

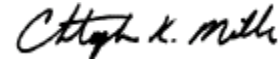
REQUEST FOR COUNCIL ACTION

Date: 4/26/10
Item No.: 12.c

Department Approval



Acting City Manager Approval



Item Description: Amend Contract for the Design of the Twin Lakes AUAR Subarea I
Infrastructure Improvements

BACKGROUND

On June 9, 2008, the City Council approved a contract with WSB & Associates to complete the design work for the Twin Lakes AUAR Subarea I Infrastructure Improvements. These include:

- Intersection improvements at County Road C and Cleveland Avenue
- Cleveland Ave / I35W ramp and intersection improvements
- Intersection improvements at Fairview and Terrace Drive
- Twin Lakes Parkway from Cleveland Ave. to Fairview Ave
- Mount Ridge Road from County Road C2 to Twin Lakes Parkway
- Prior Avenue south of Twin Lakes Parkway to County Road C
- Municipal utilities including sanitary sewer, water, and storm water.

This contract is attached, the executed contract does not have line numbers for reference so we have attached a copy with line numbers. There have been many changes to the original RFP scope. While the original contract contained “not to exceed” cost of \$458,036.00, the additional work outside of the scope of the contract added to the project work plan, increasing the cost for completing the design of this infrastructure. What follows is a summary of the justification for the change in scope of this project.

Project Phasing

The original scope of services assumed that these projects would be bid as a single construction package. Much of the change in approach from a single project to a multi phase project occurred after the plans were at the 60% level. These items increased the overall cost to provide these services by \$18,798. This created the following additional work:

- Temporary Twin Lakes Approach – When switching from full plans to Phase 1 plans, the City directed WSB to design part of Twin Lakes Parkway for temporary connection to Cleveland Avenue rather than the full width, as the Cleveland Avenue and I-35 ramp improvements were not being built. WSB was also directed to avoid demolition of the building to the south (Cummins building) if possible. WSB designed as directed, but noted the difficult grades adjacent to the building. Through right of way negotiations, the City determined that it was more economical to have the building removed as part of Phase 1, and directed WSB to add the building removal back into the plans, and revised the road plans in this area to include the full width and sidewalk for the majority of the formerly temporary area.
- Financial Phasing – At the 60 percent level, the City directed WSB to divide the full project into logical portions and prepare a corresponding cost estimate in order to make decisions regarding

the scope of Phase 1. The City used this information to correlate the limit of the Phase 1 improvements with their corresponding funding. WSB coordinated the logical division points with the City, prepared an exhibit to graphically depict the different segments, and split the quantities for the entire project to correspond to these limits.

- Alternate Bid Items – To accommodate funding concerns, the City directed WSB and Hoisington Koegler to establish five alternate bid items for the contract. These items included building removal (in case the owners could get better prices), concrete pavers (alternate to colored textured concrete), rain gardens along Mount Ridge Road (base bid was just a sodded area), induction lighting (alternate to conventional lighting in base bid), and remote telemetry (SCADA) system. WSB and HKGi prepared modified plan sheets, alternate and extra specifications, performed product research, and modified the bid documents to accommodate these requests.
- Bidding – Bidding services were not included in the original scope of work. At the time of the original RFP, the City anticipated that WSB would complete the development of plans and specifications only. In 2008, the City did not have funding available to construct the infrastructure improvements. WSB handled the bidding process, including questions from bidders and issuing of addenda. The inclusion of the storm water reuse system and associated filtration beds made this more time consuming than a typical level of effort for both answering questions and issuing addenda.
- Federal Funding- \$1.6 million dollars of Federal UPA funding was provided by Metro Transit to construct Phase 1 of this project. Due to the use of UPA money, the specifications had to include several additional requirements, mostly for DBE requirements. WSB needed to coordinate with Metro Transit personnel, obtained electronic copies of their forms, and reviewed and redlined them for inclusion into the project manual.

