

Memorandum

TO: City of Ramsey
Ramsey Administrative Office
7550 Sunwood Drive
Ramsey, MN 55303
763-427-1410

FROM: Nathan Dingels, EIT
Civil Site Group

DATE: 4/25/2018

RE:

City of Ramsey,

Below are your written comments regarding Affinity at Ramsey project, in Ramsey, dated 4/10/2018. I have included my response below each question in bold red.

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Civil Site Group
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CSG RESPONSES SHOWN IN BOLD RED BELOW

Final Plat

- Drainage and Utility Easements are required around the perimeter of the lot per City Code.

CSG RESPONSE: Direction needed – with build to line requirements there is not enough room to add 10' easements along the streets or 5' easement along the east property line.

- Plans show a drainage and utility easement for proposed watermain

CSG RESPONSE: We have discussed with Leonard Linton and would like to record the waterline easement by separate instrument after installation in case there are any field modifications. Note added to proposed easement on sheet C4.0 “waterline easement to be recorded after installation prior to acceptance”

Sheet C0.0

- Public Streets need plan and profile sheets with alignments. Sanitary sewer and watermain shall be the primary focus on one set of sheets with storm sewer in a lighter pen for reference. Storm sewer and street layout shall be the primary focus on the other set of sheets with sanitary sewer and watermain in a lighter pen for reference.

Horizontal and vertical curves must be shown and labeled.

Refer the the City engineering standards for guidance.

CSG RESPONSE: To be completed after street and utility alignments are approved in this submittal.

- Show proposed alignment for future parkway and de- emphasize existing ROW lines.

CSG RESPONSE: Coversheet modified, no future alignment was provided by the city.

Sheet C1.0

- This sheet shows removing storm sewer. The utility plans shows connecting new pipes to this storm sewer. Installation of new pipe is not shown in plans. Revised plan set to address this inconsistency.

CSG RESPONSE: Plan has been updated to show complete removal of existing storm system.

- Label length of curb to be removed. Saw cut curb full depth at next nearest joint. Bituminous repair at curb removal per city details STR-25

CSG RESPONSE: Sheet C1.0 revised. Detail added to sheet C5.3

- Remove both ped ramps patch bituminous pavement at curb removal per city detail STR-25

CSG RESPONSE: Sheet C1.0 revised. Detail added to sheet C5.3

- Legend not complete there are symbols and line types not shows D

CSG RESPONSE: Line types not shown are simply lines in the survey changed to bold to emphasize removal. We do not include every single line type for removal as they are shown on the complete legend on sheet C0.0. The legend on sheet C1.0 shows only our removal lay-over linetypes. We see this sheet to be explanatory enough as is.

- Show Removal of Pavement for watermain connection / lowering

CSG RESPONSE: Sheet C1.0 revised accordingly

- Tree Removal and Tree Protection symbols are included in the legend but not in the plans. Add them to the plans.

CSG RESPONSE: Individual trees were not surveyed. A note is shown on the plan to remove all existing trees within the construction limits. These symbols have been removed from the legend since they are not use on the plans.

- Show all the storm sewer removals, pipe removal going off page, if another page is needed/used, call out the sheet number and include matchlines.

CSG RESPONSE: Sheet C1.0 revised. Sheet C1.1 added showing Bolton & Menk Storm Sewer removals

- Water and sanitary sewer services need to be removed back to the main. Storm sewer need to be bulk headed in the manhole and pipe removed.

CSG RESPONSE: Sheet C1.0 revised accordingly and C1.1 added. We believe the existing storm system is still serving Bunker Lake Blvd and Center Street and can't be totally abandoned. The revised design incorporates leaving this system active.

- Saw cut trail full depth show parking sign to be removed sign removal shall be done without any damage to signs.

CSG RESPONSE: Sheet C1.0 revised accordingly

Sheet C2.0

- Turn off interior building lines on ALL Civil sheets.

