

**Public Works Committee**

**5. 1.**

**Meeting Date:** 05/17/2016

**By:** Bruce Westby, Engineering/Public Works

**Title:**

Provide City Council Recommendation for Gibbon Street and 173rd Avenue Drainage Improvements Feasibility Report

**Purpose/Background:**

**Purpose:**

The purpose of this case is to provide a recommendation to the City Council for accepting the Gibbon Street and 173rd Avenue Drainage Improvements Feasibility Report (draft copy attached), and for moving forward with a project.

**Background:**

Over the years, City Staff has received numerous reports of flooding and wet basements from owners of properties located in various low-lying, land-locked areas of the City. The year 2014 was particularly wet resulting in numerous reports of flooding and wet basements. This included the property owners at 17421 Gibbon Street NW who contacted the City in the spring of 2014 with high water concerns. They stated that water was coming up through their basement floor from the adjacent wetlands. Staff visited the site in 2014 and observed that the surrounding wetlands were full and the water level was near the road two lots to the north. The flow direction was not readily apparent, though there may have been a slight east to west flow indicating that water may flow to the north when water levels are high enough. Staff did not observe any water flowing over Gibbon Street, or that standing water was threatening to flood any homes. This area is land-locked meaning no overland drainage routes exist that are lower than the lowest openings of the homes in the area.

On March 31, 2015, several property owners addressed the Public Works Committee to inquire if the City could do anything to help them with their drainage issues. Based on direction from the Public Works Committee, with subsequent ratification by the City Council, City Staff was directed to analyze the drainage areas for three areas that reported the most significant flooding issues in 2014. Brief background information on these three areas is included below. The areas are listed in order of priority based on the significance of the reported damage. Though several other property owners contacted the City about standing water on their properties during the 2014 spring snow melt, the three areas discussed herein continued to experience high water levels long after the snow melt was finished. Property owners from the other areas never contacted the City again which indicated that their issues were not as significant.

*Gibbon Street north of 173rd Avenue*

This area is in the Deerwood Plat which was platted in 1974. The area to the west was platted in 1991 as Wildwood Acres. Drainage and utility easements were recorded over some wetlands in the plat and over County Ditch 27 which runs across the north side of the plat and through wetlands that were not encumbered with drainage and utility easements. There are also drainage and utility easements along the lot lines from the ROW to the wetlands. This area is relatively flat with minimum elevation change. The residents at 17421 Gibbon Street NW reported high water levels around their home and water coming into the basement. The home is a split level style with a 4 foot basement. The nearest wetland and easement recorded on the plat are on the north side of the next lot to the north and extend onto the 2<sup>nd</sup> lot to the north. The address of the parcel with the majority of the wetland is 17511 Gibbon Street. There is a drainage and utility easement on the west side of Gibbon Street that connects to the easements on the Wildwood Acres plat. West of the Wildwood acres plat is an un-platted parcel. A County Ditch runs through this parcel. A drainage and utility easement exists west of Gibbon Street across from the wetland at 17511 Gibbon Street. This easement also connects with the easements on Wildwood Acres.

### 162nd Lane West of Ramsey Boulevard

This area is un-platted and does not have drainage and utility easements. The residents at 6855 162nd Lane NW contacted the City about the high water elevation in the adjacent wetland. There are a series of wetlands in the back yards north of this parcel. All of the surrounding area is up to 20 feet higher than the wetlands.

### 156th Lane East of TH 47/Saint Francis Boulevard

This area is platted and has some drainage and utility easements. The residents at 5220 156th Lane NW contacted the City about the level of the pond in their back yard. The ponding area did not have an outlet when the plat was recorded in 1973. A pipe was installed under TH 47 in 2003 to provide a stormwater outlet from a new subdivision. A pipe was also installed along 155th Lane and along lot lines from the wetland east of TH 47 to this pond. An outlet for this pond was installed with the Highlands at River Park Project in 2003. This pipe outlet is lower than the pipe installed with the Reilley Estates plat in 1978. The pond at 5220 156th Lane NW does drain; however, the water level has to be higher than the invert of the pipe downstream. The previous owners of the property came before the City Council in 2011 concerned about the proximity of the standing water to their septic system drain field. The City paid to have the drain field relocated outside of the drainage easement. The water was contained within the drainage and utility easement in 2014.

On March 31st the Public Works Committee determined it would be cost-prohibitive to address all drainage concerns throughout the City. It was therefore confirmed that the Gibbon Street area was experiencing the most significant issues and that Staff should research drainage solutions for this area first, and that the results of the research should be brought back to the Public Works Committee for further consideration. Attached are minutes from the March 31, 2015 Public Works Committee meeting for reference.

On June 16, 2015, Staff presented four possible options for alleviating localized flooding issues in the Gibbon Street area to the Public Works Committee. A figure showing the location, alignment and profile view of each of the four options is attached. Minutes from this meeting are also attached. The four options are as follows:

Option #1: This option requires installing a pipe in an existing drainage and utility easement. The initial plan was to install approximately 800 feet of pipe by jacking to avoid large trees within the easement and cutting a deep trench through Iguana Street. This was determined to be infeasible after further investigation for the following reasons. The jacking pit would need to be placed in one wetland and the receiving pit and pipe fusing area would need to be in the second area. Both areas are over 400 feet from the nearest road. Access would require acquisition of additional easements. The fused pipe may tend to sink into the wetland prior to being pulled back. The City did a project in 2012 where the boring machine was placed on upland in an existing easement extending to the street. The welding of the pipe was done on planking extended from an existing road. The jacked length was approximately 800 feet. The total project cost was \$160,000. The Gibbon street project would require additional easements and restoration of all disturbed lawn surfaces.

Option #2: This option requires cleaning the existing County Ditch that runs north of this development. This option is not feasible because it would require lowering the existing surface area of some wetlands up to 2 feet which is not permitted under the Wetland Conservation Act.

Option #3: This option considered the suggestion of the property owners at 17421 Gibbon Street NW for using a different set of drainage and utility easements to provide drainage to the west. Evaluations of this route indicated that there are two high areas that would need to have pipe installed and that there is minimal elevation difference between the beginning and ending points. This route is not feasible.

Option #4: This option considered extending storm sewer pipe south in the Gibbon Street right-of-way, then west along the 173rd Avenue right-of-way to provide positive drainage from the area to County Ditch 66. This appears to be feasible. The location and elevation of existing small utilities along the route would need to be determined during final design to better define the scope of this process. The normal water level of the existing wetland east of Gibbon Street would also need to be explored in detail during final design. This option was estimated to cost between \$275,000 and \$300,000, which does not include the acquisition of easements which would be determined

during final design.

Following discussion of these options, the Public Works Committee recommended that the City Council consider ordering a feasibility study to further refine option #4 for the Gibbon Street and 173rd Avenue drainage improvements, including an analysis and determination of specific costs, how costs could be paid for, and whether any City policies would need to be created or amended in doing so. On October 27, 2015, City Council directed staff to prepare a Feasibility Report based on option #4. A draft copy of this report is attached to this case.

**Timeframe:**

Approximately 20 minutes for presentation and discussion.

**Observations/Alternatives:**

**Observations:**

Available options for effectively draining low-lying, land-locked areas include installing gravity storm sewer to drain the water to another area at a lower elevation, installing storm sewer lift stations to pump the water to a higher elevation where it can then flow to lower elevations via gravity sewers or ditches, pumping the water using a portable pump and flexible hosing to another location where it can then flow to lower elevations via gravity sewers or ditches, or by promoting infiltration by constructing infiltration basins, ponds or trenches. Unfortunately, it is typically not an option to use a portable pump and hose to pump water elsewhere in Ramsey due to the relatively flat terrain and extensive distance between grade breaks. The other options typically require installing thousands of feet of sewer and purchasing numerous, and often large, easement areas, and/or installing lift stations, all of which can cost hundreds of thousands of dollars (or more) per area.

As part of preparing the Feasibility Report, Staff researched whether any grant opportunities existed that might be of help to these residents by assisting with enhancements for private sump pump/drain tile systems, or with new basement waterproofing improvements. Numerous property owners who contacted staff in years past regarding their wet basements did not have back-up sump pumps in the event their primary pump failed, which resulted in their home being flooded. Private systems can also be enhanced by adding battery back-up in the event their power fails for an extended duration.

Staff is not aware of any legal obligations requiring the City to financially assist private property owners experiencing wet basements due to the intrusion of ground water. If an improvement project were to be completed by the City it could set a precedent for the City to follow in other areas throughout the City in future years.

**Alternatives:**

Alternative #1 - Motion recommending that the City Council accept the Feasibility Report but deny approval of a drainage improvement project pending development of an equitable funding program.

Alternative #2 – Motion of other.

**Funding Source:**

The estimated cost for the proposed option #4 improvements is \$325,000. The Feasibility Report includes a list of potential funding sources including external grants, City Stormwater Funds, and/or special assessments to benefiting properties for all or a portion of the cost of the improvements, pursuant to Minnesota Statutes Chapter 429, the City Charter, and the City's adopted Special Assessments Policy.

**Recommendation:**

Staff recommends alternative action #1.

Though City Project No. 16-88 is feasible and can be constructed in 2017, given the estimated cost of \$325,000, and the small number of benefiting properties, the proposed improvements are not cost-effective and should only be constructed if benefiting properties are specially assessed for all or a significant portion of the improvements, and/or if external funding is available to fund all or a significant portion of the improvements.

**Action:**

Motion recommending that the City Council accept the Feasibility Report but deny approval of a drainage improvement project pending development of an equitable funding program.

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**Attachments**

DRAFT Feas Report

033115 PWC minutes

061615 PWC minutes

Miske Letter to PWC

Gibbon St Resident Surveys

Four Option Plans Profiles

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**Form Review**

**Inbox**

Len Linton

Grant Riemer

Kurt Ulrich

Form Started By: Bruce Westby

Final Approval Date: 05/12/2016

**Reviewed By**

Len Linton

Grant Riemer

Kurt Ulrich

**Date**

05/12/2016 12:22 PM

05/12/2016 12:29 PM

05/12/2016 03:58 PM

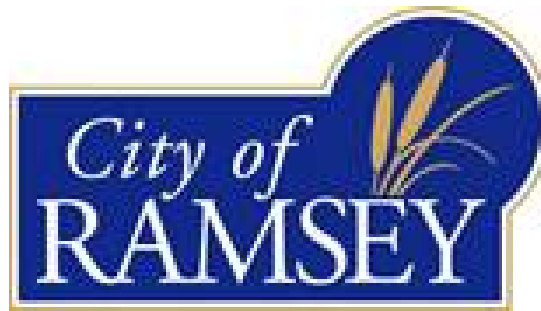
Started On: 05/09/2016 04:20 PM

# FEASIBILITY REPORT

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## GIBBON STREET AND 173<sup>RD</sup> AVENUE DRAINAGE IMPROVEMENTS

**CITY OF RAMSEY  
PROJECT NO. 16-88**



**May 12, 2016**

**Prepared By:**

**City of Ramsey  
Engineering Department  
7550 Sunwood Drive  
Ramsey, MN 55303  
763-433-9820  
763-433-9848 (Fax)**



May 12, 2016

Honorable Mayor and City Council  
City of Ramsey  
7550 Sunwood Drive  
Ramsey, MN 55303

Re: Feasibility Report – Gibbon Street and 173<sup>rd</sup> Avenue Drainage Improvements

Dear Mayor and City Council Members:

Transmitted herewith is a Feasibility Report exploring options for providing positive drainage for a low-lying area in the Deerwood residential subdivision. This land-locked area holds water and, as recently reported by several property owners, has resulted in high groundwater table elevations which resulted in several wet basements during wet weather years.

This report, which was prepared per the direction of the City Council, examines the feasibility of constructing a connected storm sewer system outlet for the low-lying area via Gibbon Street and 173<sup>rd</sup> Avenue. This report examines the scope of the proposed improvements, explores their estimated costs and available funding sources, defines a preliminary project schedule, and provides a determination for the necessity, feasibility and cost-effectiveness of the proposed improvements, as well as whether the improvements would best be completed separately or in conjunction with another project.

I would be happy to discuss this report with you at your convenience. Please feel free to contact me at 763-433-9825 or [bwestby@cityoframsey.com](mailto:bwestby@cityoframsey.com) with any questions.

Sincerely,

*City of Ramsey*

Bruce Westby, PE  
City Engineer

Enclosure

C: Kurt Ulrich, City Administrator, City of Ramsey  
Diana Lund, Finance Director, City of Ramsey  
Grant Reimer, Public Works Superintendent, City of Ramsey  
Leonard Linton, Civil Engineer IV, City of Ramsey

## CERTIFICATION

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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.

