B.2.c. Groundwater

Groundwater was observed at a depth of 10 feet in three of the borings during drilling; ST-1, ST-2 and ST-5. These three borings are located to the west of the pond between Duck Pond Drive and Stryker Avenue. Based on water level elevations in the borings and the static pond surface elevations, it appears groundwater elevations exists between 1027 and 1028 feet.

Wet soils were encountered in nearly all of the Borings with the exception of ST-12, ST-13 and ST-17. The borings that encountered wet soils are located in the geographic area near the pond.

B.3. Laboratory Test Results

Tables 2 and 3 below show the results of laboratory tests performed on samples retrieved.

Table 2. Laboratory Test Results

Boring Number	Street Name	Sample Depth (ft)	Visual Soil Classification	Moisture Content (%)	Percent Passing #200 Sieve
ST-1	Bidwell Street	7 1/2	SC	13.6	--
ST-3	Bidwell Street	5	Fill	9.6	--
ST-3	Bidwell Street	7 1/2	Fill	14.7	34
ST-4	Duck Pond Drive	7 1/2	SC	12.6	--
ST-5	Duck Pond Drive	5	Fill	16.1	55.8
ST-6	Duck Pond Drive	5	Fill	7.3	--
ST-7	Winslow Court	10	Fill	12.5	--
ST-8	Duck Pond Drive	7 1/2	SC	8.8	--
ST-9	Stryker Avenue	2 1/2	Fill	8.5	--
ST-11	Stryker Avenue	10	CL	30.3	85.6
ST-12	Fox Ridge Court	2 1/2	Fill	16.7	--
ST-14	Fox Ridge Road	5	Fill	6.2	--
ST-15	Fox Ridge Road	7 1/2	SC	6.5	23.9
ST-16	Fox Ridge Road	7 1/2	SC	9.0	--

Table 3. Soil Resistivity Test Results

Boring Number	Street Name	Electrical Resistivity (ohm-cm)
ST-1	Bidwell Street	1,700*
ST-2	Bidwell Street	1,200*
ST-3	Bidwell Street	1,400*
ST-4	Duck Pond Drive	1,150*
ST-5	Duck Pond Drive	1,650*
ST-6	Duck Pond Drive	1,800*
ST-7	Winslow Court	1,400*
ST-8	Duck Pond Drive	1,350*
ST-9	Stryker Avenue	1,200*
ST-10	Stryker Avenue	2,400
ST-11	Stryker Avenue	1,000*
ST-12	Fox Ridge Court	1,600*
ST-13	Fox Ridge Court	4,200
ST-14	Fox Ridge Road	4,600
ST-15	Fox Ridge Road	2,200
ST-16	Fox Ridge Road	2,000*

*Indicated corrosive to ductile iron pipes according to the Bureau of Reclamation.

The resistivity tests conducted for this project were conducted on samples that were saturated with water as part of the preparation. According to the Bureau of Reclamation, highly corrosive soils are any soils with a resistivity of 2,000 ohm-cm or less.

B.4. Analytical Pond Test Results

Each of the hand auger samples collected from the pond were analyzed for the following parameters:

- Arsenic by SW-846 EPA 6010
- Copper by SW-846 EPA 6010
- Polynuclear Aromatic Hydrocarbons (PAHs) listed in Appendix A of MPCA Dredge Managing Stormwater Sediment Best Management Practice Guidance for Municipalities.

B.4.a. Sediments

Sediments observed during the completion of the push probes consisted of brown organic silt to a depth of 1.5 to 2 feet below top of sediment, underlain by brown organic lean clay. No distinct odors or staining were noted.

B.4.b. Soil Chemistry

See the Table provided in the Appendix for tabulated results and regulatory limits or Soil Reference Values (SRVs).

Metals

- Arsenic was not detected at concentrations above the method reporting limit (MRL) in samples collected from each pond. Therefore, the concentrations are below the MPCA Level 1 management criteria of 9 mg/kg, which is equivalent to the Soil Reference Value (SRV) established for this compound.

- Copper was detected at concentrations above the MRL in each sample analyzed. However, in each case, the concentration was below the MPCA Level 1 management criteria of 100 mg/kg, which is equivalent to the Soil Reference Value (SRV) established for this compound.

PAHs

- Non-carcinogenic PAHs were detected in each sample analyzed. In each case, the concentrations were below the Level 1 Management criteria.

- Carcinogenic PAHs were detected at concentrations above the laboratory MRL in each sample. Benzo(a)pyrene (BaP) equivalent values were calculated pursuant to MPCA Dredged Material guidelines. In instances where carcinogenic compounds were not detected at or above the laboratory MRL, a value of half of the applicable MRL was used in the BaP calculation, per MPCA guidance. The concentrations for BaP equivalents were calculated at concentrations that place them in the Level 1 Management criteria of (< 2 mg/kg).

C. Basis for Recommendations

C.1. Design Details

The locations of the streets targeted for improvements are illustrated in the sketch provided in the Appendix. We understand that the intersection of Imperial Drive and Emerson Avenue is to be reconstructed to a 9-ton design. The other streets are to be reconstructed to a 7-ton design. Soil resistivity tests were conducted on the streets to determine the corrosive nature of the soils. The soil resistivity testing will assist in evaluating the need for corrosion protection on the new water main pipes.

We have attempted to describe our understanding of the proposed construction to the extent it was reported to us by others. Depending on the extent of available information, assumptions may have been made based on our experiences with similar projects. If we have not correctly recorded or interpreted the project details, we should be notified. New or changed information could require additional evaluation, analyses and/or recommendations.

C.2. Design Considerations

Due to the frost susceptible nature of the silt- and clay-rich soils present at the pavement subgrade elevations in some locations, where silt and clay subgrade exist, consideration should be given to incorporating a granular subbase into the design of reconstructed pavement sections. We recommend removing silt and clay soils to a depth of at least two feet below the top of grading grade (top of aggregate base) and replacing with granular materials that meet MnDOT specification 3149.2B1. This subbase will enhance subgrade drainage while reducing the potential for pavement subgrades to become saturated and heave upon freezing. Strength loss upon thawing will also be reduced.

In addition, we recommend placing drain tile along the curb line in areas with undrainable clay soils. Such drain tile would be placed at the bottom of the two-foot subcut to facilitate removal of subsurface water and connected to storm sewer lines where possible. Short sections of draintile should also be placed in low areas of the roadways to assist in draining the sand subbase materials.

The recommended design R-values and soil factors are shown in Table 4. All values were estimated based on the soils encountered. The recommended 7-ton and 9-ton pavement sections are discussed in Section D.

Table 4. Recommended Design R-Value and Soil Factors

Design	Borings	Estimated Subgrade R-value Range	Recommended Subgrade R-value (estimated)*	Recommended Subgrade Soil Factor (estimated)*
7-ton	ST-1 to ST-16	12 - 50	**20**	**100**
9-ton	ST-17	**	**30**	**75**

* Based on two-foot subcut of any silt and/or clay soils with replacement with granular soils.

** One boring was performed in the 9-ton design area. The R-value of 30 was based on the soil encountered in that boring.

It was requested by the City to evaluate the roads for a 7-ton and 9-ton design capacity. The two MnDOT State Aid procedures currently allow do not contain provisions for 9-ton designs. The previous method, Flexible Pavement Design Using Soil Factors, allows for both 7-ton and 9-ton designs.

According to MnDOT's Flexible Pavement Design Using Soil Factors, revised on 7/26/10, for reconditioning projects the present Average Daily Traffic (ADT) or Heavy Commercial Average Daily Traffic (HCADT) should be used. The latest available ADT values available from MnDOT are presented in Table 5. The HCADT was calculated based on the default of 3.9% provided for urban roads in the MnDOT Traffic Forecasting Manual.

Table 5. Assumed Traffic Volumes

Design	2009 MnDOT ADT	Design HCADT
7-ton, Stryker Avenue	530	--
7-ton, all other streets	< 400	--
9-ton	2,200	< 150

Based on the resistivity test results, it appears there is a potential for the soils near likely water main depth to be corrosive to ductile iron pipe at the locations of Boring ST-1, ST-2, ST-3, ST-4, ST-5, ST-6, ST-7, ST-8, ST-9, ST-11, ST-12 and ST-16.

At a minimum, in the areas with the higher potential for corrosion based on our test results, we recommend that ductile iron water pipes be protected as a precaution against corrosion-related failure. However, due to the known variability of soils within the project areas and the limited sampling frequency, consideration should be given to providing corrosion protection for all ductile iron water main pipes.

Relative to utility construction, we anticipate that soils exposed at probable water pipe elevations will likely consist mostly of clayey sand. Though some surface compaction may be needed to improve loosened or disturbed soils within the bottom of the trenches, overall we anticipate existing site soils to be suitable for utility support.

C.3. Construction Considerations

From a construction perspective, the project team should also be aware that:

- Excavations might intercept perched water in the layered soils encountered in the borings. Dewatering may be required to facilitate placement and compaction of water main backfill at some locations.

Existing fill materials and mineral soils free of debris and organic matter can be considered for reuse, although silty and clayey soils, being fine grained, may be difficult to spread and compact if wet or if allowed to become wet.

In general, the months of June, July and August are most favored for grading operations, particularly if there are clay-rich soils that require drying. Cooler temperatures and wet weather conditions in the spring, fall and through the winter tend to slow or delay grading and construction. Clay-rich soils that become saturated during wet periods will be difficult to dry and will provide limited support to heavy construction equipment; rubber-tire vehicles and even heavy tracked dozers can disturb otherwise competent soils, increasing the effort required to stabilize or correct pavement subgrades.

C.4. Pond Sediment Recommendations

Based on analytical results from our sampling and testing, excavated stormwater sediments from the sampled areas are suitable for unrestricted re-use.

D. Recommendations

D.1. Pavement Subgrade Preparation

D.1.a. Unsuitable Materials

We recommend unsuitable materials encountered during reconstruction be removed and disposed of off-site. Unsuitable materials include cobbles, boulders or fragments of bituminous or concrete having any dimension larger than 3 inches, debris, organic soils, wood and vegetation.

D.1.b. Excavation Dewatering

We recommend removing groundwater and surface water from all excavations. Sumps and pumps in the excavations can be considered for excavations in the typical low-permeability clay-rich soils.

D.1.c. Select Excavation Backfill and Additional Required Fill

Imported material needed to replace excavation spoils, may consist of sand or silty sand having less than 20 percent of the particles by weight passing a #200 sieve (meeting the requirements of MnDOT Specification 3149.2B1, Granular Borrow).

D.1.d. Placement and Compaction of Backfill and Fill

We recommend spreading backfill and fill in loose lifts of approximately 6 inches. We recommend compacting backfill and fill in accordance with the criteria presented below in Table 6. The relative compaction of utility backfill should be evaluated based on the surface below which it is installed, and vertical proximity to the surface.

Table 6. Compaction Recommendations Summary

Reference	Relative Compaction, percent (ASTM D 698 – standard Proctor)	Moisture Content Variance from Optimum, percentage points
Below pavements, within 3 feet of subgrade elevations	100	Minus 1 to plus 1
Within 3 feet of utility structures	100	Minus 1 to plus 1
Below pavements, more than 3 feet below subgrade elevations	95	Minus 1 to plus 3
Below landscaped surfaces	95	Minus 3 to plus 3

D.2. Pavements

D.2.a. Subgrade Proof-Roll

Prior to placing aggregate base material, we recommend proof-rolling pavement subgrades to determine if the subgrade materials are loose, soft or weak, and in need of further stabilization, compaction, subexcavation and recompaction or replacement.

D.2.b. Design Section

Laboratory tests to determine an R-value for pavement design were not included in the scope of this project. Based on our experience with similar projects in the area and on MnDOT's Flexible Pavement Design for a 7-ton and 9-ton road, it is our opinion that an R-value of 20 can be assumed for the 7-ton design and an R-value of 30 can be assumed for the 9-ton design.

Based on these values and the assumed traffic characteristics identified in Table 5, a total granular equivalency (GE) of 11.5 inches is required on the 7-ton design streets, with the exception of Stryker Avenue. The higher ADT on Stryker Avenue results in a required GE of 15 inches. For the 9-ton design section at Imperial Drive and Emerson Avenue, the required GE is 13.9 inches.

For the 7-ton design, we recommend a pavement section that includes 3 inches of bituminous pavement over 6 inches of aggregate base material. For the 7-ton design on Stryker Avenue and the 9-ton design at Imperial Drive and Emerson Avenue, we recommend 4 inches of bituminous pavement over 6 inches of aggregate base material.

The above pavement designs are based upon a 20-year performance life. This is the amount of time before major reconstruction is anticipated. This performance life assumes maintenance, such as seal coating and crack sealing, is routinely performed. The actual pavement life will vary depending on variations in weather, traffic conditions and maintenance.

D.2.c. Materials and Compaction

We recommend specifying crushed aggregate base meeting the requirements of Minnesota Department of Transportation (MnDOT) Specification 3138 for Class 5. We recommend that the bituminous wear course meet the requirements of Specifications 2360 and be compacted according to the same specification. We recommend that the bituminous wear meet the requirements of Specifications 2360, Type SPWEB340C.

We recommend that the aggregate base be compacted to a minimum of 100 percent of its maximum standard Proctor dry density or using MnDOT's modified penetration index method. We recommend that the bituminous pavement be compacted to at least 92 percent of the maximum theoretical Rice density. We suggest using MnDOT's *Local Agency Special Provision - Maximum Density without LJD Evaluation* (if maximum density evaluation is not desired on longitudinal joints).

For concrete curb and gutter and driveway aprons, we recommend MnDOT 3A32 for hand-placed and 3A22 for machine-placed concrete.

D.3. Water Pipes

D.3.a. Subgrade Stabilization

We anticipate that pipes can be installed per manufacturer bedding requirements. We recommend that corrosion protection be provided for ductile iron pipes.

D.3.b. Selection, Placement and Compaction of Backfill

We recommend selecting, placing and compacting utility backfill in accordance with the recommendations provided above in Section D.1.d in Table 5.

D.4. Construction Quality Control

D.4.a. Excavation Observations

We recommend having a geotechnical engineer observe all excavations related to subgrade preparation and pavement construction. The purpose of the observations is to evaluate the competence of the geologic materials exposed in the excavations and to check for fine-grained soils where iron pipe protection is recommended.

D.4.b. Materials Testing

We recommend density tests be taken in subcut backfill below pavements. We recommend MnDOT Dynamic Cone Penetration (DCP) tests be conducted to evaluate stability and compaction of aggregate base material.

We recommend Gyratory tests on bituminous mixes to evaluate strength and air voids and density tests to evaluate compaction.

We also recommend slump, air content and compressive strength tests of Portland cement concrete.

D.4.c. Cold Weather Precautions

We do not recommend site grading or construction during cold weather. No backfill should be placed on frozen subgrades and no frozen soils should be used as fill or backfill.

Concrete delivered to the site should meet the temperature requirements of ASTM C 94. Concrete should not be placed on frozen subgrades. Concrete should be protected from freezing until the necessary strength is attained.

E. Procedures

E.1. Penetration Test Borings

The penetration test borings were drilled with a truck-mounted core and auger drill equipped with hollow-stem auger. The borings were performed in accordance with ASTM D 1586. Penetration test samples were taken at roughly 2 1/2-foot intervals. Actual sample intervals and corresponding depths are shown on the boring logs.

To check the thickness of the pavement materials, the drillers chipped off samples of the frozen materials with a hammer and chisel and examined them.

E.2. Material Classification and Testing

E.2.a. Visual and Manual Classification

The geologic materials encountered were visually and manually classified in accordance with ASTM Test Method D 2488. A chart explaining the classification system is attached. Samples were sealed in jars or bags and returned to our facility for review and storage.

E.2.b. Laboratory Testing

The results of the laboratory tests performed on geologic material samples are noted on the appropriate attached boring logs. The tests were performed in accordance with ASTM or AASHTO procedures.

E.3. Groundwater Measurements

The drillers checked for groundwater as the penetration test borings were advanced, and again after auger withdrawal. The boreholes were then backfilled and the pavement was patched with bituminous cold-patch material.

E.4. Sediment Sampling Procedures

We advanced a total of two (2) sampling probes in the pond area. We collected samples from the 0- to 2.5-foot interval. The samples were then submitted for chemical analysis. The samples were collected by advancing a hand-driven push probe sampler into the underlying sediment.

For sampling activities, soil sample textures were evaluated by visual methods as the samples were collected and noted in the field notes. The samples were transferred to clean laboratory-supplied containers, preserved in accordance with Braun Intertec Standard Operating Procedures (SOPs) and transported to the laboratory for analysis. Chain of Custody was initiated at the time of sampling and maintained throughout the process.

F. Qualifications

F.1. Variations in Subsurface Conditions

F.1.a. Material Strata

Our evaluation, analyses and recommendations were developed from a limited amount of site and subsurface information. It is not standard engineering practice to retrieve material samples from exploration locations continuously with depth, and therefore strata boundaries and thicknesses must be inferred to some extent. Strata boundaries may also be gradual transitions, and can be expected to vary in depth, elevation and thickness away from the exploration locations.

Variations in subsurface conditions present between exploration locations may not be revealed until additional exploration work is completed, or construction commences. If any such variations are revealed, our recommendations should be re-evaluated. Such variations could increase construction costs, and a contingency should be provided to accommodate them.

F.1.b. Groundwater Levels

Groundwater measurements were made under the conditions reported herein and shown on the exploration logs, and interpreted in the text of this report. It should be noted that the observation period was relatively short, and groundwater can be expected to fluctuate in response to rainfall, flooding, irrigation, seasonal freezing and thawing, surface drainage modifications and other seasonal and annual factors.

F.2. Continuity of Professional Responsibility

F.2.a. Plan Review

This report is based on a limited amount of information, and a number of assumptions were necessary to help us develop our recommendations. It is recommended that our firm review the geotechnical aspects of the designs and specifications, and evaluate whether the design is as expected, if any design changes have affected the validity of our recommendations, and if our recommendations have been correctly interpreted and implemented in the designs and specifications.

F.2.b. Construction Observations and Testing

It is recommended that we be retained to perform observations and tests during construction. This will allow correlation of the subsurface conditions encountered during construction with those encountered by the borings, and provide continuity of professional responsibility.

F.3. Use of Report

This report is for the exclusive use of the parties to which it has been addressed. Without written approval, we assume no responsibility to other parties regarding this report. Our evaluation, analyses and recommendations may not be appropriate for other parties or projects.

F.4. Standard of Care

In performing its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

Appendix A

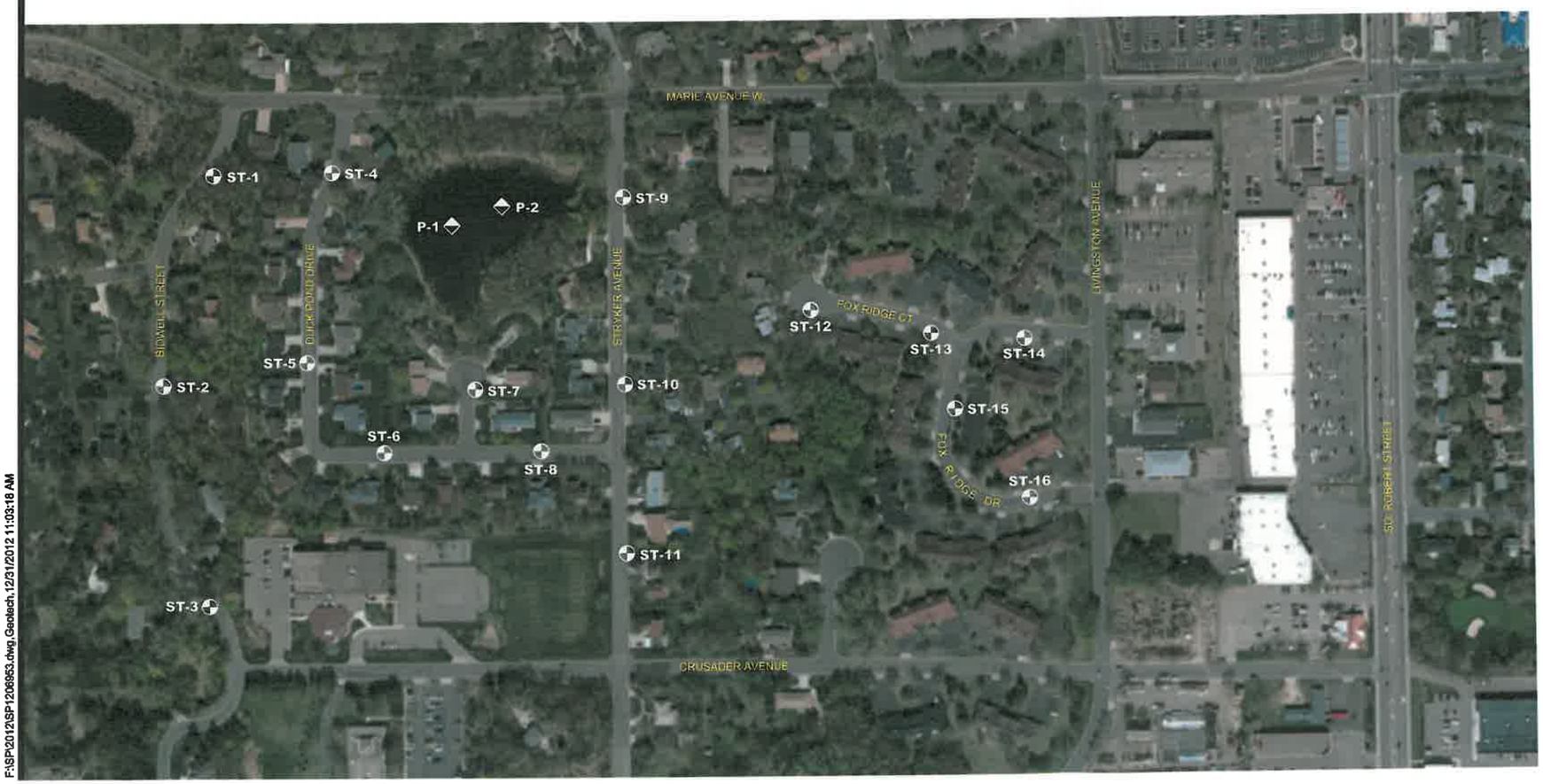
Boring Location Sketch

Log of Boring Sheets

Descriptive Terminology

DENOTES APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING

DENOTES APPROXIMATE LOCATION OF HAND AUGER BORING



150' 0 300'

SCALE: 1"= 300'

BRAUN INTERTEC

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Minneapolis, MN 55438
PH. (952) 995-2000
FAX (952) 995-2020

Base Dwg Provided By:

SOIL BORING LOCATION SKETCH
GEOTECHNICAL EVALUATION
2013 STREET PROJECTS
VARIOUS CITY STREETS
WEST ST. PAUL, MINNESOTA

Project No:	SP1206953
Drawing No:	SP1206953
Scale:	1"= 300'
Drawn By:	JAG
Date Drawn:	12/31/12
Checked By:	AJG
Last Modified:	12/31/12
Sheet: of	Fig:

F:\SP\2012\SP1206953.dwg,Geotech,12/31/2012 11:03:18 AM

BRAUN INTERTEC

LOG OF BORING

Braun Project SP-12-06953
Geotechnical Evaluation
2013 Street Project Soil Borings
Various City Streets
West St. Paul, Minnesota

BORING: **P-1**

LOCATION: N: 252521.137, E: 559045.014 See attached sketch.

DRILLER: S. Jordan | METHOD: Hand Auger | DATE: **12/13/12** | SCALE: **1" = 4'**

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	Tests or Notes
1027.3	0.0					
1026.8	0.5	WATER				Analytical Sample 0-2.5 feet.
		ML	SILT, organic sediment, brown, wet, with fiberous plant material.			
1025.3	2.0					
		OL	ORGANIC CLAY, brown.			
1024.3	3.0					
			END OF HAND AUGER BORING.			

(See Descriptive Terminology sheet for explanation of abbreviations)

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BRAUN INTERTEC

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West St. Paul, Minnesota

BORING: **P-2**

LOCATION: N: 252565.003, E: 559160.217 See attached sketch.

DRILLER: S. Jordan | METHOD: Hand Auger | DATE: 12/13/12 | SCALE: 1" = 4'

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	Tests or Notes
1027.2	0.0	WATER				Analytical Sample 0-2.5 feet.
1026.2	1.0	ML	SILT, organic water sediment, brown, wet, with fiberous plant material.			
1024.7	2.5	OL	ORGANIC CLAY, brown.			
1023.7	3.5		END OF HAND AUGER BORING.			

(See Descriptive Terminology sheet for explanation of abbreviations)

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BORING: **ST-1**

LOCATION: Bidwell Street. N: 252638.926, E: 558497.598 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: 12/19/12 | SCALE: 1" = 4'

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	Tests or Notes
1038.3	0.0						
1037.1	1.2	PAV	4" of bituminous over 10" of aggregate base.				
1035.8	2.5	FILL	FILL: Silty Sand, fine- to medium-grained, trace of Gravel, yellow, moist.				
		FILL	FILL: Clayey Sand with gravel, dark brown to grayish-brown, moist to wet.	12			
				7			
1031.3	7.0						
		SC	CLAYEY SAND, trace of gravel and clay layers, brown, waterbearing, very loose to loose. (Glacial Till)	6	▽	14	
1027.3	11.0			4			
			END OF BORING.				
			Water observed at 10 feet while drilling.				
			Water not observed to cave-in depth of 8 feet immediately after withdrawal of auger.				
			Boring then backfilled.				

(See Descriptive Terminology sheet for explanation of abbreviations)

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BORING: **ST-2**

LOCATION: Bidwell Street. N: 252154.138, E: 558383.242 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	Tests or Notes
1031.4	0.0	PAV	8 1/2" of bituminous over 24" of aggregate base.			
1028.9	2.5	FILL	FILL: Clayey Sand, dark brown, moist.	17		
1027.4	4.0	CL	LEAN CLAY, dark brown with gray, moist, medium. (Alluvial)	7		
1024.4	7.0	SC	CLAYEY SAND, trace of Gravel, reddish-brown, wet to waterbearing, medium dense. (Glacial Till)	26	▽	
1020.4	11.0			11		

END OF BORING.

Water observed at 10 feet while drilling.

Water not observed to cave-in depth of 8 feet immediately after withdrawal of auger.

Boring then backfilled.

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BORING: **ST-3**

LOCATION: Bidwell Street. N: 251645.390, E: 558489.777 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	P200 %	Tests or Notes
1021.1	0.0							
1020.6	0.5	PAV	4" of bituminous over 2" of aggregate base.					
		FILL	FILL: Silty Sand, fine- to medium-grained, brown, moist.					
1018.6	2.5							
		FILL	FILL: Clayey Sand, trace of Gravel, brown, moist to wet.	14				
				9		10		
				8		15	34	
1012.1	9.0							
		FILL	FILL: Organic Clay, trace of sandstone fragments, black, wet.	11				
1010.1	11.0							
			END OF BORING.					
			Water not observed while drilling.					
			Water not observed to cave-in depth of 6 feet immediately after withdrawal of auger.					

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BORING: **ST-4**

LOCATION: Duckpond Drive. N: 252645.039, E: 558770.097 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	Tests or Notes
1046.7	0.0						
1045.6	1.1	PAV	4 3/4" of bituminous over 9" of aggregate base.				
		FILL	FILL: Clayey Sand with Gravel, brown, moist to wet.	22			
1041.7	5.0	SC	CLAYEY SAND, brown, wet, loose to dense. (Glacial Till)	6			
				25		13	
1035.7	11.0			34			
			END OF BORING.				
			Water not observed while drilling.				
			Water not observed to cave-in depth of 8 feet immediately after withdrawal of auger.				
			Boring then backfilled.				

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BORING: **ST-5**

LOCATION: Duckpond Drive. N: 252206.985, E: 558713.014 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	P200 %	Tests or Notes
1038.4	0.0							
		PAV	4 3/4" of bituminous over 9 1/2" of aggregate base.					
1037.3	1.1							
		FILL	FILL: Clayey Sand, trace of Gravel, brown and gray, moist to waterbearing.	11				
1033.4	5.0							
		SC	CLAYEY SAND, brown, wet to waterbearing, loose to medium dense. (Glacial Till)	10		16	56	
				20				
				23	▽			
1027.4	11.0							
			END OF BORING.					
			Water observed at 10 feet while drilling.					
			Water not observed to cave-in depth of 8 feet immediately after withdrawal of auger.					
			Boring then backfilled.					

