



DEPARTMENT OF PUBLIC WORKS

Fred Abadi, PhD, PE, Director

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**ENGINEERING COMMENTS
FOR
PLAN COMMISSION
AGENDA
Wednesday
July 8, 2015
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#15-2940 Minutes for the Meeting of June 24, 2015.

V. Business Items

PC15 -0198 Europa Equities, 1604 S. West Avenue - Certified Survey Map

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. 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

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City Engineer
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Fax – 262-524-3898

MUNICIPAL PARKING SERVICES
Patti Cruz
Parking Supervisor
241 South St
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STREETS DIVISION
300 Sentry Dr
Waukesha, WI 53186
262-524-3615
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WASTEWATER TREATMENT PLANT
Jeff Harenda
WWTP Manager
600 Sentry Dr
Waukesha, WI 53186
262-524-3625
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WAUKESHA METRO TRANSIT
Brian Engelking
Transit Director
2311 Badger Dr
Waukesha, WI 53188
262-524-3594
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- 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. Chapter 23.06(3)(g) Subdivision and Platting: Easements across centered on rear or side lot lines should be provided for utilities where necessary and shall be at least 10' wide, if applicable.
 - a. Three power poles are shown along the north lot line. Confirm if easements exist for the poles and who owns the poles.
 3. The City Planners name should be updated.
 4. The Corporate Owner Certificates use the word "Plat" instead of "CSM" in several locations. The CSM should be updated.
 5. Chapter 23.06(3): The minimum right-of-way width for collector streets is 70 feet. An additional 2 feet of right-of-way should be dedicated.
 6. Chapter 23.06(7)(h): Slope easements of not less than 10' adjacent to the right-of-way line should be indicated on the CSM. No permanent improvements should be permitted thereon until such time as the concrete sidewalk is installed, and the CSM should so indicate.
 7. The Surveyor's Certificate should be signed and dated by the Land Surveyor.
 8. An access easement is needed for Lot 2 over Lot 1. The aerial mapping shows cars parking next to building 1604.
 9. The main sewer line in S. West Avenue should be reviewed to confirm if one or two sanitary sewer laterals service the two buildings. If only one lateral services the two buildings, then a sanitary sewer lateral easement will need to be granted from one lot to the other.

PC15 -0192 Silvernail Commons, Silvernail Road – Rezoning

1. No comments.

PC15 -0200 Silvernail Commons, Silvernail Road - Preliminary 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. Waukesha Water Utility approval
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.
 - b. City of Waukesha Storm Water Permit
 - c. Private sanitary sewer approval

Sheet C-2.0-Site Development Plan

1. A proposed 20 foot wide sanitary sewer easement is shown. The easement should be obtained prior to City project approval. The easement should be between lot owners and not the City of Waukesha because the easement is for only a sanitary sewer lateral.
2. Rim and invert elevations should be shown on the existing and proposed sanitary sewer. (CJL 6/24/2015)
3. The connection of the 6” sanitary sewer lateral to the existing manhole shall be done in a manor to prevent material from collecting in the manhole. No drops into the structure shall be allowed and a minimum 4” trough shall be provided to the main channel. (CJL 6/24/2015)