---

Bruce Westby, PE

Date: May 12, 2016

License No. 40116

I hereby certify that this plan, specification or report was reviewed for Quality Control and Quality Assurance purposes and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

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Leonard Linton, PE

Date: May 12, 2016

License No. 21112

# TABLE OF CONTENTS

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**TITLE SHEET**

**LETTER OF TRANSMITTAL**

**CERTIFICATION SHEET**

**TABLE OF CONTENTS**

<b>1.</b>	<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>2.</b>	<b>INTRODUCTION .....</b>	<b>2</b>
	2.1 Authorization.....	2
	2.2 Project Overview.....	2
	2.3 Scope .....	4
<b>3.</b>	<b>EXISTING CONDITIONS .....</b>	<b>5</b>
	3.1 Storm Sewer / Drainage Systems .....	5
	3.2 Watermain .....	5
	3.3 Sanitary Sewer .....	5
	3.4 Streets .....	5
<b>4.</b>	<b>PROPOSED IMPROVEMENTS .....</b>	<b>6</b>
	4.1 Storm Sewer System Improvements .....	6
	4.2 Watermain Improvements .....	6
	4.3 Sanitary Sewer Improvements .....	6
	4.4 Street Improvements .....	6
	4.5 Private Utilities.....	6
	4.6 Permits .....	6
	4.7 Right-of-Ways/Easements.....	7
<b>5.</b>	<b>FINANCING .....</b>	<b>8</b>
	5.1 Opinion of Cost.....	8
	5.2 Funding .....	8
	5.2.1 Stormwater Management / Utility Funds .....	8
	5.2.2 Special Assessments .....	8
	5.2.3 External Funding / Grants.....	9
<b>6.</b>	<b>PROJECT SCHEDULE.....</b>	<b>10</b>
<b>7.</b>	<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>11</b>

**Appendix A**

Figure 1 – Scope of Proposed Improvements (Option #4)

Figure 2 – Four Optional Drainage Improvement Alignments

**Appendix B**

Opinion of Probable Costs (Option #4)

## 1. EXECUTIVE SUMMARY

This Feasibility Report explores the construction of a proposed storm sewer outlet for a low-lying land-locked area along Gibbon Street, north of 173<sup>rd</sup> Avenue. The purpose of the outlet is to maintain lower groundwater elevations, which would benefit adjacent residential properties that previously experienced wet basements. *Figure 1* in *Appendix A* shows the scope of the proposed improvements.

Ramsey is located on the Anoka Sand Plain where soils are generally sandy and free draining. Areas of heavier soils that retain water and support wetland vegetation also exist within the City. Approximately 20% of Ramsey's surface area is classified as wetlands, some of which are isolated pockets, while the rest are loosely connected by channels or swales. Water levels in wetlands are generally static but do fluctuate over time. Water levels can drop during periods of less rainfall, and rise during periods of more rainfall, which is more apparent in isolated areas that do not readily drain. All isolated areas will overflow given enough precipitation.

Early developments in Ramsey were most often constructed without evaluation of adjacent wetlands and overflow elevations. Storm water management consisted of ditches adjacent to rural roads with culverts and small dry detention areas. Storm water management requirements have increased over the years. Current requirements include infiltration of the first 1" of runoff from new impervious (pavement and roof tops) surfaces, with rate control for the 2, 10, and 100-year events. High water concerns are generally reported from these early developments.

In 2014, high water was reported on several properties. Several residents attended Public Works Committee meetings that September and October to discuss their issues and to ask if the City could help. The Committee, with Council ratification, directed staff to update the comprehensive stormwater model and to prepare a feasibility report to explore options addressing their concerns. Staff analyzed the drainage areas for three of the hardest hit areas reporting flooding in 2014. These areas, in order of priority, included Gibbon Street north of 173<sup>rd</sup> Avenue, 162<sup>nd</sup> Lane West of Ramsey Boulevard, and 156<sup>th</sup> Lane East of TH 47.

On March 31<sup>st</sup>, 2015, the Public Works Committee determined it would be cost-prohibitive to address these and similar drainage concerns throughout the City, and confirmed the Gibbon Street area was experiencing the most significant issues. Staff was therefore directed to research solutions for drainage issues within this area. On June 16<sup>th</sup>, four options for alleviating localized flooding issues in the Gibbon Street area were discussed with the Public Works Committee. *Figure 2* in *Appendix A* shows the alignments of the four options. The Public Works Committee recommended that the City Council consider ordering a feasibility report to further refine option #4 for the Gibbon Street and 173<sup>rd</sup> Avenue drainage improvements, including an analysis and determination of estimated costs, available funding sources, and whether any City policies would need to be created or amended to construct the improvements. On October 27<sup>th</sup>, 2015, the City Council directed staff to prepare this Feasibility Report to further explore option #4.

It is the recommendation of City staff that though City Project No. 16-88 is feasible and can be constructed in 2017, given the estimated cost of \$325,000, and the small number of benefiting properties, the proposed improvements are not cost-effective and should only be constructed if benefiting properties are specially assessed for all or a significant portion of the improvements, and/or if external funding is available to fund all or a significant portion of the improvements.

## **2. INTRODUCTION**

### **2.1 Authorization**

The preparation of this report was authorized by the Ramsey City Council on October 27<sup>th</sup>, 2015.

### **2.2 Project Overview**

Ramsey is located on the Anoka Sand Plain where soils are generally sandy and free draining, but areas of heavier soils that retain water and support wetland vegetation also exist within the City. Approximately 20% of Ramsey's surface area is classified as wetlands, some of which are isolated pockets, while the rest are loosely connected by channels or swales. Water levels in wetlands are generally static but do fluctuate over time. Water levels can drop during periods of less rainfall, and rise during periods of more rainfall, which is more apparent in isolated areas that do not readily drain. All isolated areas will overflow given enough precipitation.

Early developments in Ramsey were most often constructed without evaluation of adjacent wetlands and overflow elevations. Storm water management consisted of ditches adjacent to rural roads with culverts and small dry detention areas. Storm water management requirements have increased over the years. Current requirements include infiltration of the first 1" of runoff from new impervious (pavement and roof tops) surfaces, with rate control for the 2, 10, and 100-year events. High water concerns are generally reported from these early developments.

In 2014, high water was reported on several properties throughout the City. Several residents attended Public Works Committee meetings in September and October of 2014 to discuss their issues and request assistance from the City. The Committee then directed staff to update the City's comprehensive stormwater model and to prepare a feasibility report to explore options for addressing the resident's concerns. Based on this direction, staff analyzed drainage areas for three of the hardest hit areas that reported flooding in 2014. These areas, in order of priority, were Gibbon Street north of 173<sup>rd</sup> Avenue, 162<sup>nd</sup> Lane West of Ramsey Boulevard, and 156<sup>th</sup> Lane East of TH 47.

On March 31<sup>st</sup>, 2015, Staff reviewed their findings with the Public Works Committee. At that time it was determined that it would be cost-prohibitive to address these and similar drainage concerns throughout the City. It was also confirmed that the Gibbon Street area experienced the most significant issues. Staff was therefore directed to research solutions for the drainage issues identified in this area.

Options for effectively draining low-lying, land-locked areas include installing gravity storm sewer to drain water to other areas at lower elevations, installing storm sewer lift stations to pump the water to a higher elevation where it can then flow to lower elevations via gravity sewers or ditches, pumping the water with portable pumps and flexible hosing to other locations where it can flow to lower elevations via gravity sewers or ditches, or by promoting infiltration by constructing infiltration basins, ponds or trenches. Unfortunately, it is typically not an option to pump water elsewhere in Ramsey due to the relatively flat terrain and extensive distance between grade breaks. The other options typically require installing thousands of feet of sewer and purchasing numerous, and often large, easement areas, and/or installing lift stations, all of which can cost hundreds of thousands of dollars (or more) per area.

On June 16<sup>th</sup>, four options for alleviating localized flooding issues in the Gibbon Street area were discussed with the Public Works Committee. *Figure 2* in *Appendix A* shows the alignments of the four options presented including;

Option #1: This option requires installing a pipe in an existing drainage and utility easement. The initial plan was to install approximately 800 feet of pipe by jacking to avoid large trees within the easement and cutting a deep trench through Iguana Street. This was determined to be infeasible after further investigation for the following reasons. The jacking pit would need to be placed in one wetland and the receiving pit and pipe fusing area would need to be in the second area. Both areas are over 400 feet from the nearest road. Access would require acquisition of additional easements. The fused pipe may tend to sink into the wetland prior to being pulled back. The City did a project in 2012 where the boring machine was placed on upland in an existing easement extending to the street. The welding of the pipe was done on planking extended from an existing road. The jacked length was approximately 800 feet. The total project cost was \$160,000. The Gibbon street project would require additional easements and restoration of all disturbed lawn surfaces.

Option #2: This option requires cleaning the existing County Ditch that runs north of this development. This option is not feasible because it would require lowering the existing surface area of some wetlands up to 2 feet which is not permitted under the Wetland Conservation Act.

Option #3: This option considered the suggestion of the property owners at 17421 Gibbon Street NW for using a different set of drainage and utility easements to provide drainage to the west. This route is not feasible due to the presence of two high areas that would need to have pipe installed under them and because there is minimal elevation difference between the beginning and ending points which could ultimately result in backflow, making the situation worse.

Option #4: This option considered extending storm sewer pipe south in the Gibbon Street right-of-way, then west along the 173<sup>rd</sup> Avenue right-of-way to provide positive drainage from the land-locked area to a County Ditch. This option appears to be feasible, though the location and elevation of existing small utilities along the route would need to be verified during final design, as would the normal water level of the existing wetland east of Gibbon Street. This option was estimated to cost \$325,000, which does not include the acquisition of easements which are not anticipated but would need to be verified during final design.

Upon reviewing Staff's findings for the four options, the Public Works Committee recommended the City Council order a feasibility report to further refine option #4, including an analysis and determination of estimated costs, available funding sources, and whether any City policies would need to be created or amended to construct the improvements. On October 27<sup>th</sup>, 2015, the City Council directed staff to prepare a Feasibility Report to further explore option #4.

The owners of 17421 Gibbon Street NW were among the residents that contacted the City in the spring of 2014 with high water concerns stating groundwater was coming up through their basement floor due to adjacent wetlands. Staff visited the site in 2014 and observed the adjacent wetlands were full and the surface water level was near the road two lots to the north. Staff is not aware of any water flowing over Gibbon Street in 2014. Staff is not aware of any surface water levels ever reaching the lowest openings of any homes in the area.

Staff visited the site again in May of 2015 to drive through the area to get an overview of constraints in the neighborhood. Staff looked at an area on Iguana Street where jacked pipe could be installed. Staff also looked at Gibbon Street and noted that water was flowing from west to east between 17540 and 17511 Gibbon Street through a culvert under the road. This culvert was submerged in 2014 but staff felt a culvert existed based on vegetation patterns, even though it could not be seen.

Staff visited the site once again in June of 2015 to meet with the property owners of 17421 Gibbon Street NW and discuss the preliminary findings. At that time, water was flowing through the culvert under Gibbon Street, which was visible, though it appeared to be at slower rate as the eastern pond had filled up since the previous visit.

On March 24<sup>th</sup>, 2015, City staff received surface water surveys from three other property owners residing at 17441, 17511, and 17561 Gibbon Street NW. The surveys stated that each of these three properties also experienced water damage to varying degrees.

All elevations used in staff's analysis were obtained from LIDAR sources. LIDAR is relatively accurate; however, heavy vegetative cover can give false results. Water was positively flowing from west to east in 2015 as noted above. This indicates that water likely flows north when the level is high enough.

### **2.3 Scope**

City of Ramsey Improvement Project 16-88 proposes storm sewer improvements to provide an outlet for a low-lying land-locked area along Gibbon Street, north of 173<sup>rd</sup> Avenue. The purpose of the outlet is to provide positive drainage for this low-lying area to maintain lower groundwater elevations, which would provide direct benefit to the adjacent residential properties that previously experienced wet basements.

*Figure 1* in *Appendix A* shows the scope of the proposed improvements as depicted by the red line segments.

### **3. EXISTING CONDITIONS**

#### **3.1 Storm Sewer / Drainage Systems**

This area is generally relatively flat with minimum elevation change. The existing stormwater runoff drainage system serving the Deerwood plat area includes a system of roadside ditches and driveway culverts within existing street right-of-ways, which all drain into wetlands, County Ditches, and/or land-locked depressions.

