



DEPARTMENT OF PUBLIC WORKS

Fred Abadi, PhD, PE, Director

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**ENGINEERING COMMENTS
FOR
PLAN COMMISSION
AGENDA
Wednesday
April 13, 2016
REVISED**

Time: 6:30 p.m.

Place: Waukesha City Hall, 201 Delafield Street, Council Chambers

I. Call to Order

II. Pledge of Allegiance

III. Roll Call

IV. Approval of Minutes

ID#16 -400 Minutes for the Meeting of March 9, 2016.

V. Consent Agenda

PC16 -22 Oconomowoc Landscape Supply Center Ltd., 2112 S. West Avenue –
Conditional Use

1. No Comments.

PC16 -0001 Stillwater Villas, PUD and Final Site Plan and Architectural Review

1. The following items should be submitted:

a. Applicable fees per Chapter 32.07(b). The Engineering Division requires any Bonds or Agreements required by the Plan Commission and Council or Chapter 32.08(c). Development fees will be owed to the City for this project.

b. Chapter 32.07(b)(2): Once all submittal items are completed, submit all items listed in sub.(b)(1)(A)-(G) in digital form for City filing.

ENGINEERING DIVISION

Paul G. Day, PE
City Engineer
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MUNICIPAL PARKING SERVICES

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STREETS DIVISION

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WASTEWATER TREATMENT PLANT

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WWTP Manager
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WAUKESHA METRO TRANSIT

Brian Engelking
Transit Director
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- c. Condominium Plat per Wisconsin State Statute 703.
 - i. The storm water management plan, construction drawings, storm water facility maintenance agreement, easements, Developer's Agreement, and Bonds should be reviewed and approved prior to the Condominium Plat being finalized. If the location of any units need to be changed as a result of the approved construction drawings, the Plat should be updated to reflect the needed changes.
 - d. Waukesha Water Utility approval.
- 2. Permits will be needed for the Stillwater Villas project. Provide copies of approved project permits to the City for filing. Needed permits include but are not limited to:
 - a. Wisconsin Department of Natural Resources NR 216 N.O.I. Permit.
 - b. City of Waukesha Construction Permit.
 - c. City of Waukesha Storm Water Permit.
 - d. Private sanitary sewer approval.

Sheet T1-Cover Sheet

1. No comments.

Sheet C1.0 – Existing Site Plan

- ~~1. Existing wetlands are shown along the areas adjoining the Fox River. The date of delineation and name of the wetland delineator should be listed on the Drawing. If the delineation was completed over 5 years ago, a current wetland delineation should be completed and surveyed for addition to this Drawing.~~
- ~~2. The Waukesha County GIS shows existing wetlands along the west side of this property that are not shown on this Drawing. A copy of the latest wetland delineation should be submitted for review confirming the presence of no wetlands in this area. If no wetland confirmation can be submitted dated within the previous 5 years, a current wetland delineation should be completed and surveyed for addition to this Drawing.~~
 - a. Provide DNR concurrence of wetlands marking.
3. A Primary Environmental Corridor is shown on the Drawing. A note stating the source of this information should be added to the Drawing.
- ~~4. A 100 year floodplain line is shown on the Drawing. A note stating the source of this information should be added to the Drawing.~~
5. Existing easements on the site should be shown including source documentation.

Sheet C1.1-Proposed Site Plan

- ~~1. Buildings 1 and 4 appear to be placed within the building setback area. The buildings should be moved.~~
2. If wetlands are present, the buildings should be outside the wetland setbacks.
- ~~3. Adequate snow storage should be provided at the north end of the eul-de-sac.~~
4. Proposed easements including utility easements should be shown.
5. Proposed street signage should be added to the plan. Signs should include but not be limited to: street name sign, monument sign, etc.