CSG RESPONSE: All sheets revised accordingly

- If dumpsters will be stored/staged here, the area will need to be fenced to screen the dumpsters from public view. Screening must match material of the principal structure.

CSG RESPONSE: The dumpsters are stored within the building and only pulled out for a short period of time on collection hours. The addition of an outdoor staging screening would be a deterrent to the project and defeat the substantial cost of creating storage space within the building.

- The interior building schematic in the background makes notes unreadable. consider removing from plans. All lines should be broken behind text.

CSG RESPONSE: All sheets revised

- Label Ped Ramps / call out detail sheet number. Pedestrian Ramps within City ROW must have individual site specific details with spot elevations at; 0" & full height back of curb, corners at top of ramp and corners of landing. Dimension length of ramp and clearly identify landing area.

CSG RESPONSE: To be completed after street and utility alignments are approved in this submittal.

- Dome will follow the curb radii.

CSG RESPONSE: Note added to Ped Ramp callouts on Sheet C2.0

Sheet C3.0

- Turn off interior building lines on ALL Civil sheets.

CSG RESPONSE: All sheets revised

- Public Street Improvements require Plan and Profile Sheets. Public Street Improvements will require additional review. Current review is focused internal to property lines so building permit can be issued. Gravel driveway must be provided to building.

CSG RESPONSE: To be completed after street and utility alignments are approved in this submittal. Note 18 has been added to sheet C2.0: "Maintain an all-weather access road to the building footprint as required for FDP access."

- Swale is not permitted at this location. This is City property and could be used for future development. If street flooding is a concern then add an additional catch basin at the low point. This property will be filled with future development and the swale will go away.

CSG RESPONSE: The swale is being constructed as a temporary EOF protection swale to ensure flooding of the building will not occur. After future city improvement occur, the Swale will no longer be necessary as the grade of the northern area between West Ramsey Parkway and the pond will be lowered, eliminating the need for the swale cutting through the currently raised grade. Sheet C3.0 Revised to combine the storm sewer outlet and the EOF swale north of West Ramsey Parkway.

- Remove from plan if not for contractor use.

CSG RESPONSE: Earthwork numbers removed

- Add Matchlines, call out sheet number for proposed grading off sheet.

CSG RESPONSE: Sheet C3.0 and C3.1 revised

- Existing contour line type in the plans does not match the line type in the legend, revise.

CSG RESPONSE: Sheet C3.0, SW1.0 and SW1.1 revised.

- Remove interior building schematics

CSG RESPONSE: All sheets revised

- Clean up overlapping spot elevations, not readable.

CSG RESPONSE: Some elevations added to a frozen layer. Readability should be better in this area now.

- SE Corner of site showing slopes > 1:3, revise.

CSG RESPONSE: Sheet C3.0 revised

- Low point approx. 15 feet apart along roadway, can this work without adjusting 2% crown in road?

CSG RESPONSE: Sheet C3.0 and C4.0 Revised

Sheet C3.1

- Break or mask lines behind text for legibility.

CSG RESPONSE: Spot elevations relocated to improve legibility.

- The existing pipe is shown to be removed on the removals plan. New pipe to be added must be shown on Utility plan. Explain why existing pipe must be removed and replaced.

CSG RESPONSE: Drawing coordination updated and recent Bolton & Menk report & conference call information incorporated.

- Include hatch in legend, or consider only having in restoration sheet.

CSG RESPONSE: There is no hatch for swales. What you're seeing is a combination of topographical contours and erosion control blanket. Language for callouts revised and Legends revised for clarification to sheet C3.1. Only contours shown on side slopes, with erosion control blanket hatch removed, and language added for clarification.

- Add proposed contour labels. Call out proposed slope

CSG RESPONSE: Sheet C3.1 revised to show contour labels.

- Swale outlet at Pond is 861, which is higher than discharge from FES 860.23, water will not flow towards pond.

CSG RESPONSE: Swale mentioned above has been removed.

- western 2 swales are virtually flat grade from outlets to pond, are they intended to act as infiltration?