The house at 17421 Gibbon Street NW is a split level style with a 4 foot basement. The nearest wetland and easement recorded on the plat are on the north side of the next lot to the north and extend onto the 2<sup>nd</sup> lot to the north. The address of the parcel with the majority of the wetland is 17511 Gibbon Street. There is a drainage and utility easement on the west side of Gibbon Street that connects to the easements on the Wildwood Acres plat. West of the Wildwood acres plat is an un-platted parcel. A County Ditch runs through this parcel. There is a drainage and utility easement on the west side of Gibbon Street across from the wetland at 17511 Gibbon Street. This easement also connects with the easements on Wildwood Acres.

#### **3.2 Watermain**

No watermain exists in this area of the City.

#### **3.3 Sanitary Sewer**

No sanitary sewer exists in this area of the City.

#### **3.4 Streets**

Gibbon Street is in the Deerwood Plat which was recorded in 1974, prior to the incorporation of the City of Ramsey. The plat dedicated drainage and utility easements over some of the existing wetlands, and over the County Ditch that runs across the north side of the plat. The ditch runs through wetlands were not encumbered with drainage and utility easements. Record documents do not show any culverts under the roads. Storm water management was not required when recording plats at that time.

The area to the west was platted in 1991 as Wildwood Acres. This plat provided drainage and utility easements over the wetlands in the plat. There are also drainage and utility easements along the lot lines from the right-of-way to the wetlands.

#### **3.5 Land Use**

The proposed improvements are located entirely within residential areas.

## **4. PROPOSED IMPROVEMENTS**

### **4.1 Storm Sewer System Improvements**

The storm sewer improvements proposed with option #4 involve constructing a storm sewer system along Gibbon Street and 173<sup>rd</sup> Avenue. The proposed storm sewer system would begin at the low-lying land-locked area along Gibbon Street, north of 173<sup>rd</sup> Avenue, and would terminate at County Ditch along 173<sup>rd</sup> Avenue.

The purpose of the outlet is to provide positive drainage for this low-lying area in an attempt to minimize groundwater table elevations in the immediate area. This in turn would help to eliminate or reduce the frequency and severity of wet basements encountered by area property owners.

*Figure 1* in *Appendix A* shows the scope of the proposed storm sewer system improvements as depicted by the red line segments.

### **4.2 Watermain Improvements**

No watermain improvements are proposed.

### **4.3 Sanitary Sewer Improvements**

No sanitary sewer improvements are proposed.

### **4.4 Street Improvements**

Portions of Gibbon Street NW and 173<sup>rd</sup> Avenue NW will be impacted by the proposed storm sewer improvements requiring some street repairs. This work will primarily involve removing and replacing portions of existing bituminous pavement, as well as turf restoration.

### **4.5 Private Utilities**

Staff will meet with electric, gas, and telecommunication utilities during the final design process for this project as reflected in the project schedule. No impacts to power poles or street lights are anticipated with this project.

If a utility company indicates they want to upgrade, replace and/or otherwise modify their services during this project, any such upgrades, replacements and/or modifications will be at the sole discretion and cost to the private utility.

### **4.6 Permits**

Permits that are anticipated to be required as part of the proposed improvements include:

- MPCA General Stormwater Permit (NPDES)
- LRRWMO Permit

#### **4.7 Right-of-Ways/Easements**

It is anticipated that all improvements will occur within existing City right-of-ways and/or easements. It is therefore not anticipated that the City will need to acquire any right-of-way or easements for this project so right-of-way and/or easement acquisition costs are not included in the probable project costs. This will need to be verified as part of the final design process.

If right of entry is required from an individual property owner for grading or utilities work, or for driveway, landscaping, or irrigation system restoration activities, it will be obtained prior to any construction commencing.

DRAFT

## **5. FINANCING**

### **5.1 Opinion of Cost**

A detailed opinion of probable costs for the proposed improvements can be found in *Appendix B* of this report. The opinion of probable costs incorporates anticipated 2017 construction costs for the proposed improvements, as well as 10% construction contingencies plus 23% indirect costs for administrative, engineering, financing and legal costs. The total estimated project cost for the proposed improvements is \$325,000.

City staff prepared the Feasibility Report in-house as part of staff's normal duties.

A Geotechnical Evaluation Report was not completed as part of this report, but would need to be completed as part of the final design process if the City were to move forward with the project by ordering the preparation of plans and specifications. This information would be needed to properly design the storm sewer system, and to assign benefit if special assessments are utilized as a funding source.

### **5.2 Funding**

Potential funding sources for the proposed improvements include Stormwater Management Funds, Stormwater Utility Funds, Special Assessments, and/or external funding sources such as grants. Information on each of these funding sources is included below.

#### ***5.2.1 Stormwater Management / Utility Funds***

A portion of the proposed improvements could be funded using Stormwater Management and/or Stormwater Utility Funds. If these funds are utilized, staff would recommend using a cost-split of one-third Stormwater Management Funds (Fund 9292), and two-thirds Storm Water Utility Funds (Fund 9605). The proposed cost-split would ultimately be applied to actual project costs following the completion of the improvements.

#### ***5.2.2 Special Assessments***

The City's adopted Special Assessments Policy allows for the use of special assessments to fund a portion of storm sewer improvement projects.

In accordance with the City's Special Assessments Policy, chapter 8 of the City Charter, State Statute Chapter 429, and applicable City codes, assessments are proposed to be levied against properties that receive direct benefit due to the proposed improvements.

This Feasibility Report does not include a preliminary assessment roll. If Council wishes to pursue this project at this time, and directs staff to utilize special assessments to fund all or a portion of the improvements using special assessments, additional information in the form of soil boring logs and property records would be needed to adequately identify benefiting properties. This would incur additional expenses that were not previously identified.

Final assessments would be approved by the City Council after final project costs are known and an assessment hearing is held, which is shown in the project schedule as October 10<sup>th</sup>, 2017. At that time, the City Council may choose to reduce the amount of the assessment if final project costs are less than costs estimated by staff.

### ***5.2.3 External Funding / Grants***

Staff researched the availability of external funding sources, such as grants, and is not aware of any current government sponsored funding programs aimed at assisting property owners with improving their private sump pump/drain tile systems, or installing new basement waterproofing systems.

Numerous property owners that contacted City staff in years past did not have back-up sump pumps in the event their primary pump failed, which resulted in their home being flooded. Private systems can also be enhanced by adding battery back-up in the event their power fails for an extended duration.

Numerous basement waterproofing systems are readily available and can be very effective in preventing home water intrusion due to locally high groundwater table elevations. These systems, which can be installed either internally or externally, cost anywhere from several thousand dollars to several tens of thousands of dollars, depending on the extent of the waterproofing improvements required.

Staff will continue to periodically research the existence of grant programs for assisting property owners with such system enhancements.

## 6. PROJECT SCHEDULE

### Scenario 1 –

If a project is ordered utilizing special assessments as a funding source, the proposed project schedule would be as follows:

Council Orders Feasibility Report .....	October 27, 2015
Council Accepts Feasibility Report/Orders Public Hearing .....	May 24, 2016
Council Conducts Public Hearing/Authorizes Plans and Specifications .....	June 14, 2016
Staff Conducts Private Utility Coordination Meeting .....	September, 2016
Council Approves Plans and Specifications/Authorizes Ad for Bids.....	October 25, 2016
Staff Receives Bids.....	November 22, 2016
Council Accepts Bids/Awards Contract .....	November 29, 2016
Contractor Begins Construction.....	May 2017
Contractor Completes Construction.....	August, 2017
Council Conducts Assessment Hearing.....	October 10, 2017

### Scenario 2 –

If a project is ordered without special assessments as a funding source, the proposed project schedule would be as follows:

Council Orders Feasibility Report .....	October 27, 2015
Council Accepts Feasibility Report/Authorizes Plans and Specifications .....	May 24, 2016
Staff Conducts Private Utility Coordination Meeting .....	September, 2016
Council Approves Plans and Specifications/Authorizes Ad for Bids.....	October 25, 2016
Staff Receives Bids.....	November 22, 2016
Council Accepts Bids/Awards Contract .....	November 29, 2016
Contractor Begins Construction.....	May 2017
Contractor Completes Construction.....	August, 2017

## 7. CONCLUSIONS AND RECOMMENDATIONS

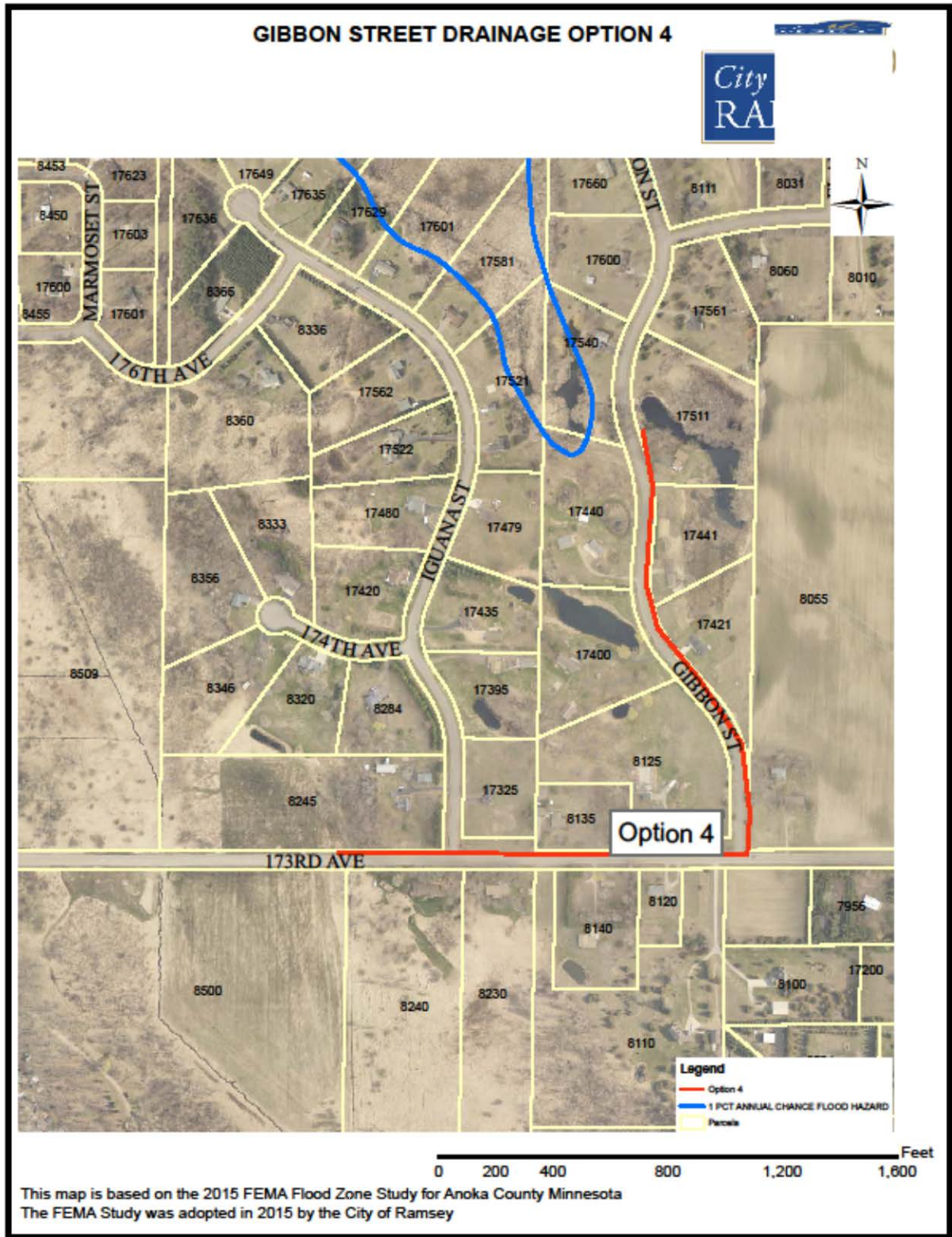
City of Ramsey Improvement Project 16-88 proposes to construct a storm sewer outlet for a low-lying, land-locked area along Gibbon Street, north of 173<sup>rd</sup> Avenue, for the purpose of helping to minimize groundwater table elevations in the area to address concerns raised by several property owners regarding damage caused by groundwater seeping into their basements in wet weather years.