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BORING: **ST-6**

LOCATION: Duckpond Drive. N: 251998.644, E: 558889.721 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	Tests or Notes
1030.1	0.0	PAV	4 1/2" of bituminous over 9" of aggregate base.				
1029.0	1.1	FILL	FILL: Clayey Sand, brown, moist to wet.				
				20			
				21		7	
1023.1	7.0	SC	CLAYEY SAND, brown, moist to wet, medium dense. (Glacial Till)				
				13			
				18			
1019.1	11.0		END OF BORING.				

Water not observed while drilling.

Water not observed to cave-in depth of 8 1/2 feet immediately after withdrawal of auger.

Boring then backfilled.

(See Descriptive Terminology sheet for explanation of abbreviations)

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BORING: **ST-7**

LOCATION: Winslow Court. N: 252143.946, E: 559098.429 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	Tests or Notes
1033.2	0.0						
1032.4	0.8	PAV	3 3/4" of bituminous over 6 1/2" of aggregate base.				
		FILL	FILL: Clayey Sand, brown, moist to wet.				
			- no recovery at 2 1/2 feet	13			
				8			
				9			
1023.2	10.0						
1022.2	11.0	SC	CLAYEY SAND, brown, wet, medium dense. (Glacial Till)	30		13	

END OF BORING.

Water not observed while drilling.

Water not observed to cave-in depth of 7 feet immediately after withdrawal of auger.

Boring then backfilled.

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BORING: **ST-8**

LOCATION: Duckpond Drive. N: 252001.233, E: 559249.802 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	Tests or Notes
1023.2	0.0						
		PAV	4 1/2" of bituminous over 6" of aggregate base.				
1022.0	1.2						
		FILL	FILL: Clayey Sand, trace of Gravel, brownish grey, moist to wet.				
				14			
				6			
1016.2	7.0						
		SC	CLAYEY SAND, trace of Gravel, reddish brown, wet, medium dense. (Glacial Till)	26		9	
				30			
1012.2	11.0						
			END OF BORING.				
			Water not observed while drilling.				
			Water not observed to cave-in depth of 8 feet immediately after withdrawal of auger.				
			Boring then backfilled.				

(See Descriptive Terminology sheet for explanation of abbreviations)

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BORING: **ST-9**

LOCATION: Stryker Avenue. N: 252589.357, E: 559437.858 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	Tests or Notes
1038.0	0.0	PAV	8" of bituminous over 9 1/2" of aggregate base.				
1036.5	1.5	FILL	FILL: Clayey Sand, trace of Gravel and brick, brown to grayish-brown, moist.	12		9	
				6			
1031.0	7.0	SC	CLAYEY SAND, trace of clay layers, brownish grey, moist to wet, medium dense. (Glacial Till)	17			
1027.0	11.0			30			
			END OF BORING.				
			Water not observed while drilling.				
			Water not observed to cave-in depth of 8 1/2 feet immediately after withdrawal of auger.				
			Boring then backfilled.				

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BORING: **ST-10**

LOCATION: Stryker Avenue. N: 252154.138, E: 558383.242 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: 12/19/12 | SCALE: 1" = 4'

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	Tests or Notes
1023.9	0.0					
1022.8	1.1	PAV	6 1/4" of bituminous over 7" of aggregate base.			
1016.4	7.5	FILL	FILL: Clayey Sand with Gravel, brown, moist to wet at 5'.	10 8		
1013.9	10.0	FILL	FILL: Lean Clay, trace of Gravel and organics, black with gray, wet.	11		
1012.9	11.0	FILL	FILL: Organic Clay, trace of Gravel, black, wet.	38		

END OF BORING.

Water not observed while drilling.

Water not observed to cave-in depth of 8 feet immediately after withdrawal of auger.

Boring then backfilled.

(See Descriptive Terminology sheet for explanation of abbreviations)

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BORING: **ST-11**

LOCATION: Stryker Avenue. N: 251645.390, E: 558489.777 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	P200 %	Tests or Notes
1013.2	0.0							
1012.0	1.2	PAV	6" of bituminous over 8" of aggregate base.					
		FILL	FILL: Clayey Sand with Gravel, fine- to medium-grained, brown and gray, moist to wet.	9				
				3				
1006.2	7.0	CL	LEAN CLAY, black, moist to wet. rather stiff. (Glacial Till)	10				
1002.2	11.0			9		30	86	

END OF BORING.

Water not observed while drilling.

Water not observed to cave-in depth of 8 1/2 feet immediately after withdrawal of auger.

Boring then backfilled.

(See Descriptive Terminology sheet for explanation of abbreviations)

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BORING: **ST-12**

LOCATION: Fox Ridge Court. N: 252322.153, E: 559867.521 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	Tests or Notes
1053.7	0.0						
1052.6	1.1	PAV	4 3/4" of bituminous over 9" of aggregate base.				
		FILL	FILL: Clayey Sand, fine- to medium-grained, trace of Gravel, brown and reddish-brown, moist.	11		17	
				10			
1046.2	7.5						
		SC	CLAYEY SAND, trace of Gravel, brown, moist, rather stiff. (Glacial Till)	22			
1042.7	11.0			11			
			END OF BORING.				
			Water not observed while drilling.				
			Water not observed to cave-in depth of 8 feet immediately after withdrawal of auger.				
			Boring then backfilled.				

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BORING: **ST-13**

LOCATION: Fox Ridge Court. N: 252267.044, E: 560142.666 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: 12/19/12 | SCALE: 1" = 4'

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	Tests or Notes
1050.5	0.0					
1049.7	0.8	PAV	4 1/2" of bituminous over 5" of aggregate base.			
		FILL	SILTY SAND, fine- to medium-grained, trace of Gravel, bituminous, and brick, brown, moist.	8		
				10		
1043.5	7.0					
		SP-SM	POORLY GRADED SAND with SILT, fine- to medium-grained, trace of Gravel, brown, moist, medium dense. (Glacial Till)	21		
			- no recovery at 10 feet	33		
1039.5	11.0					

END OF BORING.

Water not observed while drilling.

Water not observed to cave-in depth of 8 feet immediately after withdrawal of auger.

Boring then backfilled.

(See Descriptive Terminology sheet for explanation of abbreviations)

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BORING: **ST-14**

LOCATION: Fox Ridge Drive. N: 252253.174, E: 560357.148 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	Tests or Notes
1050.9	0.0						
1050.2	0.7	PAV	4 1/2" of bituminous over 4" of aggregate base.				
		FILL	FILL: Clayey Sand, trace of Gravel, brown, moist to wet.				
				14			
				22		6	
1043.9	7.0						
		SC	CLAYEY SAND, trace of Gravel, brown, wet, medium dense to dense.	30			
				42			
1039.9	11.0						
			END OF BORING.				
			Water not observed while drilling.				
			Water not observed to cave-in depth of 7 1/2 feet immediately after withdrawal of auger.				
			Boring then backfilled.				

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BORING: **ST-15**

LOCATION: Fox Ridge Drive. N: 252091.911, E: 560196.698 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: 12/19/12 | SCALE: 1" = 4'

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	P200 %	Tests or Notes
1045.8	0.0							
1044.8	1.0	PAV	4 3/4" of bituminous over 7" of aggregate base.					
		FILL	FILL: Clayey Sand, trace of quartz, brown, moist.	26				
				7				
1038.8	7.0							
		SC	CLAYEY SAND, brown, moist to wet, medium dense. (Glacial Till)	28		7	24	
			- no recovery at 10 feet	*				* 50 blows for 1/4" (set)
1034.8	11.0							

END OF BORING.

Water not observed while drilling.

Water not observed to cave-in depth of 7 1/2 feet immediately after withdrawal of auger.

Boring then backfilled.

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BORING: **ST-16**

LOCATION: Fox Ridge Drive. N: 251885.954, E: 560366.851 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	Tests or Notes
1037.3	0.0						
1036.4	0.9	PAV	4 1/2" of bituminous over 6 1/2" of aggregate base.				
		FILL	FILL: Clayey Sand, trace of Gravel, brown, moist to wet	13			
				12			
1030.3	7.0						
		SC	CLAYEY SAND, trace of Gravel, brown, moist to wet, medium dense. (Glacial Till)	12		9	
				18			
1026.3	11.0						
			END OF BORING.				
			Water not observed while drilling.				
			Water not observed to cave-in depth of 8 1/2 feet immediately after withdrawal of auger.				
			Boring then backfilled.				

(See Descriptive Terminology sheet for explanation of abbreviations)

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BORING: **ST-17**

LOCATION: Imperial Drive. N: 257990.620, E: 560872.766 See attached sketch.

DRILLER: J. Chermak | METHOD: 3 1/4" HSA, Autohammer | DATE: **12/19/12** | SCALE: **1" = 4'**

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	Tests or Notes
1003.5	0.0					
1002.4	1.1	PAV	6 3/4" of bituminous over 7" of aggregate base.			
999.5	4.0	FILL	FILL: Silty Sand, fine- to medium-grained, dark brown, moist.	22		
992.5	11.0	FILL	FILL: Poorly Graded Sand with Silt, fine- to medium-grained, brown, moist.	26 15 12		

END OF BORING.

Water not observed while drilling.

Water not observed to cave-in depth of 8 feet immediately after withdrawal of auger.

Boring then backfilled.

(See Descriptive Terminology sheet for explanation of abbreviations)

LOG OF BORING N:\GINT\PROJECTS\STPAUL\2012\06953.GPJ BRAUN_V8_CURRENT.GDT 1/4/13 13:49

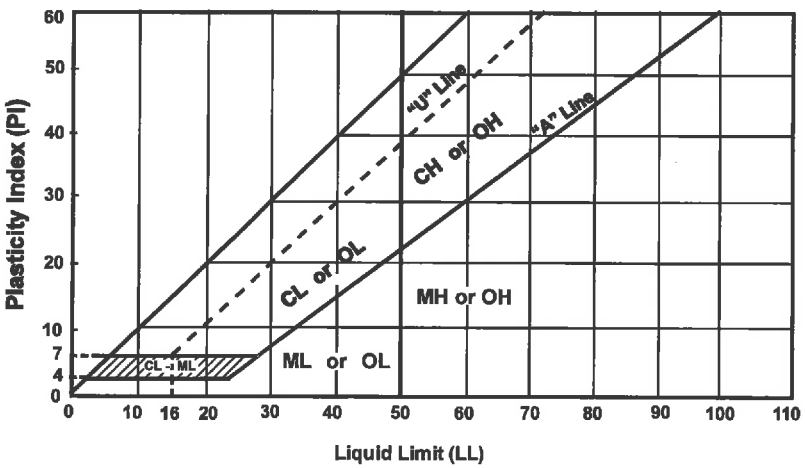
BRAUN INTERTEC

Descriptive Terminology of Soil

Standard D 2487 - 00
Classification of Soils for Engineering Purposes (Unified Soil Classification System)

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [a]				Soils Classification	
				Group Symbol	Group Name [b]
Coarse-grained Soils more than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels 5% or less fines [e]	$C_u \geq 4$ and $1 \leq C_c \leq 3$ [c]	GW	Well-graded gravel [d]
			$C_u < 4$ and/or $1 > C_c > 3$ [c]	GP	Poorly graded gravel [d]
		Gravels with Fines More than 12% fines [e]	Fines classify as ML or MH	GM	Silty gravel [d f g]
			Fines classify as CL or CH	GC	Clayey gravel [d f g]
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands 5% or less fines [i]	$C_u \geq 6$ and $1 \leq C_c \leq 3$ [c]	SW	Well-graded sand [h]
			$C_u < 6$ and/or $1 > C_c > 3$ [c]	SP	Poorly graded sand [h]
		Sands with Fines More than 12% [i]	Fines classify as ML or MH	SM	Silty sand [f g h]
			Fines classify as CL or CH	SC	Clayey sand [f g h]
Fine-grained Soils 50% or more passed the No. 200 sieve	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]
			PI < 4 or plots below "A" line [j]	ML	Silt [k l m]
		Organic	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OL	Organic clay [k l m n]
				OL	Organic silt [k l m o]
	Silts and clays Liquid limit 50 or more	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 / Liquid limit - not dried < 0.75	OH	Organic clay [k l m p]
				OH	Organic silt [k l m q]
Highly Organic Soils		Primarily organic matter, dark in color and organic odor		PT	Peat

a. Based on the material passing the 3-in (75mm) sieve.
b. If field sample contained cobbles or boulders, or both, add "with cobbles or boulders or both" to group name.
c. $C_u = D_{60} / D_{10}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
d. If soil contains ≥15% sand, add "with sand" to group name.
e. 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
f. If fines classify as CL-ML, use dual symbol GC-GM or SC-SM.
g. If fines are organic, add "with organic fines" to group name.
h. If soil contains ≥ 15% gravel, add "with gravel" to group name.
i. 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
j. If Atterberg limits plot in hatched area, soil is a CL-ML, silty clay.
k. If soil contains 10 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.



Laboratory Tests

DD	Dry density, pcf	OC	Organic content, %
WD	Wet density, pcf	S	Percent of saturation, %
MC	Natural moisture content, %	SG	Specific gravity
LL	Liquid limit, %	C	Cohesion, psf
PL	Plastic limit, %	∅	Angle of internal friction
PI	Plasticity index, %	qu	Unconfined compressive strength, psf
P200	% passing 200 sieve	qp	Pocket penetrometer strength, tsf

Particle Size Identification

Boulders	over 12"
Cobbles	3" to 12"
Gravel	
Coarse	3/4" to 3"
Fine	No. 4 to 3/4"
Sand	
Coarse	No. 4 to No. 10
Medium	No. 10 to No. 40
Fine	No. 40 to No. 200
Silt	< No. 200, PI < 4 or below "A" line
Clay	< No. 200, PI ≥ 4 and on or above "A" line

Relative Density of Cohesionless Soils

Very loose	0 to 4 BPF
Loose	5 to 10 BPF
Medium dense	11 to 30 BPF
Dense	31 to 50 BPF
Very dense	over 50 BPF

Consistency of Cohesive Soils

Very soft	0 to 1 BPF
Soft	2 to 3 BPF
Rather soft	4 to 5 BPF
Medium	6 to 8 BPF
Rather stiff	9 to 12 BPF
Stiff	13 to 16 BPF
Very stiff	17 to 30 BPF
Hard	over 30 BPF

Drilling Notes

Standard penetration test borings were advanced by 3 1/4" or 6 1/4" ID hollow-stem augers unless noted otherwise, Jetting water was used to clean out auger prior to sampling only where indicated on logs. Standard penetration test borings are designated by the prefix "ST" (Split Tube). All samples were taken with the standard 2" OD split-tube sampler, except where noted.

Power auger borings were advanced by 4" or 6" diameter continuous-flight, solid-stem augers. Soil classifications and strata depths were inferred from disturbed samples augered to the surface and are, therefore, somewhat approximate. Power auger borings are designated by the prefix "B."

Hand auger borings were advanced manually with a 1 1/2" or 3 1/4" diameter auger and were limited to the depth from which the auger could be manually withdrawn. Hand auger borings are indicated by the prefix "H."

BPF: Numbers indicate blows per foot recorded in standard penetration test, also known as "N" value. The sampler was set 6" into undisturbed soil below the hollow-stem auger. Driving resistances were then counted for second and third 6" increments and added to get BPF. Where they differed significantly, they are reported in the following form: 2/12 for the second and third 6" increments, respectively.

WH: WH indicates the sampler penetrated soil under weight of hammer and rods alone; driving not required.

WR: WR indicates the sampler penetrated soil under weight of rods alone; hammer weight and driving not required.

TW indicates thin-walled (undisturbed) tube sample.

Note: All tests were run in general accordance with applicable ASTM standards.

Appendix B

Table – Analytical Test Results

Sediment Analytical Report

Table 1
Soil Analytical Results - Pond Samples
2013 Street Project
West Saint Paul
SP-12-06953

Compound/Parameter	CAS No.	Sample Identifier		Level 1 Soil Reference Value (mg/kg)	Level 2 Soil Reference Value (mg/kg)
		P-1 (0-2.5)	P-2 (0-2.5)		
		12/13/2012	12/13/2012		
		1207547	1207547		
Polyaromatic Hydrocarbons by Selected Ion Monitoring (mg/kg)					
1-Methylnaphthalene	90-12-0	<0.020 [6]	<0.027 [6]	NE	NE
2-Chloronaphthalene	91-58-7	<0.0082 [6]	<0.011 [6]	NE	NE
2-Methylnaphthalene	91-57-6	**0.015** [6]	**0.03** [6]	100	369
3-Methylcholanthrene	56-49-5	<0.0082 [6]	<0.011 [6]	cPah	cPah
5-Methylchrysene	3697-24-3	<0.0082 [6]	<0.011 [6]	cPah	cPah
7,12-Dimethylbenz(a)anthracene	57-97-6	<0.0082 [4] [6]	<0.011 [6]	cPah	cPah
7H-Dibenzo(c,g)carbazole	194-59-2	<0.0082 [6]	<0.011 [6]	cPah	cPah
Acenaphthene	83-32-9	<0.0082 [6]	<0.011 [6]	1200	5260
Acenaphthylene	208-96-8	<0.0082 [6]	<0.011 [6]	NE	NE
Anthracene	120-12-7	**0.022** [6]	<0.011 [6]	7880	45400
Benz(a)anthracene	56-55-3	**0.018** [6]	**0.047** [6]	cPah	cPah
Benzo(a)pyrene	50-32-8	**0.018** [1] [6]	<0.011 [1] [6]	cPah	cPah
Benzo(b)fluoranthene	205-99-2	**0.031** [6]	**0.076** [6]	cPah	cPah
Benzo(e)pyrene	192-97-2	**0.021** [2] [6]	**0.067** [2] [6]	NE	NE
Benzo(g,h,i)perylene	191-24-2	<0.020 [6]	**0.045** [6]	NE	NE
Benzo(j)fluoranthene	205-82-3	**0.013** [6]	**0.034** [6]	cPah	cPah
Benzo(k)fluoranthene	207-08-9	**0.012** [6]	**0.03** [6]	cPah	cPah
Carbazole	86-74-8	<0.0082 [6]	**0.26** [6]	700	1310
Chrysene	218-01-9	**0.049** [6]	**0.11** [6]	cPah	cPah
Dibenz(a,h)acridine	226-36-8	<0.0082 [6]	<0.011 [6]	cPah	cPah
Dibenz(a,h)anthracene	53-70-3	<0.020 [6]	<0.027 [6]	cPah	cPah
Dibenzo(a,e)pyrene	192-65-4	<0.0082 [5] [6]	<0.011 [6]	cPah	cPah
Dibenzo(a,h)pyrene	189-64-0	<0.041 [4] [5] [6]	<0.055 [6]	cPah	cPah
Dibenzo(a,i)pyrene	189-55-9	<0.0082 [4] [5] [6]	<0.011 [6]	cPah	cPah
Dibenzo(a,l)pyrene	191-30-0	<0.0082 [5] [6]	<0.011 [6]	cPah	cPah
Dibenzofuran	132-64-9	**0.035** [6]	<0.011 [6]	104	810
Fluoranthene	206-44-0	**0.14** [6]	**0.26** [6]	1080	6800
Fluorene	86-73-7	<0.020 [6]	<0.027 [6]	850	4120
Indeno(1,2,3-cd)pyrene	193-39-5	**0.022** [6]	**0.055** [6]	cPah	cPah
Naphthalene	91-20-3	**0.023** [6]	**0.037** [6]	10	28
Perylene	198-55-0	**0.026** [6]	**0.02** [6]	890	NE
Phenanthrene	85-01-8	**0.14** [6]	**0.22** [6]	NE	NE
Pyrene	129-00-0	**0.063** [6]	**0.14** [6]	890	5800
Quinoline	91-22-5	<0.0082 [6]	<0.011 [6]	4	7
BaP Equivalent**		**0.03**	**0.03**	2	3
Metals (mg/kg)					
Arsenic	7440-38-2	<3.8	<5.3	9	20
Copper	7440-50-8	**33**	**35**	100	9,000

Notes:

[1] Benzo(a)pyrene recovery for the continuing calibration sample is 73.6%. Method requirements are 80% to 120%. There may be a bias in the reported results.

[2] Benzo(e)pyrene recovery for the continuing calibration sample is 73%. Method requirements are 80% to 120%. There may be a bias in the reported results.

[6] The method reporting limits (MRLs) are elevated due to adjustments of the sample preparation amounts. This was necessary because of the sample matrix.

mg/kg = Milligrams per kilogram.

< = Less than the reporting limit indicated in parentheses.

NE = Not Established

SRV - Soil Reference Value established by the Minnesota Pollution Control Agency; 1999, revised 2009

Level 1 SRV - Suitable for residential land use

Level 2 SRV - Suitable for industrial land use

cPAH = Individual criteria not established. Included in BaP equivalent calculation.

** = Benzo(a)pyrene (BaP) equivalent is calculated based on the concentration and weighted toxicity of carcinogenic PAHs (cPAH); Minnesota Pollution Control Agency, 2002.

[a] = Criteria for mixture of o, m and p-xylenes.

[b] = Criteria for 4-Methylphenol

[c] = Criteria for hexavalent chromium.

[d] = Criteria for mixture of alpha- and gamma-chlordane

[e] = Criteria for mixture of Endosulfan I, Endosulfan II, and Endosulfan Sulfate.

[f] = Criteria for mixture of cis- and trans-1,2-Dichloropropene

BRAUN INTERTEC

Braun Intertec Corporation
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Ms. Kathryn Sarnecki
Braun Intertec-St. Paul
1826 Buerkle Road
St. Paul, MN 55110

December 20, 2012

Report #: 1207547

RE: 2013 Street Project
SP-12-06953

Dear Kathryn Sarnecki:

Braun Intertec Corporation received samples for the project identified above on December 13, 2012. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Sincerely,

Richard A. Maw
Project Manager

Certification/Accreditation Number

Minnesota Department of Health #027-053-117

Providing engineering and environmental solutions since 1957

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Braun Intertec-St. Paul	Client Ref: 2013 Street Project	Report #: 1207547
1826 Buerkle Road	Client Contact: Ms. Kathryn Sarnecki	Project Mgr: Richard A. Maw
St. Paul, MN 55110	PO Number: SP-12-06953	Account ID:

Qualifiers and Abbreviations

ve	The method reporting limits (MRLs) are elevated due to adjustments of the sample preparation amounts. This was necessary because of the sample matrix.
qo	The relative percent difference (RPD) was outside of laboratory control limits for the matrix spike (MS) and matrix spike duplicate (MSD) samples.
qn	The spike recovery is outside of laboratory control limits for the matrix spike (MS) and/or the matrix spike duplicate (MSD).
A2	Benzo(e)pyrene recovery for the continuing calibration sample is 73%. Method requirements are 80% to 120%. There may be a bias in the reported results.
A1	Benzo(a)pyrene recovery for the continuing calibration sample is 73.6%. Method requirements are 80% to 120%. There may be a bias in the reported results.
ca	This field of testing is not certifiable by the Minnesota Department of Health.
COC	Chain of Custody
dry	Sample results reported on a dry weight basis
MRL	Method Reporting Limit
NA	Not Applicable
ND	Analyte NOT DETECTED
NR	Not Reported
%Rec	Percent Recovery
RPD	Relative Percent Difference
VOC	Volatile Organic Compound

A field of testing is the combination of analyte, matrix, method, and regulatory program.

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Braun Intertec-St. Paul	Client Ref: 2013 Street Project	Report #: 1207547
1826 Buerkle Road	Client Contact: Ms. Kathryn Sarnecki	Project Mgr: Richard A. Maw
St. Paul, MN 55110	PO Number: SP-12-06953	Account ID:

Sample Summary

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P-1 (0-2.5)	1207547-01	Soil	12/13/12 09:50	12/13/12 11:40
P-2 (0-2.5)	1207547-02	Soil	12/13/12 09:15	12/13/12 11:40

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Braun Intertec-St. Paul	Client Ref: 2013 Street Project	Report #: 1207547
1826 Buerkle Road	Client Contact: Ms. Kathryn Sarnecki	Project Mgr: Richard A. Maw
St. Paul, MN 55110	PO Number: SP-12-06953	Account ID:

Conditions Upon Receipt

Cooler: Cooler 1

Temperature:	5.1 °C	**COC Included:**	Yes	**Custody Seals Used:**	No
Temperature Blank:	Yes	**COC Complete:**	Yes	**Custody Seals Intact:**	NA
Received on Ice:	Yes	**COC & Labels Agree:**	Yes	**Hand Delivered by Client:**	Yes
Preservation Confirmed:	No	**Sufficient Sample Provided:**	Yes	**Headspace Present (VOC):**	No

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Braun Intertec-St. Paul	Client Ref: 2013 Street Project	Report #: 1207547
1826 Buerkle Road	Client Contact: Ms. Kathryn Sarnecki	Project Mgr: Richard A. Maw
St. Paul, MN 55110	PO Number: SP-12-06953	Account ID:

P-1 (0-2.5)

1207547-01 (Soil)

12/13/12 9:50

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
% Solids	**47**	0.050	% Wt	1	B2L0261	12/14/12	12/14/12	MJW	EPA 3545A 11.4	ca

Metals

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Arsenic	< 3.8	3.8	mg/kg dry	1	B2L0319	12/18/12	12/18/12	DRM	EPA 6010C	
Copper	**33**	1.9	mg/kg dry	1	B2L0319	12/18/12	12/18/12	DRM	EPA 6010C	

Polyaromatic Hydrocarbons by Selected Ion Monitoring

Sample Note(s): ve

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
1-Methylnaphthalene	< 0.020	0.020	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
2-Chloronaphthalene	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
2-Methylnaphthalene	**0.015**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
3-Methylcholanthrene	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
5-Methylchrysene	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
7,12-Dimethylbenz(a)anthracene	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	qn, ca
7H-Dibenzo(c,g)carbazole	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Acenaphthene	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Acenaphthylene	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Anthracene	**0.022**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Benz(a)anthracene	**0.018**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Benzo(a)pyrene	**0.018**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	A1
Benzo(b)fluoranthene	**0.031**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Benzo(e)pyrene	**0.021**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	A2, qo, ca
Benzo(g,h,i)perylene	< 0.020	0.020	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Benzo(j)fluoranthene	**0.013**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Benzo(k)fluoranthene	**0.012**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Carbazole	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Chrysene	**0.049**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	

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1826 Buerkle Road	Client Contact: Ms. Kathryn Sarnecki	Project Mgr: Richard A. Maw
St. Paul, MN 55110	PO Number: SP-12-06953	Account ID:

P-1 (0-2.5)

1207547-01 (Soil)

12/13/12 9:50

Polyaromatic Hydrocarbons by Selected Ion Monitoring

Sample Note(s): ve

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Dibenz(a,h)acridine	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Dibenz(a,h)anthracene	< 0.020	0.020	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Dibenzo(a,e)pyrene	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	qo, ca
Dibenzo(a,h)pyrene	< 0.041	0.041	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	qn, qo, ca
Dibenzo(a,i)pyrene	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	qn, qo, ca
Dibenzo(a,l)pyrene	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	qo, ca
Dibenzofuran	**0.035**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Fluoranthene	**0.14**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Fluorene	< 0.020	0.020	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Indeno(1,2,3-cd)pyrene	**0.022**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Naphthalene	**0.023**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Perylene	**0.026**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Phenanthrene	**0.14**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Pyrene	**0.063**	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Quinoline	< 0.0082	0.0082	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	qo
Surrogate: 2-Fluorobiphenyl	*75.9 %*	*Limits: 30-120%*			*B2L0307*	*12/17/12*	*12/19/12*	*SGM*	*EPA 8270D SIM*	
Surrogate: Nitrobenzene-d5	*71.9 %*	*Limits: 30-120%*			*B2L0307*	*12/17/12*	*12/19/12*	*SGM*	*EPA 8270D SIM*	
Surrogate: Terphenyl-d14	*99.0 %*	*Limits: 30-120%*			*B2L0307*	*12/17/12*	*12/19/12*	*SGM*	*EPA 8270D SIM*	

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1826 Buerkle Road	Client Contact: Ms. Kathryn Sarnecki	Project Mgr: Richard A. Maw
St. Paul, MN 55110	PO Number: SP-12-06953	Account ID:

P-2 (0-2.5)

1207547-02 (Soil)

12/13/12 9:15

Classical Chemistry Parameters

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
% Solids	**35**	0.050	% Wt	1	B2L0261	12/14/12	12/14/12	MJW	EPA 3545A 11.4	ca

Metals

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Arsenic	< 5.3	5.3	mg/kg dry	1	B2L0319	12/18/12	12/18/12	DRM	EPA 6010C	
Copper	**35**	2.7	mg/kg dry	1	B2L0319	12/18/12	12/18/12	DRM	EPA 6010C	

