FEASIBILITY REPORT

2018 ALLEY RECONSTRUCTION PROJECT

CITY OF OSSEO | HENNEPIN COUNTY, MN

NOVEMBER 9, 2017

Prepared for:
City of Osseo
415 Central Avenue
Osseo, MN 55369

WSB PROJECT NO. R-010699-000

FEASIBILITY REPORT

2018 ALLEY RECONSTRUCTION PROJECT

FOR THE
CITY OF OSSEO, MINNESOTA

November 9, 2017

Prepared By:

701 Xenia Avenue South | Suite 300 | Minneapolis, MN 55416 | (763) 541-4800

November 9, 2017

Honorable Mayor and City Council
City of Osseo
415 Central Avenue
Osseo, MN 55369

Re: Feasibility Report
2018 Alley Reconstruction Project
City of Osseo, MN
WSB Project No. R-010699-000

Dear Honorable Mayor and City Council:

Attached for your review is a feasibility report which addresses improvements associated with the 2018 Alley Reconstruction Project.

We would be happy to discuss this report with you at your convenience. Please contact me at (763) 762-2821 if you have any questions or concerns.

Sincerely,

WSB & Associates, Inc.

Lee Gustafson, PE
City Engineer

Attachment

srb

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.

Emily A. Lueth, PE

Date: November 9, 2017 Lic. No. 51773

Quality Control Review Completed By:

Lee E. Gustafson, PE

Date: November 9, 2017 Lic. No. 18443

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1. EXECUTIVE SUMMARY

There are two alleys proposed for reconstruction as a part of the 2018 Alley Reconstruction Project. Each alley project will have its own feasibility report since one project was initiated last year and the feasibility report for that project is essentially just an update.

The newest alley project consists of repaving the alley bounded by 2nd and 3rd Avenues NE between 4th Street NE and 93rd Avenue N, including repairing or minimal reconstruction of the storm sewer. A map illustrating the project location is shown on ***Figure 1*** in ***Appendix A***.

The deterioration of the existing alley surface and drainage issues experienced along the alley make the proposed improvements necessary. Improvements include complete reconstruction of the alley with new concrete pavement and improvements to the existing storm sewer as needed.

The total estimated project cost for the 2018 Alley Reconstruction Project is **$232,700**, and includes a 10% contingency and 25% indirect costs for legal, engineering, administrative, and financing costs. The project is proposed to be funded primarily with special assessments to benefiting property owners, as well as some City funding. The project is proposed to be completed in 2018.

The City's assessment policy calls for assessing adjacent properties 80% of the alley reconstruction costs. This cost is divided equally among the adjacent properties. The estimated special assessment to each of the 28 benefiting property owners for the alley improvements is $5,970. The City's special assessment policy also calls for the city to pay the remaining 20% and all costs associated with utility and storm sewer work.

The proposed project schedule includes construction of both alleys beginning in June 2018, with final completion by the fall of 2018.

This project is feasible, necessary, and cost-effective from an engineering standpoint and should be constructed as proposed herein.

2. INTRODUCTION

2.1 Authorization

On August 28, 2017, the Osseo City Council authorized a feasibility report for the 2018 Alley Reconstruction Project.

2.2 Scope

This feasibility report includes alley reconstruction and drainage improvements along the alley bounded by 2nd and 3rd Avenues NE between 4th Street NE and 93rd Avenue N.

2.3 Data Available

Information and materials used in the preparation of this report include the following:

- City of Osseo Capital Improvement Plan
- City of Osseo Assessment Policy
- City of Osseo Property Index Records
- Storm Sewer Televising Reports
- Field Observations of the Area and Field Topography Surveys

2.4 Project History

This 2018 Alley Reconstruction Project is identified in the City's Capital Improvement Plan to address the poor condition of the alley and corresponding poor drainage.

The City held a neighborhood meeting on November 2, 2017, to receive input on the project. Many of the meeting attendees expressed support for the project, and expressed concerns about the existing poor drainage conditions.

3. EXISTING CONDITIONS

3.1 Surface

The existing alley consists of a deteriorated bituminous surface and spans 957 feet (0.18 miles) between 93rd Avenue N on the north end and 4th Street NE on the south end. Many of the adjacent residents utilize the alley to access garages, parking areas, or rear yards. The project area also contains fences, driveways, and grass boulevards beyond the edge of alley, all within City right-of-way.

A geotechnical report was completed by WSB & Associates, Inc. in October of 2017. Bituminous roadway cores were taken throughout the project area. Pavement thickness was approximately 6 inches with no discernable base material. The full report can be found in ***Appendix C***.

3.2 Drainage

Storm sewer facilities exist within the proposed project area. Generally, runoff from adjacent properties runs down the center of the alley to an existing catch basin, or to adjacent streets. The existing alley pavement has received various maintenance patches over its lifespan which has resulted in an uneven surface with localized low points that collect water. Runoff that is collected in the catch basin and along the side streets ultimately flows north to the county ditch system along 93rd Avenue N.

3.3 Private Utilities

Private utilities that have facilities in or near the project area will be notified during the final design phase of the project and will be requested to coordinate any necessary repairs and replacements as needed at their cost. Private utility companies that have facilities within the project area include the following:

- CenturyLink (Telephone/Internet)
- CenterPoint Energy (Gas)
- Comcast (Cable)
- Xcel Energy (Electric)
- Zayo Bandwidth (Telecom)

3.4 Sanitary Sewer

A sanitary sewer pipe crosses the project with no structures within the boundaries of the project. The existing sewer system was televised in preparation of this project and showed that the existing pipe is in good condition with no issues.

3.5 Watermain

Watermain does not exist within the project area.

4. PROPOSED IMPROVEMENTS

4.1 Surface

The proposed surface improvements for the 2018 Alley Reconstruction Project include removal of the existing bituminous surface and installation of a new 12-foot-wide concrete pavement. Full-depth removal of the existing pavement will allow the alley to be reconstructed with a 6-inch concrete pavement on top of a 4-inch section of a Class 5 gravel base over an acceptable, compacted subgrade. A typical section is included on ***Figure 2*** in ***Appendix A***.

4.2 Drainage Improvements

The profile grades of the alley will be sloped to direct water to the existing catch basin. Typically, the minimum profile grade for a new street or alley is designed to a standard slope of 0.50% or greater. The alley profile will be designed to meet the minimum profile grade and maintain positive drainage at adjacent driveways and garage entrances.

4.3 Easements

It is anticipated that all alley and storm sewer work will take place within the existing alley right-of-way or within existing drainage and utility easements. Additional right-of-way acquisition is not expected to be required in order to construct the project as proposed.

4.4 Permits/Approvals

It is anticipated that no permits will be required as a part of the proposed improvements.

4.5 Public Involvement

A neighborhood informational meeting for the proposed improvements was conducted on November 2, 2017, for adjacent property owners. Preliminary information was presented to property owners regarding the proposed improvements including costs, funding, schedule, and project impacts. Comment cards were made available to attendees at the meeting; comments can be found in ***Appendix F***.

5. FINANCING

5.1 Opinion of Probable Cost

The total project cost is estimated at **$232,700**, and includes all proposed surface and storm sewer improvements as well as all engineering, legal, financing, and administrative costs. Detailed cost estimates can be found in ***Appendix B*** of this report. The opinions of cost incorporate estimated 2018 construction costs and include a 10% contingency factor. Administrative costs are projected at 25% of the construction cost and include engineering, legal, financing, and administrative costs.

5.2 Funding and Assessments

Financing the 2018 Alley Reconstruction Project will be based on the City's special assessment policy which calls for 80% of the proposed improvements to be specially assessed. The remaining 20% and 100% of the storm sewer costs will be financed by the City. Assessments for this project were calculated by dividing 80% of the total cost of the project equally among adjoining residents. There are a total of 28 properties benefiting from the improvements equating to a cost of $5,970 per unit. The proposed assessment roll is included in ***Appendix E*** of this report, along with an assessment map highlighting the benefiting properties and the assessment calculations for benefiting property owners.

6. PROJECT SCHEDULE

The proposed project schedule is as follows:

City Council Authorizes Feasibility Report ..... August 28, 2017

Neighborhood Meeting ..... November 2, 2017

City Council Receives Feasibility Report/Orders Public Hearing ..... November 13, 2017

City Council Authorizes Final Design ..... December 2017 – January 2018

Plan/Specification Preparation ..... January – February 2018

City Council Approves Plans/Specs and Authorizes Bidding ..... February 2018

Project Bidding..... February – March 2018

Assessment Hearing ..... April 2018

City Council Awards Construction Contract ..... May 2018

Construction..... June – August 2018

7. FEASIBILITY AND RECOMMENDATION

The 2018 Alley Reconstruction Project consists of reconstructing the alley bounded by 2nd and 3rd Avenues NE between 4th Street NE and 93rd Avenue N, including repairing or minimal reconstruction of the storm sewer.

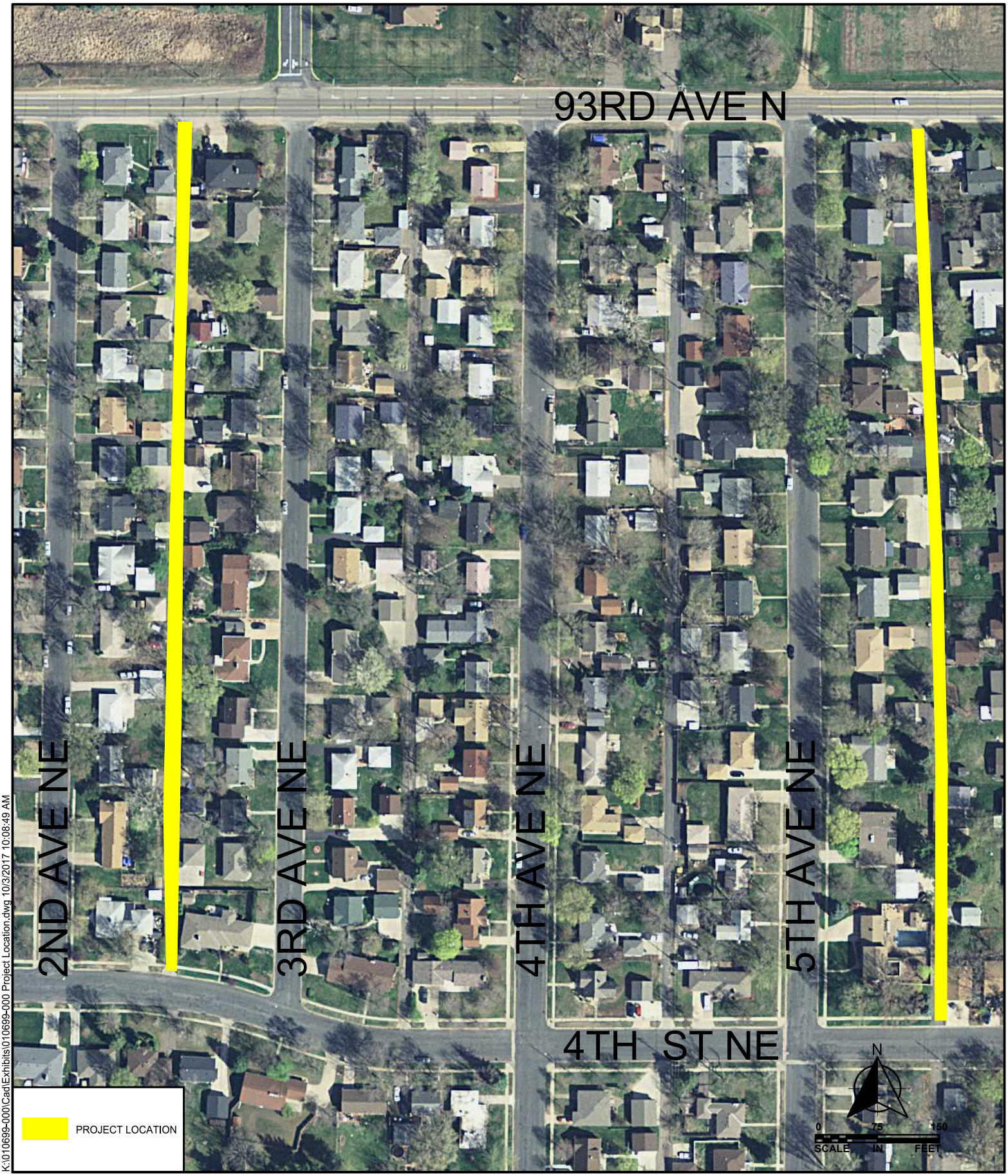
The alley totals approximately 957 feet (0.18 miles) and it is proposed that the aforementioned residential alley be reconstructed to a width of 12 feet.

The total estimated project cost for the 2018 Alley Reconstruction Project is **$232,700**. Proposed funding for the project is provided through 80% special assessments and 20% City funds. The special assessment cost to each of the 28 benefiting property owners is $5,970.

Based on the information contained within this report, the proposed improvements as described are necessary, cost-effective, and feasible from an engineering perspective. WSB & Associates, Inc. recommends construction of the proposed improvements as detailed in this report. The economic feasibility of this project will be determined by the City Council.