Sheet C3.0 –Site Grading/Drainage Plan

1. The addition of infiltration and/or bio-retention is encouraged to be added to the site layout.
2. If applicable, existing easements on the site should be shown including source documentation.
3. A construction sequence should be added.
4. Chapter 32.09(c)(9): Dewatering specifications should be added to the plan.
5. 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.
6. Chapter 32.09(d)(2)(xiv): Detailed construction notes for the dewatering plan should be included on the plan.
7. 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.
8. 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.
9. Chapter 32.09(d)(2)(xiv): The dates for the grading work should be added to the Drawing.
10. Chapter 32.09(d)(2)(C)(iii): Open channel design and stabilization data should be prepared to support the selected BMP(s) for stabilization.
11. Chapter 32.09(d)(2)(xiv): The dates for the grading work should be added to the Drawing.
12. 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.
13. 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.
14. 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.
15. Specifications for infrastructure including materials and installation procedures for all work should be added to the Drawings including 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.
16. Specifications for public sanitary sewer work should be added to Sheet.
17. Confirm how and where runoff will pass through the site.
18. Chapter 32.10(d)(6)(G): Provide storm sewer design computations.
19. The proposed grading in the City ditch and right-of-way should be shown.
20. The ditch should be designed with 4:1 slopes at front and back of ditch with a 2 foot wide bottom.
21. A new CMP should be sized for the driveway. (MAL 6/24/2015)
22. Extend sidewalk across lot along Silvernail Road.
23. Confirm slopes of sidewalks, ramps and ADA access routes meet the ADA standards.
24. The concrete sidewalk at the apron and the apron should be 7 inch thick concrete sidewalk. Show spot grades for sidewalk.
25. Add City driveway detail. Indicate 7 inch thick concrete.
26. A note should be added: Repair limits in street will be determined in field at the time of permanent repair.
27. Show removal limits for entire street width for utilities, if applicable. The street at a minimum will need to be milled (2-Inches), road base evaluated and patched and paved. An evaluation in the field of the condition of the road by City staff will determine the full extents of restoration required.
28. Dimension Parking stalls. (MAL 6/24/2015)
29. Add curb around perimeter of parking lot. (MAL 6/24/2015)
30. Detail for curb ramp. (MAL 6/24/2015)

PC15 -0191 T-Mobile/Parallel ML53108, 3031 Summit Avenue - Preliminary Conditional Use Permit

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. 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. 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.
 - d. 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. Sheet C-2 shows a utility and access easement but no easement document, exhibit, or boundary description were submitted for review.

PC15 -0197 T-Mobile, 1436 E. Racine Avenue - Preliminary Conditional Use Permit

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. 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. 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. Sheet C-1 shows a lease area, utility easement, and access easement but no easement document, exhibit, or boundary description were submitted for review. These easement documents should be prepared and submitted for review and approval.
3. The Waukesha County website shows a wetland symbol on this site area. Please confirm no wetland disturbance is proposed unless the proper permitting is obtained.

PC15 -0201 Johnstone Supply, 1615 Paramount 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. Chapter 32.09: An erosion control plan in accordance with the ordinance is needed because over 3,000 square feet of disturbance is proposed.

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. The drawings should be stamped by a Professional Engineer licensed in the State of Wisconsin.
3. 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.

Sheet C1.1

1. The proposed sidewalk should be shown along the right-of-way.
2. The x-slope of the sidewalk should be 1.5%.
3. The proposed width of the approach will not vary but should be 10-Ft. – Verify terrace width and label on plan view.
4. Show spot grades for back of walk, face of walk on each side of the proposed driveway and at center.
5. Confirm if the storm sewer can be routed around the building.
6. Specifications should be added for connecting the storm sewer to the City's public storm sewer catch basin. Storm sewer in the public right-of-way should be reinforced concrete pipe.
7. Add a note to require inspection of the connection installation by the City of Waukesha.
8. Based on the pipes grades shown, if the City's storm sewer would plug up, runoff would back into the pipe below the 1st floor. Please confirm.
9. The existing sanitary sewer lateral should be shown.
10. Existing street light conduit, street light junction boxes, and street light locations should be shown.
11. Parking space widths should be dimensioned.
12. The distance between the retaining wall at the truck dock and the angle point in the parking lot to the northwest should be dimensioned.
13. The driveway width should be dimensioned.

Sheet C1.2

1. It appears that no City curb and gutter is proposed to be replaced as part of the driveway work. Specific details should be added to the drawings specifying removal and replacement of the City's concrete curb and gutter, if applicable. The note should also include removal limits, pavement saw cut lines, addition of City driveway detail, etc.

Proposed sidewalk meeting ADA requirements is required at part of the driveway design spot grades and slopes. City sidewalk across the driveway should be designed at a 1.5% cross-slope.