Polyaromatic Hydrocarbons by Selected Ion Monitoring

Sample Note(s): ve

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
1-Methylnaphthalene	< 0.027	0.027	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
2-Chloronaphthalene	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
2-Methylnaphthalene	**0.030**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
3-Methylcholanthrene	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
5-Methylchrysene	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
7,12-Dimethylbenz(a)anthracene	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
7H-Dibenzo(c,g)carbazole	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Acenaphthene	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Acenaphthylene	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Anthracene	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Benz(a)anthracene	**0.047**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Benzo(a)pyrene	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	A1
Benzo(b)fluoranthene	**0.076**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Benzo(e)pyrene	**0.067**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	A2, ca
Benzo(g,h,i)perylene	**0.045**	0.027	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Benzo(j)fluoranthene	**0.034**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Benzo(k)fluoranthene	**0.030**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Carbazole	**0.26**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Chrysene	**0.11**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	

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1826 Buerkle Road	Client Contact: Ms. Kathryn Sarnecki	Project Mgr: Richard A. Maw
St. Paul, MN 55110	PO Number: SP-12-06953	Account ID:

P-2 (0-2.5)

1207547-02 (Soil)

12/13/12 9:15

Polyaromatic Hydrocarbons by Selected Ion Monitoring

Sample Note(s): ve

Analyte	Result	MRL	Units	Dilution	Batch	Prepared	Analyzed	Analyst	Method	Notes
Dibenz(a,h)acridine	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Dibenz(a,h)anthracene	< 0.027	0.027	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Dibenzo(a,e)pyrene	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Dibenzo(a,h)pyrene	< 0.055	0.055	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Dibenzo(a,i)pyrene	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Dibenzo(a,l)pyrene	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Dibenzofuran	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Fluoranthene	**0.26**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Fluorene	< 0.027	0.027	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Indeno(1,2,3-cd)pyrene	**0.055**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Naphthalene	**0.037**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Perylene	**0.020**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	ca
Phenanthrene	**0.22**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Pyrene	**0.14**	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Quinoline	< 0.011	0.011	mg/kg dry	1	B2L0307	12/17/12	12/19/12	SGM	EPA 8270D SIM	
Surrogate: 2-Fluorobiphenyl	*72.6 %*	*Limits: 30-120%*			*B2L0307*	*12/17/12*	*12/19/12*	*SGM*	*EPA 8270D SIM*	
Surrogate: Nitrobenzene-d5	*77.7 %*	*Limits: 30-120%*			*B2L0307*	*12/17/12*	*12/19/12*	*SGM*	*EPA 8270D SIM*	
Surrogate: Terphenyl-d14	*98.2 %*	*Limits: 30-120%*			*B2L0307*	*12/17/12*	*12/19/12*	*SGM*	*EPA 8270D SIM*	

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Classical Chemistry Parameters - Quality Control

Batch B2L0261 - % Solids

Method Blank (B2L0261-BLK1) Prepared & Analyzed: 12/14/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	< 0.050	0.050	% Wt	NA	NA	NA	NA	NA	NA	

Duplicate (B2L0261-DUP1) **Source: 1207511-19** Prepared & Analyzed: 12/14/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	91.4	0.050	% Wt	NA	91.0	NA	NA	0.461	20	

Standard Reference Material (B2L0261-SRM1) Prepared & Analyzed: 12/14/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
% Solids	91.9		% Wt	91.9	NA	100	90-110	NA	NA	

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Metals - Quality Control

Batch B2L0319 - EPA 3050B

Method Blank (B2L0319-BLK1) Prepared & Analyzed: 12/18/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	<2.0	2.0	mg/kg	NA	NA	NA	NA	NA	NA	
Copper	<1.0	1.0	mg/kg	NA	NA	NA	NA	NA	NA	

Laboratory Control Sample (B2L0319-BS1) Prepared & Analyzed: 12/18/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	302	2.0	mg/kg	300	NA	101	80-120	NA	NA	
Copper	300	1.0	mg/kg	300	NA	100	80-120	NA	NA	

Laboratory Control Sample Duplicate (B2L0319-BSD1) Prepared & Analyzed: 12/18/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	302	2.0	mg/kg	300	NA	101	80-120	0.0285	20	
Copper	302	1.0	mg/kg	300	NA	101	80-120	0.463	20	

Matrix Spike (B2L0319-MS2) **Source: 1207511-17RE1** Prepared & Analyzed: 12/18/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	303	4.0	mg/kg dry	303	11.8	96.1	75-125	NA	NA	
Copper	340	2.0	mg/kg dry	303	45.7	97.1	75-125	NA	NA	

Matrix Spike Duplicate (B2L0319-MSD2) **Source: 1207511-17RE1** Prepared & Analyzed: 12/18/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	306	4.1	mg/kg dry	307	11.8	95.6	75-125	0.694	20	
Copper	343	2.0	mg/kg dry	307	45.7	96.8	75-125	0.814	20	

Standard Reference Material (B2L0319-SRM1) Prepared & Analyzed: 12/18/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	106	4.2	mg/kg	109	NA	97.5	82.9-117	NA	NA	
Copper	112	2.1	mg/kg	117	NA	95.4	83.7-116	NA	NA	

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St. Paul, MN 55110	PO Number: SP-12-06953	Account ID:

Polyaromatic Hydrocarbons by Selected Ion Monitoring - Quality Control

Batch B2L0307 - EPA 3546

Method Blank (B2L0307-BLK1) Prepared: 12/17/12 Analyzed: 12/19/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1-Methylnaphthalene	< 0.0050	0.0050	mg/kg	NA	NA	NA	NA	NA	NA	
2-Chloronaphthalene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
2-Methylnaphthalene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
3-Methylcholanthrene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
5-Methylchrysene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
7,12-Dimethylbenz(a)anthracene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
7H-Dibenzo(c,g)carbazole	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Acenaphthylene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Anthracene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Benz(a)anthracene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(e)pyrene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene	< 0.0050	0.0050	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(j)fluoranthene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Carbazole	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Chrysene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)acridine	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	< 0.0050	0.0050	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenzo(a,e)pyrene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenzo(a,h)pyrene	< 0.010	0.010	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenzo(a,i)pyrene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenzo(a,l)pyrene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Dibenzofuran	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Fluoranthene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Fluorene	< 0.0050	0.0050	mg/kg	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Naphthalene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Perylene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Phenanthrene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Pyrene	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Quinoline	< 0.0020	0.0020	mg/kg	NA	NA	NA	NA	NA	NA	
Surrogate: 2-Fluorobiphenyl	*0.0386*		mg/kg	*0.0623*	*NA*	*62.0*	*30-120*			
Surrogate: Nitrobenzene-d5	*0.0242*		mg/kg	*0.0623*	*NA*	*38.9*	*30-120*			
Surrogate: Terphenyl-d14	*0.0557*		mg/kg	*0.0623*	*NA*	*89.5*	*30-120*			

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St. Paul, MN 55110	PO Number: SP-12-06953	Account ID:

Polyaromatic Hydrocarbons by Selected Ion Monitoring - Quality Control

Batch B2L0307 - EPA 3546

Laboratory Control Sample (B2L0307-BS1) Prepared: 12/17/12 Analyzed: 12/19/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1-Methylnaphthalene	0.0367	0.0050	mg/kg	0.0498	NA	73.6	50-120	NA	NA	
2-Chloronaphthalene	0.0377	0.0020	mg/kg	0.0498	NA	75.6	50-120	NA	NA	
2-Methylnaphthalene	0.0348	0.0020	mg/kg	0.0498	NA	69.8	50-120	NA	NA	
3-Methylcholanthrene	0.0426	0.0020	mg/kg	0.0498	NA	85.5	50-120	NA	NA	
5-Methylchrysene	0.0429	0.0020	mg/kg	0.0498	NA	86.2	50-120	NA	NA	
7,12-Dimethylbenz(a)anthracene	0.0351	0.0020	mg/kg	0.0498	NA	70.4	50-120	NA	NA	
7H-Dibenzo(c,g)carbazole	0.0428	0.0020	mg/kg	0.0498	NA	86.0	50-120	NA	NA	
Acenaphthene	0.0411	0.0020	mg/kg	0.0498	NA	82.6	50-120	NA	NA	
Acenaphthylene	0.0404	0.0020	mg/kg	0.0498	NA	81.1	50-120	NA	NA	
Anthracene	0.0452	0.0020	mg/kg	0.0498	NA	90.7	50-120	NA	NA	
Benz(a)anthracene	0.0459	0.0020	mg/kg	0.0498	NA	92.1	50-120	NA	NA	
Benzo(a)pyrene	0.0415	0.0020	mg/kg	0.0498	NA	83.2	50-120	NA	NA	
Benzo(b)fluoranthene	0.0440	0.0020	mg/kg	0.0498	NA	88.3	50-120	NA	NA	
Benzo(e)pyrene	0.0846	0.0020	mg/kg	0.0996	NA	84.9	50-120	NA	NA	
Benzo(g,h,i)perylene	0.0446	0.0050	mg/kg	0.0498	NA	89.5	50-120	NA	NA	
Benzo(j)fluoranthene	0.0424	0.0020	mg/kg	0.0498	NA	85.2	50-120	NA	NA	
Benzo(k)fluoranthene	0.0438	0.0020	mg/kg	0.0498	NA	87.9	50-120	NA	NA	
Carbazole	0.0465	0.0020	mg/kg	0.0498	NA	93.3	50-120	NA	NA	
Chrysene	0.0457	0.0020	mg/kg	0.0498	NA	91.7	50-120	NA	NA	
Dibenz(a,h)acridine	0.0453	0.0020	mg/kg	0.0498	NA	90.9	50-120	NA	NA	
Dibenz(a,h)anthracene	0.0451	0.0050	mg/kg	0.0498	NA	90.5	50-120	NA	NA	
Dibenzo(a,e)pyrene	0.0424	0.0020	mg/kg	0.0498	NA	85.1	50-120	NA	NA	
Dibenzo(a,h)pyrene	0.0411	0.010	mg/kg	0.0498	NA	82.5	40-120	NA	NA	
Dibenzo(a,i)pyrene	0.0400	0.0020	mg/kg	0.0498	NA	80.3	50-120	NA	NA	
Dibenzo(a,l)pyrene	0.0396	0.0020	mg/kg	0.0498	NA	79.4	50-120	NA	NA	
Dibenzofuran	0.0387	0.0020	mg/kg	0.0498	NA	77.7	50-120	NA	NA	
Fluoranthene	0.0474	0.0020	mg/kg	0.0498	NA	95.1	50-120	NA	NA	
Fluorene	0.0418	0.0050	mg/kg	0.0498	NA	84.0	50-120	NA	NA	
Indeno(1,2,3-cd)pyrene	0.0452	0.0020	mg/kg	0.0498	NA	90.7	50-120	NA	NA	
Naphthalene	0.0345	0.0020	mg/kg	0.0498	NA	69.3	50-120	NA	NA	
Perylene	0.0444	0.0020	mg/kg	0.0498	NA	89.2	50-120	NA	NA	
Phenanthrene	0.0434	0.0020	mg/kg	0.0498	NA	87.1	50-120	NA	NA	
Pyrene	0.0473	0.0020	mg/kg	0.0498	NA	94.9	50-120	NA	NA	
Quinoline	0.0411	0.0020	mg/kg	0.0498	NA	82.5	50-120	NA	NA	
Surrogate: 2-Fluorobiphenyl	*0.0407*		mg/kg	*0.0623*	*NA*	*65.4*	*30-120*			
Surrogate: Nitrobenzene-d5	*0.0253*		mg/kg	*0.0623*	*NA*	*40.6*	*30-120*			
Surrogate: Terphenyl-d14	*0.0618*		mg/kg	*0.0623*	*NA*	*99.3*	*30-120*			

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Polyaromatic Hydrocarbons by Selected Ion Monitoring - Quality Control

Batch B2L0307 - EPA 3546

Laboratory Control Sample Duplicate (B2L0307-BSD1) Prepared: 12/17/12 Analyzed: 12/19/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1-Methylnaphthalene	0.0366	0.0050	mg/kg	0.0498	NA	73.5	50-120	0.203	20	
2-Chloronaphthalene	0.0375	0.0020	mg/kg	0.0498	NA	75.4	50-120	0.476	20	
2-Methylnaphthalene	0.0343	0.0020	mg/kg	0.0498	NA	68.9	50-120	1.38	20	
3-Methylcholanthrene	0.0428	0.0020	mg/kg	0.0498	NA	86.1	50-120	0.590	20	
5-Methylchrysene	0.0439	0.0020	mg/kg	0.0498	NA	88.2	50-120	2.21	20	
7,12-Dimethylbenz(a)anthracene	0.0351	0.0020	mg/kg	0.0498	NA	70.5	50-120	0.0598	20	
7H-Dibenzo(c,g)carbazole	0.0431	0.0020	mg/kg	0.0498	NA	86.7	50-120	0.776	20	
Acenaphthene	0.0400	0.0020	mg/kg	0.0498	NA	80.4	50-120	2.72	20	
Acenaphthylene	0.0403	0.0020	mg/kg	0.0498	NA	81.1	50-120	0.122	20	
Anthracene	0.0447	0.0020	mg/kg	0.0498	NA	89.8	50-120	1.13	20	
Benz(a)anthracene	0.0463	0.0020	mg/kg	0.0498	NA	93.1	50-120	0.935	20	
Benzo(a)pyrene	0.0438	0.0020	mg/kg	0.0498	NA	88.1	50-120	5.58	20	
Benzo(b)fluoranthene	0.0442	0.0020	mg/kg	0.0498	NA	88.8	50-120	0.431	20	
Benzo(e)pyrene	0.0885	0.0020	mg/kg	0.0995	NA	88.9	50-120	4.53	20	
Benzo(g,h,i)perylene	0.0449	0.0050	mg/kg	0.0498	NA	90.3	50-120	0.864	20	
Benzo(j)fluoranthene	0.0437	0.0020	mg/kg	0.0498	NA	87.7	50-120	2.81	20	
Benzo(k)fluoranthene	0.0457	0.0020	mg/kg	0.0498	NA	91.9	50-120	4.35	20	
Carbazole	0.0470	0.0020	mg/kg	0.0498	NA	94.4	50-120	1.08	20	
Chrysene	0.0466	0.0020	mg/kg	0.0498	NA	93.7	50-120	2.00	20	
Dibenz(a,h)acridine	0.0462	0.0020	mg/kg	0.0498	NA	92.9	50-120	2.05	20	
Dibenz(a,h)anthracene	0.0458	0.0050	mg/kg	0.0498	NA	92.0	50-120	1.48	20	
Dibenzo(a,e)pyrene	0.0429	0.0020	mg/kg	0.0498	NA	86.1	50-120	1.05	20	
Dibenzo(a,h)pyrene	0.0410	0.010	mg/kg	0.0498	NA	82.3	40-120	0.252	20	
Dibenzo(a,i)pyrene	0.0403	0.0020	mg/kg	0.0498	NA	81.0	50-120	0.781	20	
Dibenzo(a,l)pyrene	0.0397	0.0020	mg/kg	0.0498	NA	79.7	50-120	0.308	20	
Dibenzofuran	0.0394	0.0020	mg/kg	0.0498	NA	79.2	50-120	1.75	20	
Fluoranthene	0.0471	0.0020	mg/kg	0.0498	NA	94.7	50-120	0.586	20	
Fluorene	0.0415	0.0050	mg/kg	0.0498	NA	83.5	50-120	0.630	20	
Indeno(1,2,3-cd)pyrene	0.0457	0.0020	mg/kg	0.0498	NA	91.9	50-120	1.20	20	
Naphthalene	0.0334	0.0020	mg/kg	0.0498	NA	67.2	50-120	3.15	20	
Perylene	0.0450	0.0020	mg/kg	0.0498	NA	90.5	50-120	1.38	20	
Phenanthrene	0.0435	0.0020	mg/kg	0.0498	NA	87.4	50-120	0.178	20	
Pyrene	0.0475	0.0020	mg/kg	0.0498	NA	95.4	50-120	0.411	20	
Quinoline	0.0419	0.0020	mg/kg	0.0498	NA	84.3	50-120	2.01	20	
Surrogate: 2-Fluorobiphenyl	*0.0411*		mg/kg	*0.0622*	*NA*	*66.1*	*30-120*			
Surrogate: Nitrobenzene-d5	*0.0229*		mg/kg	*0.0622*	*NA*	*36.9*	*30-120*			
Surrogate: Terphenyl-d14	*0.0613*		mg/kg	*0.0622*	*NA*	*98.6*	*30-120*			

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Braun Intertec-St. Paul	Client Ref: 2013 Street Project	Report #: 1207547
1826 Buerkle Road	Client Contact: Ms. Kathryn Sarnecki	Project Mgr: Richard A. Maw
St. Paul, MN 55110	PO Number: SP-12-06953	Account ID:

Polyaromatic Hydrocarbons by Selected Ion Monitoring - Quality Control

Batch B2L0307 - EPA 3546

Matrix Spike (B2L0307-MS1) **Source: 1207547-01** Prepared: 12/17/12 Analyzed: 12/19/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1-Methylnaphthalene	0.142	0.020	mg/kg dry	0.205	ND	69.1	30-130	NA	NA	
2-Chloronaphthalene	0.138	0.0082	mg/kg dry	0.205	ND	67.2	30-130	NA	NA	
2-Methylnaphthalene	0.141	0.0082	mg/kg dry	0.205	0.0151	61.6	30-130	NA	NA	
3-Methylcholanthrene	0.172	0.0082	mg/kg dry	0.205	ND	84.2	30-130	NA	NA	
5-Methylchrysene	0.164	0.0082	mg/kg dry	0.205	ND	80.0	30-130	NA	NA	
7,12-Dimethylbenz(a)anthracene	0.0491	0.0082	mg/kg dry	0.205	ND	24.0	30-130	NA	NA	qn
7H-Dibenzo(c,g)carbazole	0.132	0.0082	mg/kg dry	0.205	ND	64.5	30-130	NA	NA	
Acenaphthene	0.155	0.0082	mg/kg dry	0.205	ND	75.8	30-130	NA	NA	
Acenaphthylene	0.156	0.0082	mg/kg dry	0.205	ND	76.2	30-130	NA	NA	
Anthracene	0.204	0.0082	mg/kg dry	0.205	0.0217	89.3	30-130	NA	NA	
Benz(a)anthracene	0.193	0.0082	mg/kg dry	0.205	0.0185	85.4	30-130	NA	NA	
Benzo(a)pyrene	0.184	0.0082	mg/kg dry	0.205	0.0176	81.4	30-130	NA	NA	
Benzo(b)fluoranthene	0.209	0.0082	mg/kg dry	0.205	0.0307	87.3	30-130	NA	NA	
Benzo(e)pyrene	0.341	0.0082	mg/kg dry	0.410	0.0210	78.0	30-130	NA	NA	
Benzo(g,h,i)perylene	0.182	0.020	mg/kg dry	0.205	0.0154	81.3	30-130	NA	NA	
Benzo(j)fluoranthene	0.176	0.0082	mg/kg dry	0.205	0.0133	79.7	30-130	NA	NA	
Benzo(k)fluoranthene	0.170	0.0082	mg/kg dry	0.205	0.0120	76.9	30-130	NA	NA	
Carbazole	0.186	0.0082	mg/kg dry	0.205	ND	91.0	30-130	NA	NA	
Chrysene	0.233	0.0082	mg/kg dry	0.205	0.0491	90.0	30-130	NA	NA	
Dibenz(a,h)acridine	0.194	0.0082	mg/kg dry	0.205	ND	94.8	30-130	NA	NA	
Dibenz(a,h)anthracene	0.186	0.020	mg/kg dry	0.205	ND	90.8	30-130	NA	NA	
Dibenzo(a,e)pyrene	0.0876	0.0082	mg/kg dry	0.205	ND	42.8	30-130	NA	NA	
Dibenzo(a,h)pyrene	0.0739	0.041	mg/kg dry	0.205	ND	36.1	30-130	NA	NA	
Dibenzo(a,i)pyrene	0.0777	0.0082	mg/kg dry	0.205	ND	37.9	30-130	NA	NA	
Dibenzo(a,l)pyrene	0.103	0.0082	mg/kg dry	0.205	ND	50.4	30-130	NA	NA	
Dibenzofuran	0.181	0.0082	mg/kg dry	0.205	0.0346	71.3	30-130	NA	NA	
Fluoranthene	0.360	0.0082	mg/kg dry	0.205	0.136	110	30-130	NA	NA	
Fluorene	0.166	0.020	mg/kg dry	0.205	ND	81.0	30-130	NA	NA	
Indeno(1,2,3-cd)pyrene	0.202	0.0082	mg/kg dry	0.205	0.0220	88.0	30-130	NA	NA	
Naphthalene	0.143	0.0082	mg/kg dry	0.205	0.0234	58.4	30-130	NA	NA	
Perylene	0.180	0.0082	mg/kg dry	0.205	0.0259	75.5	30-130	NA	NA	
Phenanthrene	0.331	0.0082	mg/kg dry	0.205	0.145	91.2	30-130	NA	NA	
Pyrene	0.262	0.0082	mg/kg dry	0.205	0.0634	97.2	30-130	NA	NA	
Quinoline	0.0845	0.0082	mg/kg dry	0.205	ND	41.3	30-130	NA	NA	
Surrogate: 2-Fluorobiphenyl	*0.186*		mg/kg dry	*0.256*	*NA*	*72.8*	*30-120*			
Surrogate: Nitrobenzene-d5	*0.193*		mg/kg dry	*0.256*	*NA*	*75.4*	*30-120*			
Surrogate: Terphenyl-d14	*0.254*		mg/kg dry	*0.256*	*NA*	*99.4*	*30-120*			

BRAUN INTERTEC

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Braun Intertec-St. Paul	Client Ref: 2013 Street Project	Report #: 1207547
1826 Buerkle Road	Client Contact: Ms. Kathryn Sarnecki	Project Mgr: Richard A. Maw
St. Paul, MN 55110	PO Number: SP-12-06953	Account ID:

Polyaromatic Hydrocarbons by Selected Ion Monitoring - Quality Control

Batch B2L0307 - EPA 3546

Matrix Spike Duplicate (B2L0307-MSD1) **Source: 1207547-01** Prepared: 12/17/12 Analyzed: 12/19/12

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1-Methylnaphthalene	0.128	0.020	mg/kg dry	0.204	ND	62.8	30-130	9.71	25	
2-Chloronaphthalene	0.129	0.0082	mg/kg dry	0.204	ND	63.2	30-130	6.30	25	
2-Methylnaphthalene	0.125	0.0082	mg/kg dry	0.204	0.0151	53.6	30-130	12.5	25	
3-Methylcholanthrene	0.168	0.0082	mg/kg dry	0.204	ND	82.0	30-130	2.86	25	
5-Methylchrysene	0.149	0.0082	mg/kg dry	0.204	ND	72.7	30-130	9.74	25	
7,12-Dimethylbenz(a)anthracene	0.0433	0.0082	mg/kg dry	0.204	ND	21.2	30-130	12.5	25	qn
7H-Dibenzo(c,g)carbazole	0.109	0.0082	mg/kg dry	0.204	ND	53.3	30-130	19.2	25	
Acenaphthene	0.146	0.0082	mg/kg dry	0.204	ND	71.7	30-130	5.86	25	
Acenaphthylene	0.146	0.0082	mg/kg dry	0.204	ND	71.3	30-130	6.81	25	
Anthracene	0.179	0.0082	mg/kg dry	0.204	0.0217	76.9	30-130	13.4	25	
Benz(a)anthracene	0.170	0.0082	mg/kg dry	0.204	0.0185	74.1	30-130	12.9	25	
Benzo(a)pyrene	0.152	0.0082	mg/kg dry	0.204	0.0176	65.6	30-130	19.5	25	
Benzo(b)fluoranthene	0.175	0.0082	mg/kg dry	0.204	0.0307	70.6	30-130	17.9	25	
Benzo(e)pyrene	0.263	0.0082	mg/kg dry	0.409	0.0210	59.1	30-130	25.9	25	qo
Benzo(g,h,i)perylene	0.144	0.020	mg/kg dry	0.204	0.0154	63.1	30-130	23.1	25	
Benzo(j)fluoranthene	0.150	0.0082	mg/kg dry	0.204	0.0133	67.0	30-130	16.1	25	
Benzo(k)fluoranthene	0.153	0.0082	mg/kg dry	0.204	0.0120	69.1	30-130	10.0	25	
Carbazole	0.187	0.0082	mg/kg dry	0.204	ND	91.6	30-130	0.548	25	
Chrysene	0.199	0.0082	mg/kg dry	0.204	0.0491	73.3	30-130	15.9	25	
Dibenz(a,h)acridine	0.179	0.0082	mg/kg dry	0.204	ND	87.7	30-130	7.97	25	
Dibenz(a,h)anthracene	0.163	0.020	mg/kg dry	0.204	ND	80.0	30-130	12.9	25	
Dibenzo(a,e)pyrene	0.0641	0.0082	mg/kg dry	0.204	ND	31.4	30-130	31.0	25	qo
Dibenzo(a,h)pyrene	0.0568	0.041	mg/kg dry	0.204	ND	27.8	30-130	26.1	25	qn, qo
Dibenzo(a,i)pyrene	0.0571	0.0082	mg/kg dry	0.204	ND	28.0	30-130	30.5	25	qn, qo
Dibenzo(a,l)pyrene	0.0792	0.0082	mg/kg dry	0.204	ND	38.7	30-130	26.4	25	qo
Dibenzofuran	0.169	0.0082	mg/kg dry	0.204	0.0346	65.8	30-130	6.63	25	
Fluoranthene	0.297	0.0082	mg/kg dry	0.204	0.136	78.9	30-130	19.3	25	
Fluorene	0.153	0.020	mg/kg dry	0.204	ND	75.0	30-130	7.76	25	
Indeno(1,2,3-cd)pyrene	0.166	0.0082	mg/kg dry	0.204	0.0220	70.5	30-130	19.6	25	
Naphthalene	0.124	0.0082	mg/kg dry	0.204	0.0234	49.2	30-130	14.3	25	
Perylene	0.170	0.0082	mg/kg dry	0.204	0.0259	70.5	30-130	5.94	25	
Phenanthrene	0.289	0.0082	mg/kg dry	0.204	0.145	70.6	30-130	13.7	25	
Pyrene	0.222	0.0082	mg/kg dry	0.204	0.0634	77.8	30-130	16.5	25	
Quinoline	0.140	0.0082	mg/kg dry	0.204	ND	68.6	30-130	49.6	25	qo
Surrogate: 2-Fluorobiphenyl	*0.176*		mg/kg dry	*0.255*	*NA*	*68.7*	*30-120*			
Surrogate: Nitrobenzene-d5	*0.171*		mg/kg dry	*0.255*	*NA*	*67.0*	*30-120*			
Surrogate: Terphenyl-d14	*0.239*		mg/kg dry	*0.255*	*NA*	*93.6*	*30-120*			

BRAUN INTERTEC

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Braun Intertec-St. Paul	Client Ref: 2013 Street Project	Report #: 1207547
1826 Buerkle Road	Client Contact: Ms. Kathryn Sarnecki	Project Mgr: Richard A. Maw
St. Paul, MN 55110	PO Number: SP-12-06953	Account ID:

For Braun Intertec Use Only
Laboratory Work Order No.: 1207547

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave. S
Minneapolis, MN 55438

REQUEST FOR LABORATORY ANALYTICAL SERVICES

Bottle orders and sampling inquiries:
labservices@braunintertec.com
Phone: 952-995-2600 Fax: 952-995-2601

IMPORTANT
Date Results Requested: 12-20-12
Time: Am
Rush Charges Authorized? X Yes ___ No
Rush / Quote # ___

Page 1 of 1

009259

REPORT RESULTS TO
Contact Name: Kathryn Sarnecki | Project ID/Name: 2013 Street Project | P.O. #/Project #: SP-12-06953
Company: Braun Intertec
Mailing Address: S.P.
City, State, Zip
Telephone # | Fax #
E-mail

SEND INVOICE TO
Contact Name | Company
Address
City, State, Zip
Telephone # | Fax #

Special Instructions and/or Specific Regulatory Requirements:
(method, limit of detection, permit and, reporting units)
5 day TAT
PAH listed in Table 4 of MPCA Guidance Document

ANALYSIS REQUESTED
(Enter an "X" in the box below to indicate request)

LAB ID#	CLIENT SAMPLE IDENTIFICATION (Do not use unique)	DATE SAMPLED	TIME SAMPLED	MATRIX MEDIA	VOLUME/AREA (specify units)	Number of Containers	Metals Field Filtered Y/N	Site Location (State): MN Arsenic	Copper	PAH	FOR LAB USE ONLY
1	P-1 (0-2.5)	12-13-12	0950	S		1		X	X	X	
2	P-2 (0-2.5)	↓	0915	S		1		X	X	X	

CHAIN OF CUSTODY
Collected by: (Print) Scott Jordan | Collector's Signature: [signature]
Relinquished by: [signature] | Date/Time 12-13-12 1140 | Received by: | Date/Time
Relinquished by: | Date/Time | Received Contents Not Verified: | Date/Time
Custody Seal Intact ☐ Yes ☐ No ☐ N/A ☒ Hand Delivered by Client | Received Contents Verified: [signature] | Date/Time 12/13/12
On Ice ☒ Yes ☐ No
Temp Blank ☒ Yes ☐ No
Temp: 5.1 °C
Comments: N/O

Form # C3.07.05 F:\Forms\QA-SOP\-mn\Lab-Forms\COC-CS02 Effective Date: 10/10/07

NTI
NORTHERN TECHNOLOGIES, INC.