CSG RESPONSE: One of the two is being removed. The other is there to act as a temporary outlet for the city pond prior to the completion of construction by the city. The NWL of the pond is proposed at a 861, and the location we were instructed to end the outlet is at the CB in Sundwood drive with an IE of 859.99, so the swale is designed to the best of our ability to provide the action the city is requesting.

Sheet C4.0

- Extend Sewer and Watermain stubs 10 feet beyond back of curb. Mark with Carsonite markers, green for sewer, blue for water. Stubs must be parallel to future road alignment.

CSG RESPONSE: Per conversations with the City of Ramsey we are showing correct stub lengths and locations. To the northwest following the future road alignment as well as straight to the north for the future park development to the North East of West Ramsey Parkway.

- Public street design requires calculation of spread at each catch basin. Spread cannot exceed MNDOT guidelines. Plan and profile sheets are required for all public streets, with sewer and water on a separate sheet from storm sewer. Sewer and water must be shown on street and storm sewer in a screened pen. All storm sewer in public right of way must be designed for 100 year storm in keeping with regional ponding plan for the COR area.

CSG RESPONSE: Plan and profile to be completed after street and utility alignments are approved in this submittal.

Storm sewer is sized for the 10 years storm and EOF route protection provided for the 100 year storm. This will be adequate to provide flood protection and adequate storm sewer capacity.

- Verify Pipe will have minimum 3 fps flow at full capacity. Typical minimum slope for 42in. pipe is 0.0007 ft/ft.

CSG RESPONSE: Storm sewer alignment and sizing revised per revised reports, see sheet C4.0

- Depressed median requires impermeable liner and drain tile connected to storm sewer.

CSG RESPONSE: Sheet C4.0 revised to show correct proposed depressed median design per typical section provided by Bolton Menk. Detail 1/C5.4 added.

- New gate valve may be installed for testing purposes. The new valve shall be full opened after testing and abandoned in place.

CSG RESPONSE: Sheet C4.0 revised accordingly

- Building service Sanitary connections shall be in a manhole on the main line. Each sanitary sewer manhole shall have 0.1 ft drop across inverts

CSG RESPONSE: Sheet C4.0 revised accordingly.

- City Streets must include Alignment, Profile View. Public Utilities must be shown in profile view.

CSG RESPONSE: Plan and profile to be completed after street and utility alignments are approved in this submittal.

- Call out Watermain Bends - Size and Angle

CSG RESPONSE: Sheet C4.0 Revised accordingly

- Need Matchline, call out sheet for Storm Sewer improvements going off sheet.

CSG RESPONSE: Sheet C4.0 revised accordingly

- Note calls out existing hydrant, hydrant is cut off from plan view

CSG RESPONSE: Sheet C4.0 revised accordingly

- Watermain Valve and Storm Sewer Pipe are shown in the same location at the intersection - adjust valve location.

CSG RESPONSE: Sheet C4.0 revised accordingly

- Several Pipes are below typical minimum slope for cleaning velocity. 18" RCP typical 0.0022 ft/ft. based on MN Drainage Manual. Verify minimum 3 fps.

CSG RESPONSE: Sheet C4.0 revised to propose sufficient pipe slopes to ensure minimum flow velocities. Storm sewer sizing spreadsheet provided as supplemental info to prove ± 3.00 cfs flow is achieved in pipes. See ACTUAL column for actual velocities achieved in pipes. All are above or within a marginal difference from 3.00 cfs. Due to the request of 0.1' drops through structures, the shallow nature of the site and storm system, the building connection to the internal storm system, the design of the bioretention median, and the outlet to the city pond, the best possible slopes were provided in the system. The limitations were too great in some cases to achieve exactly 3.00 cfs, but the velocities should be within a margin of error that is acceptable to the city.

- 12" Pipe typical 0.0037 ft/ft slope to meet min. 3 fps flow.