2. In accordance with the City's erosion control ordinance, turf restoration notes, a construction sequence, etc. should be added to the Drawing.
3. A note should be added to the Drawing stating that the repaving limits of the street will be determined by City Staff in the field during administration of the right-of-way opening permit if street pavement is disturbed.
4. Submit storm sewer design calculations. Prepare a storm sewer basin map for the catch basin.

PC15 -0159 Fox Lake Village Addition No. 2 – Final Plat 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 or Chapter 32.08(c).
 - b. Permits and approvals
 - i. FEMA CLOMR approval when received.
 - ii. Developer's Agreement.
 - iii. DNR NOI
 - iv. Water Utility
 - v. Fire Department
2. As-built Drawings should be submitted after construction is complete for the utilities listed below.
 - a. Storm Water Facilities
 - b. Sanitary sewer
 - c. Storm sewer
3. 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.
4. The Developer must comply with all conditions listed in Waukesha County Ordinance 162-60 dated 10-29-07.
5. The remainder of the storm water facilities need to be built in the next phase.
6. Additional drawings needed include:
 - a. Signage Plan
 - b. Intersection detail sheets
 - c. Street Lighting

Storm Water Management Plan dated as received by City on June 18, 2015

1. Ultimate storm water model
 - a. Chapter 32.10(6)(H)(i): The lowest elevation of the structure exposed to the ground surface shall be a minimum of two feet above the maximum water elevation produced by the 100-year storm. The 100-year high water level of pond PR2B is listed as 10.96. The basement floor of the adjacent home is 11.82 which is within the 2' vertical requirement. This is Lot 4,

Block D.

The original design drawings stated the first floor to be 12.0 which also would have been within the 2-foot vertical separation distance. This lot will be considered to be non-conforming.

2. Pond Weirs.

- a. Prepare title sheet with all additional sheet numbers.
- b. Weir PR1
 - a. A detailed as-built survey is needed of the weir for pond PR1. No as-built shots are shown on the weir. The as-built shots shown are 15 feet in front of the weir. Shots are needed to determine whether to raise or lower the existing weirs.
 - b. The weir should not be higher than the adjacent pond berms. Proposed contours are needed on the grading plan so the detail on Sheet G2-C is constructed correctly so the adjacent pond berm is at 13.0.
 - c. The top view detail is labeled at pond PR2B instead of PR1 and labeled as 2W instead of 2E.
 - d. On the middle northerly detail, the gravel located approximately 15 feet in front of the weir is labeled as elevation 12.04. This location shouldn't be higher than the lannon stone weir which is proposed to be 12 feet.
 - e. Add flow direction arrows for the middle and lower details.
- c. Pond PR2B
 - a. A detailed survey and engineered design of the weir is needed. No as-built shots are shown on the weir. The as-built shots shown are 15 feet in front of the weir. Shots are needed to determine whether to raise or lower the existing weirs.
 - b. The weir should not be higher than the adjacent pond berms. Proposed contours are needed on the grading plan so the detail on Sheet G2-A is constructed correctly so the adjacent pond berm is at 11.5.
 - c. Add flow direction arrows for the middle and lower details.
- d. Pond PR3
 - a. No comments.
 - e. Add date to storm water management plan.

Storm Water Maintenance Agreement

2. Submit full size pond as-built scaled sheets for review.
 - a. When south pond is added to subdivision, add additional storm water easement areas to storm water maintenance agreement. The upfront section of Exhibits A to C are needed for the areas of the ponds that weren't included in the first storm water maintenance agreement using Addendum 1.
 - b. Add language to require maintenance of underdrain pipe.
 - c. A pond recirculation system is incorporated in the pond network. The as-built of the system should be included in the Agreement. The maintenance procedure of the system should be included.
 - d. The contour labels on Exhibit E are reversed.
 - e. After City approval, the documents should be recorded.
 - f. Add language that the pumps shall remain in operation at all times during the non-winter months. Sample language is as follows: Pumps shall remain in operation at all times from April to September.

CLOMR-Conditional Letter of Map Revision (Based on Fill) (FEMA)

1. It is noted that the Design Engineer has lowered the pond outlet weir from 8.3' to 8.0'. Therefore, the FEMA floodplain area will back up into the Fox Lake pond areas.