APPENDIX A

Figure 1 – Project Location Map
Figure 2 – Typical Section



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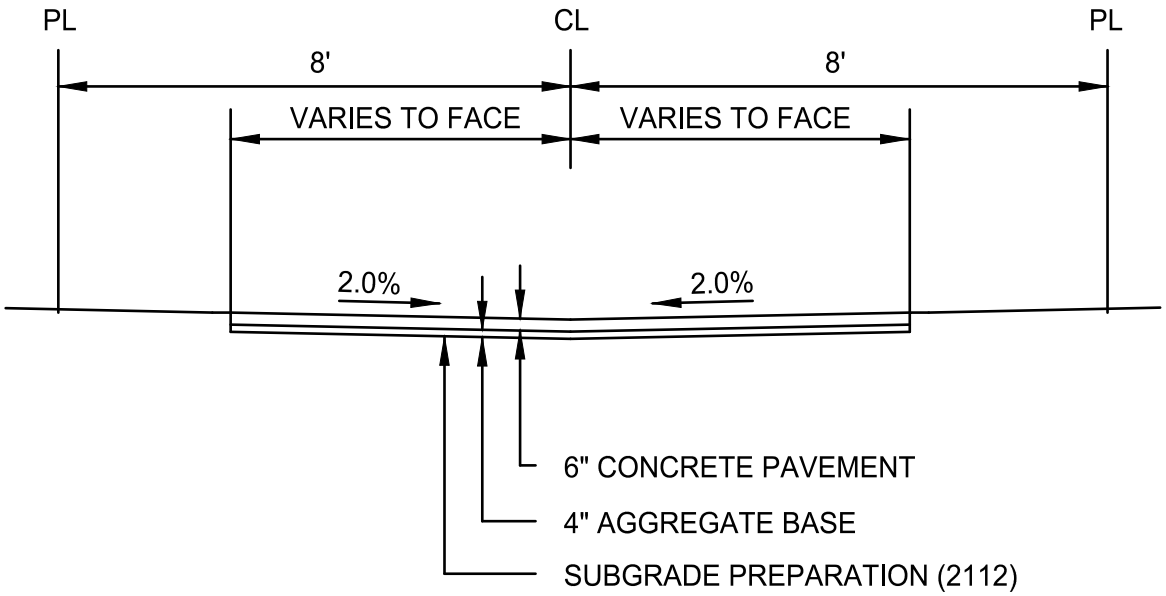
Project Location Map

2018 Alley Reconstruction Project

City of Osseo, MN

WSB PROJECT NO.: 10699-000



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Typical Section

2018 Alley Reconstruction Project

City of Osseo, MN

WSB PROJECT NO.:
10699-000

APPENDIX B

Opinion of Probable Cost

Opinion of Probable Cost

WSB Project: 2018 Alley Improvement Project
Project Location: City of Osseo
WSB Project No: 10699-000

Design By: EAL
Checked By: LEG
Date: 11/9/2017

Item No.	MN/DOT Specification No.	Description	Unit	Estimated Total Quantity	Estimated Unit Price	Estimated Total Cost
SCHEDULE A - ALLEY IMPROVEMENTS						
1	2021.501	MOBILIZATION	LUMP SUM	1	$10,000.00	$10,000.00
2	2104.501	REMOVE CONCRETE CURB & GUTTER	LIN FT	25	$7.50	$187.50
3	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ YD	165	$16.00	$2,640.00
4	2104.505	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	265	$16.00	$4,240.00
5	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	1,280	$8.00	$10,240.00
6	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	90	$8.00	$720.00
7	2104.601	SALVAGE LANDSCAPE STRUCTURES	LUMP SUM	1	$2,500.00	$2,500.00
8	2105.501	COMMON EXCAVATION (P)	CU YD	140	$30.00	$4,200.00
9	2112.501	SUBGRADE PREPARATION	RD ST	10	$250.00	$2,500.00
10	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	10	$150.00	$1,500.00
11	2130.501	WATER (DUST CONTROL)	MGAL	10	$80.00	$800.00
12	2211.501	AGGREGATE BASE CLASS 5	TON	275	$25.00	$6,875.00
13	2301.504	CONCRETE PAVEMENT 6"	SQ YD	1,280	$55.00	$70,400.00
14	2360.503	TYPE SP 12.5 WEAR COURSE MIX (2,B) 3.0" THICK	SQ YD	260	$50.00	$13,000.00
15	2505.601	UTILITY COORDINATION	LUMP SUM	1	$1,000.00	$1,000.00
16	2531.501	CONCRETE CURB AND GUTTER DESIGN B618	LIN FT	25	$60.00	$1,500.00
17	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	165	$55.00	$9,075.00
18	2563.601	TRAFFIC CONTROL	LUMP SUM	1	$1,000.00	$1,000.00
19	2573.530	STORM INLET PROTECTION	EACH	2	$250.00	$500.00
20	2573.533	SEDIMENT CONTROL LOG TYPE STRAW	LIN FT	85	$5.00	$425.00
21	2573.533	SEDIMENT CONTROL LOG TYPE ROCK	LIN FT	45	$10.00	$450.00
22	2573.535	STABILIZED CONSTRUCTION EXIT	LUMP SUM	1	$2,000.00	$2,000.00
23	2574.525	COMMON TOPSOIL BORROW	CU YD	45	$35.00	$1,575.00
24	2575.505	SODDING TYPE LAWN	SQ YD	225	$10.00	$2,250.00
25	2575.535	WATER (TURF ESTABLISHMENT)	MGAL	45	$50.00	$2,250.00
					TOTAL	**$151,827.50**
					CONTINGENCY TOTAL (10%)	**$15,182.75**
					SUBTOTAL TOTAL	**$167,010.25**
					INDIRECT COST TOTAL (25%)	**$41,752.56**
					TOTAL	**$208,800.00**
SCHEDULE B - DRAINAGE IMPROVEMENTS						
26	2104.509	REMOVE DRAINAGE STRUCTURE	EACH	2	$1,200.00	$2,400.00
27	2503.541	12" RC PIPE SEWER DESIGN 3006 CLASS V	LIN FT	25	$80.00	$2,000.00
28	2503.602	CONNECT TO EXISTING STORM SEWER	EACH	2	$1,000.00	$2,000.00
29	2506.501	CONSTRUCT DRAINAGE STRUCTURE DES 48-4020	LIN FT	9	$1,000.00	$9,000.00
30	2506.516	CASTING ASSEMBLY	EACH	2	$1,000.00	$2,000.00
					TOTAL	**$17,400.00**
					CONTINGENCY TOTAL (10%)	**$1,740.00**
					SUBTOTAL TOTAL	**$19,140.00**
					INDIRECT COST TOTAL (25%)	**$4,785.00**
					TOTAL	**$23,900.00**
					GRAND TOTAL:	**$232,700.00**

APPENDIX C

Geotechnical Report

GEOTECHNICAL REPORT

ALLEY IMPROVEMENTS

BETWEEN 2nd AND 3rd AVE NE | OSSEO, MN

October 16, 2017

Prepared for:
Mr. Rick Hass
Public Works Director
City of Osseo
415 Central Avenue
Osseo, Minnesota 55369

WSB PROJECT NO. 010698-000

GEOTECHNICAL REPORT

ALLEY IMPROVEMENTS
BETWEEN 2nd AND 3rd AVENUES NORTHEAST
OSSEO, MINNESOTA

FOR
CITY OF OSSEO
415 CENTRAL AVENUE
OSSEO, MINNESOTA

October 16, 2017

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.

Darin Hyatt, PE

Date: October 16, 2017 Lic. No. 41316

540 Gateway Boulevard | Suite 100 | Burnsville, MN 55337 | (952) 737-4660

October 16, 2017

Mr. Rick Hass
Public Works Director
City of Osseo
415 Central Avenue
Osseo, Minnesota 55369

Re: Geotechnical Report
Alley Improvements
Between 2nd and 3rd Avenues Northeast
WSB Project No.: 010698-000

We have conducted a geotechnical subsurface exploration program for the above referenced project. This report contains our hand auger boring logs, an evaluation of the conditions encountered in the borings and our recommendations for pavement section, subgrade improvements, and other geotechnical related design and construction considerations.

If you have any questions concerning this report or our recommendations, or for construction material testing for this project, please call us at (952) 737-4660.

Sincerely,
WSB & Associates, Inc.

Darin Hyatt, PE
Senior Geotechnical Engineer

Mark Osborn, PE
Geotechnical Project Engineer

Attachment

DEH/tw

TITLE SHEET
CERTIFICATION SHEET
LETTER OF TRANSMITTAL
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1. INTRODUCTION

1.1 Project Location

The bituminous cores and hand augers were completed within the alley that is located between 2nd and 3rd Avenue Northeast and connects 4th Street Northeast and 93rd Avenue North. The alley was a rural design bituminous asphalt surfaced roadway. The approximate coring and hand auger boring (HAB) locations are shown on the Soil Boring Exhibit in ***Appendix A***.

1.2 Project Description

It is proposed to remove the bituminous pavement and reconstruct the alley using concrete paving. The alley will remain a rural design section. We understand that no underground utilities will be constructed within the alley, however, a catch basin may be updated. We understand the horizontal and vertical alignments of the roadway will not be altered from existing conditions.

WSB has developed recommendations for this project in consideration of the proposed layout and configurations as understood at this time. WSB must be made aware of the revised or additional information in order to evaluate the recommendations for continued applicability.

1.3 Purpose and Project Scope of Services

The City of Osseo (City) authorized this work. In order to assist the design team in preparing plans and specifications, we have developed recommendations for pavements and subgrades. As such, we have completed a subsurface exploration program and prepared a geotechnical report for the referenced site. This stated purpose was a significant factor in determining the scope and level of service provided. Should the purpose of the report change the report immediately ceases to be valid and use of it without WSB's prior review and written authorization shall be at the user's sole risk.

Our authorized scope of work has been limited to:

1. Mobilization / Demobilization of a Coring Crew.
2. Clearing underground utilities utilizing the Gopher State One Call.
3. Coring 2 locations and completing hand auger borings to depths of about 5 feet.
4. Perform soil classification and analysis.
5. Review of readily available project information and geologic data.
6. Providing this geotechnical report containing:
    A. Summary of our findings.
    B. Discussion of subsurface soil and groundwater conditions and how they may affect the proposed pavements.
    C. Recommended pavement section.
    D. A discussion of soils for use as site fills.

2. PROCEDURES

2.1 Boring Layout and Soil Sampling Procedures

The City requested we complete two soil borings along the alleyway. Based on previous experience in the city, we anticipated that the overhead power lines and narrow alleyway would prevent our drill rig from being able to perform soils borings. Therefore, we proposed two bituminous cores and hand augers would be completed along the alley. WSB recommended the depths and selected the desired locations. Our field crew staked the borings from existing site features from the supplied site plan. The approximate hand boring locations (HAB) are shown on the Soil Boring Exhibit in ***Appendix A*** which is an aerial photo. Borings PB-1 through PB-6, also shown on that exhibit, are discussion in a separate report.

We completed the cores and hand augers on September 27, 2017, with a coring machine with a 6 inch barrel and a 1¼" steel screw-type hand auger. Methods, depths, sampling interval, groundwater observations, test data, and other information are indicated on the hand auger boring logs.

The materials encountered were described on field logs and representative samples were containerized, and transported to our laboratory for further examination and testing.

The samples were visually examined to estimate the distribution of grain sizes, plasticity, consistency, moisture condition, color, presence of lenses and seams, and apparent geologic origin. We classified the soils according to type using the Unified Soil Classification System (USCS). A chart describing the Unified Soil Classification System is included in ***Appendix A***.

2.2 Groundwater Measurements and Borehole Abandonment

The crew observed the borings for free groundwater after completion. These observations and measurements are noted on the boring logs. The crew then backfilled with soil cuttings.

2.3 Boring Log Procedures and Qualifications

The subsurface conditions encountered by the test borings are illustrated on the Logs of Test Borings in ***Appendix A***. Similar soils were grouped into the strata shown on the boring logs, and the appropriate estimated USCS classification symbols were also added. The depths and thickness of the subsurface strata indicated on the boring logs were estimated from the hand auger boring results.

The transition between materials (horizontal and vertical) is approximate and is usually far more gradual than shown. Information on actual subsurface conditions exists only at the specific locations indicated and is relevant only to the time exploration was performed. Subsurface conditions and groundwater levels at other locations may differ from conditions found at the indicated locations. The nature and extent of these conditions would not become evident until exposed by construction excavation. These stratification lines were used for our analytical purposes and, due to the aforementioned limitations, should not be used as a basis of design or construction cost estimates.

3. EXPLORATION RESULTS

3.1 Site and Geology

The cores and augers were completed through the existing bituminous asphalt pavement section and encountered fills overlying glacial soils.

The Hennepin County Geologic Atlas indicates the surficial geology of the area is mostly sand and gravel.

3.2 Subsurface Soil and Groundwater Conditions

The boring profile generally consisted of pavement section materials and fills overlying glacial outwash soils.

The pavement section consisted of about 6 inches of bituminous. An aggregate base was not noted. It can be difficult to discern a layer of aggregate base in a small diameter bore hole such as a hand auger as the soils tend to get mixed and blended together. It is likely that an aggregate base layer is present, however.

Fill materials were encountered from just below the pavement section to a depth of about 1 ½ feet at Boring HAB-7 while in Boring HAB-8 the fill extended to a depth of about 4 feet. These fills consisted of sand with silt and clayey sand.

Sand was encountered below the fill and were generally brown in color and moist.

Table 1 below indicates the soils present within the upper 4 feet of the roadway profile. These soils typically have the greatest effect on the roadway subgrade.

Table 1: Roadway Soil Boring Profiles

Boring No.	Bituminous Thickness (inches)	Aggregate Base Thickness (inches)	Subgrade Soils (Upper 4 feet)
HAB-7	6	nd	Clayey sand fill over sand
HAB-8	6	nd	Sand with silt and clayey sand fill

nd – not discernable

3.3 Groundwater Conditions

WSB took groundwater level readings in the exploratory auger holes, reviewed the data obtained, and discussed its interpretation of the data in the text of the report. Note that groundwater levels may fluctuate due to seasonal variations (e.g. precipitation, snowmelt and rainfall) and/or other factors not evident at the time of measurement.

No groundwater was encountered during the augers. The holes were only left open for a short time during the process.

4. ENGINEERING ANALYSIS AND RECOMMENDATIONS

4.1 Discussion

The fills encountered onsite consisted of clayey sand and sand with silt. These fills have been inplace for a long period of time and were likely placed and compacted to raise the roadway to grade or as utility backfill. Based on this, it is our opinion these soils are suitable to remain in place as subgrade soils.

The native sands are also suitable for pavement support.

The clayey soils within the pavement subgrade are frost susceptible soils. Consideration should be given to partially subcutting these soils and replacing with a non-frost susceptible granular fill to reduce the potential frost heave below the pavement section.

4.2 Pavement Areas

After excavation of the pavement section, proof-roll tests should be utilized with a loaded dump truck to help identify areas that may require corrective action such as scarifying, disking, and compaction or sub-excavations. We also recommend a proof-roll be performed again on the aggregate base just prior to placement of the bituminous pavement.

No traffic data was available for the alleyway. We would expect traffic to be limited to residents driving to their garage and for garbage trucks. We estimated the Average Daily Traffic (ADT) to be less than 200 vehicles. Our design is based on a 35-year design life of the pavement section.

The concrete section in Table 2 is based on minimum recommendations from MnDOT using soil factor (SF) design methods.

Table 2: Rigid Pavement Section

Section	Thickness (inches)
Concrete, MnDOT	5*
MnDOT Class 5 Aggregate Base	4

* - if dowel bars are used the thickness should be increased to 6 inches.