Comprehensive Storm Water Plan

The original scope assumed that much of the water treatment for these public improvements would be accomplished in concert with redevelopment. WSB was responsible for After submittal of 60 percent plans with drainage treatment ponds shown on redevelopment parcels, it was determined that the effort to coordinate a master drainage plan with the use of ponds (and obtaining the additional right of way) would increase the right of way acquisition cost, as well as create potential future obstacles for the property owners to redevelop their sites in accordance with the Twin Lakes design principles. At that time, the City directed WSB to design a storm treatment system that would be located entirely within the boundaries of the right of way that was being acquired for the project. This included a storm water reuse system, complete with underground retention and storage, as well as a force main for conveyance of the storm water to the irrigation system. These items increased the overall cost to provide these services by \$81,733. The following tasks were required to complete the final design of the system. Many of these tasks were not contemplated as part of the original proposal, and required the redesign of the storm sewer conveyance system.

- Changes in the Storm Water Conveyance System– The original conveyance system directed storm water to a series of ponds throughout the project. Per the City's direction, all the storm water was now to be directed to a central location for storage. WSB reworked the conveyance system to direct water to the future remnant parcel at the northeast corner of the roundabout. However, through development of the MPCA Response Action Plan, it was determined that this location would not be feasible due to high potential for contaminated soils. Thus, WSB had to design the conveyance system a third time, resulting in two systems – one that drained as much as possible to the new storage location at the north end, and the rest toward Cleveland Avenue.

This meant redoing spread-runby calculations, modifying catch basin layouts, realigning pipes, adjusting pipe grades, and deleting/adding pipe profiles to the plans.

- Storm Water Storage, Reuse, and Infiltration System – Custom design of the storage, reuse, and infiltration system was required. Activities included research of available systems and materials; coordination with potential suppliers to provide a wide variety of alternatives for consideration; schematic design of the system to meet requirements for seasonal considerations, infiltration rates and volumes, storage versus reuse rates, and maintenance access; introduction of lift station and well system design expertise for returning the water to the irrigation system; design of the storm water force main; coordination with and design by an electrical subconsultant to design the power.
- Additional Rice Creek Watershed District (RCWD) Coordination– WSB had anticipated coordination with Rice Creek to accommodate traditional approaches to drainage treatment. Because of the custom and unique nature of this system, additional correspondence, negotiation, and discussions with the District were required to establish proper credit and permitting for the new system. Additional time was also spent to resolve interagency coordination between the Minnesota Pollution Control Agency and RCWD.
- Biofiltration Beds – Original landscape design for the areas along Twin Lakes Parkway called for planting beds. At the direction of the City, Hoisington Koegler Group and WSB investigated direct application of storm water to these beds, converting them to biofiltration beds. Additional plant types were researched and specified, special soil design to aid infiltration was performed, special direct inlets were designed, tile drain systems were researched and specified, weir systems were designed, specified and detailed for drainage and aesthetic improvements, and overflow/safeguard systems were calculated and designed.

Additional Services Phase 2 and 3

- **Schedule and Budget Tracking / Invoicing:** With the additional time added to the schedule of the contract, the project manager must perform additional monthly budget and schedule tracking. The duration of Phase 2 & 3 design is expected to be three months.
- **Design Review Meetings:** Three additional design review meetings are anticipated for Phase 2 & 3 (one per month).
- **Biofiltration Beds:** Much of the design detail from the biofiltration beds can be carried forward as a template for Phase 2. However, each bed is custom designed to match road grade, width, length, and sidewalk offset. The proposed hours accommodates these custom calculations and design.
- **Lift Station Design – Phase 3:** In order to ensure to meet Rice Creek Watershed District requirements for Phase 3, it is anticipated that a combination of pond expansion and use of the existing irrigation reuse/infiltration system (installed in Phase 1) will need to be utilized. In order to get storm water into the existing system, a small lift station will be required within Phase 3.
- **Miscellaneous Plan Sheets – Second Set:** As discussed in allocation of original design fee proposal, there are several sheets that must be included and customized for each plan set. The work required for these sheets must be duplicated for each set, and the proposed hours reflect this effort.
- **Contract Document Preparation-** The documents needed for contracting, beyond the drawings and special provisions, must be regenerated for each contract. Bid Advertising, Instruction to Bidders, contracts, bid forms, etc., must all be reviewed and modified for a new contract.

POLICY OBJECTIVE

As described in the attached Consultant Services Agreement, section C, this proposed contract amendment is being requested for services or deliverables not specifically identified in section A of the agreement. Staff has been working with WSB on these costs and is satisfied that with the justification provided for these changes to contract Scope.