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www.NTIgeo.com

January 29, 2016

City of West St. Paul
Attention: Chuck Price
1616 Humboldt Avenue
West St. Paul, MN 55118

Subject: Geotechnical Exploration and Engineering Review
City of West St. Paul 2016 Street Improvements
West St. Paul, Minnesota
NTI Project No. 15.61276.100

Northern Technologies, Inc. (NTI) has completed a total of 18 soil borings and 16 asphalt cores for the 2016 Street Improvement Projects in West St. Paul, Minnesota. The scope of services included determining existing subsurface conditions and providing recommendations for site preparation, excavations, engineered fill and compaction, depths of unsuitable soils to be removed, utility support recommendations, corrosion potential, ground water management and potential difficulties during construction. Our services were performed in accordance with our proposal dated November 17, 2015.

PROJECT AND SITE DESCRIPTION

The proposed project consists of improvements to Edgewood Lane, Fox Ridge Drive, Fox Ridge Road, Humboldt Avenue, Kraft Road East, Runge Lane and Edith Drive in West St. Paul, Minnesota. The improvements range from installation of underground utilities, developing 9 ton roadways, pavement rehabilitation. NTI was not aware of invert elevations or other design details of the proposed utilities at the time this report was prepared.

SUBSURFACE EXPLORATION SUMMARY

NTI performed the subsurface exploration program between January 12th and 16th of 2016 with a two-person crew using a truck-mounted CME-55 drill rig. Core samples were collected with a two person crew utilizing a motor driven coring machine. Soil samples were generally collected in accordance with ASTM D 1586 “Standard Test Method for Standard Penetration Testing (SPT) and Split-Barrel Sampling of Soils.”

The boring locations and depths were determined by Bolton & Menk, Inc. The borings terminated at approximately 13 feet below the existing ground surface. NTI assumed an elevation of 100.0 feet for each of the boring locations. Subsurface conditions are summarized in the table below. Please refer to the boring logs for additional information.

Table 1A: Pavement and Subgrade Summary, Edgewood Lane

Boring No.	Surface Material [1] (in)	Fill Subgrade Material	Native Subgrade Material	Notes
SB-1	2¼ (Bituminous) 3 (Agg. Base)	SP-SC and SC	SC	9½ Feet of Existing Fill
SB-2	3½ (Bituminous) 2½ (Agg. Base)	SP-SM and CL	SC	7 Feet of Existing Fill
SB-3	6 (Agg. Base)	SP-SC and SC	SP-SM	9½ Feet of Existing Fill
SB-4	8 (Agg. Base)	SC	SC	7 Feet of Existing Fill
C-1	2½ (Bituminous) 3¼ (Agg. Base)	NA	NA	Core Location
C-2	3½ (Bituminous) 2 (Agg. Base)	NA	NA	Core Location

1. These materials visually classified only and may not necessarily meet MnDOT or other specifications for aggregate base.

Table 1B: Pavement and Subgrade Summary, Fox Ridge Court and Fox Ridge Drive

Boring No.	Surface Material [1] (in)	Fill Subgrade Material	Native Subgrade Material	Notes
SB-5	4 ½ (Bituminous) 6½ (Agg. Base)	SP-SM and SC	SC and SP-SM	9½ Feet of Existing Fill
SB-6	5¼ (Bituminous) 6 (Agg. Base)	SP-SM	SC	7 Feet of Existing Fill
SB-7	4¾ (Bituminous) 6½ (Agg. Base)	SC	NE 2	6+ Feet of Existing Fill (Boring terminated due to mismarked water line obstruction)
SB-8	4½ (Bituminous) 7 (Agg. Base)	SP-SC	SP-SM	7 Feet of Existing Fill
C-3	5¾ (Bituminous) 6 (Agg. Base)	NA	NA	Core Location
C-4	2¼ (Bituminous) 5 (Agg. Base)	NA	NA	Core Location
C-5	4¼ (Bituminous) 6½ (Agg. Base)	NA	NA	Core Location

1. Aggregate Base by visual classification only and may not necessarily meet MnDOT or other specifications.
2. The boring terminated in existing fill material.

Table 1C: Pavement and Subgrade Summary, Humboldt Avenue/Kraft Road East

Boring No.	Apparent Topsoil Thickness [1] (in)	Fill[)] Subgrade Material	Native Subgrade Material	Notes
SB-9	8¾ (Bituminous) 4(Agg. Base)	SP-SM and SC	SC and SP-SM	7 Feet of Existing Fill
SB-10	9¼ (Bituminous) 4 (Agg. Base)	SC	SC	7 Feet of Existing Fill
SB-11	11 (Bituminous) 4 (Agg. Base)	SC	SC	7 Feet of Existing Fill
SB-12	8¼ (Bituminous) 5 (Agg. Base)	SC	SC	7 Feet of Existing Fill
SB-13	8¼ (Bituminous) 1 (Agg. Base)	SP-SC and SC	SC	12 Feet of Existing Fill
SB-14	5¾ (Bituminous) 3 (Agg. Base)	SP-SC	SC	4½ Feet of Existing Fill
SB-15	7½ (Bituminous) 4 (Agg. Base)	SP-SC	SC	4½ Feet of Existing Fill
SB-16	4 (Bituminous) 2 (Agg. Base)	SP-SM and SM	SM	7 Feet of Existing Fill
SB-17	8½ (Bituminous) 2 (Agg. Base)	SP-SM	SC	2 Feet of Existing Fill
SB-18	10¼ (Bituminous) 2 (Agg. Base)	SC	SC	7 Feet of Existing Fill
C-6	7½ (Bituminous) 6 ½ (Agg. Base)	NA	NA	Core Location
C-7	9¼ (Bituminous) 4 (Agg. Base)	NA	NA	Core Location
C-8	8¾ (Bituminous) 3½ (Agg. Base)	NA	NA	Core Location
C-9	3¼ (Bituminous) 4¼ (Agg. Base)	NA	NA	Core Location
C-10	6½ (Bituminous) 3¾ (Agg. Base)	NA	NA	Core Location

1. Aggregate Base by visual classification only and may not necessarily meet MnDOT or other specifications.

Table 1D: Pavement and Subgrade Summary, Edith Drive and Runge Lane

Boring No.	Surface Material [1] (in)	Fill Subgrade Material	Native Subgrade Material	Notes
C-11	4¼ (Bituminous) 2½ (Agg. Base)	NA	NA	Core Location
C-12	4¼ (Bituminous) 4¾ (Agg. Base)	NA	NA	Core Location
C-13	3½ (Bituminous) 5¼ (Agg. Base)	NA	NA	Core Location
C-14	5¼ (Bituminous) 5 (Agg. Base)	NA	NA	Core Location
C-15	4½ (Bituminous) 4½ (Agg. Base)	NA	NA	Core Location
C-16	4½ (Bituminous) 3¾ (Agg. Base)	NA	NA	Core Location

1. Aggregate Base by visual classification only and may not necessarily meet MnDOT or other specifications.

GROUNDWATER AND GROUNDWATER CONTROL

Groundwater was observed in borings SB-10, SB-11, and SB-12 at a depth of approximately 7 feet below existing grade. Groundwater was not observed in the remaining soil borings at the time of our explorations. However, the onsite clay and silt laden soils can be relatively impervious and have the potential to develop zone of perched water at varying locations and elevations across the project site. Groundwater elevations can change due to precipitation events seasonally, changes in topography and site development, and due to long-term climate changes. Also, soil conditions between borings may be conducive to localized seeps or perched water zones that may be permanent or transient. Utilities

The fill and native soils observed in soil borings were generally suitable for utility support. For utilities with planned invert elevations within the existing fill, we recommend that at least the upper 1 foot of the excavation subgrade be scarified, moisture conditioned and re-compacted. In addition, if areas unstable or organic laden soils are encountered they should be subcut and replaced with engineered fill consisting of non-organic debris free mineral soil of similar composition as the underlying native soils. Groundwater, if encountered, should be maintained at least 2 feet below the bottom of the excavation.

The Geotechnical Engineer of Record or their designated representative should observe the project excavations to determine that unsuitable materials have been properly removed and adequate bearing support is provided by the exposed soils. The exposed soil at the base should be compacted with a vibratory roller to 95 percent standard Proctor dry density (ASTM D698). Such observations and testing should be performed prior to backfilling.

The on-site non-organic soils are anticipated to be suitable for reuse if properly moisture conditioned and compacted. Replacement backfill required in utility trenches should consist of non-organic material similar to the surrounding soil. All import fill should generally consist of non-organic debris free soils of similar composition to the in place native soils. All import fill soils should be approved by NTI or the City's representative prior to utilization.

It is especially important that trench backfill for utility construction within paved areas be thoroughly compacted to minimize future pavement damage. We recommend that such soils be compacted in accordance with the recommendations noted in the "Placement and Compaction of Engineered Fill" section in Appendix B of this report.

The stability of embankments along utility excavations is dependent on soil strength, site geometry, moisture content, and any surcharge load for excavated soils and equipment. We present cautionary remarks concerning stability of excavation side slopes in the "Excavation Stability" section of this report.

The Contractor is solely responsible for assessing the stability of and executing underground utility and project excavations using safe methods. The contractor is also responsible for naming the "competent individual" as per Subpart P of 29 CFR 1926.6 (Federal Register - OSHA).

CORROSION TESTING

Measurements of electrical resistivity were made on two collected samples to provide a general assessment of the potential for corrosion of ferrous metals installed in contact with the site soil strata.

Electrical resistivity is related both to the soils moisture content and the concentrations of dissolved salts and other conductive constituents in the soil pore water. Measurements of electrical resistivity tested via ASTM G187-05 indicated values from ranging from approximately 1,200 ohm-cm to 1,700 ohm-cm dependent upon the location and moisture content of the sample. Please refer to the lab results attached in the appendix.

The National Association of Corrosion Engineers (NACE) classifies corrosion potential due to electrical resistivity in six categories.

Table 2: NACE Corrosion Severity Ratings

Soil Resistivity (ohm-cm)	Corrosivity Rating
>20,000	Essentially Non-Corrosive
10,000 to 20,000	Mildly Corrosive
5,000 to 10,000	Moderately Corrosive
3,000 to 5,000	Corrosive
1,000 to 3,000	Highly Corrosive
<1,000	Extremely Corrosive

Corrosive conditions can be mitigated by use of materials that are not vulnerable to corrosion, heavy gauge materials to allow for loss of material over the design life of the utility, corrosion resistant coatings and cathodic protection systems. NTI recommends providing the corrosion test results to the proposed installer/supplier to additional information in regard to the need and preferred method of protection.

PAVEMENT RECOMMENDATIONS

Mill and Overlay Recommendations

Consideration could be made to milling and overlaying the existing pavement. Humboldt Avenue in particular appears to have a sufficiently thick in place pavement section, over a majority of the project alignment, which would lend itself to rehabilitation via mill and overlay techniques.

In general, pavement sections consisting of 3 inches or less of bituminous asphalt can be difficult to effectively mill and overlay as often times the entire pavement section is reclaimed during the attempted partial section milling process. The field exploration found only one area where the pavement section was less than 3 inches. This was at the western end of Edgewood Lane. On Edgewood Lance core location C-1 and soil boring SB-1 encountered asphalt pavement sections of 2½ inches and 2¼ inches, respectively. This pavement section appears to be locally too thin for an effective mill and overlay program.

Pavement Reconstruction

If the pavement section is to be removed and replaced in its entirety, the most conservative method of subgrade preparation would be remove the undocumented fill soils and replace them in their entirety with properly compacted engineered fill. This method of subgrade preparation would provide the most uniform subgrade but would also be the most costly method of construction and would be relatively a-typical method of subgrade preparation for improvements to existing municipal roadways.

If the City is willing to accept some risk in potential long term detrimental performance for the significant upfront savings, the roadway can be reconstructed over the existing fill. NTI recommends that prior to installing the aggregate base that the existing subgrade be scarified and re-compacted to a depth of at least 12 inches. A proof roll test should then be performed to determine soft or unstable subgrade areas. If rutting or localized unstable subgrade areas are observed, those areas should be subcut, moisture-conditioned, and re-compacted or removed to a stable depth. Excavations for soil corrections in paved areas should allow for a 2 foot oversize beyond the edges of the pavement.

The proof roll should be performed with a tandem axle dump truck loaded to gross capacity (at least 20 tons). Acceptance criteria of the proof roll shall be limited to rut formation no more than one inch depth (front or rear axles) and no pumping (rolling) observed during the visual inspection. Proof roll tests should be observed by an experienced technician or geotechnical engineer prior to placement of the aggregate base course to verify the subgrade will provide adequate pavement support.

If imported fill is required in paved areas it should consist of debris free, non-organic, mineral soil similar in composition to the subgrade soils encountered in the surrounding areas. If sand is imported into areas that are underlain by relatively impervious fine grained soils the sand layer should be drained with drain tile in order to prevent frost heave from water trapped within the imported sand layer during freezing temperatures. Similarly, if clay is used in conjunction with lane widening, drainage from any existing granular soils may be impeded unless subsurface drainage is included. Individual lifts of engineered fill should be tempered for moisture content, placed and compacted as noted in the "Placement and Compaction of Engineered Fill" section in Appendix B of this report.

MINIMUM PAVEMENT SECTION THICKNESS

Estimates of minimum thicknesses for new pavement sections for this project have been based on the procedures outlined in the MnDOT Pavement Design Manual using soil parameters based on soil types. The following minimum thicknesses were estimated based upon our estimated traffic loading, limited soils information, variation across the project area, and experience with similar projects and soil conditions. The performance of stabilometer or similar tests, were beyond the scope of this report; however, they may be performed, upon request, for an additional fee. We estimate that a properly prepared subgrade would have an average stabilometer R-value of 30 based on a predominantly clayey sand (SC) resultant subgrade.

For a 20-year design pavement life and light commercial traffic volumes, Table 2 presents our thickness recommendations for flexible (bituminous) pavement. The 9-ton design assumes that there will less than 300 heavy commercial vehicles per day, a thicker pavement section may be needed if the city anticipates more growth in the project area. Although not anticipated based upon the provided proposal documents, NTI has also included a 7-Ton design for areas that may have lower traffic volumes and/or correspondingly lower long term structural requirements.

Table 2: Recommended Flexible Pavement Thickness Design Alternative

Pavement Section	(7-ton)	(9-ton)
Bituminous Wear Course (inches)	1.5	2.0
Bituminous Base Course (inches)	2.0	2.0
Class 5 or 7 Aggregate Base (inches)	6.0	8.0

Pavement recommendations assume the subgrade soils and aggregate section below paved surfaces will drain to subsurface piping for eventual discharge into storm sewer, or above grade to ditching, or similar acceptable systems. Lack of surface and subsurface drainage will significantly reduce the capacity and longevity of the pavement systems indicated above.

We recommend pavements receive annual maintenance, as a minimum, to correct damages to the pavement structure, clean and infill cracks which develop, and repair or resurface areas which exhibit reduced subgrade performance. The lack of maintenance can lead to moisture infiltration of the pavement structure and softening of the subgrade soils. This, in turn, can degrade the performance of the pavement system and result in poorly performing pavements with shortened life expectancy.

EXCAVATION STABILITY

Excavation depth and sidewall inclination should not exceed those specified in local, state or federal regulations. Excavations may need to be widened and sloped, or temporarily braced, to maintain or develop a safe work environment. Contractors must comply with local, state, and federal safety regulations including current OSHA excavation and trench safety standards. Temporary shoring must be designed in accordance with applicable regulatory requirements.

ENGINEERED FILL & WINTER CONSTRUCTION

The soils encountered at the project locations will be susceptible to freezing if not provided adequate drainage, insulation or coverage. Frozen soil should not be used as backfill. When the ambient air temperature falls below freezing for an extended period of time, frost forms, and soil near the surface grade expands. Settlement of the fill may occur as the frozen soils thaw.

If frost penetrates the soil prior to paving, soils must be thawed, scarified, and re-compacted as recommended in this report. Subgrade soils should be inspected prior to paving to verify frozen conditions are not present.

CLOSURE

The conclusions and recommendations in this report are predicated on observation and testing of the earthwork directed by Geotechnical Engineer of Record. Our opinions were based on data assumed representative of the site, as encountered from the soil borings and asphalt cores on site. For this and other reasons, we do not warrant conditions below the depth of our borings, or that the strata logged from our borings are necessarily typical across the site. Deviations from our recommendations by plans, written specifications, or field applications shall relieve us of responsibility unless our written concurrence with such deviations has been established.

Our conclusions and recommendations are predicated on observation and testing of the earthwork directed by Geotechnical Engineer of Record. Our opinions are based on data assumed representative of the site. However, the area coverage of borings in relation to the entire project is very small. For this and other reasons, we do not warrant conditions below the depth of our borings, or that the strata logged from our borings are necessarily typical of the site. Deviations from our recommendations by plans, written specifications, or field applications shall relieve us of responsibility unless our written concurrence with such deviations has been established.

The scope of services for this project does not include either specifically or by implication any environmental or biological assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

This report has been prepared for the exclusive use of The City of West St. Paul and its agents for specific application to the proposed project areas. Northern Technologies, Inc. has endeavored to comply with generally accepted geotechnical engineering practice common to the local area. Northern Technologies, Inc. makes no other warranty, express or implied.

Northern Technologies, Inc.

Steven D. Gerber, P.E.
Senior Engineer

Ryan M. Benson, P.E.
Regional Manager / Principal Engineer

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.

Ryan M. Benson

Date: 01/29/2016 Reg. No. 42724

SDG/rmb

Attachments
Appendix A - General Notes
Appendix B - Groundwater Issues, Compaction and Placement of Fill
Appendix C - Boring Location Diagram, Soil Boring Logs
Appendix D – Core Photographs

APPENDIX A

GEOTECHNICAL EVALUATION OF RECOVERED SOIL SAMPLES

We visually examined recovered soil samples to estimate distribution of grain sizes, plasticity, consistency, moisture condition, color, presence of lenses and seams, and apparent geologic origin. We then classified the soils according using the Unified Soil Classification System (ASTM D2488). A chart describing this classification system and general notes explaining soil sampling procedures are presented within appendices attachments.

The stratification depth lines between soil types on the logs are estimated based on the available data. In-situ, the transition between type(s) may be distinct or gradual in either the horizontal or vertical directions. The soil conditions have been established at our specific boring locations only. Variations in the soil stratigraphy may occur between and around the borings, with the nature and extent of such change not readily evident until exposed by excavation. These variations must be properly assessed when utilizing information presented on the boring logs.

We request that you, your design team or contractors contact NTI immediately if local conditions differ from those assumed by this report, as we would need to review how such changes impact our recommendations. Such contact would also allow us to revise our recommendations as necessary to account for the changed site conditions.

FIELD EXPLORATION PROCEDURES

Soil Sampling – Standard Penetration Boring:

Soil sampling was performed according to the procedures described by ASTM D-1586. Using this procedure, a 2 inch O.D. split barrel sampler is driven into the soil by a 140 pound weight falling 30 inches. After an initial set of six inches, the number of blows required to drive the sampler an additional 12 inches is recorded (known as the penetration resistance (i.e. "N-value") of the soil at the point of sampling. The N-value is an index of the relative density of cohesionless soils and an approximation of the consistency of cohesive soils.

Soil Sampling – Power Auger Boring:

The boring(s) was/were advanced with a 6 inch nominal diameter continuous flight auger. As a result, samples recovered from the boring are disturbed, and our determination of the depth, extend of various stratum and layers, and relative density or consistency of the soils is approximate.

Soil Classification:

Soil samples were visually and manually classified in general conformance with ASTM D-2488 as they were removed from the sampler(s). Representative fractions of soil samples were then sealed within respective containers and returned to the laboratory for further examination and verification of the field classification. In addition, select samples were submitted for laboratory tests. Individual sample information, identification of sampling methods, method of advancement of the samples and other pertinent information concerning the soil samples are presented on boring logs and related report attachments.

General Notes

DRILLING & SAMPLING SYMBOLS		LABORATORY TEST SYMBOLS	
SYMBOL	**DEFINITION**	**SYMBOL**	**DEFINITION**
C.S.	Continuous Sampling	W	Moisture content-percent of dry weight
P.D.	2-3/8" Pipe Drill	D	Dry Density-pounds per cubic foot
C.O.	Cleanout Tube	LL, PL	Liquid and plastic limits determined in accordance with ASTM D 423 and D 424
3 HSA	3 ¼" I.D. Hollow Stem Auger	Q_u	Unconfined compressive strength-pounds per square foot in accordance with ASTM D 2166-66
4 FA	4" Diameter Flight Auger		
6 FA	6" Diameter Flight Auger		
2 ½ C	2 ½" Casing		
4 C	4" Casing		**Additional insertions in Qu Column**
D.M.	Drilling Mud	Qp	Penetrometer reading-tons/square foot
J.W.	Jet Water	S	Torvane reading-tons/square foot
H.A.	Hand Auger	G	Specific Gravity – ASTM D 854-58
NXC	Size NX Casing	SL	Shrinkage limit – ASTM 427-61
BXC	Size BX Casing	pH	Hydrogen ion content-meter method
AXC	Size AX casing	O	Organic content-combustion method
SS	2" O.D. Split Spoon Sample	M.A.*	Grain size analysis
2T	2" Thin Wall Tube Sample	C*	One dimensional consolidation
3T	3" Thin Wall Tube Sample	Q_c*	Triaxial Compression
			* See attached data Sheet and/or graph

Water Level Symbol

Water levels shown on the boring logs are the levels measured in the borings at the time and under the conditions indicated. In sand, the indicated levels can be considered reliable ground water levels. In clay soils, it is not possible to determine the ground water level within the normal scope of a test boring investigation, except where lenses or layers of more pervious water bearing soil is present and then a long period of time may be necessary to reach equilibrium. Therefore, the position of the water level symbol for cohesive or mixed soils may not indicate the true level of the ground water table. The available water level information is given at the bottom of the log sheet.

Descriptive Terminology

DENSITY		CONSISTENCY	
TERM	**"N" VALUE**	**TERM**	**"N" VALUE**
Very Loose	0-4	Soft	0-4
Loose	5-8	Medium	5-8
Medium Dense	9 – 15	Rather Stiff	9 – 15
Dense	16 – 30	Stiff	16 – 30
Very Dense	Over 30	Very Stiff	Over 30

Standard "N" Penetration: Blows per foot of a 140 pound hammer falling 30 inches on a 2 inch OD split spoon.

Relative Proportions

TERMS	RANGE
Trace	0-5%
A little	5-15%
Some	15-30%
With	30-50%

Particle Sizes

Boulders		Over 3"
Gravel -	Coarse	¾" – 3"
	Medium	#4 – ¾"
Sand -	Coarse	#4 - #10
	Medium	#10 - #40
	Fine	#40 - #200
Silt and Clay		Determined by plasticity characteristics.

Note: Sieve sizes are U.S. Standard.

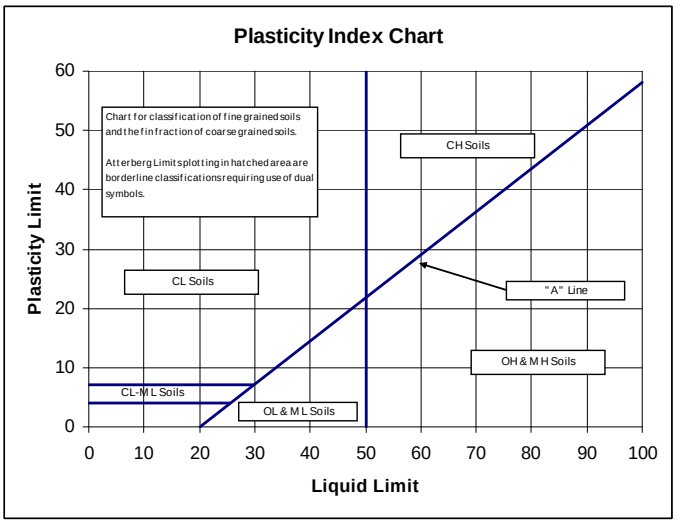
Classification of Soils for Engineering Purposes

ASTM Designation D-2487 and D 2488 (Unified Soil Classification System)

Major Divisions				Group Symbols	Typical Names	Classification Criteria	
Course Grained Soils More than 50% retained on No. 200 sieve *	***Gravels*** 50% or more of coarse fraction retained on No. 4 sieve.	Clean Gravels		**GW**	Well –graded gravels and gravel-sand mixtures, little or no fines.	$C_u = D_{60} / D_{10}$ greater than 4. $C_z = (D_{30})^2 / (D_{10} \times D_{60})$ between 1 & 3.	
				GP	Poorly graded gravels and gravel-sand mixtures, little or no fines.	Not meeting both criteria for GW materials.	
		Gravels with Fines		**GM**	Silty gravels, gravel-sand-silt mixtures.	Atterberg limits below "A" line, or P.I. less than 4.	Atterberg limits plotting in hatched area are *borderline* classifications requiring use of dual symbols.
				GC	Clayey gravels, gravel-sand-clay mixtures.	Atterberg limits above "A" line with P.I. greater than 7.	
	Sands More than 50% of coarse fraction passes No 4 sieve.	Clean Sands		**SW**	Well-graded sands and gravelly sands, little or no fines.	$C_u = D_{60} / D_{10}$ greater than 6. $C_z = (D_{30})^2 / (D_{10} \times D_{60})$ between 1 & 3.	
				SP	Poorly-graded sands and gravelly sands, little or no fines.	Not meeting both criteria for SW materials.	
		Sands with Fines		**SM**	Silty sands, sand-silt mixtures.	Atterberg limits below "A" line, or P.I. less than 4.	Atterberg limits plotting in hatched area are *borderline* classifications requiring use of dual symbols.
				SC	Clayey sands, sand-clay mixtures.	Atterberg limits above "A" line with P.I. greater than 7.	
Fine Grained Soils More than 50% passes No. 200 sieve *	***Silts and Clays*** Liquid Limit of 50% or less			**ML**	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands.		
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.		
				OL	Organic silts and organic silty clays of low plasticity.		
	Silts and Clays Liquid Limit greater than 50%.			**MH**	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts.		
				CH	Inorganic clays of high plasticity, fat clays.		
				OH	Organic clays of medium to high plasticity.		
	Highly Organic Soils			**Pt**	Peat, muck and other highly organic soils.		

Classification on basis of percentage of fines.

Less than 5% passing No. 200 Sieve:	GW, GP, SW, SP
More than 12% passing No. 200 Sieve:	GM, GC, SM, SC
From 5% to 12% passing No. 200 Sieve:	Borderline Classification requiring use of duel symbols.



APPENDIX B

GROUNDWATER ISSUES

The following presents additional comment and soil specific issues related to measurement of ground water conditions at your project site.

Note that our ground water measurements, or lack thereof, will vary depending on the time allowed for equilibrium to occur in the borings. Extended observation time was not available during the scope of the field exploration program and, therefore, ground water measurements as noted on the borings logs may or may not accurately reflect actual conditions at your site.

Seasonal and yearly fluctuations of the ground water level, if any, occur. Perched ground water may be present within sand and silt lenses bedded within cohesive soil formations.

If minor seepage into project excavations occurs, dewatering with sumps and pumps within excavations will be adequate within fine grained clay or silt based soils. Within the clean sand soils dewatering can likely be accomplished with the use of a well point system.

PLACEMENT AND COMPACTION OF ENGINEERED FILL

Unless otherwise superseded within the body of the Geotechnical Exploration Report, the following criteria shall be utilized for placement of engineered fill on project. This includes, but is not limited to earthen fill placement to improve site grades, fill placed below structural footings, fill placed interior of structure, and fill placed as backfill of foundations.