As previously mentioned the use of a non-frost susceptible sand cushion will help reduce the effects of frost heave. In our opinion, a 20-inch sand cushion typically provides adequate reduction in frost heave potential. It should be noted that any sand cushion placed below the pavement section will provide positive benefits for reduced potential frost heave.

Drainage of the sand cushion via drain tile may be necessary. Drain tile wrapped in a sock should be placed at the base of the sand cushion and tied into catch basins. We recommend the sand cushion contain less than ten percent (10%) passing the #200 sieve.

MnDOT recommends joint spacing of twelve foot (12') or fifteen foot (15') lengths. We suggest the concrete mix be air-entrained to six percent plus or minus one and one-half percent (6% +/- 1½ %) with a minimum twenty-eight (28) day compressive strength of 4,000 psi. The slump range should be between two to five inches (2-5") to reduce shrinkage related problems such as curling or excessive cracking. A maximum water to cement ratio of 0.45 is recommended. Type 1 cement should be acceptable, and should meet the requirements of ASTM C150. The concrete mix design should follow MnDOT requirements.

<u>General Design</u>

The pavement sections above provide options to meet the ESAL requirements. Other pavement design options would be acceptable as well as long as they meet the minimum requirements for concrete thickness, aggregate base thickness, and can meet the ESAL requirements.

4.3 Backfill and Fill Selection and Compaction

The on-site non-organic soils may be reused as backfill and fill provided they are moisture conditioned and can be compacted to their specified densities. Any wet soils excavated would need to be dried before reuse as an engineered fill. Backfills with cobbles larger than six inches (6") should not be placed below pavements or in contact with utilities. We recommend that sandy soils be moisture conditioned to meet compaction specifications and clayey soils be moisture conditioned to within two percent (2%) below to three percent (3%) above their optimum moisture contents as determined from their standard Proctor tests (ASTM D-698). Fill should be spread in thin lifts to allow for complete compaction of the material. Table 3 indicates the recommended compaction levels.

Table 3: Recommended Level of Compaction for Backfill and Fill

Area	Percent of Standard Proctor Maximum Dry Density
Pavement: Within 3 feet of top of subgrade	100
Pavement: Greater than 3 feet below top of subgrade	95
Utility Trench	95
Landscaping (non-structural)	90

4.4 Construction Considerations

Good surface drainage should be maintained throughout the work so that the site is not vulnerable to ponding during or after a rainfall. The excavation for any soil correction to densify loose fill should not encounter groundwater intrusion. However, if water does enter excavations, it should be promptly removed prior to further construction activities. Under no circumstances should fill or concrete be placed into standing water.

Soil corrections at this site for pavement subgrades may not be continuous in all areas. We recommend tapering the fills back to native soils at a ten to one (10:1) slope.

4.5 Construction Safety

All excavations must comply with the requirements of OSHA 29 CFR, Part 1926, Subpart P "Excavations and Trenches". This document states that excavation safety is the responsibility of the contractor. Reference to this OSHA requirement should be included in the job specifications.

The responsibility to provide safe working conditions on this site, for earthwork, building construction, or any associated operations is solely that of the contractor. This responsibility is not borne in any manner by WSB.

4.6 Cold Weather Construction

It is our understanding that construction is unlikely to occur during the winter months. However, if the construction does continue into the winter months we recommend the following guidelines.

Only unfrozen fill should be used. Placement of fill or concrete *must not be permitted* on frozen soil.

4.7 Field Observation and Testing

The soil conditions illustrated on the Logs of Test Borings in ***Appendix A*** are indicative of the conditions only at the boring locations.

WSB also recommends a representative number of field density tests be taken in all engineered fill and backfill placed to aid in judging its suitability. Fill placement and compaction should be monitored and tested to determine that the resulting fill and backfill conforms to specified density, strength or compressibility requirements. Prior to use, any proposed fill and backfill material should be submitted to the WSB laboratory for testing to verify compliance with recommendations and project specifications.

Dynamic Cone Penetrometer (DCP) tests can be completed in the aggregate base in lieu of density testing. We recommend following MnDOT Specification 2211-3.

WSB would be pleased to provide the necessary field observation, monitoring and testing services during construction.

4.8 Plan Review and Remarks

The observations, recommendations and conclusions described in this report are based primarily on information provided to WSB, obtained from our subsurface exploration, our experience, several necessary assumptions and the scopes of service developed for this project and are for the sole use of our client. We recommend that WSB be retained to perform a review of final design drawing and specifications to evaluate that the geotechnical engineering report has not been misinterpreted. Should there be any changes in the design related to this project or if there are any uncertainties in the report we should be notified. We would be pleased to review any project changes and modify the recommendations in this report (if necessary) or provide any clarification in writing.

The entire report should be kept together; for example, boring logs should not be removed and placed in the specifications separately.

The boring logs and related information included in this report are indicators of the subsurface conditions only at the specific locations indicated on the Soil Boring Exhibit and times noted on the Logs of Test Boring sheets in ***Appendix A***. The subsurface conditions, including groundwater levels, at other locations on the site may differ significantly from conditions that existed at the time of sampling and at the boring locations.

The test borings were put down by WSB solely to obtain indications of subsurface conditions as part of a geotechnical exploration program. No services were performed to evaluate subsurface environmental conditions.

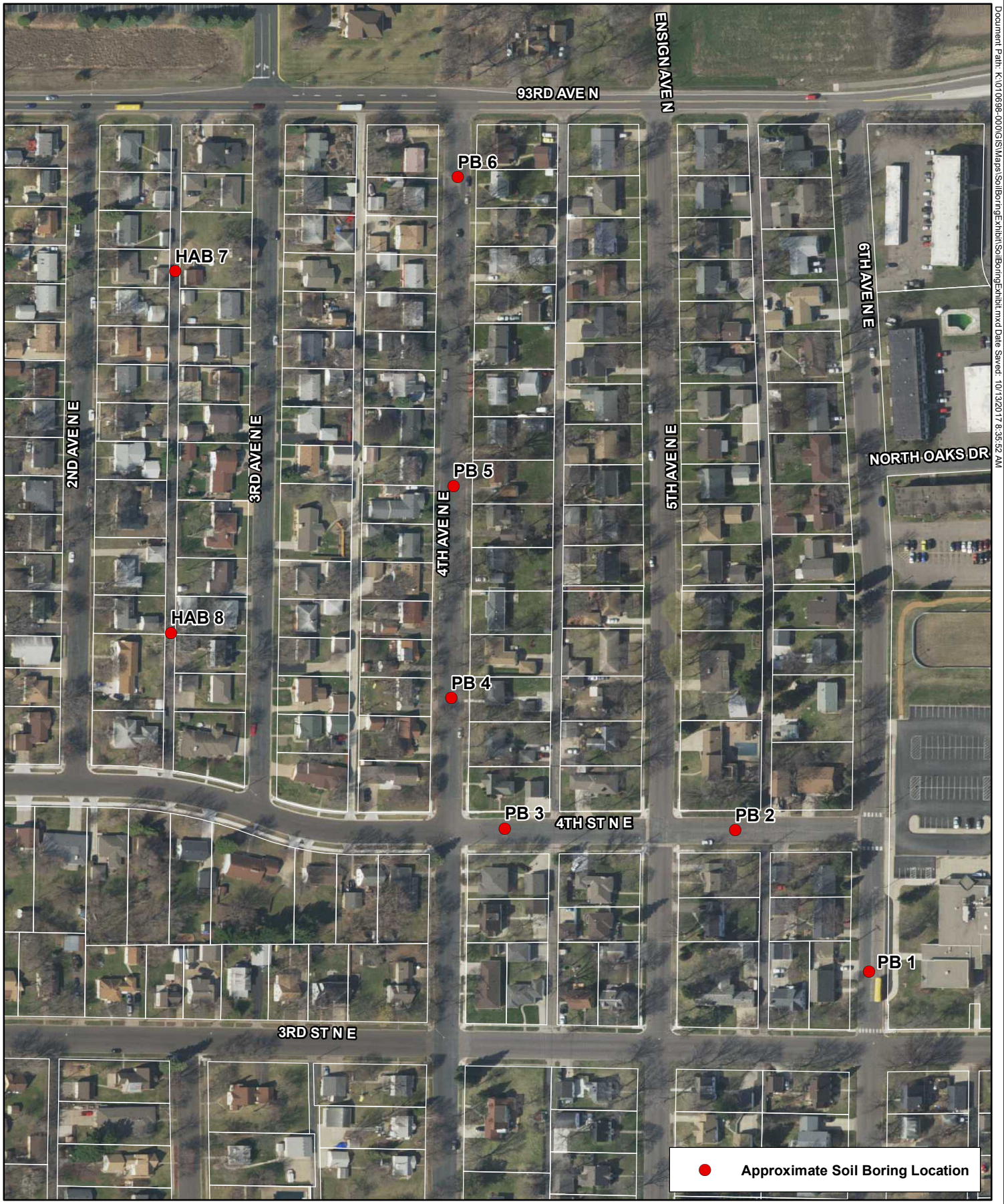
WSB has not performed any observations, investigations, studies or testing that is not specifically listed in the scope of service. WSB shall not be liable for failing to discover any condition whose discovery required the performance of services not authorized by the Agreement.

5. STANDARD OF CARE

The recommendations and opinions contained in this report are based on our professional judgment. The soil testing and geotechnical engineering services performed for this project have been performed with the level of skill and diligence ordinarily exercised by reputable members of the same profession under similar circumstances, at the same time and in the same or a similar locale. No warranty, either express or implied, is made.

APPENDIX A

Soil Borings Exhibit
Logs of Test Borings
Symbols and Terminology on Test Boring Log
Notice to Report Users Boring Log Information
Unified Soil Classification Sheet (USCS)



Document Path: K:\010698-000\GIS\Maps\SoilBoringExhibit\SoilBoringExhibit.mxd Date Saved: 10/13/2017 8:35:52 AM

Soil Boring Exhibit

Geotechnical Report
2018 Street Improvements
Osseo, MN
WSB #: 010698-000

N

0 200 Feet
1 inch = 200 feet

LOG OF TEST BORING

PROJECT NAME: Alley Improvements
CLIENT/WSB #: 010698-000

PROJECT LOCATION: Osseo, MN

BORING NUMBER HAB-7
PAGE 1 OF 1

DEPTH (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	SAMPLE No.	SAMPLE TYPE	LABORATORY TESTS MC (%)	DD (pcf)	LL (%)	PL (%)
	BITUMINOUS 6"		Pavement Section		1	AU				
	FILL, Clayey Sand, gray, moist		Fill							
1					2	AU				
	SAND WITH LITTLE GRAVEL, fine to medium grained, brown, moist	SP	Outwash							
2					3	AU				
3	SAND, fine to medium grained, brown, moist	SP								
4					4	AU				
5										
	End of Boring 5.5 ft.									
6										
7										
8										
9										
10										

WATER LEVEL MEASUREMENTS

START: 9/27/2017 END: 9/27/2017

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION

METHOD: Hand Auger 0' - 5.5'

Crew Chief: T. Vidman
Logged By: DEH

Notes:

WSB & Associates, Inc.

LOG OF TEST BORING

PROJECT NAME: Alley Improvements
CLIENT/WSB #: 010698-000

PROJECT LOCATION: Osseo, MN

BORING NUMBER HAB-8
PAGE 1 OF 1

DEPTH (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	SAMPLE No.	SAMPLE TYPE	LABORATORY TESTS MC (%)	DD (pcf)	LL (%)	PL (%)
	BITUMINOUS 6"		Pavement Section		1	AU				
	FILL, Sand with Silt and little Gravel, dark brown, moist		Fill							
1					2	AU				
	FILL, Clayey Sand, dark brown, moist									
2										
3					3	AU				
4	SAND WITH GRAVEL, fine to coarse grained, brown, moist	SP	Outwash							
5					4	AU				
	End of Boring 5.5 ft.									
6										
7										
8										
9										
10										

WATER LEVEL MEASUREMENTS

START: 9/27/2017 END: 9/27/2017

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD	Crew Chief:	Logged By:
								T. Vidman	DEH
							Hand Auger 0' - 5.5'	Notes:	

WSB BORING LOG - WSB.GDT - 10/16/17 15:31 - K:\010698-000\GEOTECH-CMT\2018 STREET IMP\2018 STREET RECON, OSSEO MN.GPJ

SYMBOLS AND TERMINOLOGY ON TEST BORING LOG

SYMBOLS

Drilling and Sampling

Symbol	Description
HSA	3-1/4" LD. Hollow stem auger
_ FA	4", 6" or 10" diameter flight auger
_HA	2", 4", or 6" hand auger
_DC	2-1/2", 4", 5", or 6" steel drive casing
_RC	Size A, B or N rotary casing
PD	Pipe drill or cleanout tube
CS	Continuous split barrel sampling
DM	Drilling mud
JW	Jetting water
SB	2" O.D. split barrel sampling
_L	2-1/2" or 3-1/2" O.D. SB liner sampler
_T	2" or 3" thin walled tube sample
3TP	3" thin walled tube using pitcher sampler
_TO	2" or 3" thin walled tube using Osterberg sampler
W	Wash sample
B	Bag sample
P	Test pit sample
_Q	BQ, NQ, or PQ wire line system
_X	AX, BX, or NX double tube barrel
N	Standard penetration test, blows per foot
CR	Core recovery, percent
WL	Water level
▼	Water level
NMR	No measurement recorded, primarily due to presence of drilling or coring fluid.