FINANCIAL IMPACTS

These amended design costs will be included in the “Infrastructure Improvements for the Twin Lakes AUAR Area- Final Report”. In the long term, developers will contribute towards the cost of the improvements when their property redevelops. The allocation will be incorporated into development agreements, with contributions calculated according to the cost allocation formulas described in the report.

STAFF RECOMMENDATION

Staff recommends that the City Council authorize staff to amend the existing contract with WSB and associates for the Design of Twin Lakes AUAR Subarea I Infrastructure Improvements.

REQUESTED COUNCIL ACTION

Motion to authorize the City Manager to amend the Twin Lakes AUAR SubArea I Infrastructure Improvements Design Contract with WSB and Associates in the amount of \$143,131.

Prepared by: Debra Bloom, City Engineer

Attachments: A. Contract

**CITY OF ROSEVILLE
CONSULTANT SERVICES AGREEMENT**

THIS IS AN AGREEMENT entered into the ____ day of _____, 2008, by and between the City of Roseville, Minnesota, hereinafter referred to as the City, and WSB and Associates., hereinafter referred to as the Consultant.

WITNESSETH:

WHEREAS, the City desires to hire the Consultant to complete Twin Lakes AUAR SubArea I Infrastructure Improvements, and the Consultant desires to perform those services for the compensation and on the terms described herein.

NOW, THEREFORE, the parties hereto do mutually agree as follows:

- I. Scope of Services. The Consultant shall perform those Services as are described in the attached Exhibit A.
- II. Term. This Agreement shall be effective upon the approval of the City Council and execution by the Mayor and City Manager and shall continue until terminated by either party upon a seven (7) day written notice thereof.
- III. Compensation. The fees for the Consultant's services will be billed on and in accordance with the hourly rate shown in the attached Exhibit B. Consultant's compensation for the Exhibit A work shall not exceed \$458,036.00. Fees shall be paid within thirty (30) days following receipt of a monthly invoice and status report detailing the services performed.
- IV. Schedule. Exhibit C contains a schedule for completion of the scope of services. It is understood that if the schedule is delayed, through no fault of the Consultant, so that it is no longer possible to complete the work in 2008, the hourly rates shown on the attached Exhibit B can be updated to the current year hourly rates, so long as those rates do not increase more than 5%.
- V. Indemnification. The Consultant shall defend, indemnify and hold harmless the City and its officials, agents, and employees from any loss, claim, liability, and expense (including reasonable attorney's fees and expenses of litigation) arising out of any action constituting malfeasance or gross negligence of the respective parties in the performance of the service of this contract.
- V. Assignment. This Agreement shall not be assigned, sublet, or transferred without the written consent of the City.
- VI. Conflict of Interest. The Consultant agrees to immediately inform, by written notice, the City Manager of possible contractual conflicts of interest in representing the City, as well

as property owners or developers on the same project. Conflicts of interest may be grounds for termination of this Agreement.

VII. Ownership of Work. Should the City elect to terminate this Agreement under Section III hereof, Consultant shall promptly provide all work-product to the City for which payment has been made and the City shall be entitled to utilize the work in any manner determined by the City to be in its best interests.

VIII. Notices. All notices to be given hereunder shall be in writing and shall be deemed given on the earlier of receipt or three (3) business days after deposit in the United States mail, postage prepaid, addressed to:

A. City of Roseville
Attn: City Engineer
2660 Civic Center Drive
Roseville, MN 55113

B. WSB & Associates Inc.
Attn: Jupe Hale
701 Xenia Avenue South, Suite 300
Minneapolis, MN 55416

IX. Attachments. All attachments referenced in the Agreement are attached to and incorporated into this Agreement, and are part hereof as though they were fully set forth in the body of this Agreement.

(signature page follows)

THIS AGREEMENT was adopted by the City Council in and for the City of Roseville,
Minnesota, on the _____ day of _____, 2008.

CITY OF ROSEVILLE

Its Mayor

Its City Manager

THIS AGREEMENT was accepted by _____ on the _____
day of _____, 2008.

Bret A. Weiss, President

Anthony Heppelmann, Principal/ Vice President

Exhibit A
Scope of Services

Exhibit A outlines a Scope of Services which as a part of the Consultant Services Agreement constitutes an agreement between the **City of Roseville**, hereinafter referred to as the CLIENT, and **WSB & Associates, Inc.**, hereinafter referred to as the CONSULTANT for professional planning services for the Comprehensive Plan Update, hereinafter referred to as the PROJECT.