CSG RESPONSE: Sheet C4.0 revised to propose sufficient pipe slopes to ensure minimum flow velocities. Storm sewer sizing spreadsheet provided as supplemental info to prove ± 3.00 cfs flow is achieved in pipes. See ACTUAL column for actual velocities achieved in pipes. All are above or within a marginal difference from 3.00 cfs. Due to the request of 0.1' drops through structures, the shallow nature of the site and storm system, the elevation of the building connection to the internal storm system, the design of the bioretention median, and the outlet to the city pond, the best possible slopes were provided in the system. The limitations were too great in some cases to achieve exactly 3.00 cfs, but the velocities should be within a margin of error that is acceptable to the city.

- CB's should be placed in low point across from each other.

CSG RESPONSE: Sheet C4.0 revised accordingly

- City required 0.1' Drop across structures. Need to give structure size/type. Need casting information.

CSG RESPONSE: Sheet C4.0 revised to show drops. Casting Schedule added to sheet C5.0 (Detail 5)

- Is this existing structure large enough to handle 24" pipe from south at this angle? 84 - 96"?

CSG RESPONSE: All existing storm sewer in and north of West Ramsey Parkways now scheduled to be removed.

- Would expect this to be a manhole. would it be possible to move MH B here, and add additional MH at north 8x8 WYE?

CSG RESPONSE: Wyes revised to be manholes on Sheet C4.0

Sheet C4.1

- Drantile must be on private property, not in public right of way

CSG RESPONSE: Sheet C4.1 revised and notes added to ensure Drantile is constructed only on private property

- Drantile should staying within property boundary.

CSG RESPONSE: Sheet C4.1 revised and notes added to ensure Drantile is constructed only on private property

- The grading plan shows approximately 866.5 st gutter, will pipe be structurally sufficient for <1.5' of cover?

CSG RESPONSE: Sheet C4.0 revised, pipe no longer is being proposed.

Sheet C5.0

- Street Specific typical sections are required which match the layout of the plans.

CSG RESPONSE: Sheet C5.2 revised to show accurate detail for West Ramsey Parkway street section (Detail 5). Detail on sheet C5.2 for West Town Center Drive street section is accurate and will remain.

- Several required details are missing:

Ribbon Curb

City STR-26 Modified Class 5

City WAT-1 Hydrant

City WAT-4 Joint Connection City WAT-5 Commercial Service

City WAT-7 Watermain Lowering

City STO-5 Slab Top Manhole Cover

City STO-4 Stormwater Casting

City SEW-2 Water Tight Casting

CSG RESPONSE: All relevant details added to sheets C5.0 thru 5.5

Sheet C5.2

- These Typical do not appear current

CSG RESPONSE: Detail revised on sheet C5.2 per the new layout and median design.

Sheet C5.3

- Pedestrian Ramps within the City ROW required a site specific layout which follows the MnDOT 6 Sheets. These layouts must have spot elevations at the top of ramps, corners of landing areas, BOC at full curb height and 0" curb height locations. Call out radius of BOC, use radial truncated domes whenever possible. Landing area must be clearly identified. Details must be scaled and location and/or ID by plan.

CSG RESPONSE: To be completed after street and utility alignments are approved in this submittal.

Sheet SW1.0

- Where is the work going off the sheet, this must be included in the plans. If a separate sheet is used a matchline and call out sheet sheet number

CSG RESPONSE: Match line added to Sheet C3.1 and SW1.0

Sheet SW1.1

- Show additional work going off page

CSG RESPONSE: Match line added to Sheet C3.1 and SW1.1

Sheet SW1.3

- Weekly inspection logs and after every 0.5" rainfall event must be submitted to City Inspector. The entire history must be submitted to City prior to final acceptance.

CSG RESPONSE: Note revised on sheet SW1.3

- Did not see any information regarding the NOT. The NOT must be provided to the City for review prior to submittal.

CSG RESPONSE: Adequate info on the notice of termination nature and timing being provided. Additional language added regarding city submittal of the N.O.T.