Laboratory Testing

Symbol	Description
W	Water content, % (ASTM** D2216)
D	Dry density, pcf
LL	Liquid limit (ASTM D4318)
PL	Plastic limit (ASTM D4318)
	-Inserts in last column (Qu or RQD)-
Qu	Unconfined compressive strength, psf (ASTM D2166)
Pq	Penetrometer reading, tsf (ASTM D1558)
Ts	Torvane reading, tsf
G	Specific gravity (ASTM D854)
SL	Shrinkage limits (ASTM D427)
OC	Organic content-combustion method (ASTM D2974)
SP	Swell pressure, tsf (ASTM D4546)
PS	Percent swell under pressure (ASTM D4546)
FS	Free swell, % (ASTM D4546)
SS	Shrink swell, % (ASTM D4546)
pH	Hydrogen ion content-Meter Method (ASTM D4972)
SC	Sulfate content, parts/million or mg/l
CC	Chloride content, parts/million or mg/l
C*	One dimensional consolidation (ASTM D2435)
Qc*	Triaxial compression (ASSTM D2850 and D4767)
D.S.*	Direct Shear (ASTM D3080)
K*	Coefficient of permeability, cm/sec (ASTM D2434)
P*	Pinhole test (ASTM D4647)
DH*	Double hydrometer (ASTM D4221)
MA*	Particle size analysis (ASTM D422)
R	Laboratory electrical resistivity, ohm-cm (ASTM G57)
E*	Pressuremeter deformation modulus, tsf (ASTM D4719)
PM*	Pressuremeter test (ASTM D4719)
VS*	Field vane shear (ASTM D2573)
IR*	Infiltrometer test (ASTM D3385)
RQD	Rock quality designation, percent

*Results shown on attached data sheet or graph

**ASTM designates American Society for Testing and Materials

TERMINOLOGY

Particle Sizes

Type	Size Range
Boulders	> 12"
Cobbles	3" – 12"
Coarse gravel	3/4" – 3"
Fine gravel	#4 sieve – 3/4"
Coarse sand	#4 - #10 sieve
Medium sand	#10-#40 sieve
Fine sand	#40-#200 sieve
Silt	100% passing #200 sieve and > 0.005mm
Clay	100% passing #200 sieve and < 0.005mm

Soil layering and Moisture

Term	Visual Observation
Lamination	Up to 1/4" thick stratum
Varved	Altering laminations of any combination of clay, silt, fine sand, or colors
Lenses	Small pockets of different soils in a soil mass
Stratified	Altering layers of varying materials or colors
Layer	1/4" to 12" thick stratum
Dry	Powdery, no noticeable water
Moist	Damp, below saturation
Waterbearing	Pervious soil below water
Wet	Saturated, above liquid limit

Gravel Content

Coarse-Grained Soils

% Gravel	Description
2-15	A little gravel
16-49	With gravel

Fine-Grained Soils

% Gravel	Description
< 5	Trace of gravel
5-15	A little gravel
16-30	With gravel
31-49	Gravelly

Standard Penetration Resistance

Cohesionless Soils

N-Value	Relative Density
0-4	Very loose
5-10	Loose
11-30	Medium dense
31-50	Dense
> 50	Very dense

Cohesive Soils

N-Value	Consistency
0-4	Very soft
5-8	Soft
9-15	Firm
16-30	Hard
> 30	Very hard

NOTICE TO REPORT USERS BORING LOG INFORMATION

Subsurface Profiles

The subsurface stratification lines on the graphic representation of the test borings show an approximate boundary between soil types or rock. The transition between materials is approximate and is usually far more gradual than shown. Estimating excavation depths, soil volumes and other computations relying on the subsurface strata may not be possible to any degree of accuracy.

Water Level

WSB & Associates, Inc. took groundwater level readings in the exploratory borings, reviewed the data obtained, and discussed its interpretation of the data in the text of this report. The groundwater level may fluctuate due to seasonal variations caused by precipitation, snowmelt, rainfalls, construction or remediation activities, and/or other factors not evident at the time of measurement.

The actual determination of the subsurface water level is an interpretative process. Subsurface water level may not be accurately depicted by the levels indicated on the boring logs. Normally, a subsurface exploration obtains general information regarding subsurface features for design purposes. An accurate determination of subsurface water levels is not possible with a typical scope of work. The use of the subsurface water level information provided for estimating purposes or other site review can present a moderate to high risk of error.

The following information is obtained in the field and noted under "Water Level Measurements" at the bottom of the log.

Sampled Depth: The lowest depth of soil sampling at the time a water level measurement is taken.

Casing Depth: The depth to the bottom of the casing or hollow-stem auger at the time of water level measurement.

Cave-In Depth: The depth at which the measuring tape stops in the bore hole.

Water Level: The point in the bore hole at which free-standing water is encountered by a measuring tape dropped from the surface inside the casing.

Drilling Fluid Level: Similar to the water level, except the liquid in the bore hole is a drilling fluid.

Obstruction Depths

Obstructions and/or obstruction depths may be noted on the boring logs. Obstruction indicates the sampling equipment encountered resistance to penetration. It must be realized that continuation of drilling, the use of other drilling equipment or further exploration may provide information other than that depicted on the logs. The correlation of obstruction depths on the log with construction features such as rock excavation, foundation depths, or buried debris cannot normally be determined with any degree of accuracy. For example, penetration of weathered rock by soil sampling equipment may not correlate with removal by certain types of construction equipment. Using this information for estimating purposes often results in a high degree of misinterpretation.

Accurately identifying the obstruction or estimating depths where hard rock is present over the site requires a scope of service beyond the normal geotechnical exploration program. The risk of using the information noted on the boring logs for estimating purposes must be understood.

WSB & Associates, Inc.

UNIFIED SOIL CLASSIFICATION SYSTEM

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

COARSE-GRAINED SOILS (more than 50% of material is larger than No. 200 sieve size.)			
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size	Clean Gravels (Less than 5% fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Gravels with fines (More than 12% fines)	GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
SANDS 50% or more of coarse fraction smaller than No. 4 sieve size	Clean Sands (Less than 5% fines)	SW	Well-graded sands, gravelly sands, little or no fines
		SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)	SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size.)			
SILTS AND CLAYS Liquid limit less than 50%		ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts with slight plasticity
		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 50% or greater		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils

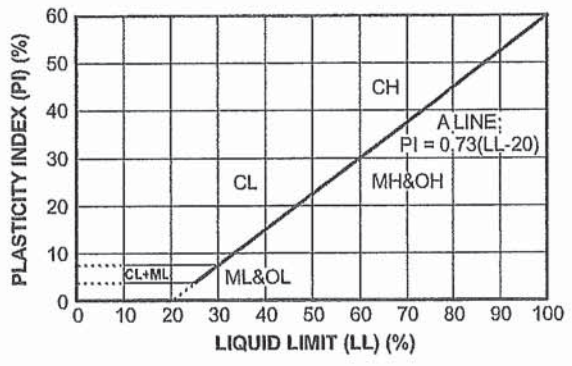
LABORATORY CLASSIFICATION CRITERIA

GW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3	
GP	Not meeting all gradation requirements for GW	
GM	Atterberg limits below "A" line or P.I. less than 4	Above "A" line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
GC	Atterberg limits above "A" line with P.I. greater than 7	
SW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3	
SP	Not meeting all gradation requirements for GW	
SM	Atterberg limits below "A" line or P.I. less than 4	Limits plotting in shaded zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols.
SC	Atterberg limits above "A" line with P.I. greater than 7	

Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:

Less than 5 percent ..... GW, GP, SW, SP
More than 12 percent ..... GM, GC, SM, SC
5 to 12 percent ..... Borderline cases requiring dual symbols

PLASTICITY CHART



APPENDIX D

Televising Report

HYDRO KLEAN

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855-845-5326

Des Moines, IA Mankato, MN Rogers, MN Sioux Falls, SD Watertown, SD

PROPOSAL

Date	Expires
8/22/2017	10/21/2017
Hydro-Klean Quote Number	**Delivery / Availability**
QTE039352	As Schedule Permits
Prepared By	
Michele McGreal	
Freight On Board	
Rogers, MN	
Terms	
Net 30	

Bill To:
City of Osseo
415 Central Avenue
Osseo, MN 55415

Ship To:
City of Osseo
per map
Osseo, MN 55415

Quantity	Units	Description	Price	Amount

Projected probable project cost to perform the following tasks on a unit cost basis:
Osseo, MN - Televise 8"-10" sanitary and 15"-32" storm sewer per supplied maps in streets/alleys, under direction of WSB. Prices do not include cleaning. Does not include prevailing wage, non-standard traffic control, bypassing/dewatering, easement agreements (if any), special permits or notices. Manholes/catch basins/flared ends must be exposed and accessible. All work to be completed during same mobilization. Variations in the work scope will require execution of a change order.

1.00 Each	Mobilization of CCTV Crew and Equipment	$250.00	$250.00
4200.00 Foot	Televise Sanitary and Storm Sewers	$1.01	$4,242.00

*NOTE: Proposal does not include any applicable taxes

Prepared By: Michele McGreal Title: Sales & Marketing Coordinator

Approved By: Wade Anderson Title: President

Accepted By: Emil A Zuelke Date: 8/31/17

Title: Project Engineer PO#:

*Total
$4,492.00

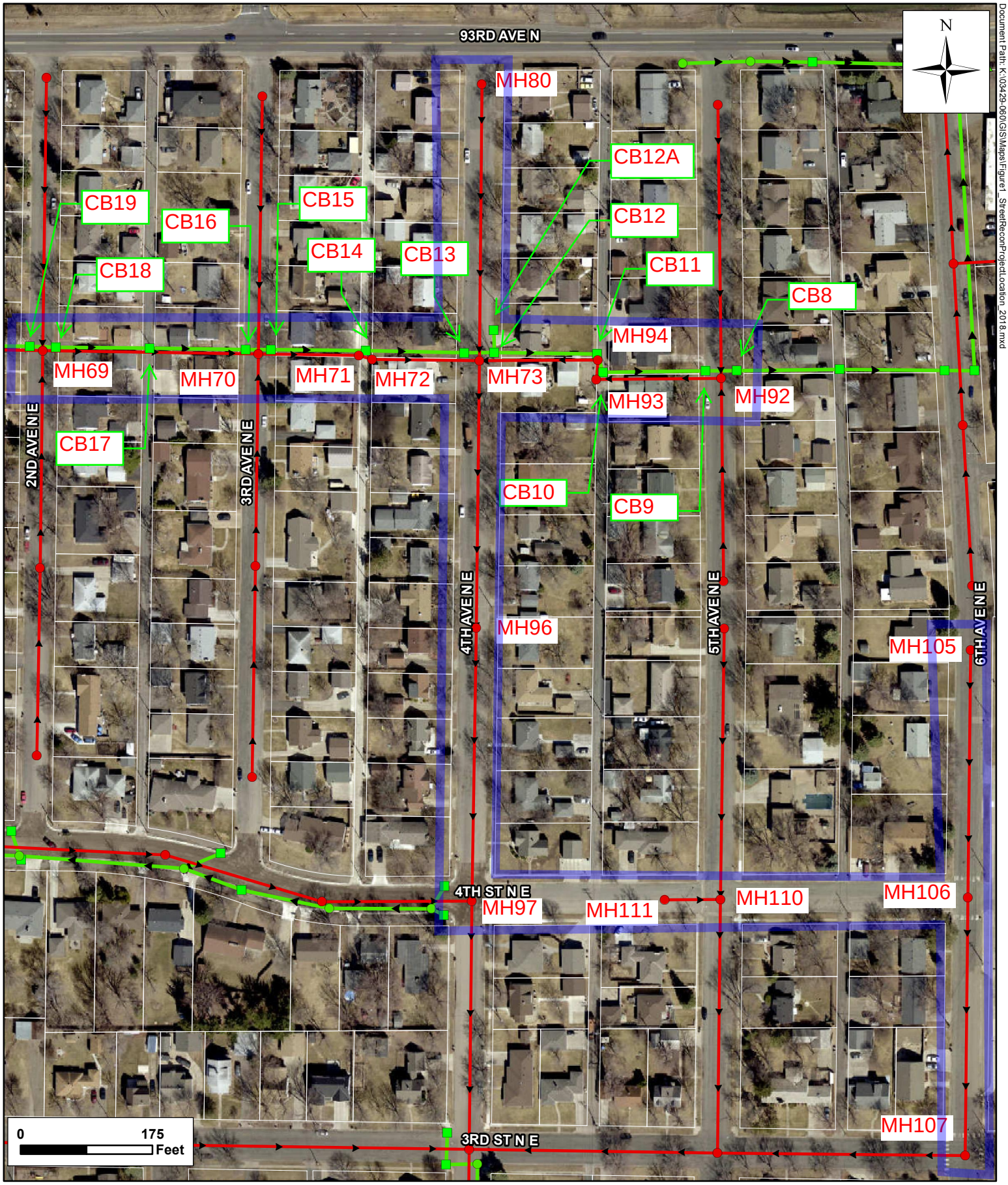


Figure 1: Project Area Map
2018 Street Reconstruction Project
Osseo, MN

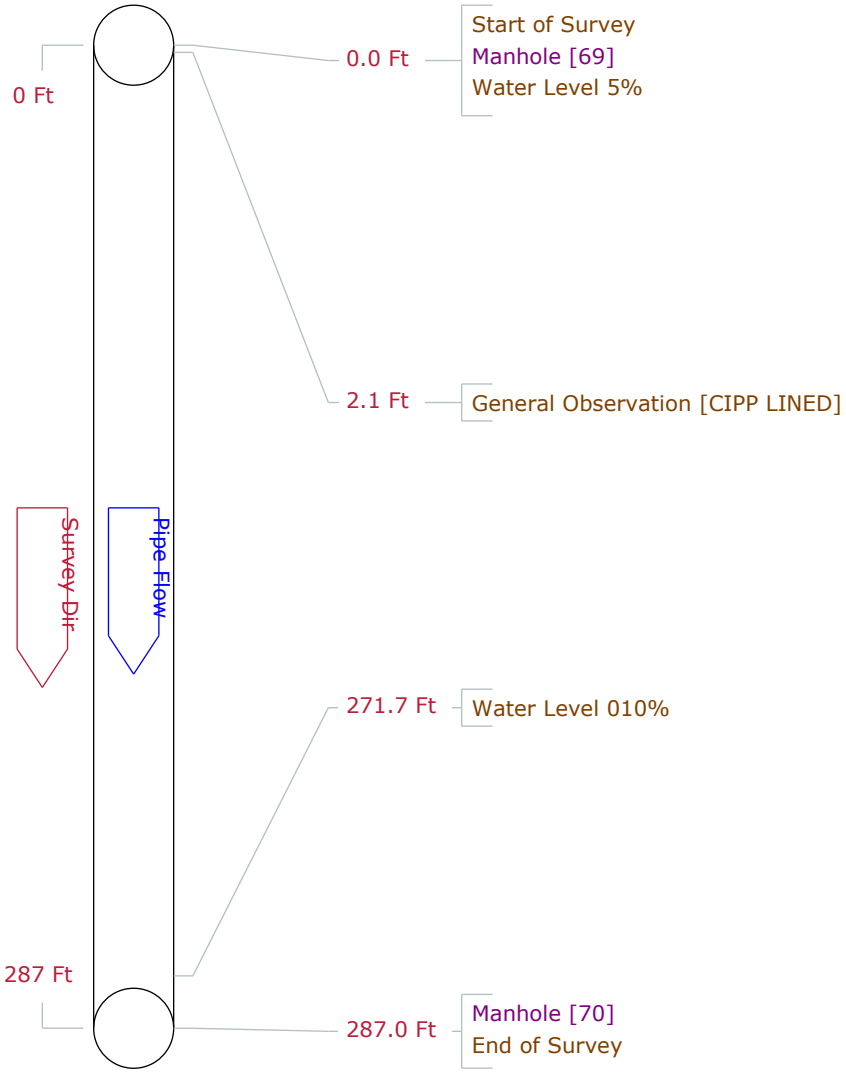
Pipe Graphic Report of PSR 69 X for CITY OF OSSEO