The CLIENT and CONSULTANT agree as set forth below:

A. BASIC SERVICES

In order to achieve the primary project goal of having complete construction documents by the end of 2008, Mn/DOT approval must be obtained through a multitude of documents and Mn/DOT reviews. But it bears noting that the majority of the improvements are not subject to the Mn/DOT and federal approval process, nor are the ramp modifications absolutely necessary for access to the developments with preliminary approval. Therefore, WSB is proposing that the federal approval process be separated from the approval process for the State Aid streets and utilities. Mn/DOT review can then remain focused on their areas of jurisdiction, specifically the ramp improvements and the improvements to Cleveland Avenue (Improvement 5). WSB will structure the plans in such a manner that the sheet cuts, typical sections, cross-sections, alignments, tabulations and details can be easily divided at the limits of Mn/DOT jurisdiction. Submittals to Mn/DOT functional groups will contain only those sheets necessary for their review. At the same time, the full project set, including the ramp improvements, will be prepared and submitted for City, County and Mn/DOT State Aid review, as well as obtaining necessary permits. Similarly, the specifications will be prepared for full Mn/DOT review. By approaching the project in this manner, the plans can easily be separated into two projects should the need arise due to scheduling needs, review delays, or development delays.

1. PROJECT MANAGEMENT

1.1 Schedule and Budget Tracking, Invoicing

Throughout the entire project, WSB will actively manage the work tasks to adhere to both the proposed schedule and budget. Tony will provide the project oversight and Jupe will provide the day-to-day management of the project. Management activities include City and outside agency communication; coordination and communication regarding design tasks with the City, County and Mn/DOT when appropriate; preparation of progress reports including schedule, and invoicing.

1.2 Public Meetings

WSB and HKGI will discuss strategy and prepare exhibits for two public meetings. Specific aspects of design will be highlighted, such as through and turn lane configurations, roundabout design, and public space amenities such as landscape, walkways, trail connections and street lighting. Representatives from both WSB and HKGI will attend the meetings to collect comments, which will be summarized and implemented where appropriate and at the direction of the City.

1.3 City Council Meetings

WSB will attend and present as needed at two City Council meetings. WSB will prepare presentation aids, either electronic or hard copy, to facilitate the discussion

around the pertinent details of the design. WSB staff will be prepared to answer questions from the Council, and to implement any comments received in conjunction with City staff.

1.4 Design Review Meetings

WSB will hold five design review meetings with City staff. WSB will organize these design review meetings around major project milestones so that staff time is used effectively and appropriate input can be obtained at key points and incorporated into the project design and schedule.

1.5 Mn/DOT, County and Agency Coordination

WSB will organize regular agency coordination meetings that will include key city staff. These meetings will be used to update Mn/DOT and Ramsey County on key preliminary and final design issues as the project moves from preliminary to final design. In addition, WSB will directly coordinate with each of the Mn/DOT functional groups in order to expedite plan review. We will also coordinate directly with Ramsey County design staff on issues related to the County roads.

2. DATA COLLECTION

2.1 Traffic Counts and Observation

WSB will count A.M. peak hour turning movement at three intersections (this time period was not included in the AUAR). Observe traffic operations on Cleveland Avenue, up to three intersections, for model calibration subtask.

2.2 Topographic Survey

Design level topographic survey will be performed for the roadway and utility corridors. WSB is proposing to use our High Density Laser Scanning for the survey, which will allow us to do the survey without obtaining permission from the property owner for entry. WSB will supplement the scanning with traditional topographic survey should specific areas require it, such as storm sewer inverts.

Typical items identified by horizontal coordinates and elevations include: roadway centerline, curb and gutter, edge of bituminous, grade breaks, edge of sidewalk, signs, above-ground utility structures, valve and manhole covers, pipe inverts, storm sewer outlets, edge of water, and significant vegetation.

2.3 Utility Mapping and Coordination

This task will include ordering a Gopher State One Call design ticket, resulting in identification of all receiving entities in the area as well as triggering delivery of facility maps. We will obtain as-built plans from the City, Met Council, Ramsey County, and Mn/DOT as needed. WSB will attempt to have the facilities located in the field so they can be picked up with field survey and included on the base mapping for the project area.