Note*: The latest construction drawing submittal was not reviewed in time for this Plan Commission meeting. Additional review comments will need to be addressed prior to final plan approval.

PLAN SHEET REVIEW

1. A signage plan should be prepared showing all proposed signs, including stop signs and street signs, etc. Warning signage should be installed at the dead end streets such as three OM4-1 signs.
2. A Street Light plan should be prepared showing all proposed lights and connections.

Cover Sheet – Sheet C0:

1. No comments.

Master Grading & Drainage – General:

1. Chapter 32.10(d)(6)(H)(i): Flows generated by the 100-year, 24-hour design storm under planned land use conditions may exceed the design capacity of conveyance systems, but should not come in contact with any buildings. The lowest elevation of the structure that is exposed to the ground surface should be a minimum of two (2) feet above the maximum water elevation produced by the 100-year, 24 hour design storm. The structure should be set back at least 40 feet horizontally from any storm water facility. Setback distance should be measured from the closet edge of water at the elevation produced by the 100-year, 24-hour design storm.
2. 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. **Existing ground water table elevation information is not but should be listed for Lots 11, 14, 17, 19, 20, 23, 24, 27, 31, 34, 44, 53, and 54.**

Master Grading & Drainage Plan-Sheet C1

1. It appears that the building envelope for Lot 35 does not meet the 40 foot setback. The envelope should be reduced.
2. Missing grades for curb in front of lots 31 & 32.
3. There should be two ramps on each corner of Cynacoux Road and Mohican Trail.
4. There should be two ramps on each corner of Marameg Trail and Mohican Trail.
5. There must be receiving ramps opposite Cynacoux Road (Lots 28 & 29).
6. There must be receiving ramps opposite Marameg Trail (Lots 27 & 28).
7. Grades missing for end radius and center radius.

8. Grades for curb ramps from flow line to back of the curb (meet ADA requirements).
9. Centerline should go through the center of the cul-de-sac at the south end of Mohican Trail.
10. Label low points and high points.
11. A 30 foot drainage easement should be created instead of the 20 foot wide easement to align with the existing 30 foot wide easement.
12. Proposed grading of the infiltration pond is now shown on multiple sheets. All plan sheets from both areas of construction should be submitted so it is clear all the construction being completed in this phase.
13. Road runoff is directed to the infiltration basin. Pretreatment should be provided.
14. The storm sewer sizing calculations are shown.
 - a. The storm sewer is designed for a 5-year storm event but should be a 10-year event.
 - b. Basin maps should be prepared and submitted.
 - c. The storm sewer sizing should be part of a separate submittal package.
15. Specifications are needed.

Master Grading & Drainage Plan-Sheet C2

1. Label low points and high points.
2. A diversion ditch detail and calculations are shown. Confirm location.
3. The storm sewer sizing calculations are shown.
 - a. The storm sewer is designed for a 5-year storm event but should be a 10-year event.
 - b. Basin maps should be prepared and submitted.
 - c. The storm sewer sizing should be part of a separate submittal package.
4. Specifications are needed.

Master Grading & Drainage Plan-Sheet C3

1. Label low points and high points.
2. Grades for curb ramps from flow line to back of the curb (meet ADA requirements).

Paving and Storm Sewer – General:

1. Storm Sewer and paving plans should be shown on separate sheets – too much detail to place together.
2. Chapter 23.06(5)(a)(4): The grades of local streets shall not exceed 8%, except that where unusual or exceptional conditions exist, the Commission may modify this Chapter.
3. Chapter 23.06(5)(c): All changes in street grades in excess of 1% shall be connected by vertical curves of a minimum length equal to 15 times the

algebraic difference in the rate of grade. The length of curve of 150 feet should be at least 179 feet.

Paving and Storm Sewer Plan-Sheet C4

1. Place sidewalk, curb and street centerline grades on this plan sheet.
2. Missing curb ramp detail.
3. Label low points and high points.
4. 20' Radius at corners.
5. Walk radius not labeled.