Setup	1	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage		Survey Customer					
P/O #		Date	2017/09/28	Time	11:36	Street	2ND AVE NE.
City	OSSEO, MN.	Further location details					

Up	69	Rim to invert		Grade to invert		Rim to grade	Ft
Down	70	Rim to invert		Grade to invert		Rim to grade	Ft

Use		Direction	Downstream	Flow control		Media No	
Shape	Circular	Height	10	Width	ins	Preclean Z	Date Cleaned
Material	Vitrified Clay Pipe	Joint length	Ft	Total length	287.0 Ft	Length Surveyed	287.00 Ft
Lining	Cured in Place	Year laid		Year rehabilitated		Weather	
Purpose		Cat					

Additional info				Structural	O & M
Location				Miscellaneous	Hydraulic
Project	TV SANITARY & STORM			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



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Hydro Klean LLC
Phone:515-283-0500
Fax:515-283-0505

Tabular Report of PSR 69 X for CITY OF OSSEO

Setup	1	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage		Survey Customer					
P/O #		Date	2017/09/28	Time	11:36	Street	2ND AVE NE.
City	OSSEO, MN.	Further location details					

Up	69	Rim to invert		Grade to invert		Rim to grade		Ft
Down	70	Rim to invert		Grade to invert		Rim to grade		Ft

Use		Direction	Down	Flow control		Media No			
Shape	Circular	Height	10	Width	ins	Preclean	Z	Date Cleaned	
Material	Vitrified Clay Pipe	Joint length		Ft	Total length	287.0	Ft	Length Surveyed	287.0 Ft
Lining	Cured in Place	Year laid		Year rehabilitated		Weather			
Purpose		Cat				Pressure			

Additional info						Structural	O & M	Constructional	
Location						Miscellaneous			
Project	TV SANITARY & STORM					Work Order			
Northing		Easting				Elevation			
Coordinate System						GPS Accuracy			

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	Im	Ref	Remarks
0.0				ST	Start of Survey									
0.0				AMH	Manhole									69
0.0				MWL	Water Level			5						
2.1				MGO	General Observation									CIPP LINED
271.7				MWL	Water Level			10						
287.0				AMH	Manhole									70
287.0				FH	End of Survey									

287.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating	0000
O&M:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating	0000
Overall	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating	0000

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Pipe Graphic Report of PSR 70 X for CITY OF OSSEO

Setup	2	Surveyor	CORY FERGUSON	Certificate #	07003281
System Owner					
Drainage		Survey Customer			
P/O #		Date	2017/09/28	Time	11:51
Street	3RD AVE NE.				
City	OSSEO, MN.	Further location details			

Up	70	Rim to invert		Grade to invert		Rim to grade	Ft
Down	71	Rim to invert		Grade to invert		Rim to grade	Ft

Use		Direction	Downstream	Flow control		Media No	
Shape	Circular	Height	10	Width	ins	Preclean	Z
Date Cleaned							
Material	Vitrified Clay Pipe	Joint length	Ft	Total length	128.5 Ft	Length Surveyed	128.50 Ft
Lining	Cured in Place	Year laid		Year rehabilitated		Weather	
Purpose		Cat					

Additional info

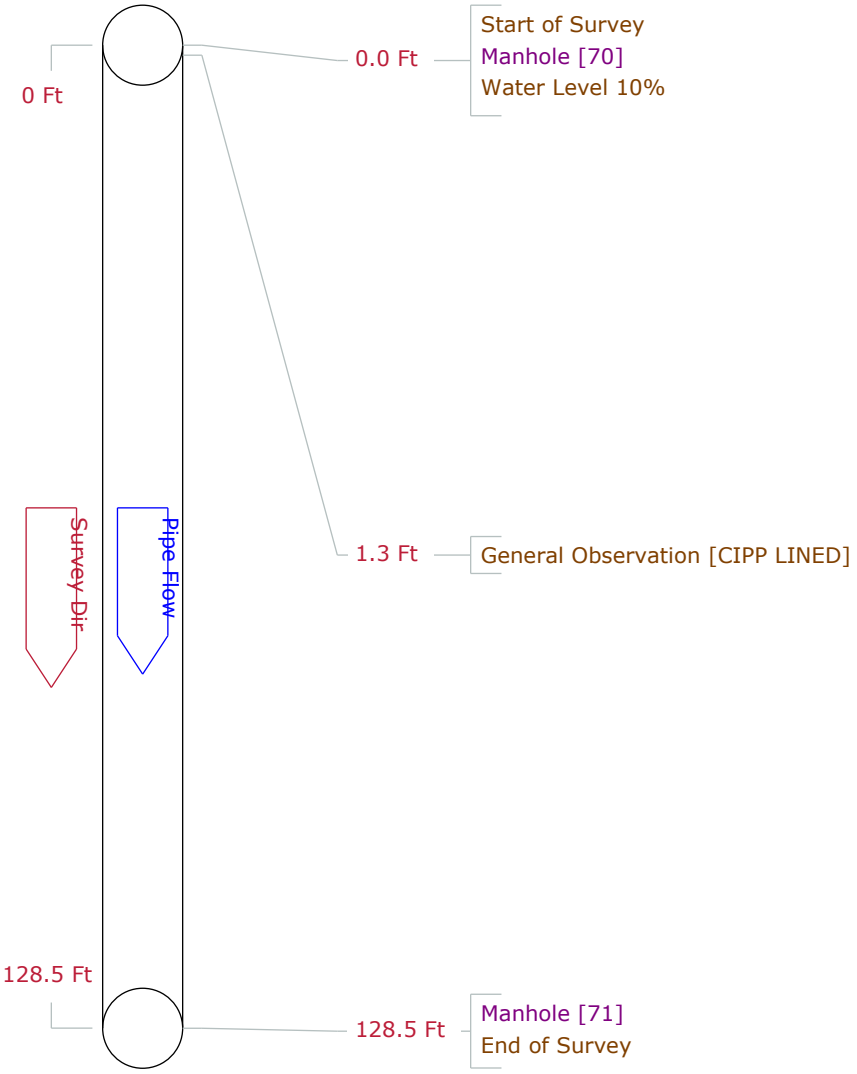
Structural O & M Constructional
Miscellaneous Hydraulic

Location

Project TV SANITARY & STORM Work Order

Northing Easting Elevation

Coordinate System GPS Accuracy



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Fax:515-283-0505

Tabular Report of PSR 70 X for CITY OF OSSEO

Setup	2	Surveyor	CORY FERGUSON	Certificate #	07003281
System Owner					
Drainage		Survey Customer			
P/O #		Date	2017/09/28	Time	11:51
Street	3RD AVE NE.				
City	OSSEO, MN.	Further location details			

Up	70	Rim to invert		Grade to invert		Rim to grade	Ft
Down	71	Rim to invert		Grade to invert		Rim to grade	Ft

Use		Direction	Down	Flow control		Media No	
Shape	Circular	Height	10	Width	ins	Preclean	Z
Date Cleaned							
Material	Vitrified Clay Pipe	Joint length	Ft	Total length	128.5 Ft	Length Surveyed	128.5 Ft
Lining	Cured in Place	Year laid		Year rehabilitated		Weather	
Purpose		Cat				Pressure	

Additional info

Structural O & M Constructional Miscellaneous

Location

Project TV SANITARY & STORM Work Order

Northing Easting Elevation

Coordinate System GPS Accuracy

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								70
0.0			MWL	Water Level			10					
1.3			MGO	General Observation								CIPP LINED
128.5			AMH	Manhole								71
128.5			FH	End of Survey								

128.5 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
O&M:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
Overall	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000

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Fax:515-283-0505

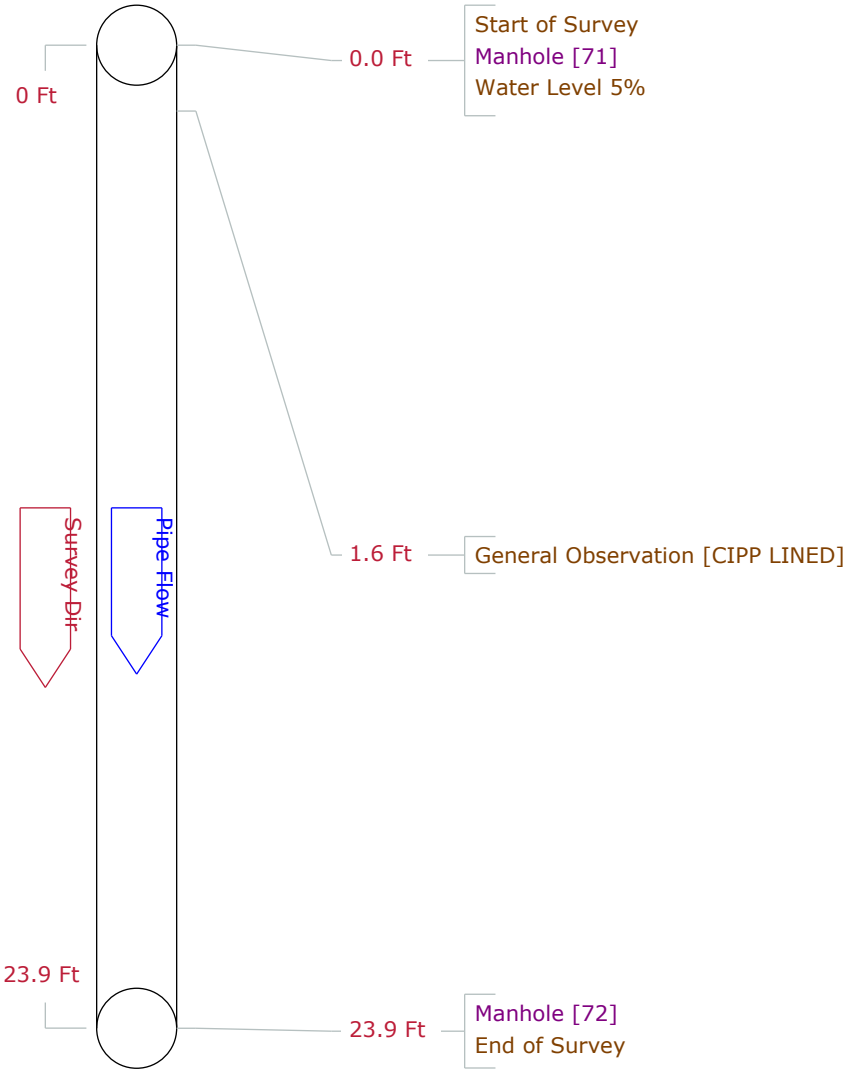
Pipe Graphic Report of PSR 71 X for CITY OF OSSEO

Setup	3	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage		Survey Customer					
P/O #		Date	2017/09/28	Time	11:59	Street	3RD AVE NE.
City	OSSEO, MN.	Further location details					

Up	71	Rim to invert		Grade to invert		Rim to grade	Ft
Down	72	Rim to invert		Grade to invert		Rim to grade	Ft

Use		Direction	Downstream	Flow control		Media No			
Shape	Circular	Height	10	Width	ins	Preclean	Z	Date Cleaned	
Material	Vitrified Clay Pipe	Joint length	Ft	Total length	23.9 Ft	Length Surveyed	23.90	Ft	
Lining	Cured in Place	Year laid		Year rehabilitated		Weather			
Purpose		Cat							

Additional info				Structural	O & M
Location				Miscellaneous	Hydraulic
Project	TV SANITARY & STORM			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



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Hydro Klean LLC
Phone:515-283-0500
Fax:515-283-0505

Tabular Report of PSR 71 X for CITY OF OSSEO

Setup	3	Surveyor	CORY FERGUSON	Certificate #	07003281
System Owner					
Drainage		Survey Customer			
P/O #		Date	2017/09/28	Time	11:59
Street	3RD AVE NE.				
City	OSSEO, MN.	Further location details			

Up	71	Rim to invert		Grade to invert		Rim to grade	Ft
Down	72	Rim to invert		Grade to invert		Rim to grade	Ft

Use		Direction	Down	Flow control		Media No			
Shape	Circular	Height	10	Width	ins	Preclean	Z	Date Cleaned	
Material	Vitrified Clay Pipe	Joint length	Ft	Total length	23.9 Ft	Length Surveyed	23.9 Ft		
Lining	Cured in Place	Year laid		Year rehabilitated		Weather			
Purpose		Cat				Pressure			

Additional info				Structural	O & M
Constructional					
Location				Miscellaneous	
Project	TV SANITARY & STORM			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	Im	Ref	Remarks
0.0				ST	Start of Survey									
0.0				AMH	Manhole									71
0.0				MWL	Water Level			5						
1.6				MGO	General Observation									CIPP LINED
23.9				AMH	Manhole									72
23.9				FH	End of Survey									

23.9 Ft Total Length Surveyed

Scores						
	Structural:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
	O&M:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
	Overall	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000