Coordination with the private utilities will include mapping their facilities on our base drawing and returning it to them requesting review for accuracy. Once preliminary design has been completed, WSB will contact the utilities to identify potential conflicts and discuss necessary relocations. If necessary, a meeting will be held to resolve any remaining issues and finalize the scope of needed relocations and schedules relative to planned construction.

2.4 Wetland Delineation

A wetland delineation of the project corridor will be conducted during the growing season (May-October). Wetlands will be delineated in conformance with the US Corps of Engineers 1987 Manual and flagged in the field. The delineation will be surveyed using handheld GPS unit. A wetland delineation report will be prepared and submitted City and permitting agencies. The delineation will be reviewed in the field with these agencies to obtain approval of the delineation.

2.5 Cultural Resources

An initial assessment for the presence of cultural and historical properties will be necessary as stated in the AUAR, Section 25 prior to construction activities. WSB proposes using the 106 Group to perform this assessment for the full project, which can also be used to complete the Project Memorandum. The scope and fees for this assessment have yet to be determined. Similar to the geotechnical and environmental investigations, WSB will assist the City in developing the scope of work, and pass the cost of service to the City with no additional markup.

2.6 Base Map Preparation

WSB will incorporate the data collected into an accurate base drawing on County coordinates. This base map will be used to develop the design layouts and plan sheets, apply for permits, and communicate with utilities.

3. INTERCHANGE DESIGN (IMPROVEMENT 5)

3.1 CORSIM Modeling and Analysis

The Twin Lakes development is located near I-35W, and the traffic modeling portion of the recently completed AUAR indicated that 19 percent of the development is destined to or from I-35W. This has lead to numerous traffic related impacts, specifically the northbound ramp terminals from I-35W with Cleveland Avenue.

A freeway CORSIM model on I-35W is available from Mn/DOT for use and includes calibrated base models and future models for years 2008, 2020, and 2030. The model will require minor changes that include adding the additional traffic generated from the proposed development as well as local roadway connections with the interstate such as Cleveland Avenue and its major intersections. Therefore, the modeling effort needed to obtaining the project approval should not interfere with the project schedule since they are minor adjustments to an existing model. WSB will work diligently with Mn/DOT to update the CORSIM model and obtain expedient Mn/DOT and FHWA agreement as to the necessary improvements, the staff approved layout, and necessary documentation.

WSB will perform the following subtasks associated with the CORSIM analysis:

- Building a Base Model: Base model update of existing Mn/DOT 2008 CORSIM model including adding Cleveland Avenue and up to three intersections.
- Calibration of Base Model: Calibrate updated Mn/DOT 2008 CORSIM model along Cleveland Avenue based on observation.
- Design Year Traffic Analysis: Update Mn/DOT 2030 CORSIM model with trip generation from Twin Lakes Development. Conduct a No-Build (no improvements) analysis and a Build (with improvements) analysis.

- Opening Year Traffic Analysis: Update Mn/DOT 2008 CORSIM model with trip generation from Twin Lakes Development. Conduct a No-Build (no improvements) analysis and a Build (with improvements) analysis.

3.2 Interstate Access Modification Request

WSB contacted Kevin Sommers at Mn/DOT to gather more information regarding the extent of freeway modeling and documentation that will be necessary to complete the recommended improvements at the access ramps. He indicated that an IAR may not be required to receive Mn/DOT and FHWA approvals, as long as the CORSIM modeling indicates that improvements are not necessary on I-35W outside the intersection improvements at the ramp terminal. WSB believes that this can be substantiated through the traffic analysis, which will significantly decrease the time and effort needed to secure approvals for ramp improvements.

WSB will prepare an IAR to document the impact of proposed changes to the Cleveland Avenue and I-35W Interchange and obtain FHWA approval. The IAR will document the CORSIM freeway modeling analysis, crash analysis, and other key policy points in accordance to the FHWA guidelines for interstate access approvals. This task will coincide with the CORSIM freeway modeling efforts in terms of coordination and delivery.