Engineered fill placed for construction, if necessary should consist of natural, non-organic, competent soils native to the project area. Such soils may include, but are not limited to gravel, sand, or clays with Unified Soil Classification System (ASTM D2488) classifications of GW, SP, SM, CL or CH. Use of silt or clayey silt as project fill will require additional review and approval of project Geotechnical Engineer of Record. Such soils have USCS classifications of ML, MH, ML-CL, MH-CH. Use of topsoil, marl, peat, other organic soils construction debris and/or other unsuitable materials as fill is not allowed. Such soils have USCS classifications of OL, OH, Pt.

Engineered fill, classified as clay, should be tempered such that the moisture content at the time of placement is equal to and no more than 3 percent above the optimum content for as defined by the appropriate proctor test. Likewise, engineered fill classified as gravel or sand should be tempered such that the moisture content at the time of placement is within 3 percent of the optimum content.

All engineered fill for construction should be placed in individual 8 inch maximum depth lifts. Each lift of fill should be compacted by large vibratory equipment until the in-place soil density is equal to or greater than the criteria established within the following tabulation.

	Compaction Criteria (% respective Proctor) [1]	
Type of Construction	**Clay**	**Sand or Gravel**
Engineered Fill placed as Pavement Subgrade (more than 3 feet below bottom of final grade)	Min. 95	Min. 95
Engineered Fill placed as Pavement Subgrade (less than 3 feet below bottom of final grade)	Min. 100	Min. 100
Engineered Fill placed as Pavement Aggregate Base	NA	Min. 100
Note 1 Unless otherwise required, compaction criteria shall be based on the Standard Proctor Test (ASTM D698).		

Density tests should be taken during engineered fill placement to document earthwork has achieved necessary compaction of the material(s).

APPENDIX C

N

Boring Location Diagram
2016 Street Improvement Project (Edgewood Lane)
West St. Paul, Minnesota
NTI Project #: 15.61276.100

NOTE: Boring locations are approximate.

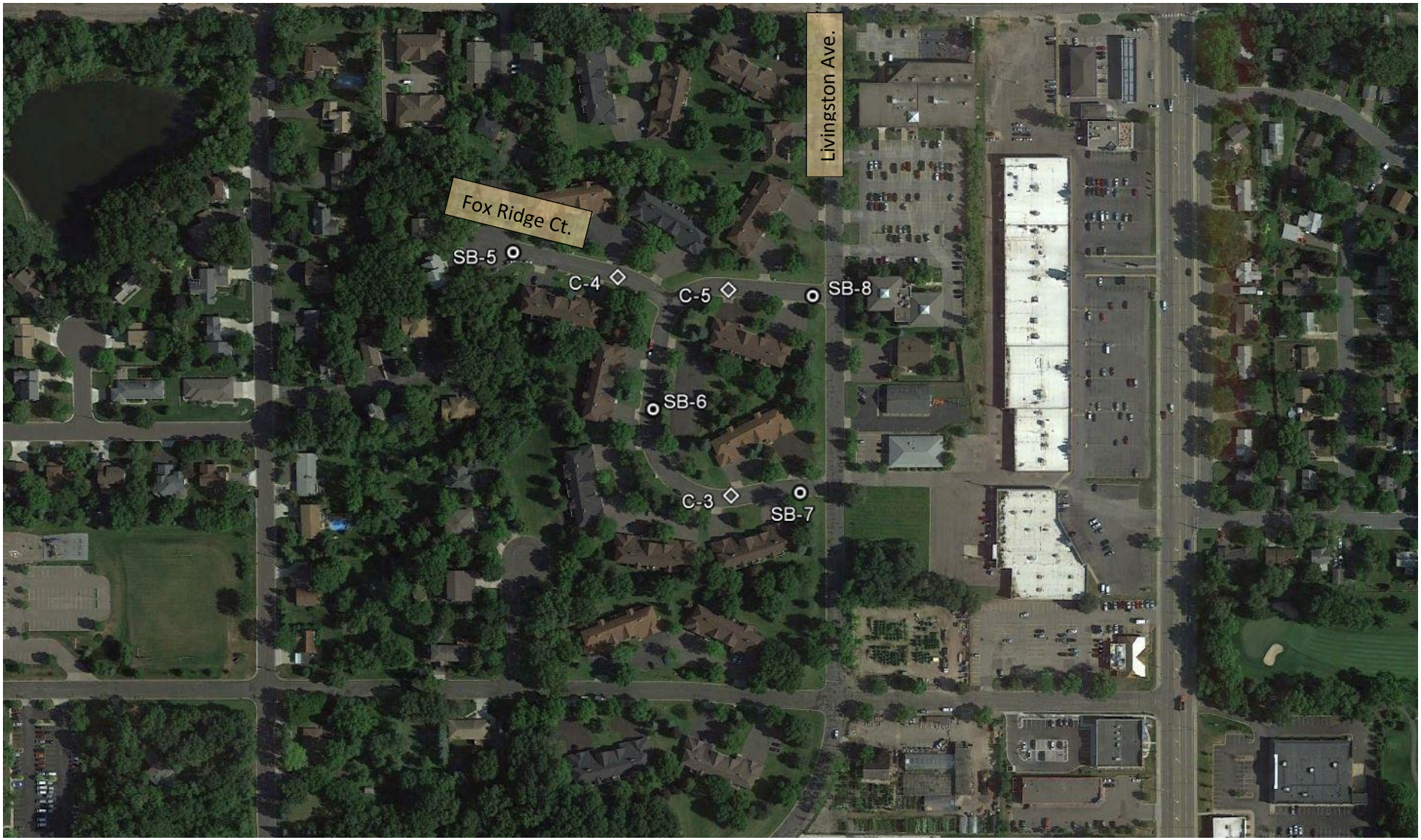
NTI
NORTHERN TECHNOLOGIES, INC.

N

Boring Location Diagram
2016 Street Improvement Project (Edith Drive & Runge Lane)
West St. Paul, Minnesota
NTI Project #: 15.61276.100

NOTE: Boring locations are approximate.

NTI
NORTHERN TECHNOLOGIES, INC.



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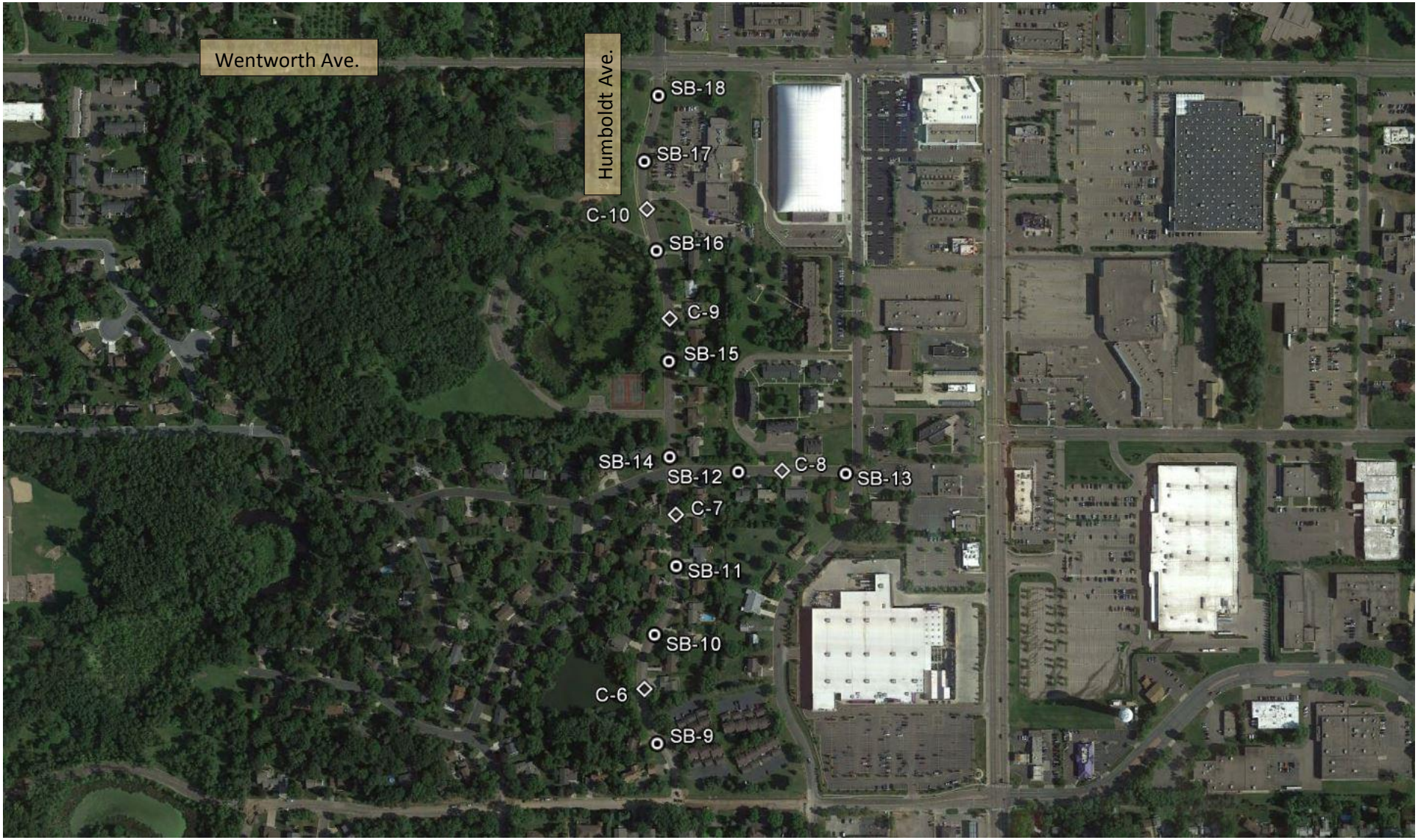
Boring Location Diagram
2016 Street Improvement Project (Fox Ridge Court)
West St. Paul, Minnesota
NTI Project #: 15.61276.100

NOTE: Boring locations are approximate.

NTI
NORTHERN TECHNOLOGIES, INC.



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Boring Location Diagram
2016 Street Improvement Project (Humboldt Avenue)
West St. Paul, Minnesota
NTI Project #: 15.61276.100

NOTE: Boring locations are approximate.

NTI
NORTHERN TECHNOLOGIES, INC.

Northern Technologies Inc.
6160 Carmen Ave. E
Inver Grove Heights, MN, 55076
Telephone: 651-389-4191

BORING NUMBER SB-1

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/12/16 **COMPLETED** 1/12/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		0.2 BITUMINOUS PAVEMENT (2 1/4 Inches) 99.8										
		0.4 APPARENT AGGREGATE BASE (3 Inches) 99.6	AU 1									
		POORLY GRADED SAND WITH CLAY, (SP-SC) brown, fine grained, moist, trace gravel (Fill)										
		2.0 98.0										
		CLAYEY SAND, (SC) brown to dark brown, fine to medium grained, moist, trace gravel, occasional bituminous debris (Fill)	SS 2	56 (39)	8-8							
5			SS 3	67 (44)	9-10			9				
			SS 4	44 (56)	11-11							
		9.5 90.5										
10		CLAYEY SAND, (SC) brown, fine to medium grained, moist, dense to very dense, trace gravel (Glacial Till)	SS 5	44 (56)	12-14							
			SS 6	56 (67)	15-16			9				
		13.5 86.5										

Bottom of borehole at 13.5 feet.

NTI GEOTECH COLUMNS - GINT STD US LAB MAY 2012.GDT - 1/29/16 07:55 - H:\RAMSEY\1-PROJECTS\2015 PROJECTS\WEST ST PAUL 2016 STREETS - GEO - (15.61276.100)\ENGINEERING\ENGINEERING REPORTS\GINT\WEST ST. PAUL STREETS.GPJ

Northern Technologies Inc.
6160 Carmen Ave. E
Inver Grove Heights, MN, 55076
Telephone: 651-389-4191

BORING NUMBER SB-2

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/12/16 **COMPLETED** 1/12/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		0.3 BITUMINOUS PAVEMENT (3 1/2 Inches) 99.7										
		0.5 APPARENT AGGREGATE BASE (2 1/2 Inches) 99.5										
		POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine grained, moist, trace gravel (Fill)	AU 1									
		2.0 98.0										
		SANDY LEAN CLAY, (CL) brown, moist, trace gravel (Fill) NOTE: Little recovery sample 2. Sampled auger cuttings.	SS 2	0	4-3-4 (7)			24				
5		NOTE: Brown to gray below 4.5 feet. NOTE: Resistivity = 1,230 ohm/cm at 5 feet.	SS 3	56	3-4-4 (8)							
		7.0 93.0										
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, dense to very dense, trace gravel (Glacial Till)	SS 4	67	6-7-9 (16)							
10			SS 5	67	9-10-10 (20)			14				
			SS 6	56	10-10-10 (20)							
		13.5 86.5										

Bottom of borehole at 13.5 feet.

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Northern Technologies Inc.
6160 Carmen Ave. E
Inver Grove Heights, MN, 55076
Telephone: 651-389-4191

BORING NUMBER SB-3

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/12/16 **COMPLETED** 1/12/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		APPARENT AGGREGATE BASE (6 Inches) 0.5	99.5	AU 1					10				
		POORLY GRADED SAND WITH CLAY, (SP-SC) dark brown, fine to medium grained, moist, trace gravel (Fill) 2.0	98.0										
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, little gravel (Fill)		SS 2	67	6-5-6 (11)							
5				SS 3	44	3-4-3 (7)			12				
				SS 4	33	4-5-5 (10)							
		9.5	90.5										
10		POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to medium grained, saturated, trace gravel (Glacial Outwash)		SS 5	33	6-9-10 (19)							
		13.5	86.5	SS 6	56	10-12-12 (24)							

Bottom of borehole at 13.5 feet.

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Telephone: 651-389-4191

BORING NUMBER SB-4

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/12/16 **COMPLETED** 1/12/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		APPARENT AGGREGATE BASE (8 Inches) 0.7 / 99.3	AU 1									
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel (Fill)										
			SS 2	44	4-5-10 (15)			10				
5		NOTE: Brown to gray below 4.5 feet.	SS 3	33	12-13-13 (26)							
		7.0 / 93.0 CLAYEY SAND, (SC) brown, fine to medium grained, moist, dense, little gravel (Glacial Till)	SS 4	56	11-14-13 (27)							
10			SS 5	44	12-10-12 (22)			10				
		13.5 / 86.5	SS 6	67	10-11-10 (21)							

Bottom of borehole at 13.5 feet.

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Northern Technologies Inc.
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Inver Grove Heights, MN, 55076
Telephone: 651-389-4191

BORING NUMBER SB-5

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/12/16 **COMPLETED** 1/12/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		0.4 BITUMINOUS PAVEMENT (4 1/2 Inches)	99.6										
		0.9 APPARENT AGGREGATE BASE (6 1/2 Inches)	99.1	AU 1					7				
		POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to medium grained, moist, little gravel (Fill)											
		2.0 CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel, occasional bituminous debris (Fill)	98.0	SS 2	56	6-8-8 (16)							
5				SS 3	56	9-8-9 (17)							
				SS 4	44	15-15-13 (28)							
		9.5 CLAYEY SAND, (SC) brown, fine to medium grained, moist, dense, trace gravel (Glacial Till)	90.5										
10				SS 5	67	12-10-10 (20)							
		12.0 POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to medium grained, moist, dense, trace gravel, iron oxide staining (Glacial Outwash)	88.0										
		13.5	86.5	SS 6	33	11-9-8 (17)							

Bottom of borehole at 13.5 feet.

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Northern Technologies Inc.
6160 Carmen Ave. E
Inver Grove Heights, MN, 55076
Telephone: 651-389-4191

BORING NUMBER SB-6

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/12/16 **COMPLETED** 1/12/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		0.4 BITUMINOUS PAVEMENT (5 1/4 Inches) 99.6										
		0.9 APPARENT AGGREGATE BASE (6 Inches) 99.1	AU 1									
		POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to medium grained, moist, little gravel (Fill)										
		NOTE: No recovery sample 2. Sampled auger cuttings.	SS 2	0	50/4"							
5		NOTE: Occasional bituminous debris at 4.5 feet.	SS 3	67	5-6-7 (13)							
		7.0 93.0										
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, medium dense, trace gravel (Glacial Till)	SS 4	78	4-5-4 (9)			11				27
10			SS 5	67	7-8-5 (13)							
			SS 6	44	5-6-6 (12)							
		13.5 86.5										

Bottom of borehole at 13.5 feet.

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Northern Technologies Inc.
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Telephone: 651-389-4191

BORING NUMBER SB-7

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/12/16 **COMPLETED** 1/12/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		0.4 BITUMINOUS PAVEMENT (4 3/4 Inches)	99.6										
		0.9 APPARENT AGGREGATE BASE (6 1/2 Inches)	99.1	AU 1									
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel (Fill)											
				SS 2	44	8-9-9 (18)							
5				SS 3	67	7-8-9 (17)							
		6.0	94.0										

Bottom of borehole at 6.0 feet.

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Telephone: 651-389-4191

BORING NUMBER SB-8

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/12/16 **COMPLETED** 1/12/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		0.4 BITUMINOUS PAVEMENT (4 1/2 Inches)	99.6										
		1.0 APPARENT AGGREGATE BASE (7 Inches)	99.1	AU 1					7				
		POORLY GRADED SAND WITH CLAY, (SP-SC) brown, fine to medium grained, moist, trace gravel (Fill)											
				SS 2	56	10-12-12 (24)							
5				SS 3	56	10-8-7 (15)			5				
		7.0	93.0										
		POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to medium grained, moist, medium dense, trace gravel, occasional clayey sand (SC) layers (Glacial Outwash)		SS 4	67	6-6-6 (12)							
10				SS 5	56	6-7-6 (13)							
		13.5	86.5	SS 6	67	6-8-8 (16)							

Bottom of borehole at 13.5 feet.

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Northern Technologies Inc.
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Inver Grove Heights, MN, 55076
Telephone: 651-389-4191

BORING NUMBER SB-9

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/15/16 **COMPLETED** 1/15/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		BITUMINOUS PAVEMENT (8 3/4 Inches)	0.7 / 99.3	AU 1					6				
		APPARENT AGGREGATE BASE (4 Inches)	1.0 / 99.0										
		POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to medium grained, moist, trace gravel (Fill)	2.0 / 98.0										
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel (Fill)		SS 2	67	9-7-7 (14)							
5				SS 3	44	7-8-7 (15)							
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, loose to medium dense, trace gravel (Glacial Till)	7.0 / 93.0	SS 4	56	5-3-3 (6)			9				
10				SS 5	56	4-5-6 (11)							
		POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to medium grained, moist, medium dense, trace gravel (Glacial Outwash)	12.0 / 88.0	SS 6	67	5-5-5 (10)							
			13.5 / 86.5										

Bottom of borehole at 13.5 feet.

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Northern Technologies Inc.
6160 Carmen Ave. E
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Telephone: 651-389-4191

BORING NUMBER SB-10

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/15/16 **COMPLETED** 1/15/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING 7.00 ft / Elev 93.00 ft
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		BITUMINOUS PAVEMENT (9 1/4 Inches) 0.8 / 99.2	AU 1									
		APPARENT AGGREGATE BASE (4 Inches) 1.1 / 98.9										
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel (Fill)	SS 2	56	5-6-6 (12)							
5		NOTE: Little recovery sample 3. Sampled auger cuttings.	SS 3	22	5-5-6 (11)							
		7.0 / 93.0 CLAYEY SAND, (SC) brown, fine to medium grained, moist, medium dense, trace gravel (Glacial Till)	SS 4	67	5-4-5 (9)							
10			SS 5	56	5-6-4 (10)							
		13.5 / 86.5	SS 6	44	6-5-5 (10)							

Bottom of borehole at 13.5 feet.

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BORING NUMBER SB-11

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/15/16 **COMPLETED** 1/15/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING 7.00 ft / Elev 93.00 ft
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		BITUMINOUS PAVEMENT (11 Inches) 0.9 / 99.1	AU 1					6				
		1.1 / 98.9 APPARENT AGGREGATE BASE (4 Inches)										
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel (Fill)	SS 2	67	6-7-6 (13)							
5		NOTE: Little recovery sample 3. Sampled auger cuttings.	SS 3	33	6-5-5 (10)							
		7.0 / 93.0 CLAYEY SAND, (SC) brown, fine to medium grained, moist, dense to loose, trace gravel, occasional bituminous debris (Glacial Till)	SS 4	67	7-8-9 (17)							
10			SS 5	56	7-5-4 (9)							
		NOTE: Little recovery sample 6. Sampled auger cuttings.	SS 6	33	4-3-4 (7)							
		13.5 / 86.5										

Bottom of borehole at 13.5 feet.

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BORING NUMBER SB-12

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/15/16 **COMPLETED** 1/15/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING 7.00 ft / Elev 93.00 ft
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		BITUMINOUS PAVEMENT (8 1/4 Inches) 0.7 / 99.3	AU 1									
		APPARENT AGGREGATE BASE (5 Inches) 1.1 / 98.9										
		CLAYEY SAND, (SC) brown, moist, trace gravel, occasional bituminous debris (Fill)	SS 2	56	9-9-7 (16)							
5		NOTE: Little recovery sample 3. Sampled auger cuttings.	SS 3	67	6-5-5 (10)							
		7.0 / 93.0 CLAYEY SAND, (SC) brown, fine to medium grained, moist, medium dense, trace gravel (Glacial Till)	SS 4	78	7-8-8 (16)							
10			SS 5	56	7-7-7 (14)							
		NOTE: Little recovery sample 6. Sampled auger cuttings.	SS 6	67	7-7-8 (15)							
		13.5 / 86.5										

Bottom of borehole at 13.5 feet.

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BORING NUMBER SB-13

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/15/16 **COMPLETED** 1/15/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION			SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		BITUMINOUS PAVEMENT (8 1/4 Inches)	0.7	99.3										
		APPARENT AGGREGATE BASE (1 Inch)	0.8	99.2	AU 1									
		POORLY GRADED SAND WITH CLAY, (SP-SC) brown, fine to medium grained, moist, trace gravel (Fill)			SS 2	89	9-9-8 (17)			11				
5			5.0	95.0	SS 3	56	6-5-6 (11)							
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel (Fill)			SS 4	67	5-5-5 (10)							
10					SS 5	33	4-5-5 (10)							
			12.0	88.0										
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, very loose, trace gravel (Glacial Till)			SS 6	33	4-4-4 (8)			13				
			13.5	86.5										

Bottom of borehole at 13.5 feet.

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Northern Technologies Inc.
6160 Carmen Ave. E
Inver Grove Heights, MN, 55076
Telephone: 651-389-4191

BORING NUMBER SB-14

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/15/16 **COMPLETED** 1/15/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		0.5 BITUMINOUS PAVEMENT (5 3/4 Inches) 99.5										
		APPARENT AGGREGATE BASE (3 Inches)	AU 1					9				
		1.8 98.2										
		POORLY GRADED SAND WITH CLAY, (SP-SC) brown, fine to medium grained, moist, trace gravel (Fill) NOTE: Little recovery sample 2. Sampled auger cuttings.	SS 2	22	10-12-13 (25)							
		4.5 95.5										
5		CLAYEY SAND, (SC) brown, fine to medium grained, moist, medium dense to dense, trace gravel (Glacial Till)	SS 3	78	6-6-7 (13)							
		NOTE: Occasional cobbles below 7 feet.	SS 4	44	9-6-12 (18)							
10			SS 5	11	9-9-9 (18)							
			SS 6	67	9-12-10 (22)							
		13.5 86.5										

Bottom of borehole at 13.5 feet.

NTI GEOTECH COLUMNS - GINT STD US LAB MAY 2012.GDT - 1/29/16 07:56 - H:\RAMSEY\1-PROJECTS\2015 PROJECTS\WEST ST PAUL 2016 STREETS - GEO - (15.61276.100)\ENGINEERING\ENGINEERING REPORTS\GINT\WEST ST. PAUL STREETS.GPJ

Northern Technologies Inc.
6160 Carmen Ave. E
Inver Grove Heights, MN, 55076
Telephone: 651-389-4191

BORING NUMBER SB-15

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/15/16 **COMPLETED** 1/15/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		BITUMINOUS PAVEMENT (7 1/2 Inches)	0.6 / 99.4	AU 1									
		APPARENT AGGREGATE BASE (4 Inches)	1.0 / 99.0										
		POORLY GRADED SAND WITH CLAY, (SP-SC) brown, fine to medium grained, moist, trace gravel (Fill) NOTE: Occasional bituminous debris below 2 feet.		SS 2	56	9-9-10 (19)							
			4.5 / 95.5										
5		CLAYEY SAND, (SC) brown, fine to medium grained, moist, dense, trace gravel (Glacial Till)		SS 3	78	10-10-8 (18)			7				28
		NOTE: Resistivity = 1,730 ohm/cm at 8 feet.		SS 4	56	7-9-9 (18)							
10				SS 5	67	9-12-12 (24)							
			13.5 / 86.5	SS 6	56	12-14-10 (24)							

Bottom of borehole at 13.5 feet.

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Northern Technologies Inc.
6160 Carmen Ave. E
Inver Grove Heights, MN, 55076
Telephone: 651-389-4191

BORING NUMBER SB-16

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/15/16 **COMPLETED** 1/15/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		0.4 BITUMINOUS PAVEMENT (4 Inches)	99.7										
		0.5 APPARENT AGGREGATE BASE (2 Inches)	99.5	AU 1									
		POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to medium grained, moist, trace gravel, occasional bituminous debris (Fill)											
		2.0 SILTY SAND, (SM) brown, fine to medium grained, moist, trace gravel (Fill)	98.0	SS 2	67	9-10-10 (20)			7				
5				SS 3	56	7-8-6 (14)							
		7.0 SILTY SAND, (SM) brown, fine to medium grained, moist, medium dense, trace gravel (Glacial Till)	93.0	SS 4	78	6-6-6 (12)							
10				SS 5	56	6-5-5 (10)							
		13.5	86.5	SS 6	78	5-4-5 (9)			7				

Bottom of borehole at 13.5 feet.

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Northern Technologies Inc.
6160 Carmen Ave. E
Inver Grove Heights, MN, 55076
Telephone: 651-389-4191

BORING NUMBER SB-17

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/15/16 **COMPLETED** 1/15/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		BITUMINOUS PAVEMENT (8 1/2 Inches)	0.5 / 99.5										
		APPARENT AGGREGATE BASE (2 Inches)	0.7 / 99.3	AU 1									
		POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to medium grained, moist, trace gravel (Fill)	2.0 / 98.0										
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, dense to medium dense, trace gravel (Glacial Till)		SS 2	67	10-10-10 (20)							
5				SS 3	67	9-10-11 (21)							
				SS 4	56	7-8-6 (14)							
10				SS 5	78	6-6-7 (13)							
		NOTE: Little recovery sample 6. Sampled auger cuttings.		SS 6	22	5-4-5 (9)							
			13.5 / 86.5										

Bottom of borehole at 13.5 feet.

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Northern Technologies Inc.
6160 Carmen Ave. E
Inver Grove Heights, MN, 55076
Telephone: 651-389-4191

BORING NUMBER SB-18

CLIENT City of West St. Paul
PROJECT NAME 2016 Street Improvement Project
PROJECT NUMBER 15.61276.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 1/15/16 **COMPLETED** 1/15/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 inches
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING ---
LOGGED BY BH **CHECKED BY** SDG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0		BITUMINOUS PAVEMENT (10 1/4 Inches) 0.9 / 99.1	AU 1					3				24
		1.1 / 98.9 APPARENT AGGREGATE BASE (2 Inches)										
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel (Fill)	SS 2	78	12-9-8 (17)							
5			SS 3	56	9-9-7 (16)							
		7.0 / 93.0 CLAYEY SAND, (SC) brown, fine to medium grained, moist, dense to medium dense, trace gravel (Glacial Till)	SS 4	56	10-16-14 (30)			6				
10			SS 5	44	14-15-15 (30)							
		13.5 / 86.5	SS 6	56	10-9-7 (16)							

Bottom of borehole at 13.5 feet.