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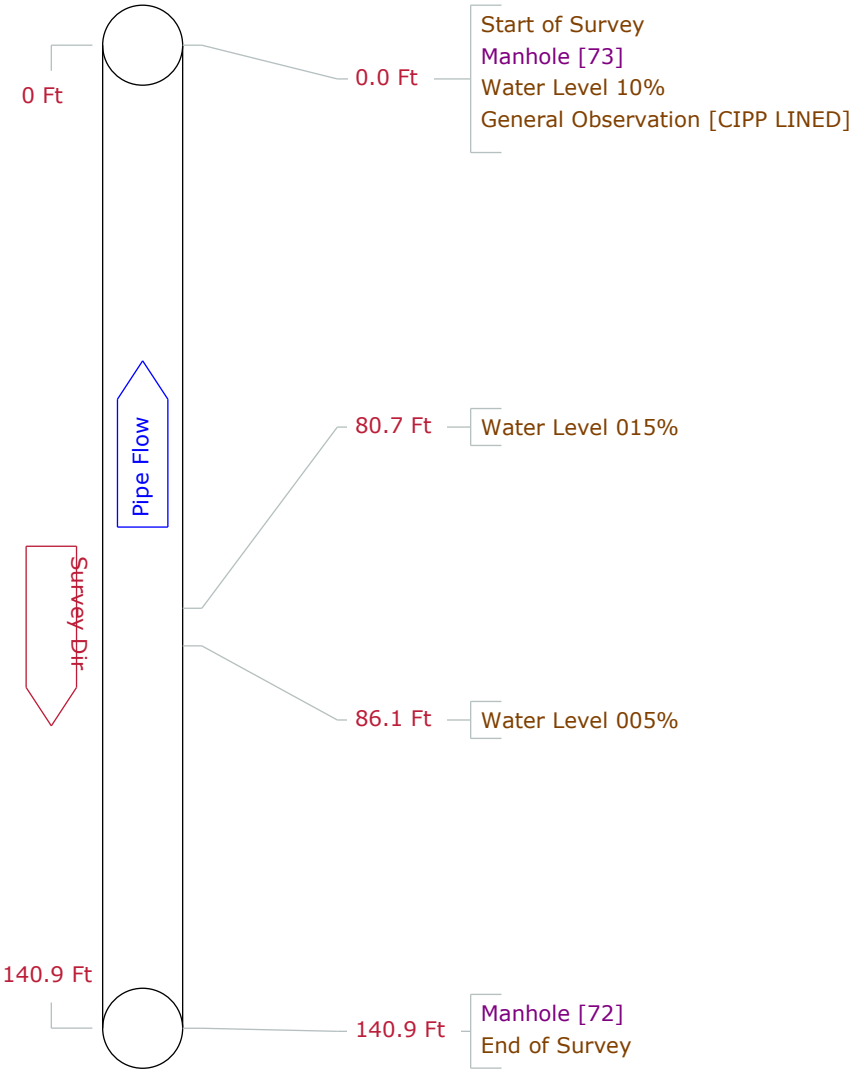
Pipe Graphic Report of PSR 72 X for CITY OF OSSEO

Setup	4	Surveyor	CORY FERGUSON	Certificate #	07003281
System Owner					
Drainage		Survey Customer			
P/O #		Date	2017/09/28	Time	12:07
Street	4TH AVE NE.				
City	OSSEO, MN.	Further location details			

Up	72	Rim to invert		Grade to invert		Rim to grade	Ft
Down	73	Rim to invert		Grade to invert		Rim to grade	Ft

Use		Direction	Upstream	Flow control		Media No			
Shape	Circular	Height	10	Width	ins	Preclean	Z	Date Cleaned	
Material	Vitrified Clay Pipe	Joint length	Ft	Total length	140.9 Ft	Length Surveyed	140.90 Ft		
Lining	Cured in Place	Year laid		Year rehabilitated		Weather			
Purpose		Cat							

Additional info				Structural	O & M
Constructional					
Location				Miscellaneous	Hydraulic
Project	TV SANITARY & STORM			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



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Tabular Report of PSR 72 X for CITY OF OSSEO

Setup	4	Surveyor	CORY FERGUSON	Certificate #	07003281
System Owner					
Drainage		Survey Customer			
P/O #		Date	2017/09/28	Time	12:07
Street	4TH AVE NE.				
City	OSSEO, MN.	Further location details			

Up	72	Rim to invert		Grade to invert		Rim to grade	Ft
Down	73	Rim to invert		Grade to invert		Rim to grade	Ft

Use		Direction	Up	Flow control		Media No	
Shape	Circular	Height	10	Width	ins	Preclean	Z
Date Cleaned							
Material	Vitrified Clay Pipe	Joint length	Ft	Total length	140.9 Ft	Length Surveyed	140.9 Ft
Lining	Cured in Place	Year laid		Year rehabilitated		Weather	
Purpose		Cat		Pressure			

Additional info

Structural O & M Constructional Miscellaneous

Location

Project TV SANITARY & STORM Work Order

Northing Easting Elevation

Coordinate System GPS Accuracy

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	Im	Ref	Remarks
0.0				ST	Start of Survey									
0.0				AMH	Manhole									73
0.0				MWL	Water Level			10						
0.0				MGO	General Observation									CIPP LINED
80.7				MWL	Water Level			15						
86.1				MWL	Water Level			5						
140.9				AMH	Manhole									72
140.9				FH	End of Survey									

140.9 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
O&M:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
Overall	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000

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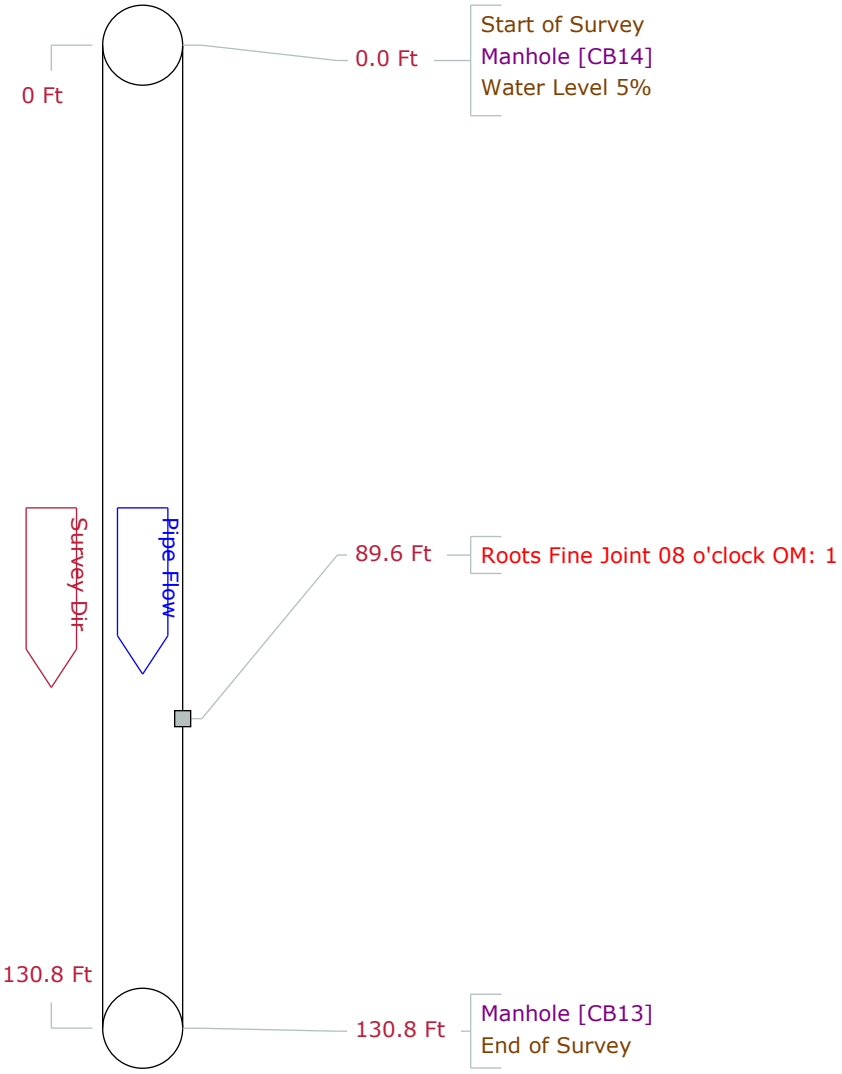
Pipe Graphic Report of PSR CB14 X for CITY OF OSSEO

Setup	19	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage			Survey Customer				
P/O #		Date	2017/09/29	Time	8:18	Street	ALLEY 3RD-4TH AVE NE.
City	OSSEO, MN.		Further location details				

Up	CB14		Rim to invert		Grade to invert		Rim to grade	Ft
Down	CB13		Rim to invert		Grade to invert		Rim to grade	Ft

Use		Direction	Downstream	Flow control		Media No			
Shape	Circular	Height	24	Width	ins	Preclean	Z	Date Cleaned	
Material	Reinforced Concrete Pipe	Joint length	Ft	Total length	130.8 Ft	Length Surveyed	130.80 Ft		
Lining		Year laid		Year rehabilitated		Weather			
Purpose			Cat						

Additional info			Structural	O & M	Constructional
Location			Miscellaneous	Hydraulic	
Project	TV SANITARY & STORM			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



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Tabular Report of PSR CB14 X for CITY OF OSSEO

Setup	19	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage		Survey Customer					
P/O #		Date	2017/09/29	Time	8:18	Street	ALLEY 3RD-4TH AVE NE.
City	OSSEO, MN.	Further location details					

Up	CB14	Rim to invert		Grade to invert		Rim to grade	Ft		
Down	CB13	Rim to invert		Grade to invert		Rim to grade	Ft		
Use		Direction	Down	Flow control		Media No			
Shape	Circular	Height	24	Width	ins	Preclean	Z	Date Cleaned	
Material	Reinforced Concrete Pipe	Joint length	Ft	Total length	130.8 Ft	Length Surveyed	130.8	Ft	
Lining		Year laid		Year rehabilitated		Weather			
Purpose		Cat				Pressure			

Additional info						Structural	O & M	Constructional	
Location						Miscellaneous			
Project	TV SANITARY & STORM					Work Order			
Northing		Easting				Elevation			
Coordinate System						GPS Accuracy			

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								CB14
0.0				MWL	Water Level			5					
89.6				RFJ	Roots Fine Joint				J	08			
130.8				AMH	Manhole								CB13
130.8				FH	End of Survey								

130.8 Ft Total Length Surveyed

Scores						
	Structural:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
	O&M:	Pipe Rating	1	Pipe Ratings Index	1	Quick Rating 1100
	Overall	Pipe Rating	1	Pipe Ratings Index	1	Quick Rating 1100

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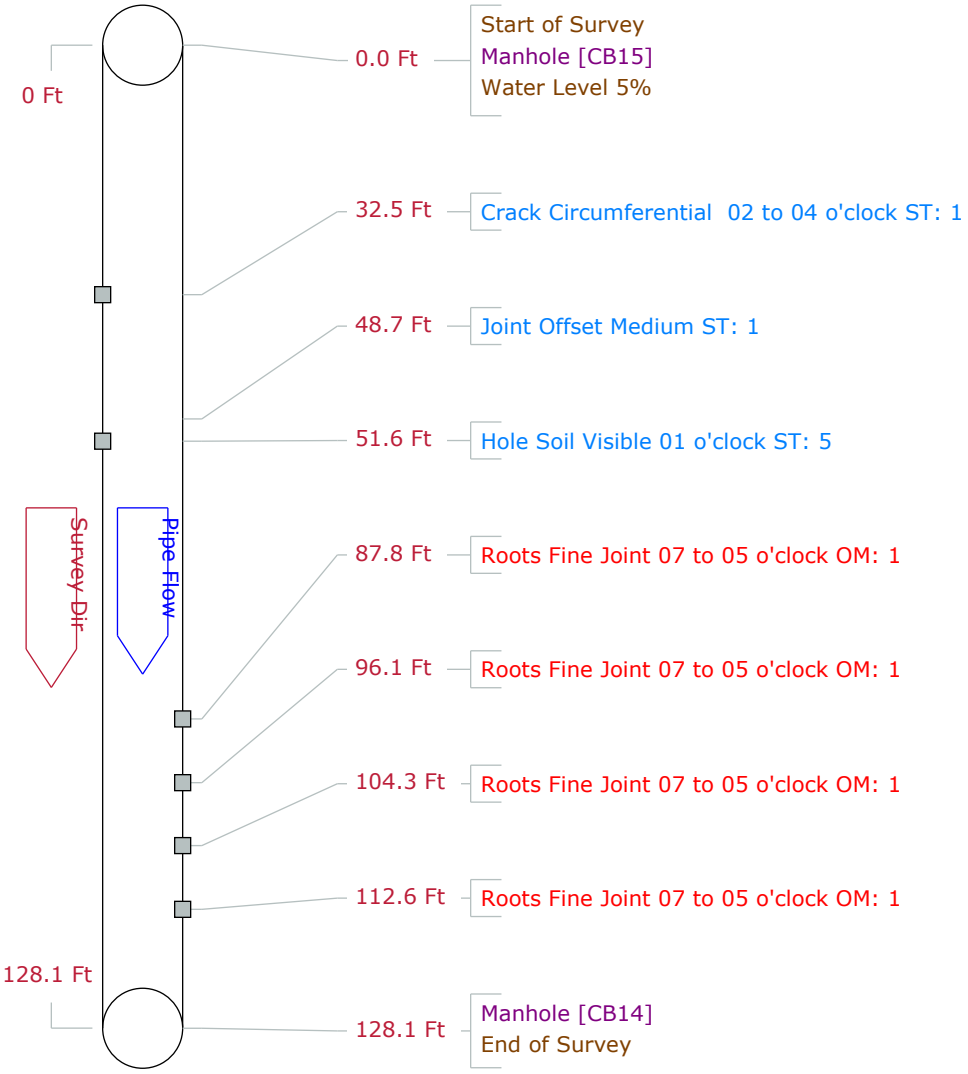
Pipe Graphic Report of PSR CB15 X for CITY OF OSSEO

Setup	18	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage			Survey Customer				
P/O #		Date	2017/09/29	Time	8:08	Street	3RD AVE NE.
City	OSSEO, MN.		Further location details				

Up	CB15		Rim to invert		Grade to invert	Rim to grade	Ft
Down	CB14		Rim to invert		Grade to invert	Rim to grade	Ft

Use		Direction	Downstream	Flow control		Media No	
Shape	Circular	Height	24	Width	ins	Preclean Z	Date Cleaned
Material	Reinforced Concrete Pipe	Joint length	Ft	Total length	128.1 Ft	Length Surveyed	128.10 Ft
Lining		Year laid		Year rehabilitated		Weather	
Purpose			Cat				

Additional info				Structural	O & M	Constructional
Location				Miscellaneous	Hydraulic	
Project	TV SANITARY & STORM			Work Order		
Northing		Easting		Elevation		
Coordinate System				GPS Accuracy		



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Tabular Report of PSR CB15 X for CITY OF OSSEO

Setup	18	Surveyor	CORY FERGUSON	Certificate #	07003281
System Owner					
Drainage		Survey Customer			
P/O #		Date	2017/09/29	Time	8:08
Street	3RD AVE NE.				
City	OSSEO, MN.	Further location details			