3.3 Project Memorandum

WSB will streamline the environmental documentation by preparing a Project Memorandum (PM) using information gathered by the recently completed AUAR and adhering to Mn/DOT's Highway Project Development Process (HPDP). The PM will serve as the federal environmental analysis and will focus on the impacts and design criteria related to affected areas of I-35W and its access ramps to Cleveland Avenue. WSB will meet with Mn/DOT early in the process to confirm the documentation requirements and the appropriate approval authorities such as Mn/DOT State Aid and/or Mn/DOT's Office of Environmental Services. WSB has a strong understanding of the state and federal procedural requirements and will use this expertise to expedite federal and state environmental clearances for the proposed improvements.

3.4 Staff Approved Layout (30% Design) and Estimate

WSB will begin the staff approved layout process by initially meeting with Mn/DOT to establish the appropriate Staff Approved Layout Level for the type of improvements that impact I-35W. It is anticipated that the improvements will be contained to the ramp terminal intersections with Cleveland Avenue, necessitating only Level 2 layout development and approval. A second coordination meeting is anticipated after the improvements are identified from the CORSIM modeling effort. The layout development will occur on a parallel track with other efforts such as other preliminary engineering activities, Project Memorandum, and freeway modeling to minimize schedule impact.

3.5 Final Design – 60% Submittal

WSB will prepare 60% drawings for the interchange improvements. As discussed in the approach, these documents will be a portion of the overall project set, but will be submitted independently for Mn/DOT review. 60% shall include all primary design sheets, with the concepts and principles indicated or detailed. Fully developed removal

277 sheets, roadway construction drawings, utility drawings, drainage design, signing and
278 striping layout, signal design, turf establishment and restoration, and cross-sections are
279 anticipated at this submittal, leaving only the miscellaneous details and tabulations
280 incomplete. WSB will submit 60% interchange design plans and draft specifications
281 for the entire project to the Mn/DOT Area Manager for review.

282 **3.6 Final Design – 90% and Final Submittal**

283 Once 60% review is complete, WSB will address any review comments on the
284 interchange design sheets, as well as finalize the remaining details and tabulations.
285 Although we understand that there will likely be final revisions necessary before the
286 plans can be approved, the 90% plan set will contain completed design. As before, the
287 interchange sheets will be separated from the full set and submitted to Mn/DOT, along
288 with final project specifications and estimate. Any final comments on these plans will
289 be addressed and signatures obtained.

290 **4. ROADWAY AND UTILITY DESIGN**

291 **4.1 Preliminary Roadway Geometrics and Roundabout Design**

292 Using the prepared base mapping and the schematic improvements included in the
293 Infrastructure Improvements Report, WSB will verify compliance of the horizontal
294 geometrics with State Aid standards. WSB will also establish a preliminary vertical
295 alignment for the roadways, incorporating design speeds and appropriate sight
296 distances, and use the profile and typical roadway sections to develop cross-section
297 data and construction limits, modifying the geometrics as needed to best fit the
298 proposed roadway into project constraints. Preliminary roundabout geometrics will be
299 established and reviewed by MTJ Engineering, an approved Mn/DOT roundabout
300 design consultant.

301 **4.2 Intersection Control Evaluation**

302 An Intersection Control Evaluation (ICE) will be conducted and prepared for six
303 intersections within the project study area as described below. The purpose of the ICE
304 study will be to evaluate the appropriate traffic control for each intersection. This
305 could include review of potential traffic signal installation, roundabout construction,
306 four-way stop, side street stop or other intersection control. The ICE study will include:

- 307 • Collecting existing and projected traffic data;
- 308 • Preparing a roundabout concept design in enough detail to accurately perform
309 RODEL modeling;
- 310 • Conducting a capacity and level of service (LOS) analysis using SYNCRO for the
311 signal alternative and RODEL for the roundabout alternative;
- 312 • Conducting a crash analysis; and
- 313 • Preparation of a report documenting the warrants and justification for the
314 appropriate intersection control.

315 We will prepare three separate ICE reports based on the agencies that need to review
316 the report. The intersections that would be included in each ICE report and the
317 reviewing agencies are:

- 318 (1) Cleveland/NB I-35W Ramps and Cleveland/County Road C – Roseville,
319 Mn/DOT, Ramsey County

- (2) County Road C/Prior Avenue, Fairview Avenue/Twin Lakes Parkway – Roseville and Ramsey County
(3) Twin Lakes Parkway Roundabouts – City of Roseville

4.3 Roundabout Peer Review

Once the roundabout geometrics are finalized, WSB will enlist the services of MTJ Engineering, currently on the Mn/DOT approved list for roundabout design, to conduct a peer review of the layout and the proposed signing and pavement markings. WSB will incorporate any review comments into the preliminary and final design.