Sheet C1.2 Master Grading Plan

- ~~1. Existing storm sewer is shown on this property connecting to City storm sewer in Stillwater Circle. The same segment is shown on Sheet C1.2 with no limits indicated of existing versus proposed pipe. The invert at the end and end of pipe of the existing storm sewer pipe should be listed to confirm the limits of installation.~~
- ~~2. Locations of soil test pits should be shown.~~
- ~~3. Existing topography should be extended at least 100 feet off site.~~
- ~~4. The proposed basement floor elevations are listed with different elevations than the proposed exposure elevations for buildings 5 to 10. Please confirm.~~
- ~~5. It is noted that several items in the storm water management plan comments relate to the layout shown on this plan.~~
- ~~6. A 100-year floodplain line is shown on the Drawing. The elevation of the floodplain line at known locations along the east lot line should be listed.~~

Sheet C1.3 Erosion Control Plan

- ~~1. A construction sequence should be added.~~
- ~~2. Chapter 32.09(c)(9): Dewatering specifications should be added to the plan.~~
- ~~3. Chapter 32.09(d)(2)(xiii): Final site stabilization instructions should be included in the plan set including seed rates, methodology, fertilizer and erosion matting locations and specifications, and maintenance requirements.~~
- ~~4. Chapter 32.09(d)(2)(xiv): Detailed construction notes for the dewatering plan should be included on the plan.~~
- ~~5. Chapter 32.09(d)(2)(iv): All woodland areas, those proposed to be lost or transplanted during construction and acres or numbers of each. For woodlands proposed to be lost, show individual trees larger than eight (8) inches in diameter that are located within twenty (20) feet of proposed grading boundaries.~~

- ~~6. Chapter 32.09(d)(2)(xiv): Inspection requirements should be added to verify that critical elements of the plan are successfully accomplished such as protecting the wetland areas, marking and protecting trees in the Primary Environmental Corridor Areas from damage from the Contractors, installation of the rain gardens.~~
- ~~7. Chapter 32.09(d)(2)(xiv): The dates for the grading work should be added to the Drawing.~~
- ~~8. Chapter 32.09(d)(2)(C)(iii): Open channel design and stabilization data should be prepared to support the selected BMP(s) for stabilization.~~
9. Chapter 32.09(d)(2)(xv): Location of soil evaluations with surface elevations and unique references to supplemental soil evaluations report forms in accordance with section 32.11(c). A separate map should show estimated seasonal water table depths down to planned excavation depths with references to the proposed site plan.
 - a. A minimum 1-foot vertical separation between the seasonal high groundwater table elevation and the basement floor surface should be included in the design.
 - ~~b. Two soil borings are needed in each proposed rain garden.~~
 - c. Soil borings are needed in the proposed dry pond.
- ~~10. Chapter 32.10(d)(4)(E): Subsurface drainage. Lowest building floor surfaces shall be built one (1) foot above the seasonal high water table elevation, as documented in the soil evaluations and shall avoid hydric soils.~~
- ~~11. The erosion control/master grading plan should include a table listing the minimum basement elevation based on the existing water table for each lot. A note on the Condominium Plat should reference to this information.~~
- ~~12. The Non-Disturbance area within the Primary Environmental Corridor area should be labeled and protected with the appropriate boundary fencing.~~

Sheet C1.4 Roadway and Storm Sewer Plan and Profile

1. Confirm that the cul-de-sac is sized properly for the City's fire trucks.
2. A note should be added: Repair limits in street will be determined in field at the time of permanent repair.
3. The concrete sidewalk at the apron and the apron should be 7 inch thick concrete sidewalk.
4. Show grades for match point of curb removal and replacement along Stillwater Circle.
5. Show spot grades for sidewalk (Face of Walk and Back of Walk).

6. Show removal limits for whole street from flange to flange. The street will need to be milled and paved.
7. Add Note: Removal limits of repair are approximate and will be determined in the Field by the City.

Sheet C1.5 Sanitary Sewer and Water Main Plan & Profile

1. Specifications for public sanitary sewer work should be added to Sheet C1.7.
2. Dimension distance from back of sidewalk to sanitary manhole #1 – make sure manhole is entirely on private property.
3. The City has experienced maintenance related issues with laterals connected directly to manholes. Manhole #3 shows two lateral connections. The engineer may want to consider connecting these laterals instead to the sewer main to avoid these potential maintenance issues.