Up	CB15	Rim to invert		Grade to invert		Rim to grade	Ft
Down	CB14	Rim to invert		Grade to invert		Rim to grade	Ft

Use		Direction	Down	Flow control		Media No	
Shape	Circular	Height	24	Width	ins	Preclean Z	Date Cleaned
Material	Reinforced Concrete Pipe	Joint length	Ft	Total length	128.1 Ft	Length Surveyed	128.1 Ft
Lining		Year laid		Year rehabilitated		Weather	
Purpose		Cat				Pressure	

Additional info				Structural	O & M
Constructional					
Location				Miscellaneous	
Project	TV SANITARY & STORM			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								CB15
0.0				MWL	Water Level			5					
32.5				CC	Crack Circumferential				J	02	04		
48.7				JOM	Joint Offset Medium								
51.6				HSV	Hole Soil Visible					01			
87.8				RFJ	Roots Fine Joint				J	07	05		
96.1				RFJ	Roots Fine Joint				J	07	05		
104.3				RFJ	Roots Fine Joint				J	07	05		
112.6				RFJ	Roots Fine Joint				J	07	05		
128.1				AMH	Manhole								CB14
128.1				FH	End of Survey								

128.1 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating	7	Pipe Ratings Index	2.3	Quick Rating	5112
O&M:	Pipe Rating	4	Pipe Ratings Index	1	Quick Rating	1400
Overall	Pipe Rating	11	Pipe Ratings Index	3.3	Quick Rating	5116

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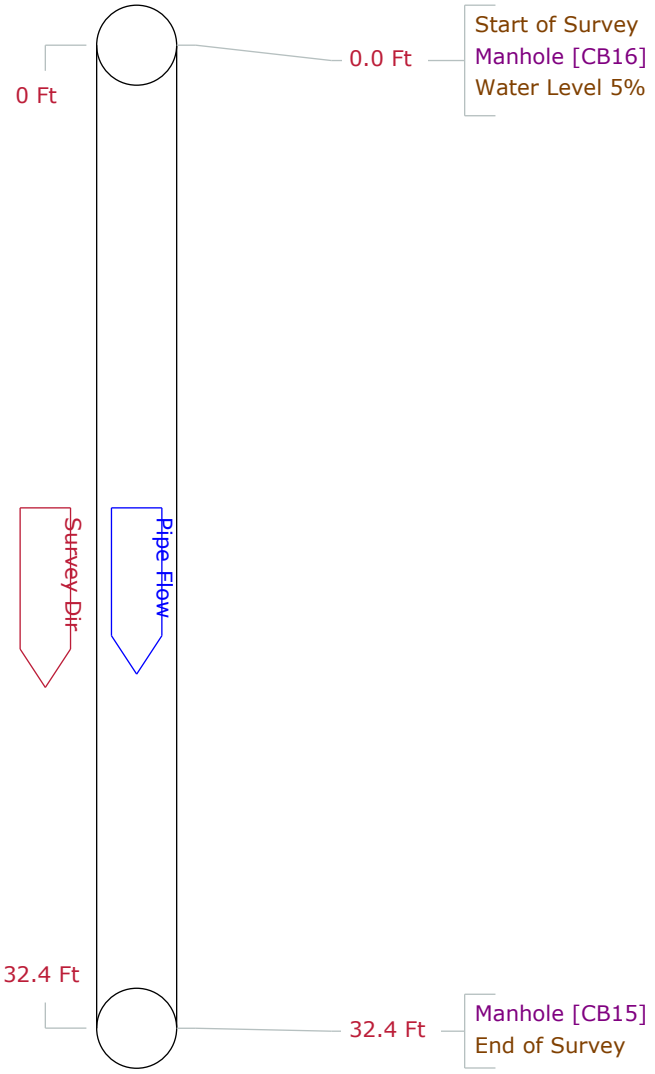
Pipe Graphic Report of PSR CB16 X for CITY OF OSSEO

Setup	17	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage		Survey Customer					
P/O #		Date	2017/09/29	Time	8:03	Street	3RD AVE NE.
City	OSSEO, MN.	Further location details					
Up	CB16	Rim to invert		Grade to invert		Rim to grade	Ft
Down	CB15	Rim to invert		Grade to invert		Rim to grade	Ft
Use		Direction	Downstream	Flow control		Media No	
Shape	Circular	Height	24	Width	ins	Preclean Z	Date Cleaned
Material	Reinforced Concrete Pipe	Joint length	Ft	Total length	32.4 Ft	Length Surveyed	32.40 Ft
Lining		Year laid		Year rehabilitated		Weather	
Purpose		Cat					
Additional info							
Location							
Project	TV SANITARY & STORM					Work Order	
Northing		Easting				Elevation	
Coordinate System						GPS Accuracy	

Structural O & M Constructional
Miscellaneous Hydraulic



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Tabular Report of PSR CB16 X for CITY OF OSSEO

Setup	17	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage		Survey Customer					
P/O #		Date	2017/09/29	Time	8:03	Street	3RD AVE NE.
City	OSSEO, MN.	Further location details					

Up	CB16	Rim to invert		Grade to invert		Rim to grade	Ft		
Down	CB15	Rim to invert		Grade to invert		Rim to grade	Ft		
Use		Direction	Down	Flow control		Media No			
Shape	Circular	Height	24	Width	ins	Preclean	Z	Date Cleaned	
Material	Reinforced Concrete Pipe	Joint length	Ft	Total length	32.4 Ft	Length Surveyed	32.4 Ft		
Lining		Year laid		Year rehabilitated		Weather			
Purpose		Cat				Pressure			

Additional info								Structural	O & M
Location								Constructional	Miscellaneous
Project	TV SANITARY & STORM							Work Order	
Northing				Easting				Elevation	
Coordinate System								GPS Accuracy	

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	Im	Ref	Remarks
0.0				ST	Start of Survey									
0.0				AMH	Manhole									CB16
0.0				MWL	Water Level			5						
32.4				AMH	Manhole									CB15
32.4				FH	End of Survey									

32.4 Ft Total Length Surveyed

Scores						
	Structural:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
	O&M:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
	Overall	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000

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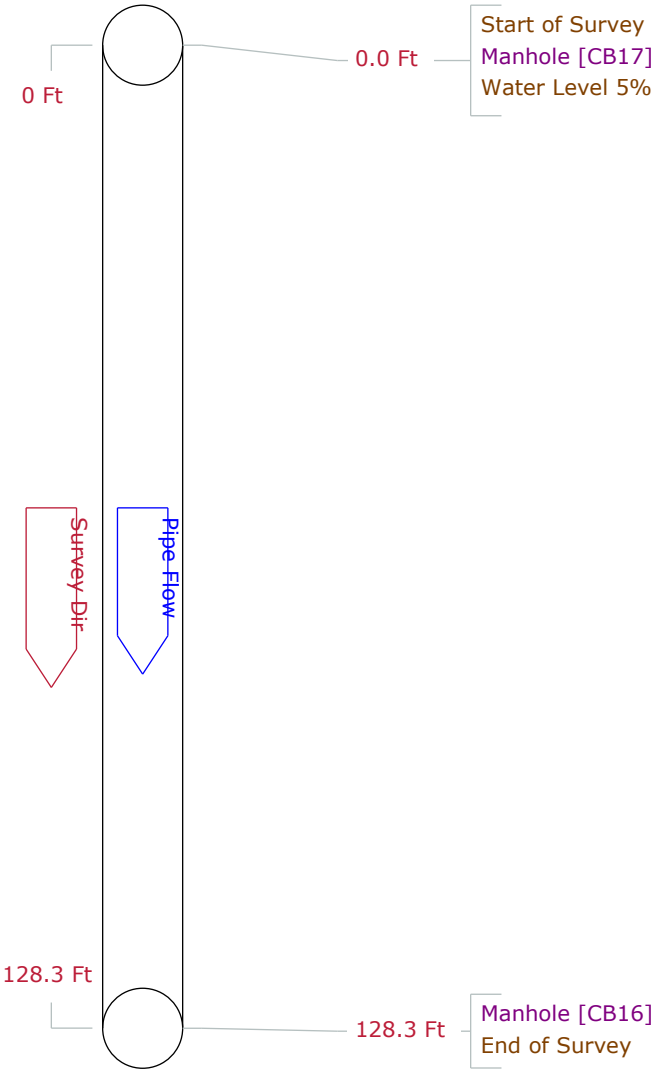
Pipe Graphic Report of PSR CB17 X for CITY OF OSSEO

Setup	16	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage		Survey Customer					
P/O #		Date	2017/09/29	Time	7:56	Street	ALLEY 2ND-3RD AVE NE.
City	OSSEO, MN.	Further location details					
Up	CB17	Rim to invert		Grade to invert		Rim to grade	Ft
Down	CB16	Rim to invert		Grade to invert		Rim to grade	Ft
Use		Direction	Downstream	Flow control		Media No	
Shape	Circular	Height	24	Width	ins	Preclean	Z
Material	Reinforced Concrete Pipe	Joint length	Ft	Total length	128.3 Ft	Length Surveyed	128.30 Ft
Lining		Year laid		Year rehabilitated		Weather	
Purpose		Cat					

Additional info

Structural O & M Constructional
Miscellaneous Hydraulic

Location			
Project	TV SANITARY & STORM	Work Order	
Northing	Easting	Elevation	
Coordinate System		GPS Accuracy	



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Tabular Report of PSR CB17 X for CITY OF OSSEO

Setup	16	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage		Survey Customer					
P/O #		Date	2017/09/29	Time	7:56	Street	ALLEY 2ND-3RD AVE NE.
City	OSSEO, MN.	Further location details					

Up	CB17	Rim to invert		Grade to invert		Rim to grade	Ft		
Down	CB16	Rim to invert		Grade to invert		Rim to grade	Ft		
Use		Direction	Down	Flow control		Media No			
Shape	Circular	Height	24	Width	ins	Preclean	Z	Date Cleaned	
Material	Reinforced Concrete Pipe	Joint length	Ft	Total length	128.3 Ft	Length Surveyed	128.3	Ft	
Lining		Year laid		Year rehabilitated		Weather			
Purpose		Cat				Pressure			

Additional info						Structural	O & M	Constructional	
Location						Miscellaneous			
Project	TV SANITARY & STORM					Work Order			
Northing		Easting				Elevation			
Coordinate System						GPS Accuracy			

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								CB17
0.0			MWL	Water Level			5					
128.3			AMH	Manhole								CB16
128.3			FH	End of Survey								

128.3 Ft Total Length Surveyed

Scores						
	Structural:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
	O&M:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
	Overall	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000

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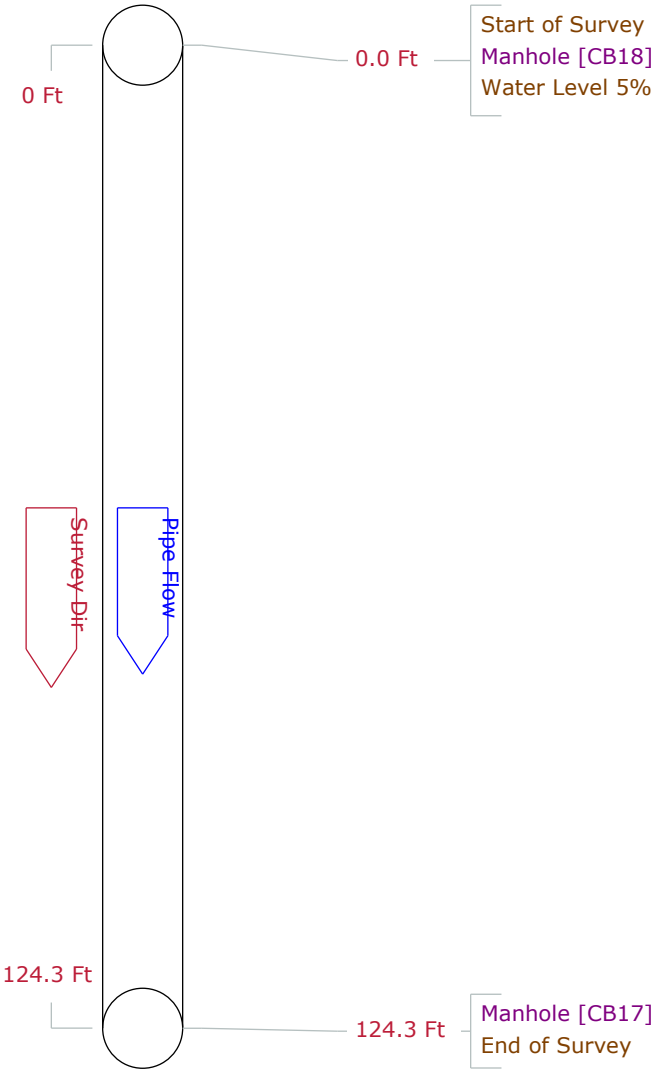
Pipe Graphic Report of PSR CB18 X for CITY OF OSSEO

Setup	15	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage			Survey Customer				
P/O #		Date	2017/09/29	Time	7:50	Street	2ND AVE NE.
City	OSSEO, MN.		Further location details				

Up	CB18		Rim to invert		Grade to invert	Rim to grade	Ft
Down	CB17		Rim to invert		Grade to invert	Rim to grade	Ft

Use		Direction	Downstream	Flow control		Media No	
Shape	Circular	Height	24	Width	ins	Preclean Z	Date Cleaned
Material	Reinforced Concrete Pipe	Joint length	Ft	Total length	124.3 Ft	Length Surveyed	124.30 Ft
Lining		Year laid		Year rehabilitated		Weather	
Purpose			Cat				

Additional info				Structural	O & M
Location				Miscellaneous	Hydraulic
Project	TV SANITARY & STORM			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



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Tabular Report of PSR CB18 X for CITY OF OSSEO

Setup	15	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage		Survey Customer					
P/O #		Date	2017/09/29	Time	7:50	Street	2ND AVE NE.
City	OSSEO, MN.	Further location details					

Up	CB18	Rim to invert		Grade to invert		Rim to grade	Ft
Down	CB17	Rim to invert		Grade to invert		Rim to grade	Ft

Use		Direction	Down	Flow control		Media No	
Shape	Circular	Height	24	Width	ins	Preclean	Z
Material	Reinforced Concrete Pipe	Joint length	Ft	Total length	124.3 Ft	Length Surveyed	124.3 Ft
Lining		Year laid		Year rehabilitated		Weather	
Purpose		Cat				Pressure	