The engineer's opinion of probable costs for the proposed improvement project is \$325,000. Project costs could be financed using a combination of Stormwater Management and Utility Funds, special assessments to benefiting properties, and/or external funding sources, when available.

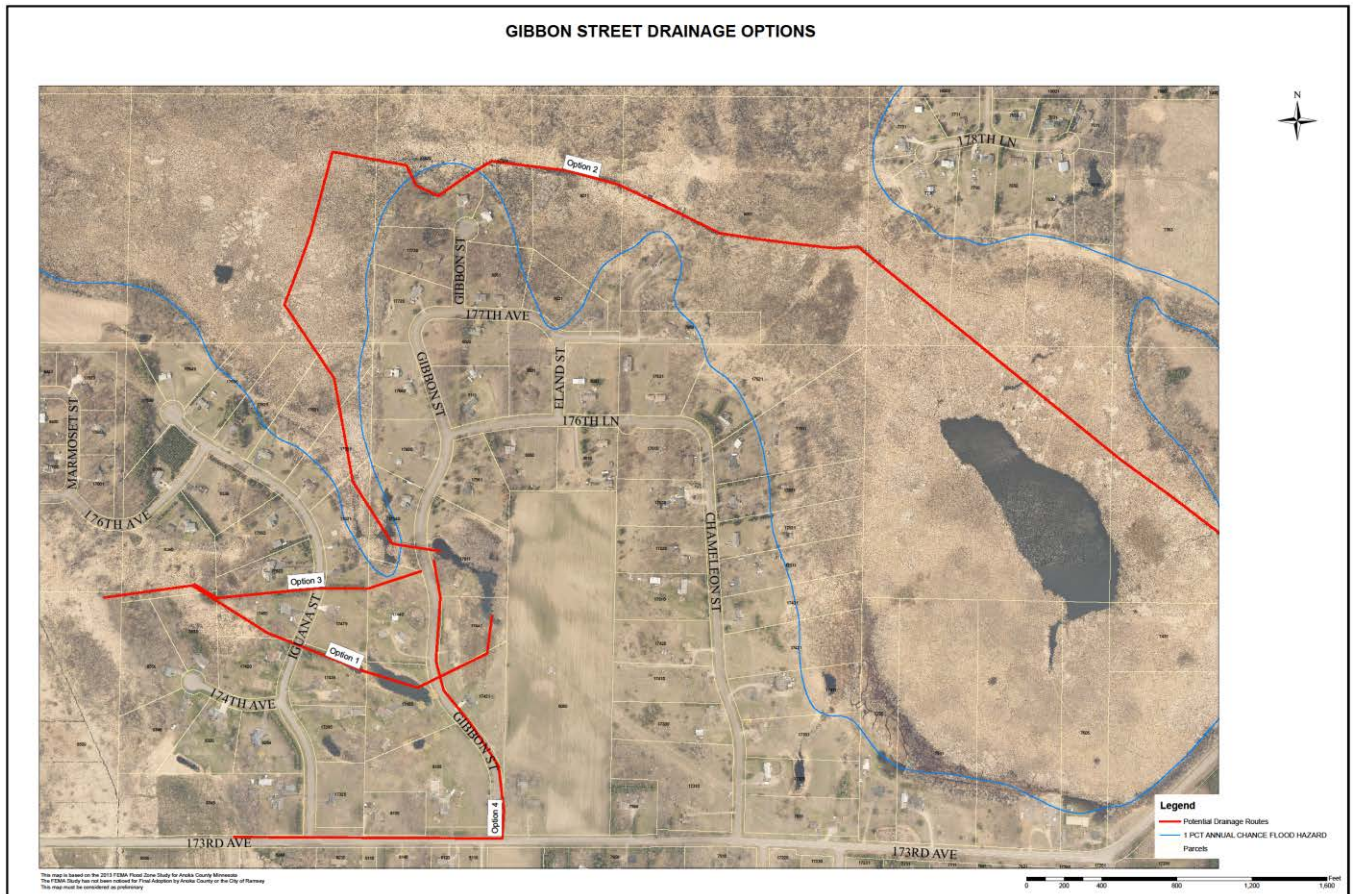
City staff concludes that City Project No. 16-88 is feasible and can be constructed in 2017. But given the significant estimated cost and the relatively small number of benefiting properties, the proposed improvements are not cost-effective. Staff therefore recommends constructing the improvements only if benefiting properties are specially assessed for all or a significant portion of the improvements, and/or if external funding is available to fund all or a significant portion of the improvements.

## APPENDIX A

**Figure 1 – Scope of Proposed Improvements (Option #4)**  
**Figure 2 – Four Optional Drainage Improvement Alignments**



**FIGURE 1**  
Scope of Proposed Improvements



## **APPENDIX B**

### **Opinion of Probable Costs**

**STORM SEWER FOR 173RD AVENUE AND GIBBON STREET NW**

**STATEMENT OF ESTIMATED QUANTITIES**

<b>ESTIMATED COST</b>		\$ 235,947.50
<b>CONTINGENCY</b>	10%	\$ 35,392.13
<b>ENGINEERING AND ADMINISTRATION</b>	23%	\$ 54,267.93
<b>TOTAL WITH CONTINGENCY, ENGINEERING AND ADMINISTRATION</b>		\$ 325,607.55

ITEM	ITEM NUMBER	DESCRIPTION	UNIT	UNIT COST	ESTIMATED QUANTITY	TOTAL COST
1	2021.501	MOBILIZATION	LUMP SUM	\$ 20,000.00	1	\$ 20,000.00
2	2101.511	CLEAR AND GRUB TREE	EACH	\$ 300.00	10	\$ 3,000.00
3	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	\$ 3.50	740	\$ 2,590.00
4	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	\$ 4.50	660	\$ 2,970.00
5	2104.523	SALVAGE AND INSTALL MAIL BOX SUPPORT	EACH	\$ 400.00	3	\$ 1,200.00
6	2104.523	TEMPORARY MAILBOX CLUSTER	EACH	\$ 400.00	3	\$ 1,200.00
7	2104.523	SALVAGE AND INSTALL SIGNS AND POST	EACH	\$ 200.00	2	\$ 400.00
8	2105.501	COMMON EXCAVATION (EV)	CU YD	\$ 7.00	200	\$ 1,400.00
9	2105.501	UNCLASSIFIED EXCAVATION (EV)	CU YD	\$ 10.00	250	\$ 2,500.00
10	2105.523	COMMON TOPSOIL BORROW (CV)	CU YD	\$ 16.00	290	\$ 4,640.00
11	2105.601	UTILITY DEWATERING	LUMP SUM	\$ 20,000.00	1	\$ 20,000.00
12	2211.503	AGGREGATE BASE CLASS 5 MODIFIED (P)	CU YD	\$ 15.00	240	\$ 3,600.00
14	2232.501	MILL BITUMINOUS SURFACE (1.5")	SQ YD	\$ 20.00	30	\$ 600.00
15	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLONS	\$ 3.25	30	\$ 97.50
16	2360.501	TYPE SP 9.5 WEARING COURSE MIX (2,B)	TON	\$ 70.00	70	\$ 4,900.00
17	2360.502	TYPE SP 12.5 NON WEARING COURSE MIX (3,B)	TON	\$ 70.00	70	\$ 4,900.00
18	2451.607	ROCK BEDDING (CV)	CU YD	\$ 12.00	50	\$ 600.00
19	2501.513	15" RC PIPE APRON	EACH	\$ 600.00	2	\$ 1,200.00
20	2501.602	TRASH GUARD FOR 15" RC PIPE APRON	EACH	\$ 500.00	2	\$ 1,000.00
21	2503.541	15" RC PIPE SEWER, DESIGN 3006 CLASS III	LIN FT	\$ 30.00	3000	\$ 90,000.00
46	2504.602	IRRIGATION RESTORATION	EA	\$ 2,500.00	4	\$ 10,000.00
22	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020	LIN FT	\$ 350.00	60	\$ 21,000.00
23	2506.516	CASTING ASSEMBLY - STORM	EACH	\$ 650.00	10	\$ 6,500.00
24	2506.521	INSTALL CASTING	EACH	\$ 350.00	10	\$ 3,500.00
25	2506.522	ADJUST FRAME AND RING CASTING	EACH	\$ 400.00	10	\$ 4,000.00
27	2563.601	TRAFFIC CONTROL	LUMP SUM	\$ 5,000.00	1	\$ 5,000.00
28	2573.502	SALVAGE AND INSTALL LANDSCAPING	LS	\$ 2,500.00	1	\$ 2,500.00
29	2573.502	SILT FENCE, TYPE M5	LIN FT	\$ 4.00	400	\$ 1,600.00
30	2573.533	SEDIMENT CONTROL LOG TYPE STRAW	LIN FT	\$ 3.00	250	\$ 750.00
31	2574.508	FERTILIZER TYPE 3	POUNDS	\$ 1.50	200	\$ 300.00
32	2573.502	SEED MIXTURE 25-131	POUNDS	\$ 5.00	300	\$ 1,500.00
33	2573.505	SODDING TYPE LAWN	SQ YD	\$ 5.00	1500	\$ 7,500.00
34	2573.562	HYDRAULIC MATRIX TYPE MULCH	POUNDS	\$ 2.00	1500	\$ 3,000.00
35	2573.570	HYDROSEEDING: MNDOT MIXTURE 25.131	ACRE	\$ 2,000.00	1	\$ 2,000.00
		<b>TOTAL COST STREET</b>				\$ 235,947.50

Bituminous Driveway restoration in CLS and Bit Wear Quantities

**PUBLIC WORKS COMMITTEE  
CITY OF RAMSEY  
ANOKA COUNTY  
STATE OF MINNESOTA**

The Public Works Committee conducted a regular meeting on Tuesday, March 31, 2015, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present:     Chairperson Chris Riley  
                            Councilmember Jill Johns  
                            Councilmember Melody Shryock

Also Present:         Public Works Superintendent Grant Riemer  
                            City Engineer Bruce Westby  
                            Civil Engineer II Leonard Linton  
                            Asst City Administrator/Economic Development Manager Patrick Brama

**1.     CALL TO ORDER**

Chairperson Riley called the regular meeting of the Public Works Committee to order at 6:00 p.m.

**2.     CITIZEN INPUT**

There was none.

**3.     APPROVE AGENDA**

Motion by Councilmember Johns, seconded by Councilmember Shryock, to approve the agenda, as presented.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Shryock. Voting No: None.

**4.     APPROVE MINUTES**

**4.01:   Approve January 20, 2015, Meeting Minutes**

Motion by Councilmember Johns, seconded by Councilmember Shryock, to approve the following minutes:

Regular Meeting Minutes dated January 20, 2015

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Shryock. Voting No: None.

## **5. COMMITTEE BUSINESS**

### **5.01: Consider Options for Addressing Stormwater Drainage Issues in Low Lying, Land Locked Areas**

Civil Engineer II Linton reviewed the staff report and identified the 2014 areas of flooding concern. He identified the wetlands within the City, noting that approximately 20 to 25 percent of the City is wetland. He identified areas of flooding concern from previous years beginning in 1985 and moving forward to 2011 for comparison purposes. He explained the staff report focused on three primary areas of concern, and that the staff report lists these in order of priority based on magnitude and severity of property and structure impacts.

The Gibbon Street area, rated the highest priority in the staff report, was discussed in detail first. Civil Engineer II Linton reviewed several potential routes of relief for this land-locked wetland, including relative elevation differences and any easements that existed along the routes. He discussed that ditch 66 was cleaned a few years prior and that weirs had been installed. He explained that vegetation management can occur within a wetland but the elevation cannot be changed. He noted that similar plans are available for discussion along the other two areas addressed within the case, but that residents from Gibbon Street are in attendance.

Chairperson Riley questioned if there is a good or easy answer.

Civil Engineer II Linton stated that while there is no easy answer there are potential solutions. He stated that the potential routes are where solutions could occur.

City Engineer Westby stated that there could be a combination of ditches and pipes in the routes.

Councilmember Johns stated that it appears the southern route would make the most sense.

Chairperson Riley questioned if the route would simply push the problem down the line.

Civil Engineer II Linton replied that if the water were to be routed into the ditch he believed that it would continue to flow to Trott Brook.

Frank Miske, 17421 Gibbon Street NW, stated that water even reaches high levels at certain times and could also be a concern for overflowing. He stated that the issues on Gibbon Street did not occur until the Iguana Street area was developed. He suggested instead that perhaps the Iguana Street area be routed in the other direction rather than routing their water towards Gibbon Street.

