CITY OF Apple Valley

MEMO

Public Works

TO: Kathy Bodmer, Planner

FROM: Brandon S. Anderson, PE, City Engineer

DATE: October 11, 2017

SUBJECT: Bigos Kelley Park (Parkside Phase 3) Zoning Amendments to PD-739 Review per Preliminary Plan Review dated October 11, 2017.

General

1. An Encroachment agreement will be required for all decks, patios, sidewalks, etc. located within drainage and utility easements.
2. Vacation of drainage and utility easements over existing storm water facilities and water main will need to occur with final plat. Additional drainage and utility easements may be required for public infrastructure relocations.
3. A public improvement project is anticipated with this project for the relocation of water main, storm sewer, roadway and storm water facilities.
4. All proposed retaining walls shall be privately owned and maintained.

Site & Traffic

1. Provide Traffic Impact study. The analysis should review the impacts to the following intersections and include a 2030 analysis:
    a. Foliage and 153rd / Founders Lane
    b. Foliage and Fortino St
    c. Foliage and 152nd
    d. Galaxie and 152nd
    e. Galaxie and 153rd
    f. Galaxie and Founders Lane

    Additional detail describing the number of service vehicle types, residents and guests are required to be included in a Traffic Trip Generation memo by the applicant for internal circulation review of traffic.
2. Provide a narrative of how the buildings will be constructed and any impacts. The narrative shall include the following:
    a. Shoring and construction of the underground garages.
    b. Material Storage.
    c. Haul routes to and from the site.
    d. Phasing
3. Show truck movement with Auto turn entering site to ensure emergency and service vehicle can maneuver directly to front entrances and within the parking lots.

4. Additional Pedestrian markings and signage on public roadways should be evaluated further for safe routes to the Public Park and adjacent facilities.
5. Plans should include reference to all used City of Apple Valley standard detail plates.
6. Show locations of proposed lighting fixtures for parking lots and site.

BLOCK 9

Site

1. Relocate the driveway entrance off Galante Lane (shift to the north slightly) to align with the existing driveway access to the west.
2. Existing on-street parking stalls, curb and gutter and sidewalks shall be adjusted with Galante Lane to provide angled parking with adequate separate from relocated driveway entrance.
3. The sidewalk along the south of the proposed driveway entrance should be relocated to alignment with the sidewalk connection to the north of the entrance.
4. A commercial driveway entrance is required at all access points to public roadways per AV Plate No. STR-4 or STR-5.
5. Provide pedestrian curb ramp per MNDOT standard detail plates at all driveway crossings.
6. Additional ROW or Sidewalk and Trail Easements are required for the additional sidewalk along Fresco Terrace. Sidewalk shall be per City of Apple Valley Ring Route Standards.
7. SE corner of building is encroaching into drainage and utility easement.
8. Parking lot is encroaching into drainage and utility easements in the SW corner and SE corner.
9. Removals plan should show all required patching of public roadways and sidewalks.
10. Site plan should show site line triangles at access entrances as well as on the landscape plan.

Grading, Drainage and Erosion Control

11. The City of Apple Valley Storm Water Management Plan shows public infrastructure on the site (WVR-P440.2 and WVR-P440.3). A mitigation plan for the impacted storm water basins should be provided. Public drainage contributes to these basins and future stormwater management would be required to be public infrastructure.
12. Routing of storm water goes to WVR-P440.1 to the east of Foliage. The NWL, 100-year HWL and EOF should be indicated on plan sheets for storm water pond and infiltration basins. Hydraulic calculations shall be approved by the City Engineer.
13. Final Grading Plans shall be reviewed and approved by City Engineer.
14. Final Stormwater Management Plan shall be reviewed and approved by City Engineer.
15. Some re-grading of boulevard may be necessary to accommodate the EOF for the infiltration basins.
16. Curb cuts and pretreatment devices should be considered for infiltration basin 2. This cell should be the primary treatment of proposed parking lot.

17. Provide the overall site composite Curve Number (CN) along with the impervious % on the area tabulation.
18. Soil borings/testing shall be provided in the area of infiltration features prior to building permit authorization.

Storm Sewer

19. Final locations and sizes of Storm Sewer shall be reviewed with the final construction plans and approved by City Engineer.
20. Provide storm sewer calculations for stormwater requirements. (Rational method including Hydraulic grade lines).
21. Re-route outlet from Infiltration Basin 2. This should not be routed to underground storage, but to infiltration basin 1.
22. Existing 24" RCP from Fortino should be relocated away from the infiltration basin 1 outlet to prevent short circuiting of basin.
23. Existing 21" RCP FES from WVR-P440.3 (infiltration basin 1) shall be removed.
24. An underground infiltration system construction and maintenance agreement will be required as part of the development agreement.
25. Provide details of the proposed underground storm water system on the plans. Utility plans should clearly show system layout to ensure light poles and other obstructions are not in conflict.

Sanitary Sewer and Water Main

26. Final locations and sizes of Sanitary Sewer and Water main shall be reviewed with the final construction plans and approved by City Engineer.
27. All water mains located within right of way and public easements for purposes of connection to public infrastructure shall be ductile iron pipe and meet all City standards.
28. Domestic water and Fire service shall be split outside the building and the valves shall be located 1.5 times the height of the building away from the building or placed in location readily accessible per SER-6.
29. Remove unused sanitary and water service to the main and indicate on plans.