6. Centerline should go through the center of the cul-de-sac at the south end of Mohican Trail.
7. Show grades on curb around island.
8. There should be two ramps on each corner of Cynacoux Road and Mohican Trail.
9. There should be two ramps on each corner of Marameg Trail and Mohican Trail.
10. There must be receiving ramps opposite Marameg Trail (Lots 27 &28).
11. There must be receiving ramps opposite Cynacoux Road (Lots 28 & 29).
12. Profile labeling incorrect. Scaling notes 1"=4'. However, labeling jumps elevation from 28 to 30.

Paving and Storm Sewer Plan-Sheet C5

1. Place sidewalk, curb and street centerline grades on this plan sheet.
2. Label low points and high points.
3. Profile on stationing does not match plan stationing.
4. Profile labeling incorrect. Scaling notes 1"=4'. However, labeling jumps elevation from 28 to 30.

Paving and Storm Sewer Plan-Sheet C6

1. Place sidewalk, curb and street centerline grades on this plan sheet.
2. Label low points and high points.
3. Profile on stationing does not match plan stationing.
4. Rotate plan to line up with profile.
5. Profile labeling incorrect. Scaling notes 1"=4'. However, labeling jumps elevation from 28 to 30.
6. 20' Radius at corners.
7. Walk radius not labeled.
8. Grades for ramps from flow line to back of the curb (meet ADA requirements).
9. Centerline stationing for Cynacoux Rd. is not in the plan view.
10. There should be two ramps on each corner of Cynacoux Road and Mohican Trail.
11. There must be receiving ramps opposite Cynacoux Road (Lots 28 & 29).

Paving and Storm Sewer Plan-Sheet C7

1. Place sidewalk, curb and street centerline grades on this plan sheet.
2. Label low points and high points.
3. Profile on stationing does not match plan stationing.
4. Rotate plan to line up with profile.
5. Profile labeling incorrect. Scaling notes 1"=4'. However, labeling jumps elevation from 28 to 30.
6. Profile labeling missing on right side of sheet.
7. 20' Radius at corners.
8. Walk radius not labeled.
9. Grades for ramps from flow line to back of the curb (meet ADA requirements).
10. **COMPLETED (MAL - 5/22/2015)** Centerline stationing for Marameg Trail is not in the plan view.
11. There should be two ramps on each corner of Marameg Trail and Mohican Trail.
12. There must be receiving ramps opposite Marameg Trail (Lots 27 &28).

Sanitary Sewer General

1. Install a plug in sanitary sewer prior to starting at most downstream manhole.

Sanitary Sewer Plan-Sheet C8

1. Profile labeling incorrect. Scaling notes 1"=4'. However, labeling jumps elevation from 28 to 30.
2. MH109 should have at least 0.1' of fall across the manhole.

Sanitary Sewer Plan-Sheet C9

1. Profile labeling incorrect. Scaling notes 1"=4'. However, labeling jumps elevation from 28 to 30.
2. MH109 should have at least 0.1' of fall across the manhole.
3. Profile stationing not lined up with plan view stationing.
4. Where is the EXMH66 shown in the profile? Why is it shown here?

Sanitary Sewer Plan-Sheet C10

1. Profile labeling incorrect. Scaling notes 1"=4'. However, labeling jumps elevation from 28 to 30.
2. Profile labeling missing on right side of sheet.
3. The actual field verified elevations for the rim and invert of Existing MH103 should be indicated.
4. MH 105 should have at least 0.1' of fall across the manhole.
5. MH 106 should have at least 0.2-0.25' of fall across the manhole.
6. Pipe 111 appears to be future. If so, it should be labeled as such.
7. What structure/cleanout is being indicated on the extreme far left of the profile view?

8. Lot 8 is shown with two water services and two sanitary sewer laterals.
9. The plan view indicates “Future Watermain” and “Future Storm Sewer” while the profile indicates “Proposed” for each of these utilities.
10. In the sheet title block, it indicates “Future Marameg Trail.” No other sheet indicates streets in this manner.