Cassandra Miske, 17421 Gibbon Street NW, confirmed that there is a culvert that drains into the ditch in their yard. She stated that it appears that their yard is the end spot for drainage and that is why she believes they have flooding of their yard. She questioned if the capacity of the ponds in the area could be increased.

Amber Pederson, 17441 Gibbon Street NW, was also present and confirmed that there is a culvert on her property as well.

Civil Engineer II Linton stated would cause the basements in that area to flood as the wetland elevation is currently equal to that of the basements in the area. He stated that this development was platted in 1979, before the creation of the Lower Rum River Water Management Organization (LRRWMO) and before the existing regulations of the City were in existence. He stated that if the development were to come in now the homes would look a lot different as the lowest floor elevation would need to be two feet above the wetland.

Mr. Miske stated that the home at 17540 Gibbon Street regularly has standing water in the home.

Mrs. Miske stated that in previous meetings there was discussion of an infiltration basin.

City Engineer Westby stated that an infiltration basin would not provide much benefit in this situation given the high groundwater level.

Chairperson Riley stated that it is helpful that the homeowners are open to working with the City.

City Engineer Westby stated that this case has identified the three worst flooding areas within the City, acknowledging that the Gibbon Street area is the worst. He stated that staff can focus on Gibbon Street at this time and look at possible solutions in more detail, looking also into the Iguana Street area, to determine the options. He estimated that the solution mentioned could very well exceed a six-figure cost.

Mr. Miske acknowledged that a six-figure cost would be prohibitive and questioned what they are supposed to do in the long-term as their home is flooding.

Councilmember Shryock questioned if the homeowner is eligible for flood insurance and whether that helps.

Mrs. Miske stated that they are not actually located in the floodplain.

City Engineer Westby stated that residents of Ramsey are eligible for flood insurance since the City is enrolled in the National Flood Insurance Program. He stated that there are things that the homeowners could also do to help such as larger pumps and drain tile systems or back up pumps.

Councilmember Shryock questioned if the homeowners could dig deeper in their backyard to provide an area for the water to go.

Civil Engineer II Linton stated that three properties in addition to the homeowners present tonight have submitted flood reports to the City.

Mr. Miske stated that the home at 17540 Gibbon Street is not occupied so they would not have filed a report. He noted that some of the other homeowners did not want to submit a report.

Councilmember Johns confirmed that a retention pond would be investigated as a possible solution.

Mr. Miske stated that the cheaper solution may be to demolish the existing homes and rebuild.

City Engineer Westby stated that this item will be brought back on May 19<sup>th</sup>.

Civil Engineer II Linton provided a brief overview of the other two areas of flooding concern identified within the case, noting that the issues are less severe and the potential solutions would be costly.

City Engineer Westby stated that staff has spoken with neighboring cities but they do not have the same problems because they have more relief and elevation differential.

### **5.02: Consider the Surface Water Management Plan Update**

Civil Engineer II Linton reviewed the staff report and briefly summarized the results of the pipe and pond summary.

City Engineer Westby stated that City Administrator Ulrich could not attend this evening but had asked if there were any cost implications related to the updating of the Surface Water Management Plan. He stated there are no new mandates that will increase costs significantly, but incorporating the Atlas 14 stormwater data will have an impact on future costs as projects will be designed to a higher standard.

Motion by Councilmember Johns, seconded by Councilmember Shryock, to approve the updated Surface Water Management Plan and forward it to the City Council for approval.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Shryock. Voting No: None.

### **5.03: Consider Use of Sunwood Drive as Official Detour Route During Highway 10 and Armstrong Boulevard Interchange Construction**

City Engineer Westby reviewed the staff report and stated that bids on the Armstrong Interchange project were opened today and that construction will likely begin in early May and take one year to complete since Armstrong Boulevard will be closed between Sunwood Drive and Riverdale Drive. He reviewed the detour plan as bid with the project, which identifies Bunker Lake Boulevard as the official detour route between Armstrong Boulevard and Ramsey Boulevard. He stated the purpose of this case is to determine if there is interest in requesting that the official detour be changed from Bunker Lake Boulevard to Sunwood Drive. He explained that usually the County prefers to use County Roads for detours. He stated that staff asked the County if they would consider changing the detour route and were advised that they might consider such a request if submitted in writing. He noted that if approved by the County there may be additional conditions, such as a damage claim waiver. He stated that there would not be

an impact to project costs as the signage would simply be placed in a different area. He stated that while some additional traffic would be generated along Sunwood Drive if chosen as the official detour, especially early in the project, some people will still choose to take Bunker Lake Boulevard if they find Sunwood Drive is not as convenient or timely. He stated that staff does not have a recommendation as they believe the vast majority of drivers will select their construction detour routes based on needs and preferences and not on signage, and given the low volume of pedestrian traffic crossing Sunwood Drive.

Councilmember Johns stated that it would not hurt to have additional drivers going past the businesses on Sunwood Drive.

Councilmember Shryock stated that her concern would be that some drivers are not familiar with roundabouts. She did believe that there may be a short-term benefit to the businesses but was concerned with possible safety issues.

Chairperson Riley agreed with the comments made by Councilmember Shryock, noting that he would not want to push that amount of traffic down Sunwood Drive because of safety concerns.

Motion by Councilmember Shryock, seconded by Chairperson Riley, to recommend leaving the official detour route along Bunker Lake Boulevard.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Shryock and Johns. Voting No: None.

#### **5.04: Business Signage for Armstrong Interchange Detour**

Public Works Superintendent Riemer reviewed the staff report and displayed examples of signs used during construction to identify local businesses. He advised that the banner type sign would have a time limitation, additional cost, and would require additional approval from the Council to be located in the right-of-way.

Councilmember Johns stated that she likes the white sign with the business names.

Councilmember Shryock agreed that she prefers the white sign. She suggested installing the sign right away.

Public Works Superintendent Riemer confirmed that the white sign could be made in house and could be produced in one to two days. He identified the most effective placement of the business signs.

City Engineer Westby questioned if another sign should be placed at Ramsey Boulevard.

Public Works Superintendent Riemer confirmed that an additional sign could be placed at Highway 10 and Ramsey Boulevard.

Chairperson Riley believed that this should be communicated to the businesses to show that the City is being supportive during the period of construction.

City Engineer Westby stated that the *Ramsey Resident* will soon be published and will include an article on the interchange. He advised that there will be a website for the interchange project and noted that link will be mentioned in the article. He stated that a statement can be added noting that the City is going above and beyond with the business signage.

Motion by Councilmember Johns, seconded by Councilmember Shryock, to recommend that the City Council approve Alternative #2, City to fabricate and install local business access signs.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Shryock. Voting No: None.

#### **5.05: Consider Street and Pedestrian Facility Lighting Plans – Center Street and Riverdale Drive**

City Engineer Westby reviewed the staff report, which includes lighting plans for the Center Street and Riverdale Drive projects. He reviewed the purpose of the lighting improvements and the proposed lighting plans for the Center Street project noting that TOD grant funds are proposed to fund the lighting improvements which will match the lights throughout the COR.

Councilmember Johns questioned the spacing on the lights.

City Engineer Westby stated that the lights along Center Street would be roughly 80 to 90 feet apart, similar to the spacing of lights along Sunwood Drive.

Councilmember Johns preferred that the lights be aligned directly across from each other as shown in the layout dated 2/24/15.

Councilmember Shryock stated that most other intersections have four lights and questioned why only two lights are proposed for the intersection of Center Street and 145<sup>th</sup> Avenue.

City Engineer Westby stated that it is currently unknown whether 145<sup>th</sup> Avenue will ultimately be extended to the west, and he noted that this intersection will not be as busy as the intersections along Sunwood Drive.

Councilmember Shryock questioned if lighting will be continued on the two one-way roadways along Ramsey Parkway in the future.

City Engineer Westby stated that he is not aware of any plans to light Ramsey Parkway at this time, but noted that the trail in the island between the two one-way roads is lit.

Councilmember Shryock stated that perhaps an additional light should be placed in the area where the trail crosses Center Street at Ramsey Parkway.

City Engineer Westby confirmed that an additional light could be added at the crossing if that is the direction of the Committee.

He then discussed the purpose and proposed lighting plans for the Riverdale Drive project which includes 27 street lights and 27 pedestrian trail lights to ensure there are no long stretches of dark spots along the trails. He advised that the cost for this project would be funded through the street lighting fund.

Chairperson Riley stated he would support the least number of lights that gets the job done, which appears to be what staff has proposed.

Motion by Chairperson Riley, seconded by Councilmember Johns, to recommend that the City Council approve the Public Works Committee's preferred lighting system for Center Street including opposing lights between Sunwood Drive and 145<sup>th</sup> Avenue, tall street lights at each corner of the intersection of Center Street and 145<sup>th</sup> Avenue, and adding a light for the Center Street pedestrian crossing at Ramsey Parkway, and as proposed by staff for Riverdale Drive.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Shryock. Voting No: None.

#### **5.06: Request Installation of Priority Street Light at Nowthen Boulevard and Iodine Street**

Public Works Superintendent Riemer reviewed the staff report and stated that a streetlight is proposed for the intersection to provide a safety benefit, as there is currently only a pedestrian light.

Motion by Councilmember Shryock, seconded by Councilmember Johns, to recommend that the City Council approve installation of a LED priority street light on the north side of Nowthen Boulevard near Iodine Street to the existing pole.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Shryock and Johns. Voting No: None.

### **6. COMMITTEE / STAFF INPUT**

Public Works Superintendent Riemer provided an update on street sweeping, noting that staff is ahead of schedule because of the warm weather. He advised that spring flushing will begin April 6<sup>th</sup> and will be a three-week process. He also provided an update on spray patching which was also completed.

Chairperson Riley referenced the trail in front of Stoney River and asked for additional information.

City Engineer Westby provided additional information, acknowledging that a marked crosswalk for TH 47 does not exist for this trail, that MnDOT wants to investigate trail gaps around this intersection before approving a crosswalk design, and that "Trail Closed" signs are in place.

Chairperson Riley referenced the woods near Stoney River along 47 and stated that there are a number of trees down most likely from a storm and questioned if there is anything that can be done. He stated that perhaps the City could assist in that cleanup effort.

Civil Engineer II Linton stated that he can provide exhibits if any Councilmembers want to go out to Gibbon Street to review the drainage issues discussed earlier.

## **7. ADJOURNMENT**

Motion by Councilmember Johns, seconded by Councilmember Shryock, to adjourn the Public Works Committee meeting.

Motion carried.

The regular meeting of the Public Works Committee adjourned at 8:19 p.m.

Respectfully submitted,



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Grant Riemer  
Public Works Superintendent

Drafted by Amanda Staple  
*TimeSaver Off Site Secretarial, Inc.*

**PUBLIC WORKS COMMITTEE  
CITY OF RAMSEY  
ANOKA COUNTY  
STATE OF MINNESOTA**

The Public Works Committee conducted a regular meeting on Tuesday, June 16, 2015, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present:     Chairperson Chris Riley  
                            Councilmember Jill Johns  
                            Councilmember Melody Shryock (arrived 6:05)

Also Present:         City Administrator Kurtis Ulrich  
                            Public Works Superintendent Grant Riemer  
                            City Engineer Bruce Westby  
                            Civil Engineer II Leonard Linton  
                            Alternate Councilmember Mark Kuzma

**1.     CALL TO ORDER**

Chairperson Riley called the regular meeting of the Public Works Committee to order at 6:00 p.m.

**2.     CITIZEN INPUT**

There was none.

**3.     APPROVE AGENDA**

Motion by Councilmember Johns, seconded by Councilmember Kuzma to approve the agenda, as presented.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns, and Kuzma. Voting No: None.

**4.     APPROVE MINUTES**

**4.01: Approve May 19, 2015, Meeting Minutes**

Motion by Councilmember Johns, seconded by Councilmember Kuzma, to approve the following minutes:

Regular Meeting Minutes dated May 19, 2015

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Kuzma. Voting No: None.

## **5. COMMITTEE BUSINESS**

### **5.01: Consider Drainage Options for 173rd Avenue and Gibbon Street Area**

Civil Engineer II Linton reviewed the staff report and each of the options, noting that after the case was published, he realized it could be possible to create a cross section through the property as explained in Option 4. He said the wetland cannot be drained in an effort to make the water level lower than the home. He explained that while this may provide some relief, water seeks its own relief. The water, in this case, rose above the ground.

Chairperson Riley asked why it would not work to dig a hole.