Sheet C1.6 Construction Notes and Details

1. Add City driveway detail. Indicate 7 inch thick concrete.
2. Add City standard curb and gutter detail.

Sheet C1.7 Construction Notes and Details

1. Specifications for infrastructure including materials and installation procedures for all work should be added to the Drawings including outlet structure material, bedding, backfill, sanitary sewer, frames and lids, sidewalk construction, etc. The City requires polypropylene chimney rings on new construction. These specifications can be sent to the Engineer.
2. Chapter 32.10(e)(4)(c): A scaled cross section of the pond, soil tests, and outlet structure detail should be shown.
3. ~~Rain gardens are proposed as part of the development. Proposed landscaping of the rain gardens should be included in the Plan.~~

Landscape Plan

1. No comments.

Storm water Management Plan

1. ~~The storm water management plan states, “The subject property is a 4.18 acre lot that was created as part of the River’s Crossing Addition No. 3 subdivision and all storm water runoff from the proposed site was accounted for in the wet storm water detention basin located further south, behind the homes on the east side of Stillwater Circle.”~~

- b. ~~A copy of the original storm water management plan showing that the detention basin referenced in the note was intended to provide the storm water detention flow reduction for this 4.18 acre site was included in the plan.~~
 - c. ~~In the documents submitted for the storm water plan for River's Crossing Addition #3, the basin existing and proposed basin areas are difficult to review if they match. It appears that only portions of the storm water plan are submitted. Please confirm the existing and proposed basin areas directed to the pond.~~
2. ~~The storm water management plan states, "The original master plan for the proposed site envisioned 20 single family condominium homes on a private drive. Bielinski Homes is now proposing 18 units of duplex condominiums,while still meeting the intent of the master plan."~~
- a. ~~It appears that the existing downstream pond is undersized. Confirm that the downstream pond is adequately sized to handle the proposed flows to be directed to the pond and confirm that no adverse flooding or adverse ponding heights will not occur at the City pond located behind Lot 362 to Lot 366 of Rivers Crossing Addition No. 2. Also, confirm if the addition of this flow will cause any adverse flooding or ponding at any upstream connected ponds or connected back yard areas in relation to the most downstream City pond. The proposed ponding elevations in the back yards should not be any higher than currently exists. An additional storm water facility area or larger facility should be provided if flooding or storm water Ordinance design criteria are not met.~~
3. Chapter 32.10(d)(4)(H)(i): The lowest elevation of a structure must be a minimum of two (2) feet above the maximum water elevation produced by the 100-year, 24 hour storm. The buildings must be set back 40 feet horizontally from the location of this high water elevation from the ponds.
- a. Please confirm.
4. ~~The appropriate tailwater elevations should be used.~~
5. ~~Chapter 32.10(d)(6)(G): Provide storm sewer design computations.~~
6. ~~Chapter 32.10(b)(E): If possible, impervious surfaces, such as the private drive, should drain to vegetated areas for pollutant filtering prior to discharging downstream. If possible, pretreatment should be provided for the inlet structures from the private drive prior to discharging runoff to the public storm sewer.~~
7. Cost estimates for the installation of proposed storm water BMPs shall be provided.

8. ~~Chapter 32.10(d)(2): For new land development, 80% reduction in total suspended solids should be provided.~~
 - a. ~~The report states that “this plan does not recreate the larger Rivers Crossing Add. 3 storm water management plan, which met City requirements for peak flow reduction and water quality;”. The current plan does not address the water quality for the private drive tributary area and appears to assume that the down stream City pond provides adequate water quality removal. It appears that the existing City pond is undersized for water quality removal in relation to the existing tributary area. Confirm that the downstream City pond was adequately sized for water quality. An additional storm water facility area should be provided if the existing facilities are under sized to provide water quality in accordance with the current Ordinance.~~
9. ~~Chapter 32.10(d)(3): Provide infiltration compliance documentation.~~
10. The report lists the soils are loamy soils. The water quality calculations input the soils as silty soils. Please confirm.

