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MEMORANDUM

Date: April 14, 2015
To: Honorable Mayor and City Council
From: Travis L. Winter, P.E., City Engineer
Subject: Northwest Area Street and Utility Improvements
City of Winnebago, Minnesota
Project No.: F17.108776

Below is a list of questions from the meeting with my responses.

1. How will the City pay for future projects?
 - i. As past projects are paid off, the City's annual bond payments are reduced. This could allow future projects to be funded with a lesser tax impact. As always the City should review all opportunities for outside funding (grants) on infrastructure projects.
2. Would the gravel streets also bring a smaller assessment?
 - i. The initial cost of gravel street construction is less than that of bituminous streets, and the assessments are based on a percentage of the overall project cost. This would result in a lower assessment. On a percentage basis, the cost savings is estimated to be 8% of the total project.
3. Believes the tax value would remain the same despite street and utility improvements.
 - i. State statute 429 indicates that an assessment levied against a property cannot exceed the value it adds to the property. It has been proven in numerous Cities that there is a value increase by street improvements.
4. Question the cost benefit of constructing a trenchless forcemain vs. open trench when the roads are under construction.
 - i. The improvements proposed for the lift station and forcemain will be evaluated during final design to ensure they are necessary and cost effective.
5. Will the streets and sewer lines going to end in the same locations?
 - i. In essence all streets and utility lines in this area will be improved to serve the needs of the community for many years.
6. Should the watermain be looped at the north end of the project?
 - i. Dead end lines can create stagnant water problems which require the lines to be flushed periodically, when practical it is recommended that the waterlines make a loop connection to other lines. Costs for any such looping will be reviewed by the Utility Committee.
7. Should so much water go to the detention pond?
 - i. The design and function of the pond will be evaluated during final design to maximize the treatment and volume control provided. The limitation of the pond capacity will be related to soil conditions, available footprint, and the elevation of the receiving waters.



8. Can more detention be provided that would reduce the pipe size?
 - i. All pipe sizes will be reviewed during final design. Other stormwater management features (such as rain gardens and bio-swales) can be added where practical, but design will likely be completed assuming these features are 'offline'. There is risk involved with reducing design flows based on these features but the City can elect to take on that risk if desired.
9. What is the return frequency of the storm sewer design?
 - i. Current design standard is for storm sewer piping a '10-year' rain event. Ponds utilize a '100-year' rain event for design criteria.
10. Wondering if there are other pavement options than 4" bituminous (reclamation of existing streets, etc.)?
 - i. The complete replacement of underground utilities reduces the possibilities for salvage and reuse of existing driving surfaces. In this area the common surfacing alternatives reviewed are concrete and bituminous. If desired alternates for surfacing can be explored in greater detail. Bituminous typically has a lower initial cost for construction. The design thickness of the pavement will be reviewed during final design but the 8-inch Class 5 aggregate base with 4-inch bituminous has been a standard street section in many communities in this area.
11. What will the street design be (5-ton, 7-ton, 9-ton)?
 - i. The City Council can elect to use any of those design designations. We typically utilize a 5 or 7-ton design for residential streets. This design designation refers to the maximum single axle load permitted.
12. Would geotextile fabric be beneficial to the longevity of the streets?
 - i. The City's standard has been to use fabric when unsuitable soils are discovered during construction, this practice separates softer subgrade soils from the gravel base. It can be added to the entire project if desired. Mn/DOT's pavement design guidance doesn't indicate that there is a structural benefit to geotextile fabric.
13. What is the cost savings to narrow the streets?
 - i. For this project size, I have prepared some estimates for narrowing the streets. Essentially for every foot the road would narrow, a total savings of \$50,000 could be realized. To go from 40-feet as proposed to 36-feet would be about a \$200,000 decrease. The 40-foot width has been the City's standard and is supported by public works staff.
14. If more green space was created (by narrowing roads) would there be less rain water?
 - i. Yes, the amount of paved area has a direct impact on the amount of stormwater runoff and it has an influence on the final design of the pond and piping.
15. Would a wet pond be more efficient?
 - i. A wet pond can be evaluated during final design. The utility committee has supported a dry pond concept during preliminary design.
16. Will 3' concrete aprons be constructed at driveways?
 - i. Yes, the City's standard is to replace driveway aprons disturbed during construction. Most often they are replaced to the Right-of-way limits.
17. What type of curb & gutter will be used? B618 or B612? Is B612 cheaper?
 - i. B618 is proposed and has been the City standard. There is negligible cost savings in switching to B612 as the savings are balanced by the increase in bituminous pavement cost.



18. Will the watermain be connected to the 12" or 4" watermain on the Jackson Road?
 - i. The 4" main currently has the water services connected to it for the properties along the street. This line has had a number of issues in the past and will likely be taken out of service at some point which will require the services to be connected to the 12" line. The preliminary engineering report shows the watermain being connected to the existing main in the Jackson Road at 6th St & 4th St. A connection to the main on TH169 is also shown at 2nd Ave.
19. Question regarding designation of 1st St NW as a truck route.
 - i. The City Council can designate truck routes. A 9-ton pavement design would be needed on a proposed truck route.
20. What research has been done on availability of grants?
 - i. Grant opportunities are reviewed by Bolton & Menk, Inc. staff on an ongoing basis to evaluate their 'fit' for projects in different communities. There are limited grants available for street and utility improvement projects. Funding sources often are reviewed and applied for as a project develops and moves into design.