Civil Engineer II Linton noted the natural level of the wetlands is expressed through the wetlands. If a hole was dug, the water level would be the same elevation as is expressed in the wetlands; it would not drop down. He stated it could provide more storage area. He related the action of the water and a hole to a cup and a serving bowl. Four inches of water in a little cup would fill it up, while the water level would be much lower in the serving bowl. The water is more spread out and shallow.

Councilmember Shryock arrived at 6:05 p.m.

Councilmember Johns inquired if the water will always be an issue in this area.

Civil Engineer II Linton responded in the affirmative.

Councilmember Johns asked how much water could be drained with piping added.

Civil Engineer II Linton answered he could not be sure. The existing elevations will remain and make water drainage difficult.

Chairperson Riley inquired whether the water table has risen over the course of time.

Civil Engineer II Linton responded it has changed.

City Engineer Westby noted the water level was very high in 2014. It does fluctuate. He said this issue will likely be a recurring problem without the pipe. He said the pipe may solve it and will at least provide relief.

Civil Engineer II Linton stated if there is a heavy rain, the water could back up before it runs off.

Councilmember Kuzma asked what the anticipated cost would be.

Civil Engineer II Linton answered the anticipated cost is \$250,000 to \$300,000. He pointed out this does not include easements, and cautioned that electrical issues or other problems could arise.

City Engineer Westby suggested staff can pursue this option further as far as costs and feasibility if the Committee approves. He said they would obtain permission from the Miskes and other residents to look at the elevations. He said the best option is Option 4.

Cassandra Miske, 17421 Gibbon St NW, stated when they removed drywall in their basement, they could tell there was water damage in deeper layers. She commented Option 4 does look good. She said she is interested in anything that might help because she does not want to keep replacing doorjambs and more all the time. She mentioned that the house next door that is in foreclosure does not have any inhabitants. She said she talked with the owners and found the bank did not disclose the flooding. However, the bank did discuss septic issues.

Chairperson Riley commented since staff has to do more research on this option, and get more elevations, this seems to be the beginning of costs.

Ms. Miske inquired about the availability of grants that had been mentioned.

City Engineer Westby answered staff has looked into this online to see if any grants were available for this kind of project. Some grants are available for septic systems, but not for local flooding issues. He said staff can look into this further.

Chairperson Riley asked whether Anoka County is helpful in these situations.

Civil Engineer II Linton responded staff would need to get a permit and could discuss this with them. He explained the county ditch system was first dug around 1900. This was before stormwater retention was thought of. The county does monitor and inspect. They make sure the culverts are operational.

Councilmember Kuzma asked if assessments are a consideration with the new street policy. He also questioned what the funding source is.

City Engineer Westby explained the City can assess for land enhancements. Otherwise, the stormwater sewer fund may be the next option.

Chairperson Riley expressed concern that there are more situations like this. When this problem gets fixed, there could be another similar problem right behind it, and so on.

City Engineer Westby noted this is the worst area that staff is aware of.

Motion by Councilmember Johns, seconded by Councilmember Shryock, to recommend that the City Council consider ordering a feasibility study for Gibbon Street - 173rd Avenue Drainage concerns.

Further discussion: City Administrator Ulrich stated the study should include an analysis, determining specific costs and looking at policy.

Motion amended by Councilmember Johns, seconded by Councilmember Shryock, to recommend that the City Council consider ordering a feasibility study that will include an analysis, determination of specific costs and how this works with policy, for Gibbon Street - 173rd Avenue Drainage concerns.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Shryock. Voting No: None.

### **5.02: Consider Recommendation for Zeolite Street Storm Sewer Extension to Lake Ramsey**

City Engineer Westby reviewed the staff report and noted the construction costs are preliminarily estimated at \$175,000. Project costs would be paid from the Storm Water Utility Fund. He stated this project is included in the City's 5-year Street Maintenance Program.

Councilmember Shryock asked if there were intentions to develop this triangle at some point.

Chairperson Riley informed when the City functioned as a developer, it was under consideration to develop this plot. However, the City stood to lose approximately \$500,000.

City Administrator Ulrich explained the large cost was due to the land being very low and needing a lot of fill. He said utilities would have been an issue as well.

Councilmember Kuzma asked if concrete was put in instead of plywood, and the land was developed in the future, what would the cost be then to put in a better closure.

City Engineer Westby responded it could be \$10,000 to \$15,000 as a rough estimate. This is assuming there would not be much work to do with Bunker Lake Boulevard.

Chairperson Riley noted it has been repaired once, and it didn't affect Bunker Lake Boulevard, so it shouldn't a second time. He agreed with Councilmember Kuzma to use concrete or plywood until a developer comes through. Then it would be the developer's cost to repair. He commented he was unsure why it was being discussed now versus when it is necessary.

City Engineer Westby stated staff sees this as more of a safety improvement, and it is already in the CIP. If there is no intention to develop that triangular section, then staff can come back with more specific costs.

Councilmember Shryock inquired if there is any potential issue with the triangular section needing to hold more water. If there is no intention to develop in the near future, she said she approves of the idea of plugging the northern portion of the pipe.

Civil Engineer II Linton stated there is a catch basin on the north side of Bunker Lake Boulevard. If someone pulled the grate off, they could get in there. Either redevelopment of the triangle part, or starting to build more in the Ninth Division would be reason to revisit and consider putting a more permanent fix in there.

City Engineer Westby pointed out at some point the City will be required to reconstruct Bunker Lake Boulevard as well as Zeolite Street, and it may be more feasible to look at costs and options then.

Chairperson Riley stated this should wait until there is a reason.

Councilmember Shryock asked if there would be an option at that point to have a straight pipe and possibly save costs with that.

City Engineer Westby explained it is a straight pipe, and it would need to go as planned. It is a big pipe and this is what would work best.

City Engineer Westby stated no motion needed. Staff has the guidance they need.

### **5.03: Consider Street Width Recommendation for Andrie Street and 164th Lane Reconstruction Project**

City Engineer Westby reviewed the staff report and noted bonds can be used to widen the bike lane. Staff is at the point where they would like to go to Council and request authorization. The feasibility study needs to be updated and presented to the Council.

Councilmember Shryock asked whether it will be a striped bike lane, or if the road will just be widened.

City Engineer Westby stated these are municipal state aid streets, so the MSA Standards must be followed. The bike lane would be striped. It will be a 5 foot lane. Since it is a designated bike lane, and an MSA street, this will help with the funding.

Councilmember Kuzma questioned if the road is widened, will there be no parking on one side, and bike lane on the other.

City Engineer Westby said there would be parking on one side, and a bike lane on the other.

Councilmember Kuzma asked if it could be made wider if there was no parking.

City Engineer Westby stated the road could be made narrower, but a variance would need to be requested from State Aid to eliminate parking on one side of the street. The only way MSA would approve is if there are certain trees that should be saved.

Councilmember Kuzma noted there is a strip of trees the citizens are concerned about if the road is widened too much. He commented that road does need to be fixed.

Chairperson Riley confirmed the City Engineer will request approval for parking on one side and bike lane on the other. He stated he preferred to restrict parking for a stretch of the road, but not the whole road. He also would like to avoid losing trees.

Councilmember Shryock agreed the residents would like to keep the trees in that area. She suggested where the trees are that should be saved, no parking signs could be added.

Civil Engineer II Linton stated he worked on the original Andrie Street feasibility study, and there is room to narrow it from its existing configuration. The option at that time was to put the sidewalk in and the study focused on narrowing the road for that. He offered to conduct more research.

Chairperson Riley asked for clarification on how the width added up to 36 feet. He said he would prefer to narrow the street or have the no parking signs in the areas relative to saving trees.

City Engineer Westby suggested staff look at this item by mid-June or July to research the answers. He said since the original recommendation stands with looking at parking on one side in select areas as an amendment, no motion is needed.

**5.04: Recommend Revising Street Names from (East) Town Center Drive to Center Street, and from East/West Ramsey Parkway to Ramsey Parkway**

City Engineer Westby reviewed the staff report.

Councilmember Johns commented it would be good to simplify. Since the directional words in the names are not carried out throughout the City, this section of the City should be simplified.

Chairperson Riley inquired what the name would be of the west side of the horseshoe. He said he is not sure the street will ever be constructed as originally planned.

City Engineer Westby explained the Parkway continues to the south of Lake Ramsey. East Ramsey Parkway will go through that horseshoe and connect. He confirmed that road will not likely be built.

Councilmember Shryock questioned why the signs have Street in the names, and the maps have Drive.

City Administrator Ulrich answered it had to do with when the City was trying to rebrand, and the temporary name of the area was name of Town Center. Now staff would like to drop the word Town.

Chairperson Riley pointed out half the signs have Center Street, so this won't be a large project.

Civil Engineer II Linton raised the issue of possible legal document costs for the address change on mortgages.

City Engineer Westby stated staff will research that.

Councilmember Shryock asked if the City can decide to change the name of streets or whether public input necessary.

City Administrator Ulrich responded the City can make these changes based on Council direction.

Motion by Councilmember Johns, seconded by Chairperson Riley, to recommend that the City Council rename (East) Town Center Drive to Center Street, and renaming East/West Ramsey Parkway to Ramsey Parkway.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Shryock. Voting No: None.

#### **COMMITTEE / STAFF INPUT**

##### **6.01: Minnesota Department of Health Variance on Fluoride Concentration in Drinking Water**

Public Works Superintendent Riemer reviewed the staff report, stating this is for information only.

City Engineer Westby informed eastbound Highway 10 will be closed from 10:00 p.m. to approximately 2:00 a.m. Traffic barriers will be switched from one side to the other. Traffic will be rerouted. When this procedure was in place last week, the City did not receive complaints. He said he didn't anticipate any issues. This is the last time the traffic will need to be redirected in this area.

City Engineer Westby stated the traffic signal was turned on at CSAH 5 and Alpine Drive that morning and was operating fine.

City Engineer Westby noted staff has been working with a property owner at 14520 Sunfish Lake Drive. There is a swale in the back of the property. It was erected per the DNR's request. For a number of years, no water stood in the ditch. Now, years later, there is standing water. Staff is considering several options. One is to put a treatment structure at the end of Sunfish Lake Drive. The homeowner would like to contact the DNR and see if they can take it out of commission.

Civil Engineer II Linton explained the lake level was at one of its lowest when the homeowners moved in. The lake level has risen over the years and is manifested in that swale, which is on their property. The wetland vegetation is starting to come back. When the swale was high and dry, the homeowner was able to mow it and maintain it. If there is a lot of precipitation, the

water backs up and has nowhere to go. He informed the Committee that Staff is working through this with him.

**7. ADJOURNMENT**

Motion by Councilmember Johns, seconded by Councilmember Shryock to adjourn the Public Works Committee meeting.

Motion carried.

The regular meeting of the Public Works Committee adjourned at 7:16 p.m.

Respectfully submitted,



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Grant Riemer  
Public Works Superintendent

Drafted by Chris Moksnes  
*TimeSaver Off Site Secretarial, Inc.*

October 21, 2014

Members of the Public Works Committee,

In July of 2014, the residential area of Gibbon St experienced a large amount of flooding that continued relentlessly for a three week period. During this flooding, at least three homes were drastically affected, causing tens of thousands of dollars in damage to each home. One such home, residents of which were retired mid to late 70's couple, decided to since allow their home to enter into foreclosure. The other home was that of a couple who moved in just months prior, spending all of their income on their first home, and was simply devastated by their loss. For my personal home, in which I have resided for ten years, the basement in which my husband has been refinishing for years, alone by hand, during what little time he has off from work and his military duties, was destroyed. Approximately three years ago, we had a negligible amount of water enter the basement that did not result in any damage, again during a wetter than usual year. Additionally, as I was removing material from my home this year, it was apparent that this was not the first time our home had been affected by a flood. Insulation was trimmed up several inches off the floor, wood was covered with other pieces of wood to cover the water damage and mold was found behind certain areas of drywall. This was never disclosed to us prior to purchase. My neighbors found similar evidence in their home, which had also not been disclosed to them.

After the 2014 flooding, I asked my husband to contact the city engineers to seek their advice on what could be done regarding the storm water accumulating on our property. A city engineer came out to review the property a few weeks later, in which we were grateful. This engineer informed us, that the neighborhood to the parallel to ours is essentially designed to drain directly into our neighborhood and that the houses that experienced the flooding this year are affected with the runoff storm water from these neighborhoods. The engineer also stated that the city should be responsible for the correction of this drainage. We have paid our city taxes for years despite the fact that Gibbon St. benefits very little from the amenities offered from these taxes.