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Laboratory Test Summary

Job: **10240**

Project: **West St. Paul Streets**

Date: **1/28/2016**

Client: **Northern Technologies, Inc.**

Sample Information & Classification				
Boring	SB 2/3	SB 15/4		
Sample				
Depth (ft)				
Type or BPF	Bag	Bag		
Soil Classification	Lean Clay w/sand, a trace of gravel, and pockets of sand w/silt (CL)	Clayey Sand w/a little gravel (SC/SC-SM)		
Water Content & Density (Initial)				
Water Content (%)	16.1	8.1		
Dry Density (PCF)	114.9	122.1		
Water Content & Density (Saturated)				
Water Content (%)	**N/A**	**12.1**		
Dry Density (PCF)	**N/A**	**123.6**		
Resistivity (ohm-cm) (ASTM G187-05)				
As Received Moisture Content Resistivity (ohm-cm)	**1,230**	**1,730**		
Saturated Condition Resistivity (ohm-cm)	**Sample received in a saturated condition**	**1,240**		

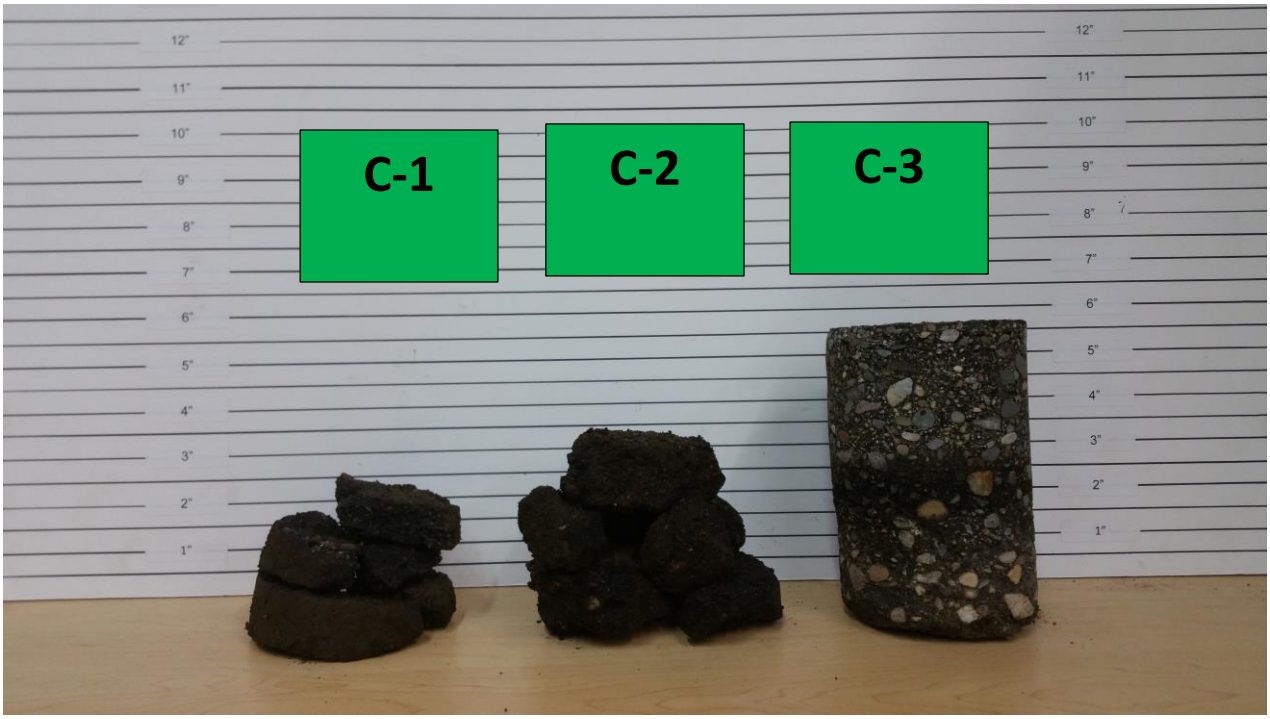
2401 W 66th Street

SOIL ENGINEERING TESTING, INC.

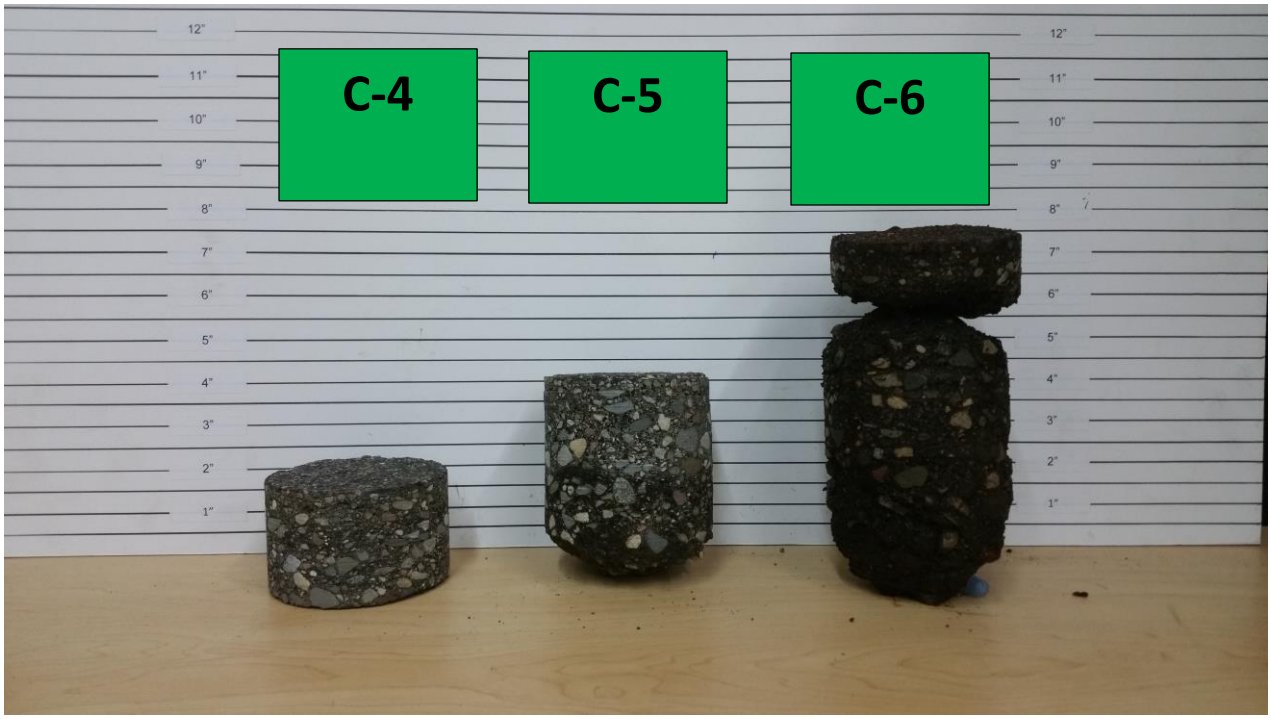
Richfield, Minnesota 55423-2031

APPENDIX D

Bituminous Pavement Cores, C-1: 2 ½ Inches*, C-2: 3 ½ Inches*, C-3: 5 ¾ Inches.



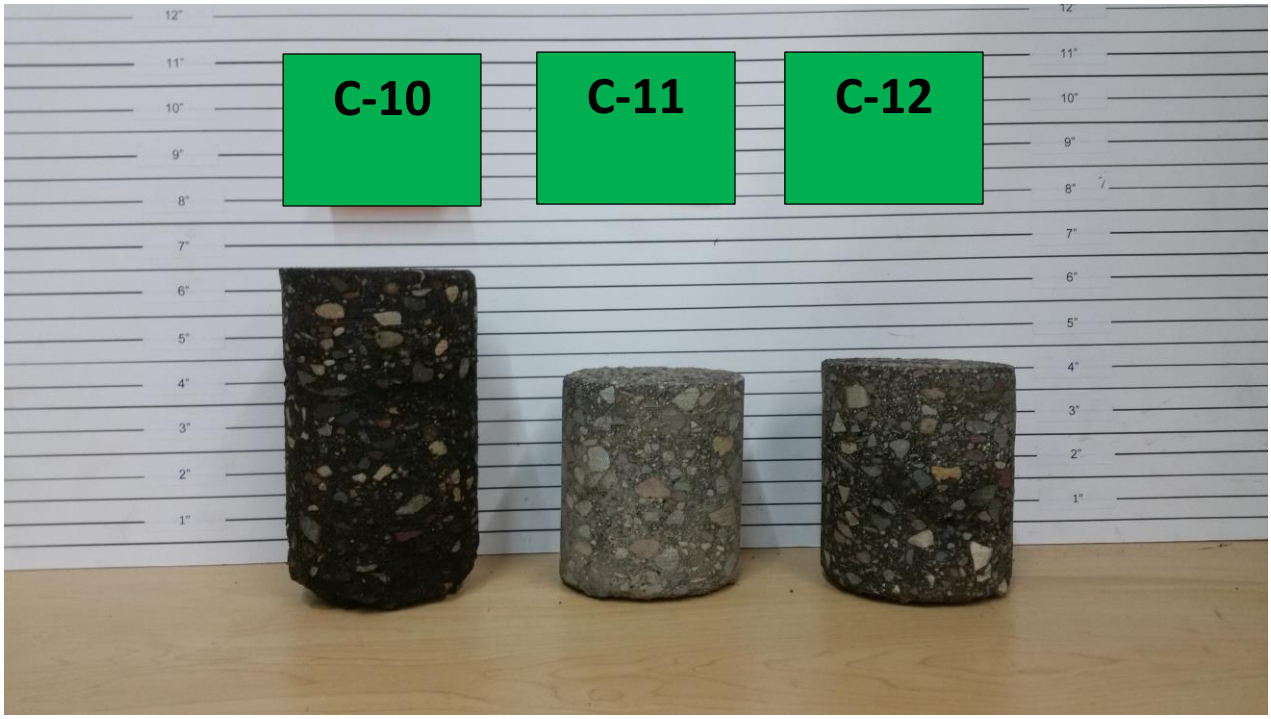
Bituminous Pavement Cores, SB-6: 2 ¼ Inches, SB-8: 4 ¼ Inches, SB-9: 7 ½ Inches.



*Core height not representative due to crumbling during coring process.

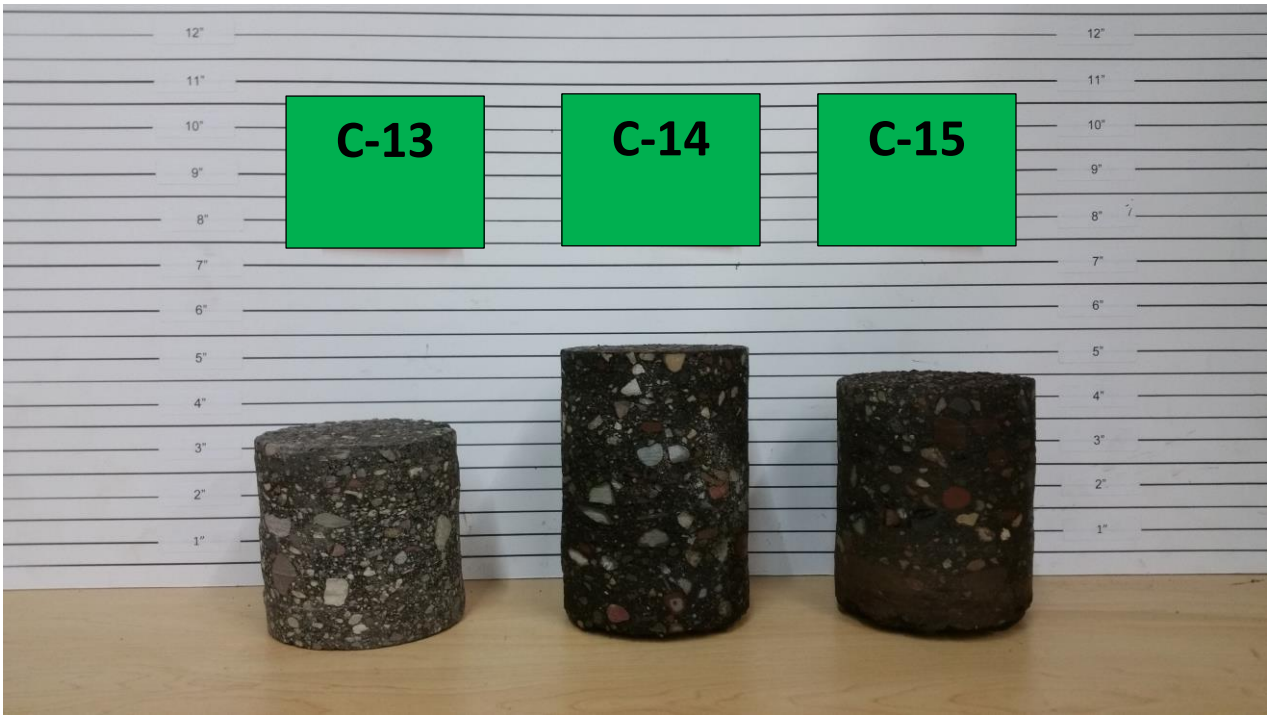
Bituminous Pavement Cores, C-7: 9 ¼ Inches, C-8: 8 ¾ Inches, C-9: 3 ¼ Inches.

Bituminous Pavement Cores, C-10: 6 ½ Inches, C-11: 4 ¼ Inches, C-12: 4 ¼ Inches.



*Core height not representative due to crumbling during coring process.

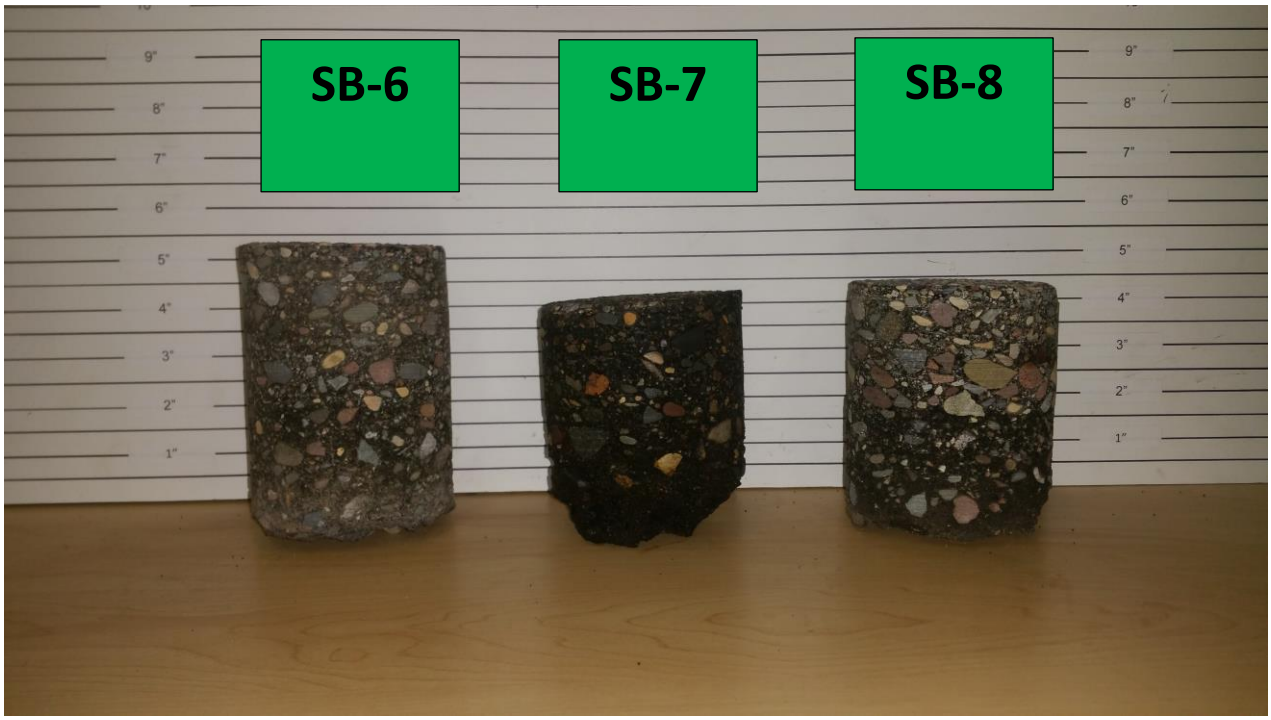
Bituminous Pavement Cores, C-13: 3 ½ Inches, C-14: 5 ¼ Inches, C-15: 4 ½ Inches.



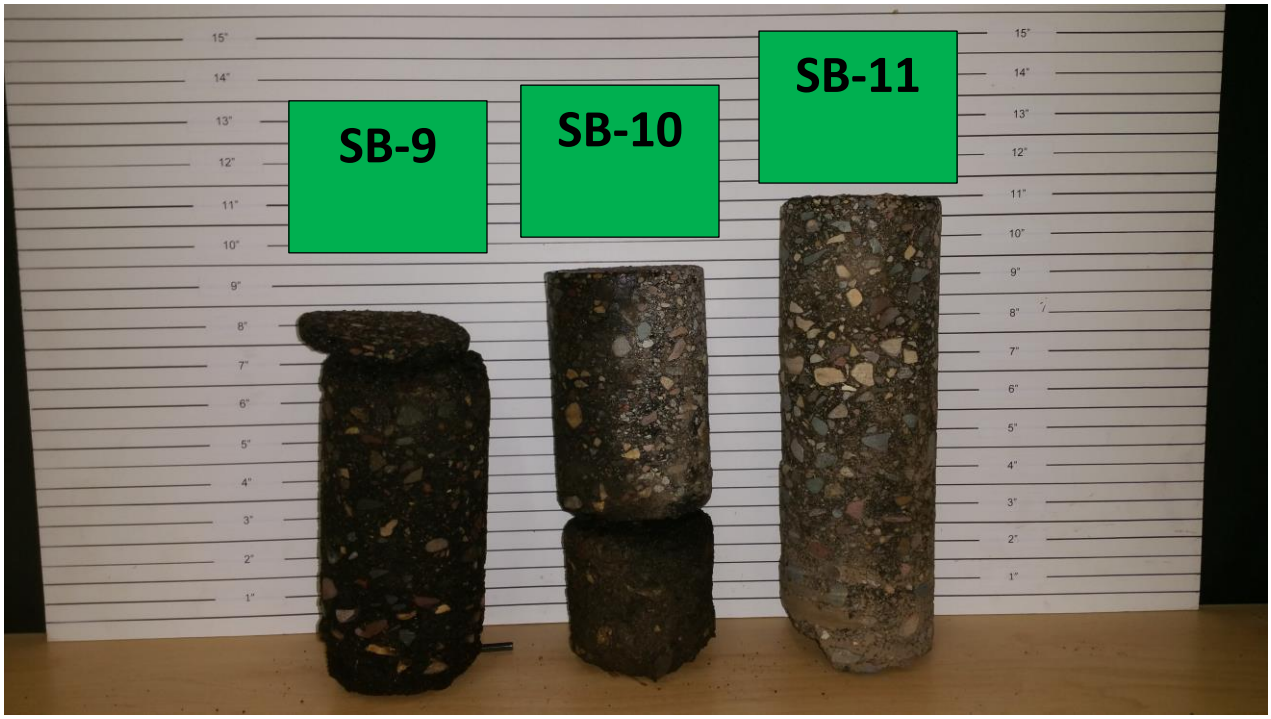
Bituminous Pavement Cores, SB-16: 4 ½ Inches.

Bituminous Pavement Cores, SB-1: 2 ¼ Inches*, SB-2: 3 ½ Inches*, SB-5: 4 ½ Inches.

Bituminous Pavement Cores, SB-6: 5 ¼ Inches, SB-7: 4 ¾ Inches, SB-8: 4 ½ Inches.



Bituminous Pavement Cores, SB-9: 8 ¾ Inches*, SB-10: 9 ¼ Inches, SB-11: 11 Inches.



Bituminous Pavement Cores, SB-12: 8 ¼ Inches, SB-13: 8 ¼ Inches*, SB-15: 5 ¾ Inches.

*Core height not representative due to crumbling during coring process.

Bituminous Pavement Cores, SB-15: 7 ½ Inches, SB-16: 4 Inches*, SB-17: 8 ½ Inches.

*Core height not representative due to crumbling during coring process.

Bituminous Pavement Cores, SB-18: 10 ¼ Inches

NTI
NORTHERN TECHNOLOGIES, INC.

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www.NTIgeo.com

September 13, 2016

Bolton & Menk, Inc.
Attention: Justin Ernst
1224 Nicollet Avenue
Minneapolis, MN 55337

Subject: Additional Geotechnical Exploration and Engineering Review
City of West St. Paul 2016 Street Improvements
West St. Paul, Minnesota
NTI Project No. 16.61632.100

Northern Technologies, Inc. (NTI) has completed an additional 24 soil borings for the 2016 Street Improvement Projects in West St. Paul, Minnesota. The scope of services included determining existing subsurface conditions and providing recommendations for site preparation, excavations, engineered fill and compaction, depths of unsuitable soils to be removed, utility support recommendations, corrosion potential, ground water management and potential difficulties during construction. Our services were performed in accordance with our proposal dated August 29, 2016.

PROJECT AND SITE DESCRIPTION

The additional borings were completed to expand coverage on Charlton Street, Runge Lane, Sherwood Court, Bidwell Street, and Edith Drive in West St. Paul, Minnesota. The improvements range from installation of underground utilities, developing 9 ton roadways, pavement rehabilitation. NTI was not aware of invert elevations or other design details of the proposed utilities at the time this report was prepared.

SUBSURFACE EXPLORATION SUMMARY

NTI performed the subsurface exploration program on August 30 and August 31, 2016 with a two-person crew using a truck-mounted CME-55 drill rig. Core samples were collected at each boring location with a two person crew utilizing a motor driven coring machine. Soil samples were generally collected in accordance with ASTM D 1586 "Standard Test Method for Standard Penetration Testing (SPT) and Split-Barrel Sampling of Soils."

The boring locations and depths were determined by Bolton & Menk, Inc. The borings terminated at approximately 10 feet below the existing ground surface. NTI assumed an elevation of 100.0 feet for each of the boring locations. Subsurface conditions are summarized in the table below. Please refer to the boring logs for additional information.

Table 1A: Pavement and Subgrade Summary, Bidwell St and Sherwood Ct

Boring No.	Bituminous Thickness	Aggregate Base Thickness [1]	Subgrade Material	Notes
SB-1	4.25	1.75	SP-SM	
SB-2	4.25	6	CL	Groundwater at 7 feet
SB-3	4.5	6	SC	Groundwater at 4.5 feet
SB-4	1.75	6	SC	Groundwater at 4.5 feet
SB-5	3.75	6	SP-SM	Groundwater at 4.5 feet
SB-6	6	4	SP-SM	

1. The aggregate base material was visually classified only and may not necessarily meet MnDOT or other specifications for aggregate base.

Table 1B: Pavement and Subgrade Summary, Charlton St

Boring No.	Bituminous Thickness	Aggregate Base Thickness[1]	Subgrade Material	Notes
SB-7	8.75	6	SC	Groundwater at 2 feet; Slightly organic subgrade
SB-8	8	6	SC	Groundwater at 4.5 feet
SB-9	7.5	6	SP-SM	Groundwater at 2 feet
SB-10	8.5	5	SP-SM	Groundwater at 7 feet
SB-11	7.25	6	SC	Groundwater at 4.5 feet; Slightly organic subgrade
SB-12	7.75	6	SC	
SB-13	8.5	6	SC	
SB-14	6.5	6	SC	

1. Aggregate Base by visual classification only and may not necessarily meet MnDOT or other specifications.

Table 1C: Pavement and Subgrade Summary, Runge Ln

Boring No.	Bituminous Thickness	Aggregate Base Thickness[1]	Subgrade Material	Notes
SB-15	3.75	6	SC	Groundwater at 4.5 feet
SB-16	4.5	5	CL	Groundwater at 7 feet
SB-17	7	5	SC	Groundwater at 4.5 feet

1. Aggregate Base by visual classification only and may not necessarily meet MnDOT or other specifications.

Table 1D: Pavement and Subgrade Summary, Edith Drive

Boring No.	Bituminous Thickness	Aggregate Base Thickness[1]	Subgrade Material	Notes
SB-19	3.5	4	SP-SM	
SB-20	4	4	SP-SM	
SB-21	4.5	3.5	SP-SM	
SB-22	4	4	SP-SM	
SB-23	3.5	4	SC	
SB-24	2.5	3	SM	Groundwater at 9.5 feet

1. Aggregate Base by visual classification only and may not necessarily meet MnDOT or other specifications.

GROUNDWATER AND GROUNDWATER CONTROL

Groundwater was observed in our borings at depths ranging between 2 and 9 ½ feet below existing grade. Note that the onsite clay and silt laden soils can be relatively impervious and have the potential to develop zone of perched water at varying locations and elevations across the project site. Groundwater elevations can change due to precipitation events seasonally, changes in topography and site development, and due to long-term climate changes. Also, soil conditions between borings may be conducive to localized seeps or perched water zones that may be permanent or transient.

UTILITY RECOMMENDATIONS

The fill and native soils observed in soil borings were generally suitable for utility support. For utilities with planned invert elevations within the existing fill, we recommend that at least the upper 1 foot of the excavation subgrade be scarified, moisture conditioned and re-compacted. In addition, if areas unstable or organic laden soils are encountered they should be subcut and replaced with engineered fill consisting of non-organic debris free mineral soil of similar composition as the underlying native soils. Groundwater, if encountered, should be maintained at least 2 feet below the bottom of the excavation.

The Geotechnical Engineer of Record or their designated representative should observe the project excavations to determine that unsuitable materials have been properly removed and adequate bearing support is provided by the exposed soils. The exposed soil at the base should be compacted with a vibratory roller to 95 percent standard Proctor dry density (ASTM D698). Such observations and testing should be performed prior to backfilling.

The on-site non-organic soils are anticipated to be suitable for reuse if properly moisture conditioned and compacted. Replacement backfill required in utility trenches should consist of non-organic material similar to the surrounding soil. All import fill should generally consist of non-organic debris free soils of similar composition to the in place native soils. All import fill soils should be approved by NTI or the City's representative prior to utilization.

It is especially important that trench backfill for utility construction within paved areas be thoroughly compacted to minimize future pavement damage. We recommend that such soils be compacted in accordance with the recommendations noted in the "Placement and Compaction of Engineered Fill" section in Appendix B of this report.

The stability of embankments along utility excavations is dependent on soil strength, site geometry, moisture content, and any surcharge load for excavated soils and equipment. We present cautionary remarks concerning stability of excavation side slopes in the "Excavation Stability" section of this report.

The Contractor is solely responsible for assessing the stability of and executing underground utility and project excavations using safe methods. The contractor is also responsible for naming the "competent individual" as per Subpart P of 29 CFR 1926.6 (Federal Register - OSHA).

CORROSION POTENTIAL

Electrical resistivity is related both to the soils moisture content and the concentrations of dissolved salts and other conductive constituents in the soil pore water. Based on previous tests in the project vicinity we estimate that the clayey sand and sandy clay soils would have electrical resistivity values in the range of approximately 1,000 ohm-cm to 3,000 ohm-cm dependent upon the location and moisture content of the sample. Please refer to the lab results attached in the appendix.

The National Association of Corrosion Engineers (NACE) classifies corrosion potential due to electrical resistivity in six categories.

Table 2: NACE Corrosion Severity Ratings

Soil Resistivity (ohm-cm)	Corrosivity Rating
>20,000	Essentially Non-Corrosive
10,000 to 20,000	Mildly Corrosive
5,000 to 10,000	Moderately Corrosive
3,000 to 5,000	Corrosive
1,000 to 3,000	Highly Corrosive
<1,000	Extremely Corrosive

Corrosive conditions can be mitigated by use of materials that are not vulnerable to corrosion, heavy gauge materials to allow for loss of material over the design life of the utility, corrosion resistant coatings and cathodic protection systems. NTI recommends providing the corrosion test results to the proposed installer/supplier to additional information in regard to the need and preferred method of protection.

PAVEMENT RECOMMENDATIONS

Mill and Overlay Recommendations

Consideration could be made to milling and overlaying the existing pavement. Charleton Street in particular appears to have a sufficiently thick in place pavement section, over a majority of the project alignment, which would lend itself to rehabilitation via mill and overlay techniques.

In general, pavement sections consisting of 3 inches or less of bituminous asphalt can be difficult to effectively mill and overlay as often times the entire pavement section is reclaimed during the attempted partial section milling process. Additionally, in locations where the existing pavement

thickness is less than the recommended thickness, a mill and overlay would not be recommended unless a structural overlay were applied to increase the overall thickness. The field exploration found only one area where the pavement section was less than 3 inches.

Pavement Reconstruction

If the pavement section is to be removed and replaced in its entirety, the most conservative method of subgrade preparation would be remove the undocumented fill soils and replace them in their entirety with properly compacted engineered fill. This method of subgrade preparation would provide the most uniform subgrade but would also be the most costly method of construction and would be relatively a-typical method of subgrade preparation for improvements to existing municipal roadways.