Specifications

1. NOT INCLUDED.

Water Main C-11 to C15

1. Profile labeling incorrect. Scaling notes 1”=4’. However, labeling jumps elevation from 28 to 30.

Cross Sections

1. Sidewalk should be designed to 1.5%.

Erosion Control & Construction Sequence Plan-Sheet ECP4

1. No comments

Grading & Drainage Plan G4

1. Plan indicated on cover sheet but missing from set.

Infiltration Basin Plan Sheet G5

1. No comments

Infiltration Basin Plan Sheet G6

1. No comments

Final Plat dated as revised May 4, 2015

1. The following items should be submitted for review and approval:
 - 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.
2. 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 approval of the Final Plat. If the location of any lot lines as a result of the approved construction drawings, the Final Plat should be updated to reflect the needed changes.
3. Chapter 23.06(7)(f): Side lot lines shall be approximately at right angles or radial to the right-of-way line of the street on which the lot faces.
4. 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.
5. Chapter 23.05(11): Verify if deed restrictions will be required as part of approval of the Plat.
6. The vision corner easement note should reference that no driveways shall be

permitted within the vision corner.

7. Chapter 23.06(3)(g) Subdivision and Platting: Easements across centered on rear or side lot lines should be provided for utilities where necessary and shall be at least 10' wide. These easements shall permit the utilities to extend their services within this area. Please coordinate with the applicable utilities and add the easements as requested by said utility companies to the Plat. Drainage easements should not overlap utility easements to the maximum extent practicable. If a crossing is needed, drainage easements and utility easements should cross perpendicular to each other.
8. 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.
9. Soils note #4 should reference that the lowest basement floor elevations are listed on the Sheet 1.0 Master Grading Plan.
10. 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.
11. 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. The drawings should be stamped by a Professional Land Surveyor licensed in the State of Wisconsin.
12. Show the location of the cul-de-sac island to be maintained by the Lot owners. Include note for maintenance of the cul-de-sac islands stating: Maintenance of the cul-de-sac islands is required by Lot owners of the subdivision. If the Lot Owner(s) do not complete the required maintenance or repairs, the City of Waukesha is authorized, but not required, to perform the specified inspections, maintenance or repairs. The City of Waukesha may levy the costs and expenses of such inspections, maintenance or repair related actions as a special charge against the Lots in the subdivision and collected as such in accordance with the procedures under s. 66.0627 Wis. Stats. or subch. VII of ch. 66 Wis. Stats.
13. Per the City of Waukesha's Addressing Guidelines, proposed street names shall meet certain criteria to qualify for approval, including: (6) Street names are preferred from the English language origin and easy to spell and pronounce. The use of street names difficult to pronounce shall not be permitted. Rename Marameg Trail and Cynagoux Road to conform with the City's guidelines, and submit for City approval.
14. The source of the drainage easement on Lot 34 should be listed.

15. The drainage easement on Lot 26 and Lot 27 should be 30 feet wide to match the easement of the existing lots to the east. The source of the easement to the east should be listed.
16. Chapter 236.20(2)(f) as referenced by 236.34(1)(c): Existing easements should be shown, if applicable.
17. A 15 foot wide storm water maintenance easement is shown. The rights, conditions, restrictions, grantor, and grantees should be listed.
18. A Planning Commission Approval Certificate should be added.
19. Confirm any overlapped easements in pond areas near the weirs, if applicable.

Future Phases

1. Pond PR2A
 - a. Show location of overland flow path and drainage easement to central pond.

PC15 -0194 Dolphin Court Office Building, 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 or Chapter 32.08(c).
2. Storm water management plan
3. Erosion Control Plan
4. Permits
 - i. DNR NOI
 - ii. City Storm Water Permit
 - iii. Waukesha Water Utility approval
5. 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.

Sheet CS-1-Plat of Survey

1. Several existing and proposed facilities, setbacks, proposed utilities, and proposed block walls are located in close vicinity to the existing lot lines so an accurate identification of the lot lines is needed to be shown on the Plat of Survey and on the property. At a minimum, the property corners should be set along the right-of-way lines to identify and monument the lot lines in these areas of development. No legend is shown regarding found or set monuments on the Survey.
2. Wisconsin Administrative Code A-E 7.05 Maps:
 - a. (4) Describe all monuments used for determining the location of the parcel.