Storm Water Maintenance Agreement

1. Chapter 32.12: The storm water agreement should comply with said Section. The City’s storm water facility easement agreement template can be sent to the Engineer.
2. Submit maintenance plan for catch basins and environmental catch basins.
3. Chapter 32.10(e)(12)(i): Cost estimates for the installation of the proposed BMPs.
4. Chapter 32.12(b): For subdivisions, all storm water BMPs shall be located on outlots. For all privately owned outlots, ownership shall be by proportional undividable interest for all properties that are within the control of the applicant and drain to the BMP. However, the applicant may combine ownership of more than one BMP within the site. Ownership of storm water facilities shall be the same as those assigned maintenance responsibilities.
 - a. Preparation of the storm water maintenance agreement will include describing the ownership boundaries of the storm water easement facilities.
5. Chapter 32.12(b)(5): Authorization for vehicle access, including a minimum 15-foot wide access easement dedicated to the local municipality and connecting to a public road right-of-way to allow for future BMP maintenance work.

Condominium Plat

1. Chapter 32.10(d)(4)(E): Subsurface drainage. Lowest building floor surfaces shall be built one (1) foot above the seasonal high water table elevation, as documented in the soil evaluations and shall avoid hydric soils. A minimum 1-foot vertical separation between the seasonal high groundwater table elevation and the basement floor surface should be included in the design.
2. The Condominium Plat should include a table listing the minimum basement elevation based on the existing water table for each Unit. A note on the Condominium Plat should reference to this information.
3. A note on the Plat should be “Basement Restriction-Groundwater. Basement floor surface elevations shall not be lower than the proposed basement floor elevations shown in the table below due to potential for seasonal high water table. Minimum basement floor elevation changes may only be authorized upon further analysis compliant with the City of Waukesha Storm Water Ordinance and such analysis must be approved by the City of Waukesha Engineering Department.”

VI. Business Items

PC16 -0009 Culver’s, 840 W. Sunset Drive – Final Site Plan & Architectural Review

1. The following items should be submitted:
 - a. Applicable fees per Chapter 32.07(b). The Engineering Division requires any Bonds or Agreements required by the Plan Commission and Council or Chapter 32.08(c). Development fees will be owed to the City for this project.
 - b. Chapter 32.07(b)(2): Once all submittal items are completed, submit all items listed in sub.(b)(1)(A)-(G) in digital form for City filing.
 - c. Sanitary Sewer Lateral Video
 - i. The existing building has a sanitary sewer lateral connecting the City’s sewer main. Please provide a sewer lateral video to City for review and approval. Contact the City Engineering Department for the video format. If lateral maintenance is needed, then the lateral improvements may need to be included as part of this project. The lateral pipe and connection to the main may need to be lined or relayed to reduce infiltration into the City’s sanitary sewer system or improve the structural integrity.

2. Permits will be needed for the project. Provide copies of approved project permits to the City for filing. Needed permits include but are not limited to:
 - a. City of Waukesha Storm Water Permit.
 - b. Private sanitary sewer approval.