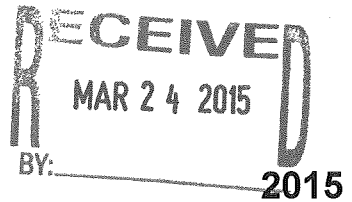
We, the affected residents are not naïve in thinking that that we are the only area affected by the amount of precipitation that fell this spring and summer and we do understand the financial planning and implementation difficulties associated with this type of project. However, we strongly request that the residential neighborhood of Gibbon St. be prioritized in this undertaking and that we remain informed of all developments. We only wish to never pass along the heartaches and troubles that we have experienced to the future residents of Gibbon St. We would love to stay and have Gibbon St. remain a great neighborhood and city in which to reside.

Thank you,

The Miske's



## Surface Water Survey – Gibbon Street



Name(s): MARK & AMBER PEDERSON  
 Email Address: Mark.pederson@alumni.augsburg.edu  
 Phone Number: 763-226-8321  
 Address: 1741 GIBBON STREET NW  
RAMSEY, MN 55303

Check box if the city may contact you regarding the information on this survey.

1. Approximately how many years have you resided on Gibbon Street? 1.5

2. How many times have you experienced excessive surface water/flooding anywhere on your property? 1

3. Has surface water or flooding caused any damage to your property (i.e. to the interior/exterior home, landscaping, sheds, etc.)? If yes, please describe the damage and estimated cost.

INTERIOR: CARPET HAD TO BE TAKEN OUT, SHEET ROCK NEEDS TO BE REPLACED  
DUE TO WATER ABSORPTION. ALL DOORS & FRAMES HAVE TO BE REPLACED DUE TO  
WARPING CAUSED BY WATER ABSORPTION. MOLDINGS HAD TO BE TAKEN OUT  
DUE TO WATER ABSORPTION.  
ESTIMATED COST: \$10,500.00

Please leave any additional observations or comments regarding surface water on Gibbon St. below:

\*This survey will be provided to the City of Ramsey Engineering Department and discussed at the March 17<sup>th</sup> Public Works Committee Meeting.



Surface Water Survey – Gibbon Street

RECEIVED  
MAR 24 2015  
BY: \_\_\_\_\_ 2015

Name(s): Douglas Paris  
Email Address: deparis@yahoo.com  
Phone Number: 763-226-6096  
Address: 17511 Gibbon St Ramsey MN

Check box if the city may contact you regarding the information on this survey.

1. Approximately how many years have you resided on Gibbon Street? 30 yrs

2. How many times have you experienced excessive surface water/flooding anywhere on your property? 12 yrs

3. Has surface water or flooding caused any damage to your property (i.e. to the interior/exterior home, landscaping, sheds, etc.)? If yes, please describe the damage and estimated cost.

surrounds house on 3 sides when  
bad so I put in drain tile to mitigate damage  
I own the water easement for this  
development

Please leave any additional observations or comments regarding surface water on Gibbon St. below:

\*This survey will be provided to the City of Ramsey Engineering Department and discussed at the March 17<sup>th</sup> Public Works Committee Meeting.



# Surface Water Survey – Gibbon Street

**RECEIVED**  
MAR 24 2015  
BY: \_\_\_\_\_ 2015

Name(s): Don Olson

Email Address: \_\_\_\_\_

Phone Number: 612-616-4607

Address: 17561 Gibbon St NW

Ramsey MN 55303

Check box if the city may contact you regarding the information on this survey.

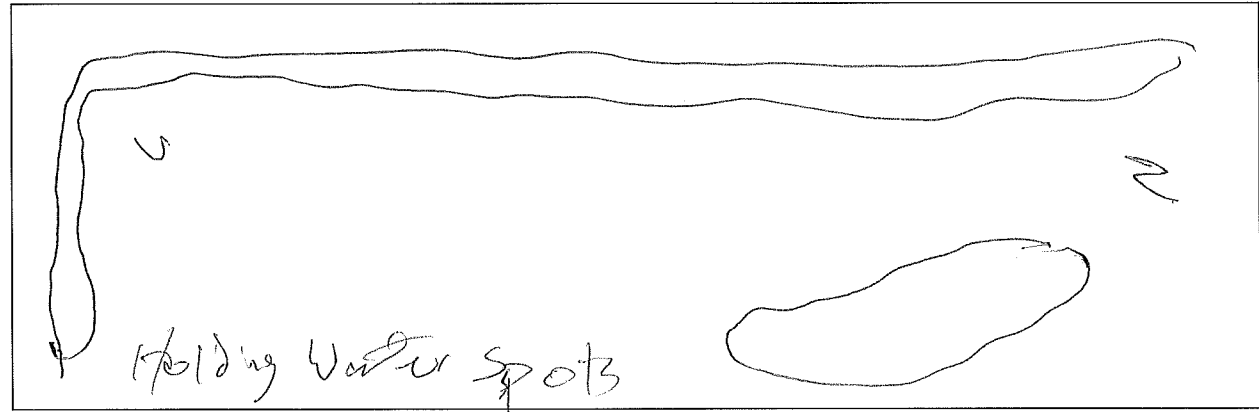
1. Approximately how many years have you resided on Gibbon Street? 6

2. How many times have you experienced excessive surface water/flooding anywhere on your property? 5

3. Has surface water or flooding caused any damage to your property (i.e. to the interior/exterior home, landscaping, sheds, etc.)? If yes, please describe the damage and estimated cost.

Sheds wet floors

Please leave any additional observations or comments regarding surface water on Gibbon St. below:



\*This survey will be provided to the City of Ramsey Engineering Department and discussed at the March 17<sup>th</sup> Public Works Committee Meeting.

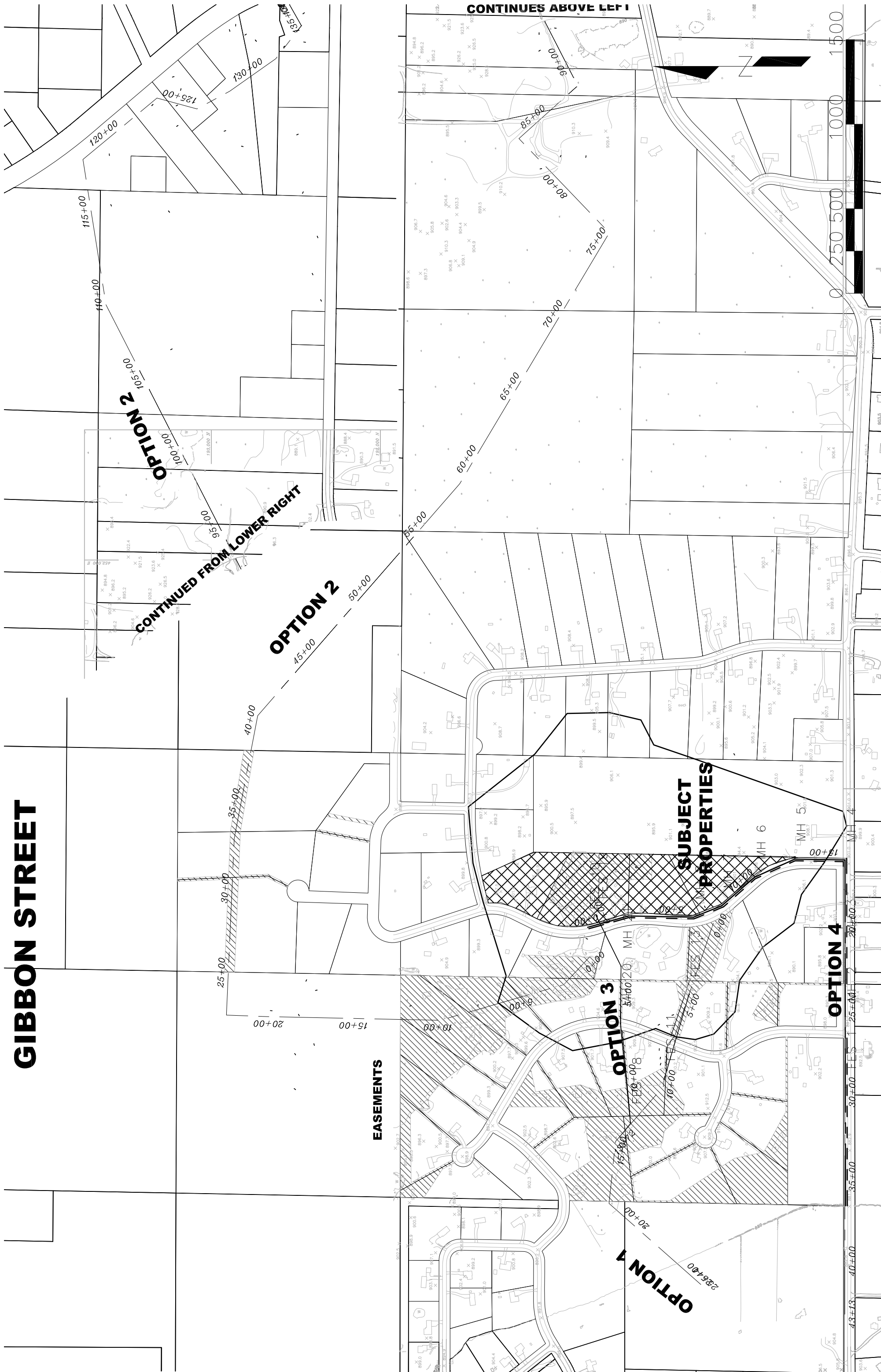
# GIBBON STREET DRAINAGE OPTIONS

FIGURE 2



This map is based on the 2013 FEMA Flood Zone Study for Anoka County, Minnesota. The FEMA Study has not been notified for Final Adoption by Anoka County or the City of Ramsey. This map must be considered as preliminary.