3. Per Wisconsin Administrative Code A-E 7.03, the Surveyor shall set monuments marking the corners of the parcel unless monuments already exist.
 - a. Wisconsin Administrative Code A-E 7.01(2): If an agreement to exclude work from the requirements of this chapter has been made, a note should be prepared that includes the names of the parties making the agreement.

Sheet C100-Site and Utility Plan

1. Design computations for the storm sewer will need to be prepared.
2. City specifications should be added for the sanitary sewer lateral work.
3. 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.
4. Additional storm water pipe design details will be needed.

Sheet C200-Grading Plan

1. Extend sidewalk across driveway. The cross-slope of all City sidewalk should be designed as 1.5% across the driveway entrances.
2. Confirm sidewalk and ramp are designed per ADA requirements.
3. Proposed grading is shown on the adjacent property located to the east. Provide grading easement.
4. Confirm the location of the 100-year overland flow path from the adjoining property to the east and potentially routing the runoff through the drainage easement. Confirm the size of the swale needed.
5. 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.

Sheet Landscape Plan

1. Minimize trees and shrubs in pond areas.

Storm Water Management Plan

1. A storm water management plan should be prepared and submitted for review and approval.
2. Depending upon the final design of the storm water pond, additional areas of storage volume or infiltration areas may be needed.
3. A storm water facility maintenance agreement will be needed.

PC15 -0181 Warehouse Facility, 901 Northview Road - 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.
 - 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. Certified Survey Map. A CSM should be submitted to combine the 3 separate parcels. Documentation should be provided to confirm the property conveyances.
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.
 - b. City of Waukesha Construction Permit
 - c. City of Waukesha Storm Water Permit
 - d. Waukesha Water Utility approval

Sheet C1

1. 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.
2. Confirm airport restrictions are met.

Sheet C2 Existing Conditions

1. The wetland delineation does not continue to the south edge of the pond. Please confirm the location shown is correct and the south edge of the pond was reviewed in the field. Submit a copy of the delineation.
2. Two parcels of land are shown to be acquired. Provide documentation of the property conveyance for project approval.
3. A We-Energies easement is shown passing through the center of the site and where the proposed building will be located. Provide a recorded copy of the easement release for filing.

Sheet C3 Demolition Plan

1. A transformer pad is shown. Confirm if the transformers will be removed.
2. The specifications should be listed for removing the sanitary lateral connected to the City sewer. Contact City staff for details.
3. The existing median at the south driveway in Aviation Drive should be shortened by approximately 25 feet to accommodate proposed traffic turning movements. This work should be added to the Drawings.

Sheet C4

1. The existing median at the south driveway in Aviation Drive should be shortened by approximately 25 feet to accommodate proposed traffic turning movements. This work should be added to the Drawings.

2. Provide documentation that the County will approve the north driveway location along Northview Road (CTH FT). The driveway along Northview Road should be moved south to align with the driveway from the airport.
3. Add sidewalk across driveways per City standard. Sidewalk cross slope should be 1.5%.
4. Provide turning movement analysis for trucks.
5. Confirm with City Staff if sidewalk needs to be added along Aviation Drive and Northview Road.
6. Chapter 6.13 Driveways (4): The driveway width should not be greater than 35' at the curb and 30' at the sidewalk, unless the property is in a district zoned for industrial use.
 In a district zoned for industrial use, the driveway width cannot be greater than 50' at the curb and 45' at the property line. The total frontage of all driveways servicing the premises in any district cannot exceed 90' without approval of the Council. The driveways exceed 90 feet.
7. Add dimension for drive approach width and length.
8. Dimension curb removed on Aviation.