Additional info						Structural	O & M
Location						Constructional	Miscellaneous
Project	TV SANITARY & STORM					Work Order	
Northing		Easting				Elevation	
Coordinate System						GPS Accuracy	

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								CB18
0.0			MWL	Water Level			5					
124.3			AMH	Manhole								CB17
124.3			FH	End of Survey								

124.3 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
O&M:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
Overall	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000

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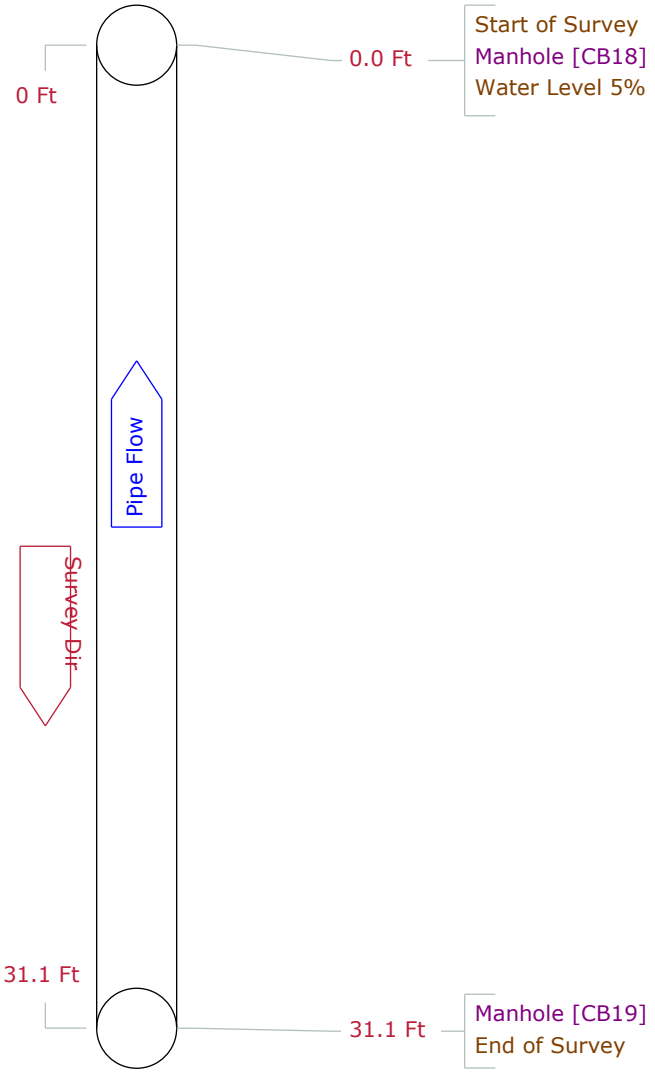
Pipe Graphic Report of PSR CB19 X for CITY OF OSSEO

Setup	14	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage		Survey Customer					
P/O #		Date	2017/09/29	Time	7:46	Street	2ND AVE NE.
City	OSSEO, MN.	Further location details					

Up	CB19	Rim to invert		Grade to invert		Rim to grade	Ft		
Down	CB18	Rim to invert		Grade to invert		Rim to grade	Ft		
Use		Direction	Upstream	Flow control		Media No			
Shape	Circular	Height	24	Width	ins	Preclean	Z	Date Cleaned	
Material	Reinforced Concrete Pipe	Joint length	Ft	Total length	31.1 Ft	Length Surveyed	31.10 Ft		
Lining		Year laid		Year rehabilitated		Weather			
Purpose		Cat							

Additional info				Structural	O & M
Location				Miscellaneous	Hydraulic
Project	TV SANITARY & STORM			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



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Tabular Report of PSR CB19 X for CITY OF OSSEO

Setup	14	Surveyor	CORY FERGUSON	Certificate #	07003281	System Owner	
Drainage		Survey Customer					
P/O #		Date	2017/09/29	Time	7:46	Street	2ND AVE NE.
City	OSSEO, MN.	Further location details					

Up	CB19	Rim to invert		Grade to invert		Rim to grade	Ft		
Down	CB18	Rim to invert		Grade to invert		Rim to grade	Ft		
Use		Direction	Up	Flow control		Media No			
Shape	Circular	Height	24	Width	ins	Preclean	Z	Date Cleaned	
Material	Reinforced Concrete Pipe	Joint length	Ft	Total length	31.1 Ft	Length Surveyed	31.1 Ft		
Lining		Year laid		Year rehabilitated		Weather			
Purpose		Cat				Pressure			

Additional info								Structural	O & M
Location								Constructional	Miscellaneous
Project	TV SANITARY & STORM							Work Order	
Northing				Easting				Elevation	
Coordinate System								GPS Accuracy	

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	Im	Ref	Remarks
0.0				ST	Start of Survey									
0.0				AMH	Manhole									CB18
0.0				MWL	Water Level			5						
31.1				AMH	Manhole									CB19
31.1				FH	End of Survey									

31.1 Ft Total Length Surveyed

Scores						
	Structural:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
	O&M:	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000
	Overall	Pipe Rating	0	Pipe Ratings Index	0	Quick Rating 0000

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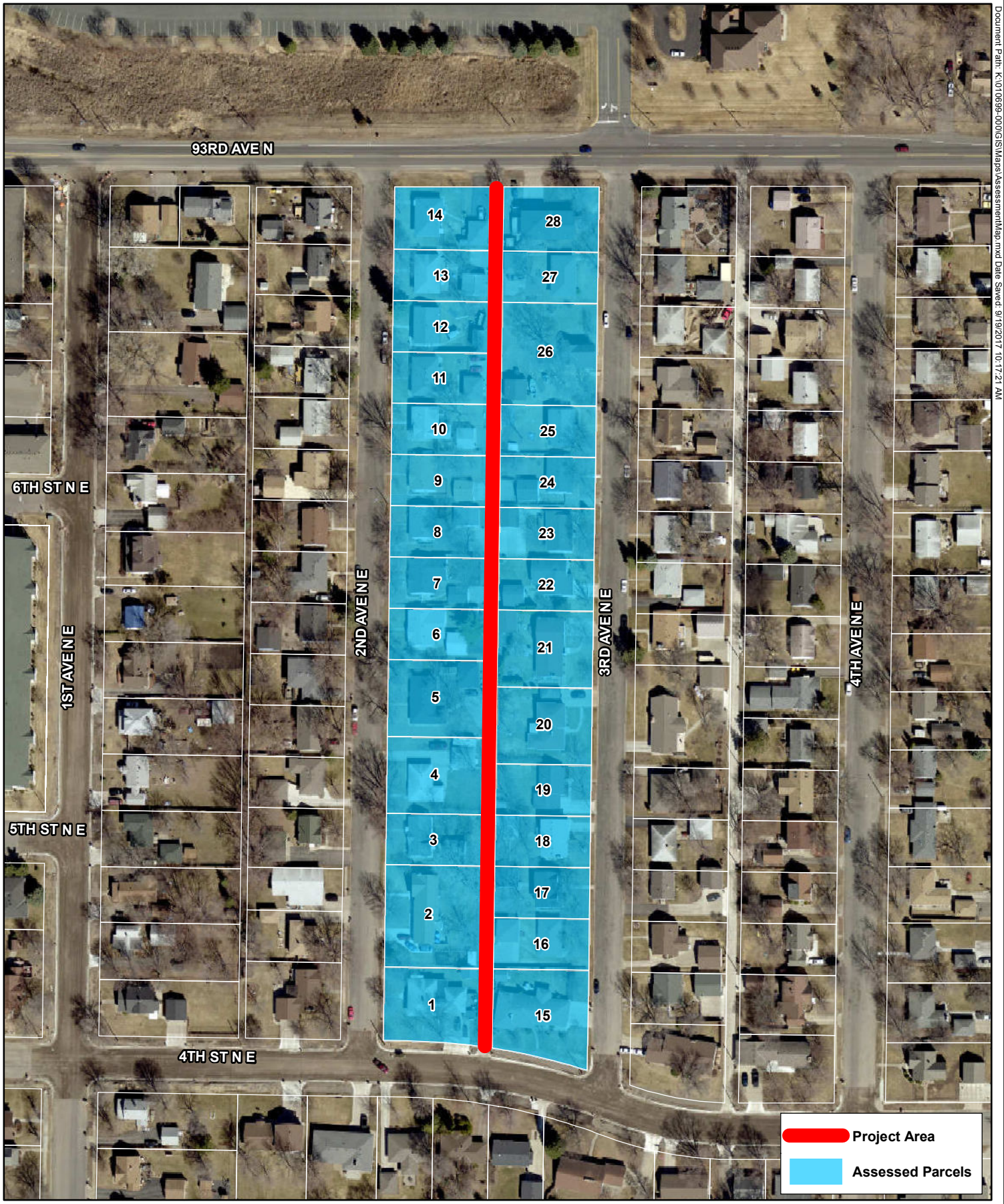
APPENDIX E

Assessment Map
Preliminary Assessment Roll



Document Path: K:\010699-000\GIS\Maps\AssessmentMap.mxd Date Saved: 9/19/2017 10:17:21 AM

Project Area Map

2018 Alley Reconstruction Project
Osseo, MN

N

0 150 Feet

1 inch = 150 feet

CITY OF OSSEO
2018 ALLEY RECONSTRUCTION PROJECT
PRELIMINARY ASSESSMENT ROLL

Date: 11/9/2017
WSB Project No.: 010699-000

Complete Reconstruction Residential Single-Family Per Unit Assessment: ***Rate*** **$5,970.00**

MAP ID	PID	FEE OWNER	FEE OWNER ADDRESS	CITY/STATE/ZIP	PROPERTY ADDRESS	USE DESCRIPTION	UNITS	UNIT ASSESSMENT RATE	PROPOSED ASSESSMENT
1	1811921220071	RUSSELL JAMES NIELSEN	400 2ND AVE NE	OSSEO MN 55369	400 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
2	1811921220072	MARY ABBEY	416 2ND AVE NE	OSSEO MN 55369	416 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
3	1811921220073	HELEN B NELSON	424 2ND AVE NE	OSSEO MN 55369	424 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
4	1811921220074	LEANN C ADAMS	432 2ND AVE NE	OSSEO MN 55369	432 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
5	1811921220143	EMILY M LITTLE	440 2ND AVE NE	OSSEO MN 55369	440 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
6	1811921220077	AMANDA LITTLE	516 2ND AVE NE	OSSEO MN 55369	516 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
7	1811921220078	SARAH BROWN, ROBERT BROWN & LINDA BROWN	524 2ND AVE NE	OSSEO MN 55369	524 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
8	1811921220079	CRAIG CLOTHIER & KATHLEEN MOEN	532 2ND AVE NE	OSSEO MN 55369	532 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
9	1811921220080	LYNDA PELLETIER	7349 VARIOLITE DR NW	ZIMMERMAN MN 55398	540 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
10	1811921220081	WILLIAM A KELLY	608 2ND AVE NE	OSSEO MN 55369	608 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
11	1811921220082	PAUL FERRY & BONITA FERRY	616 2ND AVE NE	OSSEO MN 55369	616 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
12	1811921220083	LAURA KROFT	624 2ND AVE NE	OSSEO MN 55369	624 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
13	1811921220084	ANDREW R OLSON	632 2ND AVE NE	OSSEO MN 55369	632 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
14	1811921220085	ED BERTHIAUME & SHIRLEY BERTHIAUME	644 2ND AVE NE	OSSEO MN 55369	644 2ND AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
15	1811921220070	LAWRENCE J TRAUT	217 4TH ST NE	OSSEO MN 55369	217 4TH ST NE	RESIDENTIAL	1	$5,970.00	$5,970.00
16	1811921220069	GERALD KROIS	417 3RD AVE NE	OSSEO MN 55369	417 3RD AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
17	1811921220068	JOHN P & JODY K HALLIDAY	425 3RD AVE NE	OSSEO MN 55369	425 3RD AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
18	1811921220067	TEDDY KOPREN	433 3RD AVE NE	OSSEO MN 55369	433 3RD AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
19	1811921220066	DAVID A ANDREWS	501 3RD AVE NE	OSSEO MN 55369	501 3RD AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
20	1811921220065	SARITA R CASTRO & KENNY J NELSON	509 3RD AVE NE	OSSEO MN 55369	509 3RD AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
21	1811921220064	RICHARD & JESSICA PECHACEK	519 3RD AVE NE	OSSEO MN 55369	519 3RD AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
22	1811921220063	RANDALL D DALLUGE	525 3RD AVE NE	OSSEO MN 55369	525 3RD AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
23	1811921220062	SHAWN M FISH	533 3RD AVE NE	OSSEO MN 55369	533 3RD AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
24	1811921220061	SHAWN HANSEN & ALYSSA HASTINGS	541 3RD AVE NE	OSSEO MN 55369	541 3RD AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
25	1811921220060	ANN BISTODEAU & BRYAN AHNER	601 3RD AVE NE	OSSEO MN 55369	601 3RD AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
26	1811921220144	C MARIE BAUER	609 3RD AVE NE	OSSEO MN 55369	609 3RD AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
27	1811921220057	THOMAS R WICK	625 3RD AVE NE	OSSEO MN 55369	625 3RD AVE NE	RESIDENTIAL	1	$5,970.00	$5,970.00
28	1811921220056	ADAM J HOUTKOOPER & CINDI M HOUTKOOPER	224 7TH ST NE	OSSEO MN 55369	224 7TH ST NE	RESIDENTIAL	1	$5,970.00	$5,970.00

GRAND TOTAL - PRELIMINARY PROJECT ASSESSMENT: ***$167,160.00***

APPENDIX F

Public Comment Summary

Emily Lueth

Subject: FW: Osseo alley way project

From: Kenny Nelson [mailto:kenny.nelson5@icloud.com]
Sent: Monday, October 30, 2017 9:05 AM
To: Lee Gustafson <LGustafson@wsbeng.com>
Subject: Osseo alley way project

We live at 509 3rd Avenue NE and we are concerned about the alley way project.

We are not able to attend the public meeting on Thursday - our concerns are that our house has a raised yard and a rock retaining wall. We are also concerned about our hedges that are relatively old and somewhat fragile. I am including several pictures for reference.

With the alley project we would like to know what the outcome will be if you need to disrupt the rocks or hedges. We thank you in advance for your feedback.

Kenny and Sarita

Sent form iPhone

Randy's
763-972-3335