4.4 Water, Sanitary Sewer and Technology Conduit Sizing and Layout

The final design of the municipal utilities will be coordinated with each segment of the project. The design will be based on the findings of the AUAR and Infrastructure Study. Additional improvements to the sanitary sewer will be included based on the findings of the televising report.

4.5 Storm Water Modeling, Master Planning and Treatment Design

WSB will analyze existing storm water facilities and treatment relative to the recently-updated requirements of the Rice Creek Watershed District regarding infiltration and treatment. Because the majority of the contributing area is impervious, it is quite possible that the amount of runoff and treatment needed would be reduced. Additionally, because the contributing drainage area comprises most of Sub Area I, this analysis will lend itself to a master drainage plan. WSB will devise a master treatment plan prior to the 30% submittal for review by the City, and if acceptable, area developments and property owners. Based on the results of this preliminary planning effort, a roadway storm sewer system and associated treatment design will be designed and included in the 30% plans.

4.6 Public Space Concept Definition and Refinement

Near the beginning of the project WSB and HKGi will meet with City Public Works, Planning, Community Development and Parks staff to identify project desires and establish a plan to communicate the public space improvements amongst the different departments. Based on this input, up to three concepts will be developed as part of the preliminary design efforts and for presentation to both City Council and at public meetings.

4.7 Developer Coordination

Once the roadway geometrics and utility alignments/depths have been established, WSB will meet with area landowners and developers to discuss access and utility service needs. It is quite likely that each entity will be at a different stage of their project development. WSB will incorporate their needs as appropriate into the design, while at the same time considering State Aid design requirements for access and sight distance, as well as City utility system demands and capacities.

4.8 Staff Approved Layout Submittal – 30% Design

WSB will consolidate the preliminary design information into a comprehensive layout for approval by City and County staff. The layout will consist of horizontal and vertical roadway geometrics, roundabout geometrics, roadway profile, design speeds and sight distances, construction limits, right-of-way needs, water/sanitary sewer

alignments and sizes, and storm sewer layout. The submittal will also include cross-sectional data, preferred streetscape and public space concept, and cost estimate.

4.9 Geotechnical and Environmental Investigation

WSB will team with Braun Intertec to perform geotechnical and environmental investigations where needed once preliminary engineering has been completed. Braun has already done a substantial amount of investigations in the area, and has a working knowledge of site conditions. They will supplement this existing body of data with additional site investigations and generate a report that will set the basis for final pavement design and necessary environmental remediation. The scope for the geotechnical investigation has been prepared separately, and the associated fees have been indicated. The environmental investigation scope of services is as yet undefined, and there are no fees included for this work. Once the environmental scope can be accurately defined, WSB will prepare an additional services contract with Braun and pass the associated cost to the City without markup.

4.10 Permitting

A substantial number of permits will be required for the project: Rice Creek Watershed District, Minnesota Department of Natural Resources, US Army Corps of Engineers, Wetland Conservation Act and the National Pollutant Discharge Elimination System. WSB will prepare and submit the permit applications based on the preliminary (30%) submittal, and coordinate additional information and approvals for each entity.

4.11 Final Design – 60% Submittal

WSB will prepare final design drawings, specifications and estimate for 60% submittal purposes. 60% shall include all primary design sheets, with complete design concepts and principles indicated or detailed. Fully developed removal sheets, roadway construction drawings, utility drawings, drainage design, signing and striping layout, signal design, turf establishment and restoration, cross-sections, landscape layout, and street light layout and cross-sections are anticipated at this submittal, leaving only the miscellaneous details and tabulations incomplete. Specifications will include a complete table of contents, boiler plate documents and attachments, and standard special provisions. An updated estimate will also be provided. WSB will submit 60% plans, specifications and estimate for the entire project to the City of Roseville and Ramsey County for review.

4.12 Final Design – 90% and Final Submittal

Based on comments received, WSB will make final modifications and complete the design details and tabulations. Construction documents, including plans, specifications and estimate will be submitted to the City, County and Mn/DOT State Aid for final review. Any final comments received will be incorporated into the final bid documents and submitted to the City for bidding purposes.