Sheet C5

1. Several proposed retaining walls are shown, including a 9 foot high wall. Typically retaining walls are discouraged if other grading alternatives are available. Please confirm.
2. Add fence along retaining walls.
3. Provide copy of DNR NOI for City filing.
4. Provide spot grades for sidewalk design.
5. Show sawcut lines at removal limits for pavement and curb and gutter.
6. Confirm building meets the Bureau of Aeronautics requirements.
7. Dimension proposed driveways.
8. List if the drive approach is concrete or asphalt.
9. Show grades for walk along Aviation.
10. Add note: Final area of pavement restoration of Aviation Drive will be determined in the field at the time of repair.
11. Show curb to be replaced at new inlet on Aviation, unless design changes.

Sheet C6

1. The City's outlet pipe to the pond is proposed to be relayed. City specifications for the work should be added to the Drawings, including but not limited to grate, marker, backfill, etc.
2. A maintenance agreement for the underground chambers should be prepared.
3. City specification should be added for the sanitary sewer lateral.
4. A permit from Waukesha County appears to be needed for the storm sewer outfall.
5. Catch basins should have a 2 foot sump depth.

Sheet C7

1. Confirm if the south driveway along Aviation Drive will need a tracking pad or will be blocked off during construction.
2. Sediment basins and diversion swales should be added.
3. Dewatering requirements should be added.

Sheet C8

1. The City details for a driveway approach and curb and gutter should be added.

Sheet C9

1. A 2 foot sump should be added to the catch basins.

Traffic Study

1. By request, a traffic study was submitted to the City on April 30, 2015. City staff reviewed the study relative only to the portions pertain to access onto Aviation Drive. Development access to CTH FT (Northview Road) west of Aviation Drive and the Aviation Drive & CTH FT intersection are the jurisdiction of Waukesha County. The traffic study did not have any specific recommendations for the two development access points on Aviation Drive. However, the City has recommended possible changes to the existing medians on Aviation Drive to accommodate semi truck turning movements.
2. Staff wishes to inform the commission that Waukesha County has told the developer that the western most access driveway to CTH FT will not be allowed and the developer will need to move the driveway further east to line up with the main County Expo Center driveway. This requirement has not been officially confirmed at the time of this review. It should be noted that moving the western most driveway further east will have an impact to the site layout of the building and may require revisions to the building or placement on the site.

Storm Water Management Plan

1. 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.
2. Chapter 32.10(d)(6)(G): Provide storm sewer design computations.
 - a. On-site storm sewer sizing calculation should be prepared.
 - b. The plan proposes to tie into the existing City storm sewer.
 - i. Sizing computations of the City storm sewer should be prepared.
3. Cost estimates for the installation of proposed storm water BMPs shall be provided.
4. The existing storm water pond should be added to the storm water model.

5. The 100-year high water elevation of the pond should be determined and its impact taken into consideration as a tailwater for the storm sewer that is discharging into the pond.
6. The boundary of the site development has changed since the initial discussions.
 - a. Now that the south parcel is to be acquired, the storm sewer along Aviation Drive should be located on private property.
 - b. The outfalls for the site should be located on this property instead of connecting into the City's storm sewer in Aviation Drive. This relocation would eliminate a new structure that the City has to maintain and avoid compromising the pavement structure in Aviation Drive. Confirm final design with City Staff.
7. The basin maps should account for adjacent lands that drain runoff through the site from the west.
8. The narrative states that "the regional detention basin provides adequate detention for the proposed site, therefore, no on-site detention measures are proposed." The south wetland area pond was not designed as a regional pond. This area was a wet land area that became a pond over time. No formal engineering calculations were ever completed for this pond.
9. The site area calculation for the existing and proposed site curve numbers includes a portion of the existing wet pond. A curve number of 98 should be used for this area.

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 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.
 - b. 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.

6. This development site includes the north one-quarter of the existing wet pond.
 - a. A storm water maintenance agreement should be prepared for that section of the pond.
 - b. The vegetation should be cleared within this lot area.
 - c. The existing rip rap and edge of pond should be inspected. The need for maintenance in this lot area should be determined.
 - d. Confirm that the wetland delineation has been reviewed and approved by the DNR.

Plat of Survey (within storm water management plan)

1. The Plat of Survey should include all lands included in the development.
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. The drawings should be stamped by a Professional Engineer licensed in the State of Wisconsin.