If the City is willing to accept some risk in potential long term detrimental performance for the significant upfront savings, the roadway can be reconstructed over the existing fill. NTI recommends that prior to installing the aggregate base that the existing subgrade be scarified and re-compacted to a depth of at least 12 inches. A proof roll test should then be performed to determine soft or unstable subgrade areas. If rutting or localized unstable subgrade areas are observed, those areas should be subcut, moisture-conditioned, and re-compacted or removed to a stable depth. Excavations for soil corrections in paved areas should allow for a 2 foot oversize beyond the edges of the pavement.

The proof roll should be performed with a tandem axle dump truck loaded to gross capacity (at least 20 tons). Acceptance criteria of the proof roll shall be limited to rut formation no more than one inch depth (front or rear axles) and no pumping (rolling) observed during the visual inspection. Proof roll tests should be observed by an experienced technician or geotechnical engineer prior to placement of the aggregate base course to verify the subgrade will provide adequate pavement support.

If imported fill is required in paved areas it should consist of debris free, non-organic, mineral soil similar in composition to the subgrade soils encountered in the surrounding areas. If sand is imported into areas that are underlain by relatively impervious fine grained soils the sand layer should be drained with drain tile in order to prevent frost heave from water trapped within the imported sand layer during freezing temperatures. Similarly, if clay is used in conjunction with lane widening, drainage from any existing granular soils may be impeded unless subsurface drainage is included. Individual lifts of engineered fill should be tempered for moisture content, placed and compacted as noted in the "Placement and Compaction of Engineered Fill" section in Appendix B of this report.

MINIMUM PAVEMENT SECTION THICKNESS

Estimates of minimum thicknesses for new pavement sections for this project have been based on the procedures outlined in the MnDOT Pavement Design Manual using soil parameters based on soil types. The following minimum thicknesses were estimated based upon our estimated traffic loading, limited soils information, variation across the project area, and experience with similar projects and soil conditions. The performance of stabilometer or similar tests, were beyond the scope of this report; however, they may be performed, upon request, for an additional fee. We estimate that a properly prepared subgrade would have an average stabilometer R-value of 30 based on a predominantly clayey sand (SC) resultant subgrade. In locations with a predominantly SP-SM subgrade, we estimate that a properly prepared subgrade would have an average stabilometer R-value of 50.

For a 20-year design pavement life and light commercial traffic volumes, Table 2 presents our thickness recommendations for flexible (bituminous) pavement. The 9-ton design assumes that there will less than 300 heavy commercial vehicles per day, a thicker pavement section may be needed if the city anticipates more growth in the project area. Although not anticipated based upon the provided

proposal documents, NTI has also included a 7-Ton design for areas that may have lower traffic volumes and/or correspondingly lower long term structural requirements.

Table 2A: Recommended Flexible Pavement Thickness Design Alternative (R Value 30)

Pavement Section	(7-ton)	(9-ton)
Bituminous Wear Course (inches)	1.5	2.0
Bituminous Base Course (inches)	2.0	2.0
Class 5 or 7 Aggregate Base (inches)	6.0	8.0

Table 2B: Recommended Flexible Pavement Thickness Design Alternative (R Value 50)

Pavement Section	(7-ton)	(9-ton)
Bituminous Wear Course (inches)	1.5	2.0
Bituminous Base Course (inches)	2.0	2.0
Class 5 or 7 Aggregate Base (inches)	5.0	5.0

Pavement recommendations assume the subgrade soils and aggregate section below paved surfaces will drain to subsurface piping for eventual discharge into storm sewer, or above grade to ditching, or similar acceptable systems. Lack of surface and subsurface drainage will significantly reduce the capacity and longevity of the pavement systems indicated above.

Several borings encountered groundwater within the seasonal frost zone. Frost susceptible soils (SM, SC, ML, and CL) will soften significantly during the spring thaw period. In locations with shallow groundwater, the pavement performance would be improved by improving the drainage or increasing the thickness of non-frost susceptible soils, such as select granular fill. We recommend that finger drains be installed about catch basins and consideration should be made to installing edge drainage to remove trapped groundwater from the subgrade. If a thicker non-frost susceptible profile is constructed, we recommend that the material meet MnDOT standards for select granular borrow, modified to less than 10% material passing the number 200 sieve. This section should be drained with utilizing a drain tile system tied into catch basins. In addition, the resulting subgrade below the select granular borrow section should be adequately crowned to promote drainage towards the drain tile.

The aggregate base thickness assumed fresh class 5 or 6 aggregate base. The in place aggregate base may have degraded over time and no longer meet the requirements for class 5 or 6. Considerations should be given to using a reduced equivalent granular section or a thicker pavement section if the existing aggregate base is reused.

We recommend pavements receive annual maintenance, as a minimum, to correct damages to the pavement structure, clean and infill cracks which develop, and repair or resurface areas which exhibit reduced subgrade performance. The lack of maintenance can lead to moisture infiltration of the

pavement structure and softening of the subgrade soils. This, in turn, can degrade the performance of the pavement system and result in poorly performing pavements with shortened life expectancy.

EXCAVATION STABILITY

Excavation depth and sidewall inclination should not exceed those specified in local, state or federal regulations. Excavations may need to be widened and sloped, or temporarily braced, to maintain or develop a safe work environment. Contractors must comply with local, state, and federal safety regulations including current OSHA excavation and trench safety standards. Temporary shoring must be designed in accordance with applicable regulatory requirements.

ENGINEERED FILL & WINTER CONSTRUCTION

The soils encountered at the project locations will be susceptible to freezing if not provided adequate drainage, insulation or coverage. Frozen soil should not be used as backfill. When the ambient air temperature falls below freezing for an extended period of time, frost forms, and soil near the surface grade expands. Settlement of the fill may occur as the frozen soils thaw.

If frost penetrates the soil prior to paving, soils must be thawed, scarified, and re-compacted as recommended in this report. Subgrade soils should be inspected prior to paving to verify frozen conditions are not present.

CLOSURE

The conclusions and recommendations in this report are predicated on observation and testing of the earthwork directed by Geotechnical Engineer of Record. Our opinions were based on data assumed representative of the site, as encountered from the soil borings and asphalt cores on site. For this and other reasons, we do not warrant conditions below the depth of our borings, or that the strata logged from our borings are necessarily typical across the site. Deviations from our recommendations by plans, written specifications, or field applications shall relieve us of responsibility unless our written concurrence with such deviations has been established.

Our conclusions and recommendations are predicated on observation and testing of the earthwork directed by Geotechnical Engineer of Record. Our opinions are based on data assumed representative of the site. However, the area coverage of borings in relation to the entire project is very small. For this and other reasons, we do not warrant conditions below the depth of our borings, or that the strata logged from our borings are necessarily typical of the site. Deviations from our recommendations by plans, written specifications, or field applications shall relieve us of responsibility unless our written concurrence with such deviations has been established.

The scope of services for this project does not include either specifically or by implication any environmental or biological assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

This report has been prepared for the exclusive use of Bolton & Menk, Inc., The City of West St. Paul and their agents for specific application to the proposed project areas. Northern Technologies, LLC has endeavored to comply with generally accepted geotechnical engineering practice common to the local area. Northern Technologies, LLC makes no other warranty, express or implied.

Northern Technologies, LLC

Steven D. Gerber, P.E.
Senior Engineer

Ryan M. Benson, P.E.
Regional Manager / Principal Engineer

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.

Steven D. Gerber

Date: 9/13/2016 Reg. No. 45298

SDG/rmb

Attachments
Appendix A - General Notes
Appendix B - Groundwater Issues, Compaction and Placement of Fill
Appendix C - Boring Location Diagram, Soil Boring Logs

APPENDIX A

GEOTECHNICAL EVALUATION OF RECOVERED SOIL SAMPLES

We visually examined recovered soil samples to estimate distribution of grain sizes, plasticity, consistency, moisture condition, color, presence of lenses and seams, and apparent geologic origin. We then classified the soils according using the Unified Soil Classification System (ASTM D2488). A chart describing this classification system and general notes explaining soil sampling procedures are presented within appendices attachments.

The stratification depth lines between soil types on the logs are estimated based on the available data. In-situ, the transition between type(s) may be distinct or gradual in either the horizontal or vertical directions. The soil conditions have been established at our specific boring locations only. Variations in the soil stratigraphy may occur between and around the borings, with the nature and extent of such change not readily evident until exposed by excavation. These variations must be properly assessed when utilizing information presented on the boring logs.

We request that you, your design team or contractors contact NTI immediately if local conditions differ from those assumed by this report, as we would need to review how such changes impact our recommendations. Such contact would also allow us to revise our recommendations as necessary to account for the changed site conditions.

FIELD EXPLORATION PROCEDURES

Soil Sampling – Standard Penetration Boring:

Soil sampling was performed according to the procedures described by ASTM D-1586. Using this procedure, a 2 inch O.D. split barrel sampler is driven into the soil by a 140 pound weight falling 30 inches. After an initial set of six inches, the number of blows required to drive the sampler an additional 12 inches is recorded (known as the penetration resistance (i.e. "N-value") of the soil at the point of sampling. The N-value is an index of the relative density of cohesionless soils and an approximation of the consistency of cohesive soils.

Soil Sampling – Power Auger Boring:

The boring(s) was/were advanced with a 6 inch nominal diameter continuous flight auger. As a result, samples recovered from the boring are disturbed, and our determination of the depth, extend of various stratum and layers, and relative density or consistency of the soils is approximate.

Soil Classification:

Soil samples were visually and manually classified in general conformance with ASTM D-2488 as they were removed from the sampler(s). Representative fractions of soil samples were then sealed within respective containers and returned to the laboratory for further examination and verification of the field classification. In addition, select samples were submitted for laboratory tests. Individual sample information, identification of sampling methods, method of advancement of the samples and other pertinent information concerning the soil samples are presented on boring logs and related report attachments.

General Notes

DRILLING & SAMPLING SYMBOLS		LABORATORY TEST SYMBOLS	
SYMBOL	**DEFINITION**	**SYMBOL**	**DEFINITION**
C.S.	Continuous Sampling	W	Moisture content-percent of dry weight
P.D.	2-3/8" Pipe Drill	D	Dry Density-pounds per cubic foot
C.O.	Cleanout Tube	LL, PL	Liquid and plastic limits determined in accordance with ASTM D 423 and D 424
3 HSA	3 ¼" I.D. Hollow Stem Auger	Q_u	Unconfined compressive strength-pounds per square foot in accordance with ASTM D 2166-66
4 FA	4" Diameter Flight Auger		
6 FA	6" Diameter Flight Auger		
2 ½ C	2 ½" Casing		
4 C	4" Casing		**Additional insertions in Qu Column**
D.M.	Drilling Mud	Qp	Penetrometer reading-tons/square foot
J.W.	Jet Water	S	Torvane reading-tons/square foot
H.A.	Hand Auger	G	Specific Gravity – ASTM D 854-58
NXC	Size NX Casing	SL	Shrinkage limit – ASTM 427-61
BXC	Size BX Casing	pH	Hydrogen ion content-meter method
AXC	Size AX casing	O	Organic content-combustion method
SS	2" O.D. Split Spoon Sample	M.A.*	Grain size analysis
2T	2" Thin Wall Tube Sample	C*	One dimensional consolidation
3T	3" Thin Wall Tube Sample	Q_c*	Triaxial Compression
			* See attached data Sheet and/or graph

Water Level Symbol

Water levels shown on the boring logs are the levels measured in the borings at the time and under the conditions indicated. In sand, the indicated levels can be considered reliable ground water levels. In clay soils, it is not possible to determine the ground water level within the normal scope of a test boring investigation, except where lenses or layers of more pervious water bearing soil is present and then a long period of time may be necessary to reach equilibrium. Therefore, the position of the water level symbol for cohesive or mixed soils may not indicate the true level of the ground water table. The available water level information is given at the bottom of the log sheet.

Descriptive Terminology

DENSITY		CONSISTENCY	
TERM	**"N" VALUE**	**TERM**	**"N" VALUE**
Very Loose	0-4	Soft	0-4
Loose	5-8	Medium	5-8
Medium Dense	9 – 15	Rather Stiff	9 – 15
Dense	16 – 30	Stiff	16 – 30
Very Dense	Over 30	Very Stiff	Over 30

Standard "N" Penetration: Blows per foot of a 140 pound hammer falling 30 inches on a 2 inch OD split spoon.

Relative Proportions

TERMS	RANGE
Trace	0-5%
A little	5-15%
Some	15-30%
With	30-50%

Particle Sizes

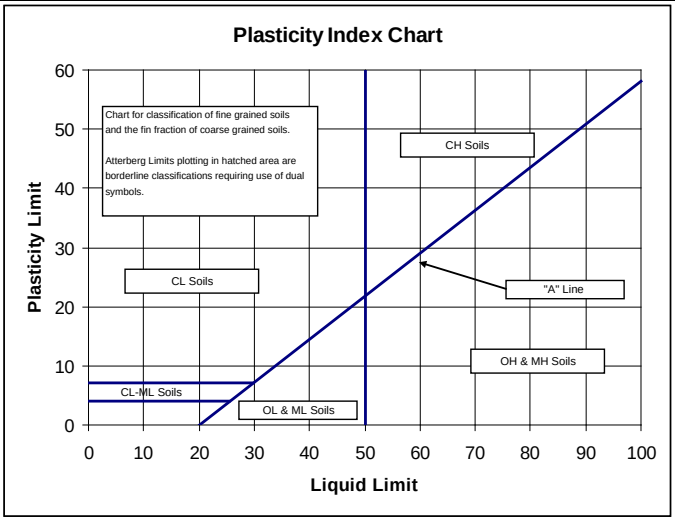
Boulders		Over 3"
Gravel -	Coarse	¾" – 3"
	Medium	#4 – ¾"
Sand -	Coarse	#4 - #10
	Medium	#10 - #40
	Fine	#40 - #200
Silt and Clay		Determined by plasticity characteristics.

Note: Sieve sizes are U.S. Standard.

Classification of Soils for Engineering Purposes

ASTM Designation D-2487 and D 2488 (Unified Soil Classification System)

Major Divisions				Group Symbols	Typical Names	Classification Criteria	
Course Grained Soils More than 50% retained on No. 200 sieve *	***Gravels*** 50% or more of coarse fraction retained on No. 4 sieve.	Clean Gravels	**GW**	Well –graded gravels and gravel-sand mixtures, little or no fines.	$C_u = D_{60} / D_{10}$ greater than 4. $C_z = (D_{30})^2 / (D_{10} \times D_{60})$ between 1 & 3.	***Classification on basis of percentage of fines.*** Less than 5% passing No. 200 Sieve: GW, GP, SW, SP. More than 12% passing No. 200 Sieve: GM, GC, SM, SC. From 5% to 12% passing No. 200 Sieve: Borderline Classification requiring use of duel symbols.	
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines.	Not meeting both criteria for GW materials.		
		Gravels with Fines	**GM**	Silty gravels, gravel-sand-silt mixtures.	Atterberg limits below "A" line, or P.I. less than 4.		Atterberg limits plotting in hatched area are *borderline* classifications requiring use of dual symbols.
			GC	Clayey gravels, gravel-sand-clay mixtures.	Atterberg limits above "A" line with P.I. greater than 7.		
	Sands More than 50% of coarse fraction passes No 4 sieve.	Clean Sands	**SW**	Well-graded sands and gravelly sands, little or no fines.	$C_u = D_{60} / D_{10}$ greater than 6. $C_z = (D_{30})^2 / (D_{10} \times D_{60})$ between 1 & 3.		
			SP	Poorly-graded sands and gravelly sands, little or no fines.	Not meeting both criteria for SW materials.		
		Sands with Fines	**SM**	Silty sands, sand-silt mixtures.	Atterberg limits below "A" line, or P.I. less than 4.		Atterberg limits plotting in hatched area are *borderline* classifications requiring use of dual symbols.
			SC	Clayey sands, sand-clay mixtures.	Atterberg limits above "A" line with P.I. greater than 7.		
Fine Grained Soils More than 50% passes No. 200 sieve *	***Silts and Clays*** Liquid Limit of 50% or less		**ML**	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands.			
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.			
			OL	Organic silts and organic silty clays of low plasticity.			
	Silts and Clays Liquid Limit greater than 50%.		**MH**	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts.			
			CH	Inorganic clays of high plasticity, fat clays.			
			OH	Organic clays of medium to high plasticity.			
	Highly Organic Soils		**Pt**	Peat, muck and other highly organic soils.			



APPENDIX B

GROUNDWATER ISSUES

The following presents additional comment and soil specific issues related to measurement of ground water conditions at your project site.

Note that our ground water measurements, or lack thereof, will vary depending on the time allowed for equilibrium to occur in the borings. Extended observation time was not available during the scope of the field exploration program and, therefore, ground water measurements as noted on the borings logs may or may not accurately reflect actual conditions at your site.

Seasonal and yearly fluctuations of the ground water level, if any, occur. Perched ground water may be present within sand and silt lenses bedded within cohesive soil formations.

If minor seepage into project excavations occurs, dewatering with sumps and pumps within excavations will be adequate within fine grained clay or silt based soils. Within the clean sand soils dewatering can likely be accomplished with the use of a well point system.

PLACEMENT AND COMPACTION OF ENGINEERED FILL

Unless otherwise superseded within the body of the Geotechnical Exploration Report, the following criteria shall be utilized for placement of engineered fill on project. This includes, but is not limited to earthen fill placement to improve site grades, fill placed below structural footings, fill placed interior of structure, and fill placed as backfill of foundations.

Engineered fill placed for construction, if necessary should consist of natural, non-organic, competent soils native to the project area. Such soils may include, but are not limited to gravel, sand, or clays with Unified Soil Classification System (ASTM D2488) classifications of GW, SP, SM, CL or CH. Use of silt or clayey silt as project fill will require additional review and approval of project Geotechnical Engineer of Record. Such soils have USCS classifications of ML, MH, ML-CL, MH-CH. Use of topsoil, marl, peat, other organic soils construction debris and/or other unsuitable materials as fill is not allowed. Such soils have USCS classifications of OL, OH, Pt.

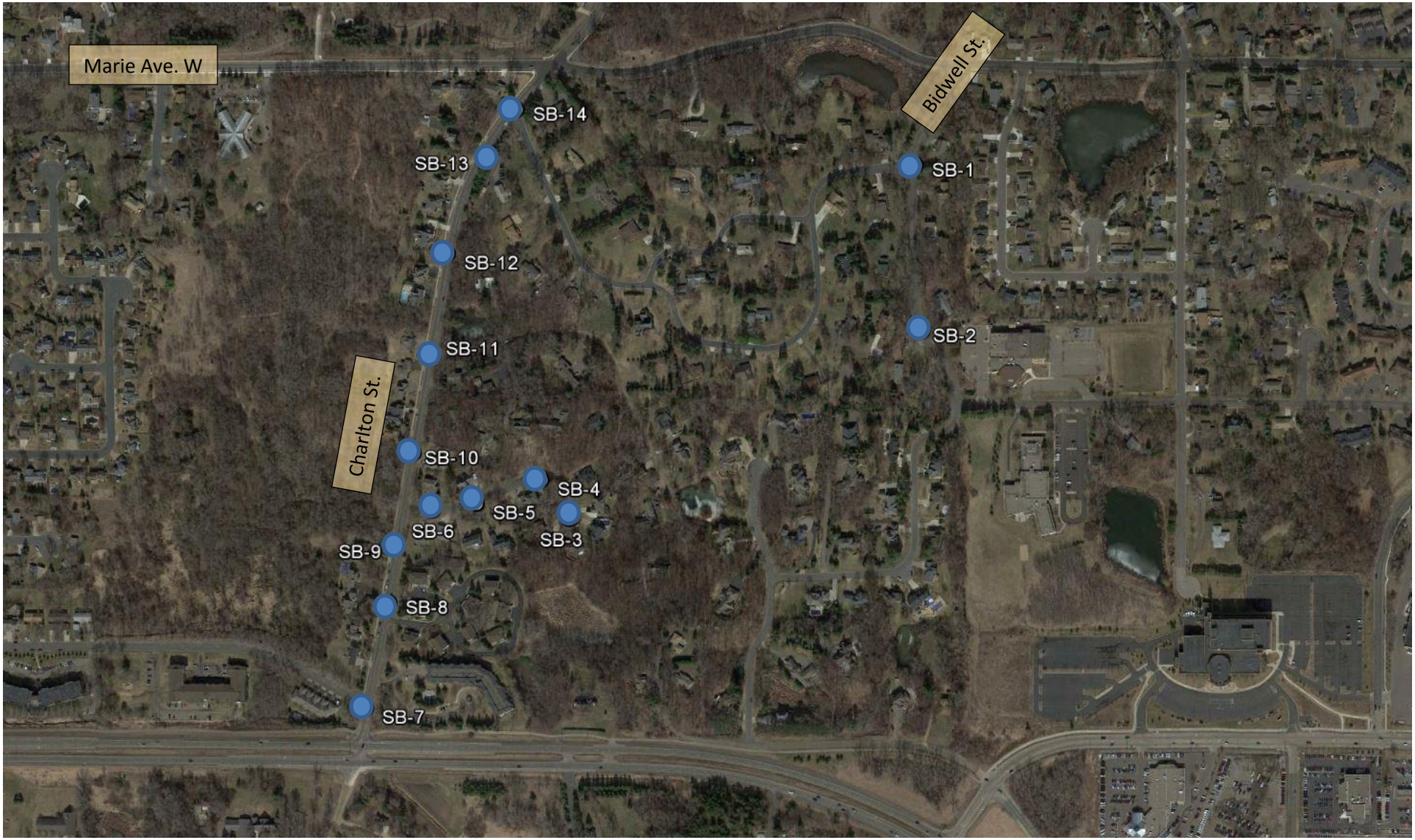
Engineered fill, classified as clay, should be tempered such that the moisture content at the time of placement is equal to and no more than 3 percent above the optimum content for as defined by the appropriate proctor test. Likewise, engineered fill classified as gravel or sand should be tempered such that the moisture content at the time of placement is within 3 percent of the optimum content.

All engineered fill for construction should be placed in individual 8 inch maximum depth lifts. Each lift of fill should be compacted by large vibratory equipment until the in-place soil density is equal to or greater than the criteria established within the following tabulation.

	Compaction Criteria (% respective Proctor) [1]	
Type of Construction	**Clay**	**Sand or Gravel**
Engineered Fill placed as Pavement Subgrade (more than 3 feet below bottom of final grade)	Min. 95	Min. 95
Engineered Fill placed as Pavement Subgrade (less than 3 feet below bottom of final grade)	Min. 100	Min. 100
Engineered Fill placed as Pavement Aggregate Base	NA	Min. 100
Note 1 Unless otherwise required, compaction criteria shall be based on the Standard Proctor Test (ASTM D698).		

Density tests should be taken during engineered fill placement to document earthwork has achieved necessary compaction of the material(s).

APPENDIX C



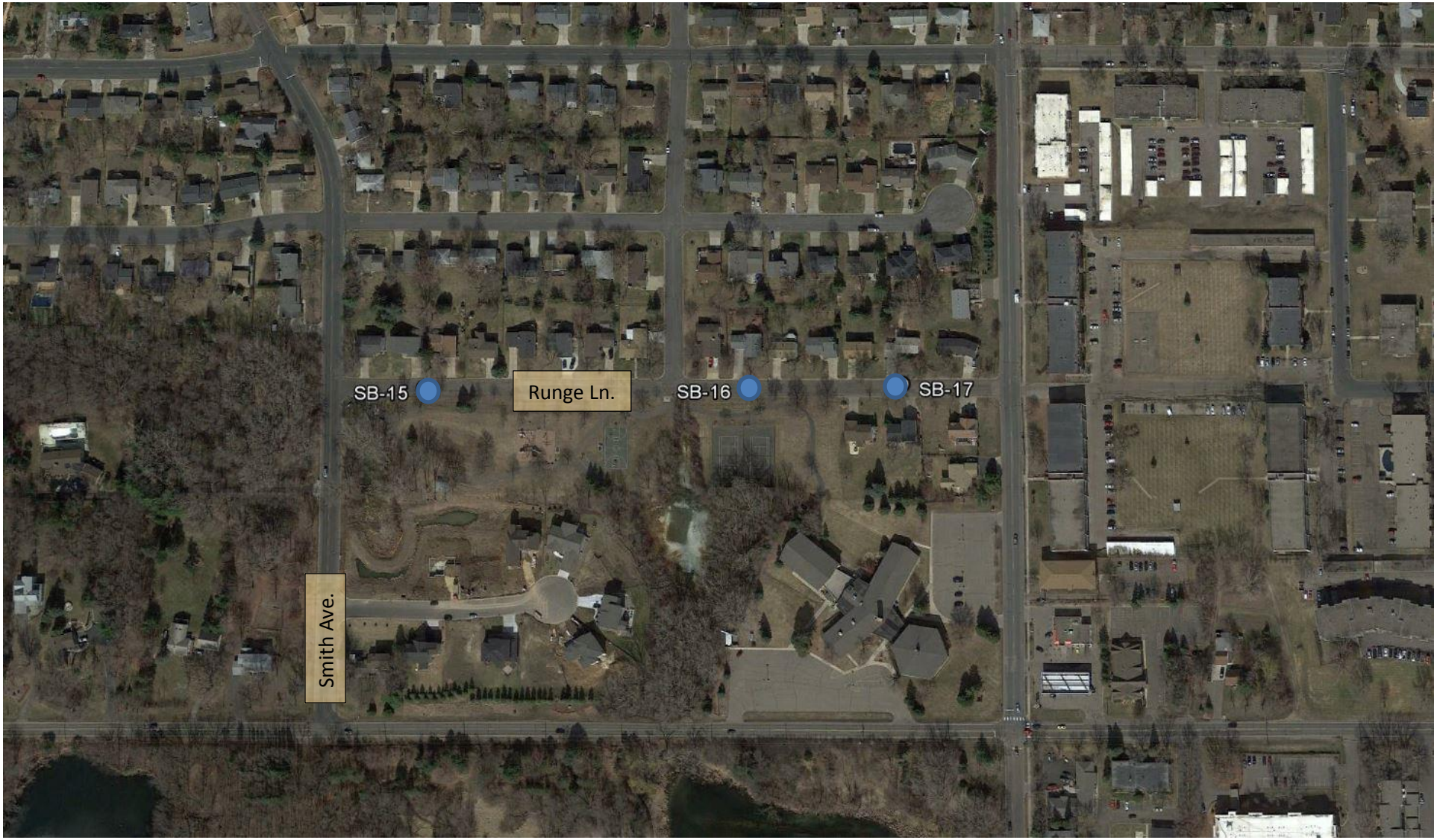
Completed Soil Borings:

Boring Location Diagram
West St. Paul Additional Borings – Charlton Street, Bidwell Street, and Sherwood Court
West St. Paul, Minnesota
NTI Project #: 16.61632.100

N

NOTE: Boring locations are approximate.