B. PROJECT PHASING

As presented in the Scope of Work above, we have broken the project into four phases. Each phase is generally outlined below, and detailed task descriptions are included in the work plan. Additional details for each proposed staff member, including the task they will work on and the anticipated time commitment, is indicated on the table of estimated

hours and fees. Lastly, the timeline for the project by major task is shown on the schedule.

Phase 1, Project Management: This phase contains the management, coordination and meeting work related to the project. The timeline for this phase spans the entire project, and senior staff will be responsible for directing this effort. Deliverables in this phase include meeting minutes, presentation aids and graphics, invoices and progress reports, and correspondence with review agencies. City responsibilities include solicitation of input from affected City departments, strategy guidance for public and council meetings, and timely response to meeting action or follow-up items.

Phase 2, Data Collection: This phase is intended to assemble available data for the project, and is intended to be the preliminary step to design tasks. Personnel proposed include survey crews, traffic counters, design engineers, wetland scientists and CADD technicians. Deliverables for this phase are limited to preliminary survey, geotechnical survey, utility location, and coordination documentation, wetland delineation reports, and cultural resource assessment findings.

Phase 3, Interchange Design and Phase 4, Roadway and Utility Design: Phases 3 and 4 will take place concurrently, and they represent preparation of the final construction plan set, specifications and estimate for the project. They have been broken into two parts in order to place appropriate personnel for the Mn/DOT federal process of preliminary and final design. It is fully anticipated that these two parts of the design process will progress at different rates, and are subject to a different review requirements. The intent is to prepare one set of construction documents by the end of 2008, as reflected in the schedule, without having one review and approval process dictate the progress of the other.

As the schedule indicates, issuing final construction documents by the end of 2008 is an attainable project goal. However, there is a substantial amount of plan and permit review involved, as indicated by the thinner, yellow bars, to obtain necessary approvals. Due to the sometimes unpredictable nature of this review, the synchronized schedules for Phases 3 and 4 may be difficult to maintain. And lastly, the schedule indicates final plans submitted to Mn/DOT functional groups at the end of the year. It has been our experience that even though all comments have been addressed for the final submittal, the Mn/DOT process typically identifies a few more minor changes, before all signatures can be obtained for bidding.

Deliverables include staff approved layouts, CORSIM model, ICE reports, IAR, Project Memorandum, right-of-way plan, 30%, 60%, 90% and final construction documents and permits.

City responsibilities include overseeing all consultant work and acting as a liaison to Mn/DOT and Ramsey County. We expect the City to provide input on key design decisions and project staging. WSB will bring to the City's attention any issues that have major cost or schedule issues.

C. ADDITIONAL SERVICES

The CONSULTANT and the CLIENT may agree in writing to amend this Contract for additional services related to the PROJECT and compensation for such services. The

450 following services have not been requested by the CLIENT but are available upon written
451 authorization.

452 (1) Meetings in addition to those specified in Paragraph A above.

453 (2) Services or Deliverables not specifically identified in Paragraph A above.

454 **D. CLIENT'S RESPONSIBILITY**

455 The CLIENT shall be responsible for the following:

456 (1) Mailing lists, printing, postage and the mailing of invitations for public meetings.

457 (2) Arrangements for public meetings.

458 (3) Reproduction of all interim reports for distribution as deemed necessary.

459 **E. SUB-CONSULTANTS**

460 To complete aspects of the PROJECT as described in Paragraph A, the CONSULTANT shall
461 make separate agreements with other qualified firms listed in this paragraph. The
462 CONSULTANT shall coordinate the work of Sub-Consultants as part of the work of the
463 PROJECT. The CONSULTANT shall not remove the involvement of identified firms or add
464 the involvement of unmentioned firms without written consent from the CLIENT. Costs for
465 Sub-Consultants shall be billed directly to the City with no CONSULTANT markup. The
466 identified Sub-Consultants for the PROJECT are:

HKGI

Attn: Paul Paige

123 N 3rd Street, Suite 400

Minneapolis, Minnesota 55401

651-7125

106 Group

Attn: Anne Ketz

370 Selby Avenue

St. Paul, Minnesota 55102

651-290-0977

Braun Intertec Corporation

11001 Hampshire Ave S

Minneapolis, Minnesota 55438

652-995-2000