PC16 -0019 GE Healthcare, 3000 N. Grandview Blvd. – Conditional Use

1. The following items should be submitted:
 - e. Applicable fees per Chapter 32.07(b). The Engineering Division requires any Bonds or Agreements required by the Plan Commission and Council or Chapter 32.08(c). Development fees will be owed to the City for this project.
 - f. Chapter 32.07(b)(2): Once all submittal items are completed, submit all items listed in sub.(b)(1)(A)-(G) in digital form for City filing.
 - g. Erosion Control Plan per City Ordinance
 - h. Note #4 states that a storm water plan will be prepared prior to construction. Confirm the amount of additional impervious area to be added to the site.
2. Permits will be needed for the project. Provide copies of approved project permits to the City for filing. Needed permits include but are not limited to:
 - a. Wisconsin Department of Natural Resources NR 216 N.O.I. Permit. Confirm disturbance area.
 - b. City of Waukesha Storm Water Permit.
3. A preconstruction meeting is needed prior to starting work.
4. Confirm the work is acceptable to the Waukesha County airport and provide written approval to City for filing.
5. The drawings state that the wetlands have been delineated. Provide copy of DNR wetland concurrence and date of field delineation.
6. In accordance with Wisconsin Administrative Code A-E 2.02(4): Each sheet of plans, drawings, documents, specifications and reports for architectural, landscape architectural, professional engineering, design or land surveying practice should be signed, sealed, and dated by the registrant or permit holder who prepared, or directed and controlled preparation of, the written material.
7. Add fire access road cross section to plan.

PC16 -0018 Action Power Sports, 200-202 Travis Lane – Conditional Use

1. The following items should be submitted:
 - a. Applicable fees per Chapter 32.07(b). The Engineering Division requires any Bonds or Agreements required by the Plan Commission and Council.
 - b. Permits needed for the project will include:

- i. Construction Permit. A traffic control plan will be needed then the Contractor applies for a Construction Permit for paving work in the right-of-way.
- ii. Storm Water/Erosion Control permit.
- c. Chapter 32.07(b)(2): Once all submittal items are completed, submit all items listed in sub.(b)(1)(A)-(G) in digital form for City filing.
- d. Erosion Control Plan
- e. The existing building has a sanitary sewer lateral connecting the City's sewer main. Please provide a sewer lateral video to City for review and approval. Contact the City Engineering Department for the video format. If lateral maintenance is needed, then the lateral improvements may need to be included as part of this project. The lateral pipe and connection to the main may need to be lined or relayed to reduce infiltration into the City's sanitary sewer system or improve the structural integrity.

PC16 -21

Carroll University, Lowry Hall, College & Barstow – Preliminary Site Plan & Architectural Review

General

1. The following items should be submitted:
 - a. Applicable fees per Chapter 32.07(b). The Engineering Division requires any Bonds or Agreements required by the Plan Commission and Council.
 - b. Permits needed for the project will include:
 - i. Construction Permit. A traffic control plan will be needed then the Contractor applies for a Construction Permit for paving work in the right-of-way.
 - ii. Storm Water/Erosion Control permit.
 - c. Chapter 32.07(b)(2): Once all submittal items are completed, submit all items listed in sub.(b)(1)(A)-(G) in digital form for City filing.
 - d. Erosion Control Plan
 - e. Storm Water Management Plan
2. In accordance with Wisconsin Administrative Code A-E 2.02(4): Each sheet of plans, drawings, documents, specifications and reports for architectural, landscape architectural, professional engineering, design or land surveying practice should be signed, sealed, and dated by the registrant or permit holder who prepared, or directed and controlled preparation of, the written material.

Site Plan

1. The site is out of date and dated February 25, 2013. The existing site plan should be updated to reflect current conditions.

Sheet 200 CU Utility Plan

1. Show lot lines. A 25 foot street setback was required for the Science Hall building.
2. Chapter 32.10(c)(21): Locations of existing and proposed easements or other known site restrictions should be shown.
 - a. If existing easements are located on the property in the vicinity of the proposed building location, then the easements should be shown on all the Drawings. Please verify if a title report was obtained for the property or if the presence of existing easements has been reviewed.
3. Chapter 32.10(d)(6)(B) as referenced by Chapter 32.09(c)(17): Perpetual drainage easements or other deed restrictions should be recorded to preserve major storm water flow paths and permanent storm water BMPs.
 - a. Drainage easements will need to be added around the bio-retention areas. The City has a storm water maintenance agreement template that will be sent to the design Engineer.
4. Trenching into Barstow Street is proposed for installation of the storm sewer. Restoration details and City specifications should be added to the Drawings.
5. Add sidewalk design sheet.

Storm Water Management Plan

1. A Storm water facility maintenance agreement per Section Chapter 32.12 should be submitted for review and approval.