NTI NORTHERN TECHNOLOGIES, LLC



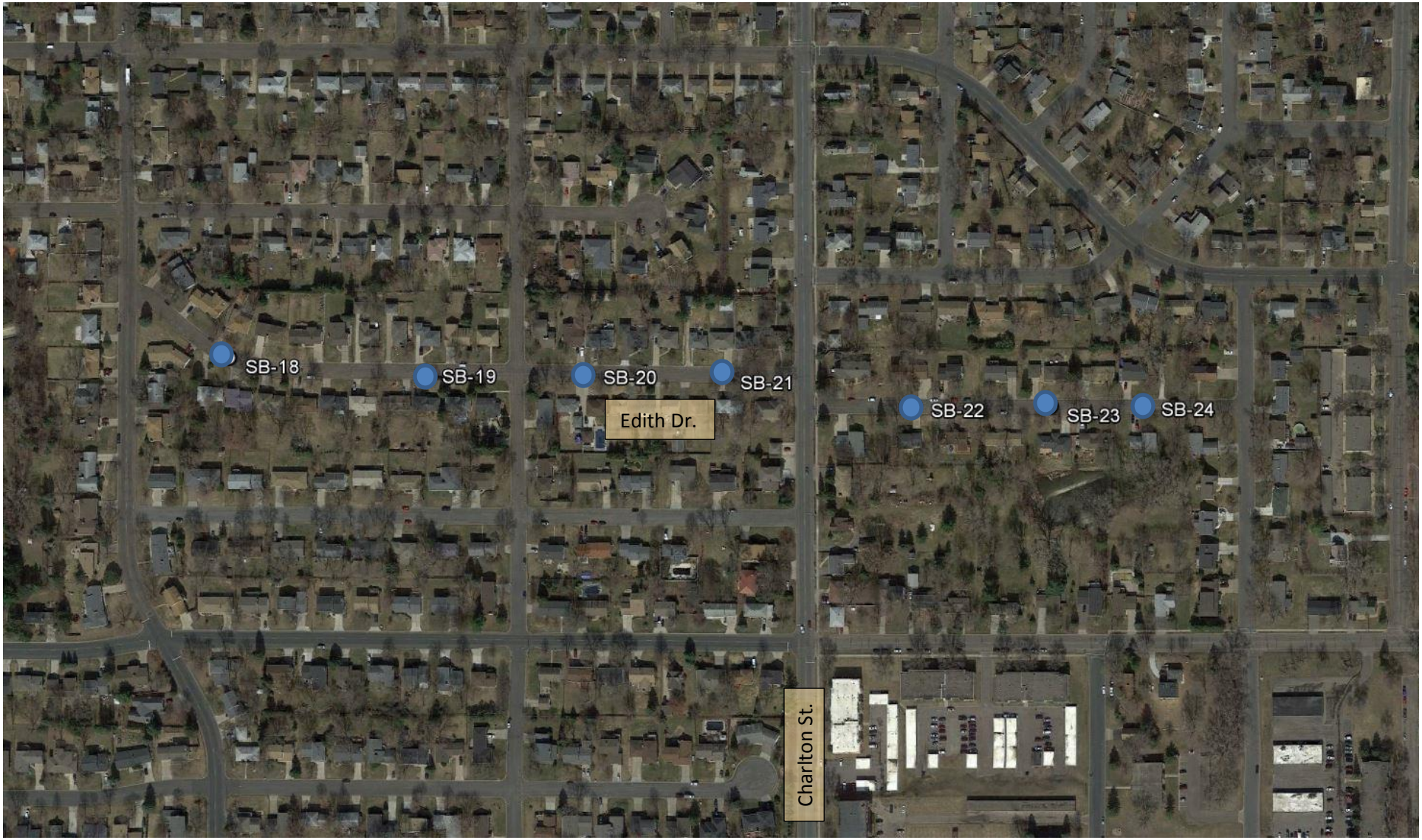
Completed Soil Borings:

N

Boring Location Diagram
West St. Paul Additional Borings – Runge Lane
West St. Paul, Minnesota
NTI Project #: 16.61632.100

NOTE: Boring locations are approximate.

NTI NORTHERN TECHNOLOGIES, LLC



Completed Soil Borings:

N

Boring Location Diagram
West St. Paul Additional Borings – Edith Drive
West St. Paul, Minnesota
NTI Project #: 16.61632.100

NOTE: Boring locations are approximate.

NTI NORTHERN TECHNOLOGIES, LLC

NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-1

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/30/01 **COMPLETED** 8/30/01
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.4 BITUMINOUS PAVEMENT (4 1/4 Inches) 99.7										
		0.5 APPARENT AGGREGATE BASE (1 3/4 Inches) 99.5										
		POORLY GRADED SAND WITH SILT, (SP-SM) dark brown, fine to medium grained, moist, trace gravel, occasional bituminous debris (Fill)	AU 1									
		2.0 98.0										
2.5		CLAYEY SAND, (SC) brown to dark brown, fine to medium grained, moist, trace gravel (Fill)	SS 2	67	7-10-10-3 (20)			7				
5.0			SS 3	50	6-7-7-6 (14)							
		7.0 93.0										
7.5		CLAYEY SAND, (SC) brown, fine to medium grained, moist, medium dense, trace gravel (Glacial Till)	SS 4	42	5-5-5-4 (10)			11				
10.0			SS 5	50	3-4-5-5 (9)							
		11.5 88.5										

Bottom of borehole at 11.5 feet.

NTI GEOTECH COLUMNS W/NOTES - NTI 2016-08-10.GDT - 9/15/16 10:59 - H:\1-PROJECTS\2016 PROJECTS\WEST ST. PAUL ADDITIONAL BORINGS - GEO - (16.61632.100)\ENGINEERING\ENGINEERING REPORTS\GINT\WEST ST PAUL STREETS ADDITIONAL BORINGS.GPJ

NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-2

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/30/01 **COMPLETED** 8/30/01
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING 7.00 ft / Elev 93.00 ft
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.4 BITUMINOUS PAVEMENT (4 1/4 Inches) 99.7										
		0.9 APPARENT AGGREGATE BASE (6 Inches) 99.2										
		SANDY LEAN CLAY, (CL) dark brown, moist, trace gravel (Fill)	AU 1									
2.5			SS 2	67	5-6-6-7 (12)							
		4.5 95.5										
5.0		SANDY LEAN CLAY, (CL) gray to light brown, moist, rather stiff, trace gravel (Glacial Till)	SS 3	50	3-4-6-6 (10)			18				
		7.0 ▽ 93.0										
7.5		CLAYEY SAND, (SC) brown, fine to medium grained, moist, dense to loose, trace gravel (Glacial Till)	SS 4	75	6-8-10-12 (18)							
10.0			SS 5	75	5-3-3-3 (6)			13				
		11.5 88.5										

Bottom of borehole at 11.5 feet.

NTI GEOTECH COLUMNS W/NOTES - NTI 2016-08-10.GDT - 9/15/16 10:59 - H:\1-PROJECTS\2016 PROJECTS\WEST ST. PAUL ADDITIONAL BORINGS - GEO - (16.61632.100)\ENGINEERING\ENGINEERING REPORTS\GINT\WEST ST PAUL STREETS ADDITIONAL BORINGS.GPJ

NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-3

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/30/01 **COMPLETED** 8/30/01
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING 4.50 ft / Elev 95.50 ft
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.4 BITUMINOUS PAVEMENT (4 1/2 Inches)	99.6										
		0.9 APPARENT AGGREGATE BASE (6 Inches)	99.1										
		CLAYEY SAND, (SC) dark brown, fine to medium grained, moist, trace gravel (Fill)		AU 1									
2.5				SS 2	50	8-7-7-8 (14)			8				29
5.0				SS 3	25	3-4-3-2 (7)							
		7.0 CLAYEY SAND, (SC) brown, fine to medium grained, moist, very loose to loose, trace gravel (Glacial Till)	93.0										
7.5				SS 4	58	1-1-2-1 (3)							
10.0				SS 5	67	5-4-3-3 (7)			12				
		11.5	88.5										

Bottom of borehole at 11.5 feet.

NTI GEOTECH COLUMNS W/NOTES - NTI 2016-08-10.GDT - 9/15/16 10:59 - H:\1-PROJECTS\2016 PROJECTS\WEST ST. PAUL ADDITIONAL BORINGS - GEO - (16.61632.100)\ENGINEERING\ENGINEERING REPORTS\GINT\WEST ST PAUL STREETS ADDITIONAL BORINGS.GPJ

NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-4

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/30/01 **COMPLETED** 8/30/01
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING 4.50 ft / Elev 95.50 ft
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.2 BITUMINOUS PAVEMENT (1 3/4 Inches)	99.9										
		0.6 APPARENT AGGREGATE BASE (6 Inches)	99.4										
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel (Fill)		AU 1									
2.5				SS 2	33	3-4-4-2 (8)			10				27
		4.5 ▽	95.5										
5.0		CLAYEY SAND, (SC) brown, fine to medium grained, moist, medium dense, trace gravel (Glacial Till)		SS 3	67	6-5-5-5 (10)							
7.5				SS 4	25	4-5-5-7 (10)			10				
		9.5	90.5										
10.0		POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to coarse grained, saturated, loose, trace gravel (Glacial Outwash)		SS 5	25	3-4-4-3 (8)							
		11.5	88.5										

Bottom of borehole at 11.5 feet.

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NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-5

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/30/01 **COMPLETED** 8/30/01
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING 4.50 ft / Elev 95.50 ft
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.3 BITUMINOUS PAVEMENT (3 3/4 Inches) 99.7										
		0.8 APPARENT AGGREGATE BASE (6 Inches) 99.2										
		POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to medium grained, moist, trace gravel (Fill)	AU 1									
2.5		NOTE: Light gray silt (ML) seam at 3 feet.	SS 2	75	4-7-7-8 (14)							
		4.5 ▽ 95.5										
5.0		CLAYEY SAND, (SC) brown, fine to medium grained, saturated, medium dense to very loose, trace gravel (Glacial Till)	SS 3	75	3-5-4-5 (9)							
7.5			SS 4	42	2-2-1-2 (3)							
10.0			SS 5	75	2-3-2-3 (5)							
		11.5 88.5										

Bottom of borehole at 11.5 feet.

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Inver Grove Heights, Minnesota
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BORING NUMBER SB-6

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/30/01 **COMPLETED** 8/30/01
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		BITUMINOUS PAVEMENT (6 Inches)	0.5 / 99.5										
		APPARENT AGGREGATE BASE (4 Inches)	0.8 / 99.2										
		POORLY GRADED SAND WITH SILT, (SP-SM) dark brown, fine to medium grained, moist, trace gravel, occasional bituminous debris (Fill)		AU 1									
2.5			3.0 / 97.0	SS 2	42	6-5-4-4 (9)							
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel, occasional clay (CL) seams (Fill)											
			4.5 / 95.5										
5.0		SANDY SILT, (ML) light blue to light gray, moist, medium, trace gravel (Glacial Till)		SS 3	75	3-3-4-3 (7)			23				79
7.5				SS 4	67	2-3-4-3 (7)							
10.0				SS 5	42	2-2-3-2 (5)							
			11.5 / 88.5										

Bottom of borehole at 11.5 feet.

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Inver Grove Heights, Minnesota
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BORING NUMBER SB-7

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/30/01 **COMPLETED** 8/30/01
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING 2.00 ft / Elev 98.00 ft
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0	BITUMINOUS PAVEMENT (8 3/4 Inches) 0.7 / 99.3										
	APPARENT AGGREGATE BASE (6 Inches) 1.2 / 98.8	AU 1									
2.5	CLAYEY SAND, (SC) black, fine to medium grained, moist to saturated, trace gravel, trace **organics** (Fill) NOTE: Organic content at 2 feet = 3.5%.	SS 2	50	3-4-3-4 (7)			22				
	4.5 / 95.5										
5.0	CLAYEY SAND, (SC) brown, fine to medium grained, saturated, loose, trace gravel (Glacial Till)	SS 3	50	2-3-2-2 (5)							
7.5		SS 4	75	2-2-2-3 (4)			18				28
10.0		SS 5	100	2-2-3-3 (5)							
	11.5 / 88.5										

Bottom of borehole at 11.5 feet.

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Inver Grove Heights, Minnesota
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BORING NUMBER SB-8

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/30/01 **COMPLETED** 8/30/01
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING 4.50 ft / Elev 95.50 ft No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		BITUMINOUS PAVEMENT (8 Inches) 0.7 / 99.3										
		APPARENT AGGREGATE BASE (6 Inches) 1.2 / 98.8	AU 1									
2.5		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel (Fill)	SS 2	75	11-10-11-9 (21)							
		4.5 ▽ / 95.5										
5.0		POORLY GRADED SAND WITH SILT AND GRAVEL, (SP-SM) dark brown, fine to medium grained, moist (Fill)	SS 3	33	11-16-15-12 (31)							
		7.0 / 93.0										
7.5		CLAYEY SAND, (SC) brown, fine to medium grained, moist, dense to medium dense, trace gravel (Glacial Till)	SS 4	75	6-8-9-10 (17)							
10.0			SS 5	75	4-6-5-4 (11)							
		11.5 / 88.5										

Bottom of borehole at 11.5 feet.

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BORING NUMBER SB-9

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/30/01 **COMPLETED** 8/30/01
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		BITUMINOUS PAVEMENT (7 1/2 Inches) 0.6 / 99.4										
		APPARENT AGGREGATE BASE (6 Inches) 1.1 / 98.9	AU 1									
		POORLY GRADED SAND WITH SILT, (SP-SM) brown to dark brown, fine to medium grained, moist, trace gravel, occasional bituminous debris (Fill)										
2.5		3.0 / 97.0	SS 2	67	3-4-5-4 (9)							
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, medium dense to dense, trace gravel (Glacial Till)										
5.0			SS 3	50	4-3-5-7 (8)			11				
7.5			SS 4	75	8-10-11-7 (21)							
10.0			SS 5	67	4-5-5-6 (10)							
		11.5 / 88.5										

Bottom of borehole at 11.5 feet.

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BORING NUMBER SB-10

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/30/01 **COMPLETED** 8/30/01
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING 2.00 ft / Elev 98.00 ft
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		BITUMINOUS PAVEMENT (8 1/2 Inches) 0.7 / 99.3										
		APPARENT AGGREGATE BASE (5 Inches) 1.1 / 98.9	AU 1									
		POORLY GRADED SAND WITH SILT, (SP-SM) dark brown, fine to medium grained, moist, trace gravel (Fill)										
2.5		3.0 / 97.0	SS 2	42	3-4-3-2 (7)							
		CLAYEY SAND, (SC) brown, fine to medium grained, saturated, loose to very loose, trace gravel (Glacial Till)										
5.0			SS 3	42	1-1-1-1 (2)							
7.5			SS 4	42	2-2-1-2 (3)							
10.0			SS 5	42	0-0-0-0 (0)							
		11.5 / 88.5										

Bottom of borehole at 11.5 feet.

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NTI
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BORING NUMBER SB-11

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		BITUMINOUS PAVEMENT (7 1/4 Inches) 0.6 / 99.4										
		APPARENT AGGREGATE BASE (6 Inches) 1.1 / 98.9	AU 1									
		CLAYEY SAND, (SC) brown, fine to medium grained, moist (Fill)										
2.5			SS 2	75	4-3-4-4 (7)							
		4.5 / 95.5										
5.0		SANDY LEAN CLAY, (CL) black, moist, trace gravel, trace **organics** (Fill) NOTE: Organic content at 4.5 feet = 2.2%.	SS 3	75	2-3-3-2 (6)			27				
		7.0 / 93.0										
7.5		CLAYEY SAND, (SC) brown, fine to medium grained, moist, loose to medium dense, trace gravel (Glacial Till)	SS 4	75	4-4-4-3 (8)			16				31
10.0			SS 5	75	3-4-5-4 (9)							
		11.5 / 88.5										

Bottom of borehole at 11.5 feet.

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NTI
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Inver Grove Heights, Minnesota
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BORING NUMBER SB-12

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		BITUMINOUS PAVEMENT (7 3/4 Inches) 0.6 / 99.4										
		APPARENT AGGREGATE BASE (6 Inches) 1.1 / 98.9	AU 1									
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel (Fill)										
2.5			SS 2	58	4-4-3-5 (7)							
		4.5 / 95.5										
5.0		SANDY LEAN CLAY, (CL) brown, moist, medium, trace gravel (Glacial Till)	SS 3	75	2-2-3-2 (5)							
		7.0 / 93.0										
7.5		CLAYEY SAND, (SC) brown to gray, fine to medium grained, moist, loose, trace gravel (Glacial Till)	SS 4	75	3-4-3-3 (7)			9				27
10.0		NOTE: Brown below 9.5 feet.	SS 5	75	2-4-4-4 (8)							
		11.5 / 88.5										

Bottom of borehole at 11.5 feet.

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NTI
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BORING NUMBER SB-13

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		BITUMINOUS PAVEMENT (8 1/2 Inches) 0.7 / 99.3										
		APPARENT AGGREGATE BASE (6 Inches) 1.2 / 98.8	AU 1									
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel (Fill)										
2.5			SS 2	50	8-8-7-6 (15)							
		4.5 / 95.5										
5.0		CLAYEY SAND, (SC) brown, fine to medium grained, moist, medium dense to loose, trace gravel (Glacial Till)	SS 3	75	6-5-5-5 (10)							
7.5			SS 4	58	2-3-4-3 (7)							
10.0			SS 5	75	3-3-4-4 (7)							
		11.5 / 88.5										

Bottom of borehole at 11.5 feet.

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NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
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BORING NUMBER SB-14

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		BITUMINOUS PAVEMENT (6 1/4 Inches) 0.5 / 99.5										
		APPARENT AGGREGATE BASE (6 Inches) 1.0 / 99.0	AU 1									
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel, occasional bituminous debris (Fill)										
2.5			SS 2	75	6-7-7-7 (14)							
		4.5 / 95.5										
5.0		CLAYEY SAND, (SC) brown, fine to medium grained, moist, medium dense to loose, trace gravel (Glacial Till)	SS 3	50	5-6-7-5 (13)							
7.5			SS 4	75	4-4-3-4 (7)			11				31
10.0			SS 5	75	4-4-4-4 (8)							
		11.5 / 88.5										

Bottom of borehole at 11.5 feet.

NTI GEOTECH COLUMNS W/NOTES - NTI 2016-08-10.GDT - 9/15/16 10:59 - H:\1-PROJECTS\2016 PROJECTS\WEST ST. PAUL ADDITIONAL BORINGS - GEO - (16.61632.100)\ENGINEERING\ENGINEERING REPORTS\GINT\WEST ST PAUL STREETS ADDITIONAL BORINGS.GPJ

NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-15

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING 4.50 ft / Elev 95.50 ft
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.3 BITUMINOUS PAVEMENT (3 3/4 Inches)	99.7										
		0.8 APPARENT AGGREGATE BASE (6 Inches)	99.2										
		CLAYEY SAND, (SC) gray, fine to medium grained, moist, trace gravel (Fill)		AU 1									
2.5				SS 2	75	4-4-3-4 (7)							
5.0				SS 3	67	3-2-3-3 (5)							
		7.0	93.0										
7.5		LEAN CLAY WITH SAND, (CL) light gray, moist, medium to soft, trace gravel, occasional silt (ML) seams (Glacial Till)		SS 4	75	2-2-3-2 (5)			34				
10.0				SS 5	67	1-2-2-1 (4)							
		11.5	88.5										

Bottom of borehole at 11.5 feet.

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NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-16

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING 7.00 ft / Elev 93.00 ft
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.4 BITUMINOUS PAVEMENT (4 1/2 Inches) 99.6										
		0.8 APPARENT AGGREGATE BASE (5 Inches) 99.2										
		SANDY LEAN CLAY, (CL) gray, fine to medium grained, moist, trace gravel (Fill)	AU 1									
2.5			SS 2	75	4-4-4-3 (8)							
5.0			SS 3	75	4-2-3-2 (5)			19				57
		7.0 ▽ 93.0										
7.5		LEAN CLAY WITH SAND, (CL) light blue, moist, soft, trace gravel, occasional silt (ML) seams (Glacial Till)	SS 4	50	2-2-2-4 (4)							
10.0			SS 5	50	1-2-1-2 (3)							
		11.5 88.5										

Bottom of borehole at 11.5 feet.

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NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-17

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		BITUMINOUS PAVEMENT (7 Inches)	0.6 / 99.4										
		APPARENT AGGREGATE BASE (5 Inches)	1.0 / 99.0	AU 1									
		CLAYEY SAND, (SC) gray to brown, fine to medium grained, moist, trace gravel (Fill)											
2.5				SS 2	67	4-5-5-4 (10)							
			4.5 / 95.5										
5.0		SANDY LEAN CLAY, (CL) black, moist, trace gravel, trace **organics** (Fill) NOTE: Organic content at 4.6 feet = 1.8%.	5.0 / 95.0	SS 3	50	2-2-3-2 (5)			28				
		CLAYEY SAND, (SC) gray, fine to medium grained, moist, loose, trace gravel (Glacial Till)	7.0 / 93.0										
7.5		SANDY LEAN CLAY, (CL) light brown, moist, soft, trace gravel (Glacial Till)		SS 4	42	3-3-2-3 (5)							
10.0				SS 5	4	2-1-1-2 (2)							
			11.5 / 88.5										

Bottom of borehole at 11.5 feet.

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NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-18

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.3 BITUMINOUS PAVEMENT (3 3/4 Inches)	99.7										
		0.8 APPARENT AGGREGATE BASE (6 Inches)	99.2										
		POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to medium grained, moist, trace gravel (Fill)		AU 1									
2.5				SS 2	42	7-7-6-6 (13)							
		4.5	95.5										
5.0		SANDY LEAN CLAY, (CL) light brown, moist, medium, trace gravel (Glacial Till)		SS 3	58	3-3-3-3 (6)							
		7.0	93.0										
7.5		SILT, (ML) light brown, moist, medium, trace gravel, little sand (Glacial Till)		SS 4	63	2-3-2-2 (5)			24				92
10.0				SS 5	50	3-3-3-2 (6)							
		11.5	88.5										

Bottom of borehole at 11.5 feet.

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NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-19

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION			SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.3	BITUMINOUS PAVEMENT (3 1/2 Inches)	99.7										
		0.6	APPARENT AGGREGATE BASE (4 Inches)	99.4										
			POORLY GRADED SAND WITH SILT, (SP-SM) brown, fine to medium grained, moist, trace gravel (Fill)		AU 1									
2.5					SS 2	50	8-7-7-6 (14)			8				
		4.5		95.5										
5.0			SANDY SILT, (ML) light brown, moist, medium, trace gravel, occasional clay (CL) layers (Glacial Till)		SS 3	42	3-3-3-4 (6)			25				87
7.5					SS 4	50	2-3-2-2 (5)							
10.0					SS 5	63	3-2-3-3 (5)							
		11.5		88.5										

Bottom of borehole at 11.5 feet.

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NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-20

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.3 BITUMINOUS PAVEMENT (4 Inches)	99.7										
		0.7 APPARENT AGGREGATE BASE (4 Inches)	99.3										
		POORLY GRADED GRAVEL WITH SILT AND SAND, (SP-SM) light brown, fine to medium grained, moist (Fill)		AU 1									
2.5				SS 2	42	9-8-8-8 (16)							
		4.5	95.5										
5.0		CLAYEY SAND, (SC) brown, fine to medium grained, moist, loose to medium dense, trace gravel (Glacial Till)		SS 3	67	3-4-4-4 (8)							
7.5				SS 4	50	4-3-3-3 (6)							
10.0				SS 5	63	5-6-5-5 (11)							
		11.5	88.5										

Bottom of borehole at 11.5 feet.

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NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-21

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.4 BITUMINOUS PAVEMENT (4 1/2 Inches)	99.6										
		0.7 APPARENT AGGREGATE BASE (3 1/2 Inches)	99.3										
		POORLY GRADED SAND WITH SILT AND GRAVEL, (SP-SM) brown, fine to medium grained, moist (Fill)		AU 1									
2.5				SS 2	50	8-9-9-9 (18)							
		4.5	95.5										
5.0		LEAN CLAY WITH SAND, (CL) light brown to brown, moist, medium, trace gravel (Glacial Till)		SS 3	42	3-4-3-3 (7)							
		7.0	93.0										
7.5		CLAYEY SAND, (SC) brown, moist, loose to medium dense, trace gravel (Glacial Till)		SS 4	50	4-3-4-4 (7)							
10.0				SS 5	63	6-7-5-5 (12)							
		11.5	88.5										

Bottom of borehole at 11.5 feet.

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NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
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BORING NUMBER SB-22

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.3 BITUMINOUS PAVEMENT (4 Inches)	99.7										
		0.7 APPARENT AGGREGATE BASE (4 Inches)	99.3										
		POORLY GRADED SAND WITH SILT AND GRAVEL, (SP-SM) brown, fine to medium grained, moist, occasional clay (CL) layers (Fill)		AU 1									
2.5				SS 2	54	6-5-4-4 (9)			10				
		4.5	95.5										
5.0		SANDY LEAN CLAY, (CL) brown, moist, medium, occasional silt (ML) layers (Glacial Till)		SS 3	67	3-3-3-4 (6)							
7.5				SS 4	54	3-4-4-4 (8)			21				
		9.5	90.5										
10.0		POORLY GRADED SAND WITH CLAY, (SP-SC) brown, fine to medium grained, moist, loose, trace gravel (Glacial Till)		SS 5	63	3-3-5-6 (8)							
		11.5	88.5										

Bottom of borehole at 11.5 feet.

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NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
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BORING NUMBER SB-23

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
AT TIME OF DRILLING --- No groundwater encountered
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.3 BITUMINOUS PAVEMENT (3 1/2 Inches)	99.7										
		0.6 APPARENT AGGREGATE BASE (4 Inches)	99.4										
		CLAYEY SAND, (SC) brown, fine to medium grained, moist, trace gravel (Fill)		AU 1									
2.5				SS 2	42	7-6-6-6 (12)			10				
		4.5	95.5										
5.0		CLAYEY SAND, (SC) brown, fine to medium grained, moist, very loose to loose, trace gravel (Glacial Till)		SS 3	63	2-1-1-2 (2)							
7.5				SS 4	50	3-2-2-3 (4)							
10.0				SS 5	54	3-4-4-3 (8)			16				
		11.5	88.5										

Bottom of borehole at 11.5 feet.

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NTI
6160 Carmen Drive
Inver Grove Heights, Minnesota
P: 763-433-9175

BORING NUMBER SB-24

CLIENT Bolton & Menk, Inc.
PROJECT NAME West St. Paul Streets Additional Borings
PROJECT NUMBER 16.61632.100
PROJECT LOCATION West St. Paul, MN
DATE STARTED 8/31/16 **COMPLETED** 8/31/16
GROUND ELEVATION 100 ft **HOLE SIZE** 6 1/2 in.
DRILLING CONTRACTOR NTI
GROUND WATER LEVELS:
DRILLING METHOD 3 1/4 in H.S.A
∇ **AT TIME OF DRILLING** 9.50 ft / Elev 90.50 ft
LOGGED BY Robert Hawkins **CHECKED BY** Ryan Benson
AT END OF DRILLING ---
CAVE IN (ft) --- **FROST DEPTH (ft)** ---
AFTER DRILLING ---
NOTES Elevation assuemd to be 100.0.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES
0.0		0.2 BITUMINOUS PAVEMENT (2 1/2 Inches)	99.8										
		0.5 APPARENT AGGREGATE BASE (3 Inches)	99.5										
		SILTY SAND, (SM) brown, fine to medium grained, moist, trace gravel, occasional bituminous debris (Fill)		AU 1									
2.5				SS 2	42	6-5-7-6 (12)			5				
		4.5	95.5										
5.0		CLAYEY SAND, (SC) brown, fine to medium grained, moist to saturated, very loose to loose, trace gravel (Glacial Till)		SS 3	54	2-1-1-1 (2)							
7.5				SS 4	63	3-2-2-1 (4)							
		∇											
10.0				SS 5	50	3-4-4-4 (8)			12				
		11.5	88.5										

Bottom of borehole at 11.5 feet.

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Services Provided:

Civil and Municipal Engineering
Water and Wastewater Engineering
Traffic and Transportation Engineering
Aviation Planning and Engineering
Water Resources Engineering
Coatings Inspection Services
Landscape Architecture Services
Surveying and Mapping
Geographic Information System Services

Funding Assistance

www.bolton-menk.com

City of West St. Paul

TO: Mayor and City Council

THROUGH: City Manager

FROM: Public Works & Parks Dir./City Engineer

DATE: September 26, 2016

SUBJECT: Approving Supplemental Agreement #8 for Robert Street Project #11-3

BACKGROUND INFORMATION:
As part of the Robert Street project, SRF was asked to design Marie Avenue for reconstruction between Robert Street and Livingston Avenue. Reconstructing this section of Marie Avenue completes the roadway from Robert Street to Delaware Avenue. The design is complete and unit prices have been negotiated with Eureka Construction and approved by MnDOT's Office of Construction Estimating. This work is scheduled to be performed in October, 2016 by Eureka Construction.

FISCAL IMPACT:
Costs for reconstruction of Marie Avenue:

Construction	$324,729.70
Construction Administration/Inspection	$ 30,850.00
Materials Testing	$ 6,567.00
Total Cost	$362,146.70

The 2015 CIP included funding for the reconstruction of Marie Avenue from Charlton Street to Robert Street. However, the 2015 construction contract only included reconstruction to Livingston Avenue. This Supplemental Agreement with Eureka Construction will complete reconstruction of the final segment of Marie Avenue.

		Amount
Fund:	**551**	
Department:	**43121**	
Account:	**41113**	**$362,146.70**

STAFF RECOMMENDATION:
Staff recommends that the City Council approve Supplemental Agreement #8 for the estimated amount of $324,729.70 for the reconstruction of Marie Avenue from Robert Street to Livingston Avenue for Robert Street Project #11-3 and amend SRF's construction administration contract to add $37,417.00 for construction administration/inspection (SRF) and materials testing (Braun Intertec).