Landcape and Natural Resources

30. Quantities and locations of trees should be indicated on plan to show diversity of species.
31. Restoration/Landscape plan should indicate required buffers and appropriate seed mixtures for infiltration area, aquatic bench and upland areas associated with any stormwater basins.
32. Landscape plan should clearly indicate drainage and utility easements and property line.
33. No major tree plantings shall be located over any underground utilities. Clusters of trees shall be used near or around these areas instead of planting in a row. The Drainage and Utility Easement will require clearance around the underground utilities, or the expectation that trees may have to be removed for access when needed.
34. Raingarden design and construction standards, plans, and details are incomplete for the project at this time. The City would recommend following the guidelines of the Dakota

County LID Standards (http://www.dakotaswcd.org/pdfs/Dakota%20LID%20Standards%20Revised%2002-09-12.pdf) for construction and design as well as the Minnesota Storm water Manual.
    a. Dakota County Soil and Water Conservation District may be available to suggest alternative storm water practices for the site.
35. Raingardens generally need to remain offline until vegetation is established, which can be more than a year for native plant seed mixes.
36. Provide cross section and detail for the proposed infiltration basins. Proposed elevations, soil mix, plantings, etc.…should be clearly detailed.
37. The raingardens appear to currently be designed to >2.5' deep. Soils maps show that the soils on the property are likely C soils. The Minnesota Storm water Manual recommends using an infiltration rate of 0.2"/hr. for C soils.
    a. >2.5' is too deep a depth to infiltrate in C soils within 48 hours as required by state regulations. Raingardens should be no deeper than 6"-9" deep in C soils. Raingardens shall be designed shallower and larger in area to meet state infiltration requirements and city storm water requirements.
38. Pre-treatment is required prior to entering the raingarden. Rain Guardians have been effective for this type of proposed storm water system.
39. The raingardens shall not be installed over any utilities.

BLOCK 10

Site

1. A commercial driveway entrance is required at all access points to public roadways per AV Plate No. STR-4 or STR-5.
2. Provide pedestrian curb ramp per MNDOT standard detail plates at all driveway crossings.
3. Additional ROW or Sidewalk and Trail Easements are required for the additional sidewalk along Fresco Terrace. Sidewalk shall be per City of Apple Valley Ring Route Standards.
4. NW, SW and SE corner of building is encroaching into drainage and utility easement.
5. Dog Run area is encroaching into drainage and utility easement.
6. Parking lot is encroaching into drainage and utility easements along Foliage Avenue.
7. An ISD 196 Fiber optic line exists along Foliage and should be located and indicated on plans.
8. Proposed retaining wall to parking garage will encroach into drainage and utility easements. A detail for the proposed guard rail and fence is required.
9. Removals plan should show all required patching of public roadways and sidewalks.
10. Site plan should show site line triangles at access entrances as well as on the landscape plan.

Grading, Drainage and Erosion Control

1. Final Grading Plans shall be reviewed and approved by City Engineer.
2. The City of Apple Valley Storm Water Management Plan shows public infrastructure on the site (WVR-P440.2 and WVR-P440.3). A mitigation plan for the impacted storm water

basins should be provided. Public drainage contributes to these basins and future storm water management would be required to be public infrastructure. Any onsite storm water management as well as impacted public infrastructure should be denoted on the plans.

3. Routing of storm water goes to WVR-P440.1 to the east of Foliage. The NWL, 100-year HWL and EOF should be indicated on plan sheets for storm water pond and infiltration basins. Hydraulic calculations shall be approved by the City Engineer.
4. Final Storm water Management Plan shall be reviewed and approved by City Engineer.
5. Some re-grading of boulevard may be necessary to accommodate the EOF for the infiltration basins.
6. Curb cuts and pretreatment devices should be considered for infiltration basin 3. This cell should be the primary treatment of the proposed parking lot. Direct parking lot drainage to infiltration basin for treatment prior to discharge to the storm water system.
7. Provide the overall site composite Curve Number (CN) along with the impervious % on the area tabulation.
8. Soil borings/testing shall be provided in the area of infiltration features prior to building permit authorization.

Storm Sewer

9. Final locations and sizes of Storm Sewer shall be reviewed with the final construction plans and approved by City Engineer.
10. Provide storm sewer calculations for storm water requirements. (Rational method including Hydraulic grade lines).
11. Provide detail for FES 1 which is shown through retaining wall.

Sanitary Sewer and Water Main

12. Final locations and sizes of Sanitary Sewer and Water main shall be reviewed with the final construction plans and approved by City Engineer.
13. All water mains located within right of way and public easements for purposes of connection to public infrastructure shall be ductile iron pipe and meet all City standards.
14. 8” water main extending N-S along the eastern side of side will need to be removed and relocated to location as determined by City Engineer.
15. 8” water main along the south building line will need to be relocated to location as determined by City Engineer.
16. Domestic water and Fire service shall be split outside the building and the valves shall be located 1.5 times the height of the building away from the building or placed in location readily accessible per SER-6.
17. Remove unused sanitary and water service to the main and indicate on plans.

Landscape and Natural Resources

40. Provide landscape plan for review by staff.
41. Quantities and locations of trees should be indicated on plan to show diversity of species.
42. Restoration/Landscape plan should indicate required buffers and appropriate seed mixtures for infiltration area, aquatic bench and upland areas associated with any storm water basins.
43. Landscape plan should clearly indicate drainage and utility easements and property line.

44. No major tree plantings shall be located over any underground utilities. Clusters of trees shall be used near or around these areas instead of planting in a row. The Drainage and Utility Easement will require clearance around the underground utilities, or the expectation that trees may have to be removed for access when needed.
45. Raingarden design and construction standards, plans, and details are incomplete for the project at this time. The City would recommend following the guidelines of the Dakota County LID Standards (http://www.dakotaswcd.org/pdfs/Dakota%20LID%20Standards%20Revised%2002-09-12.pdf) for construction and design as well as the Minnesota Storm water Manual.
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