# GIBBON STREET



**OPTION 2**

**OPTION 2**

**OPTION 3**

**OPTION 4**

**SUBJECT PROPERTIES**

**EASEMENTS**

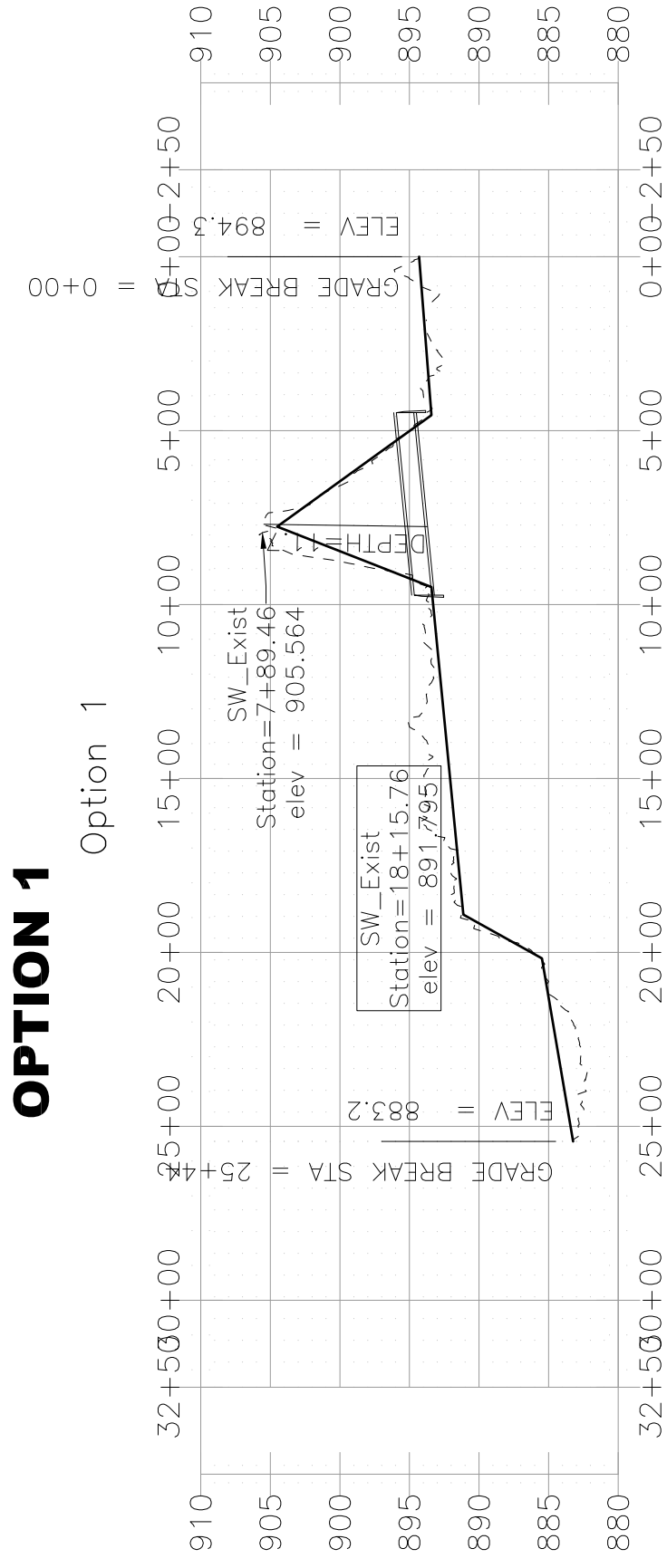
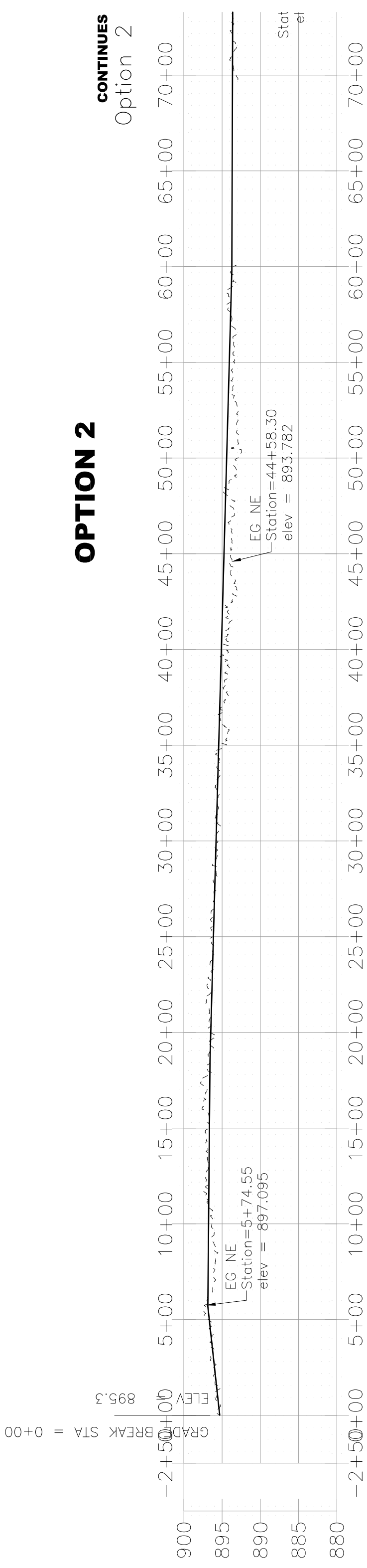
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CONTINUED FROM LOWER RIGHT

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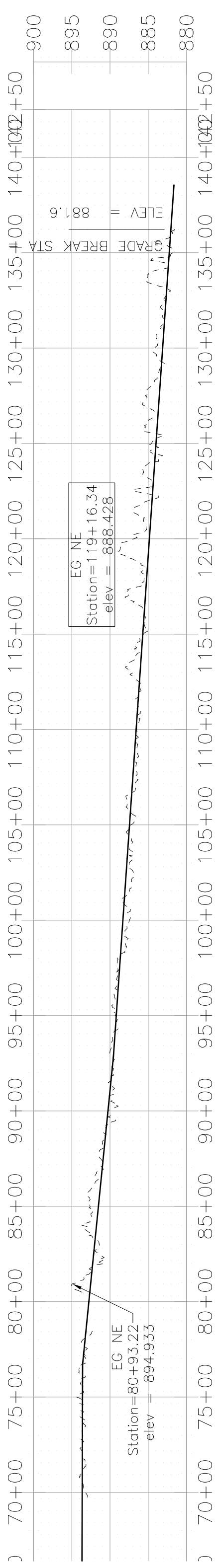
# GIBBON STREET



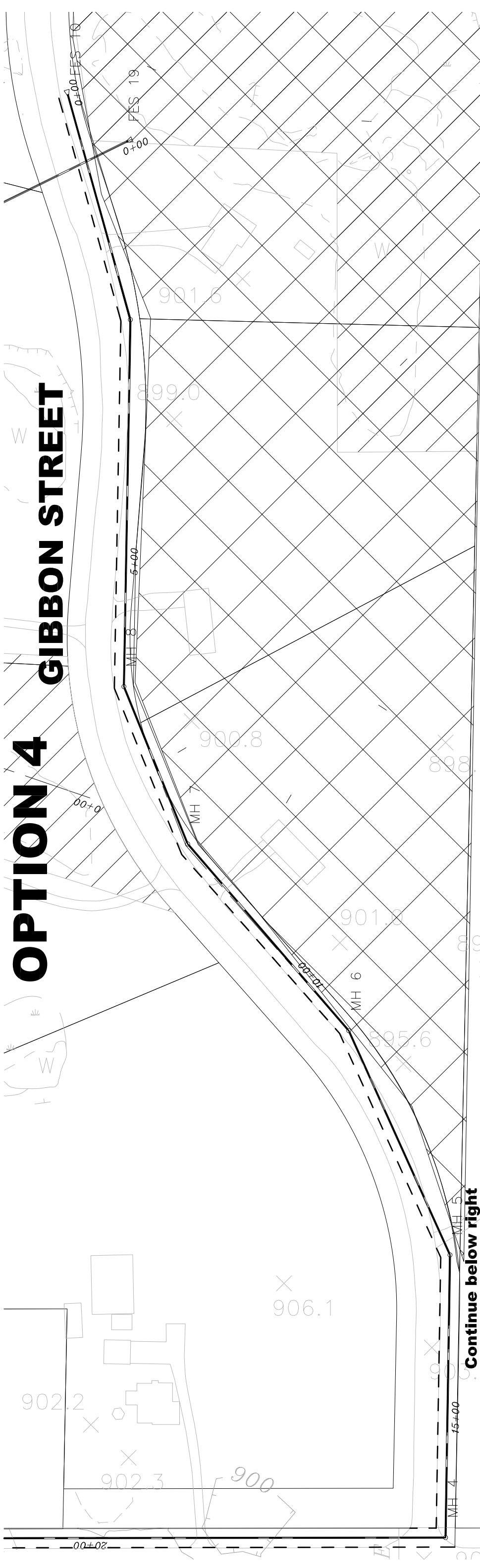
# GIBBON STREET

## OPTION 2 (CONTINUED)

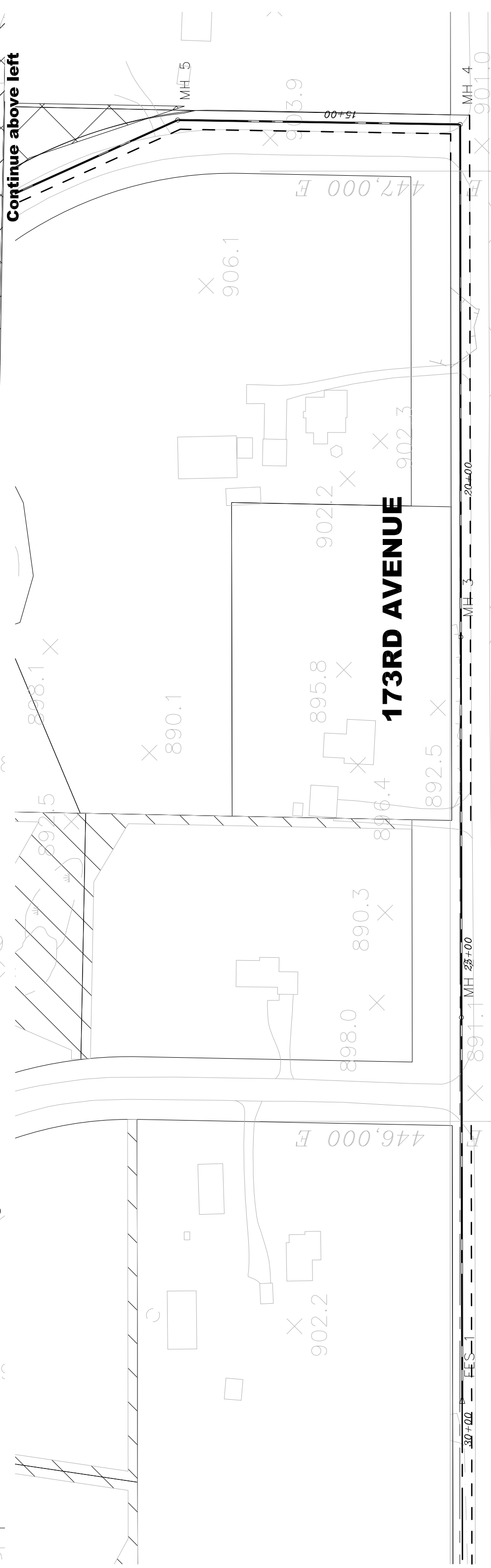
Option 2



# OPTION 4 GIBBON STREET



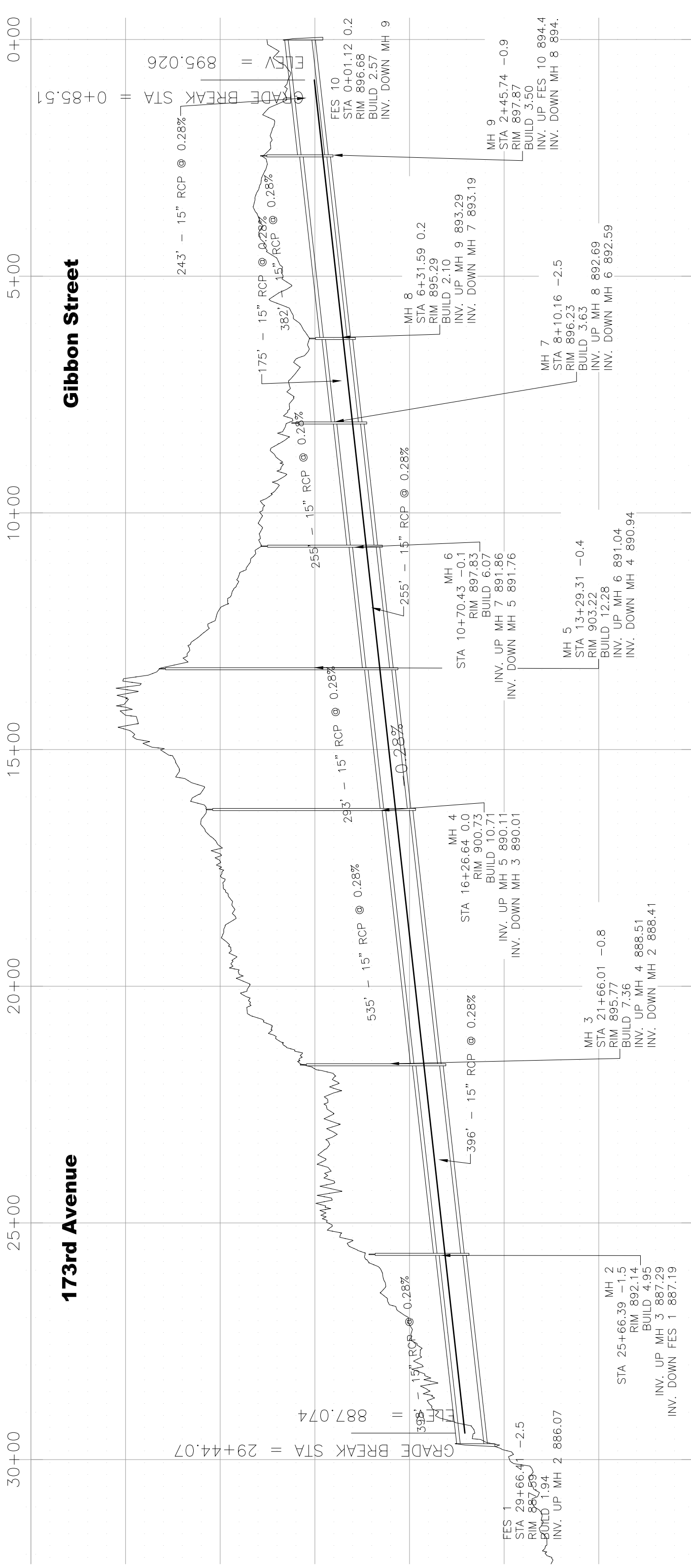
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# GIBBON STREET

Option 4



# Option 3

Option 3

