

March 4, 2016

Project Reference #15487

Mr. Casey Griffiths
Village of Elm Grove
13600 Juneau Boulevard
Elm Grove, WI 53122-0906

Re: 13400 and 13402 Watertown Plank Road
Engineering Comments Response Letter

Village of Elm Grove Staff,

The Sigma Group, Inc. (Sigma) has provided the following letter that addresses the comments received from the City on February 24, 2016.

Comments

1. The Concept Plan does not show improvements to the intersection of Elm Grove Road and Juneau Boulevard as recommended in the Traffic Impact Analysis (TIA).

RESPONSE: MODIFICATIONS TO THE RADII WILL BE SHOWN ON FUTURE PLANS.

2. The TIA indicates a realignment of Elm Grove Road north of Watertown Plank Road should be considered during the second phase of the overall redevelopment of this area. Our understanding is that the realignment would create a four-way intersection of the two streets, which is desired by the Village. We recommend the concept of realigning Elm Grove Road be included in the Concept Plan for Phase 1 in order to understand how this might impact public utility alignments serving Phase 1, public right-of-ways and the re-development of the parcels under Phase 2.

RESPONSE: THE SUBMITTAL IS FOR PHASE 1 AND DOES NOT INCLUDE ANY FUTURE WORK FOR PHASE 2. A TIMELINE FOR PHASE 2 REDEVELOPMENT IS UNCERTAIN AT THIS TIME AS CURRENT USE AND OCCUPANCY AT THE PROPERTIES ARE STABLE. IT IS MORE APPROPRIATE TO ANALYZE THIS INTERSECTION IN CONJUNCTION WITH A PLANNED DEVELOPMENT.

3. The TIA indicates the existing two way left turn lane (TWLTL) on Watertown Plank Road works well even though it is discouraged from engineering practice. We recommend the Village determine if the current TWLTL configuration is desirable moving forward. If not, the TIA should include some recommended alternatives.

RESPONSE: WE FEEL EXISTING LAYOUT IS ACCEPTABLE.

4. One of the recommendations in the TIA is to maintain the existing west driveway access to Watertown Plank Road with no median. The Concept Plan shows the driveway to remain, but includes a media

RESPONSE: MEDIAN WILL BE REMOVED IN FUTURE PLANS.

5. The TIA analyzes existing background traffic with an assumed growth rate as well as future traffic generated by the development. We recommend the TIA be revised as follows:

- ☐ Provide some discussion about what changes may be made to improve all traffic movements to level of service (LOS) B for the Village to consider.
- ☐ Verify references to exhibits in the text are correct. There are at least two references to exhibits that were not included in the document I received.

RESPONSE: TIA COMMENTS WILL BE ADRESSED IN FUTURE SUBMITTAL.

6. Re-development of Phase 1 is located on two separate parcels. A Site Survey drawing was provided with the overall Concept Plan. The drawing shows the property boundary of the larger parcel, but not the smaller one to the east. A Plat of Survey should be prepared for each parcel showing property boundary lines with distances and bearings. The Plat of Survey should also show existing site features and label proposed changes to property lines, existing easements, encumbrances, floodplains, environmental areas and other requirements listed in the Village Code. During the February 5th meeting we were told there may be a discrepancy in the boundary of the larger parcel when compared to the Waukesha County Land Information System web site. We recommended during the meeting that title reports be obtained for the parcels to help determine if any land ownership issues exists so that they can be resolved.

RESPONSE: SIGMA IS IN THE PROCESS OF UPDATING THE ALTA SURVEY FOR ALL ADJACENT PARCELS AND WILL INCLUDE THAT INFORMATION IN FUTURE SUBMITTALS.

7. There is a request to vacate 20 feet of right-of-way width along both sides of Elm Grove Road north of Watertown Plank Road. Documents necessary to complete the vacation process on the east side of the road will need to be prepared by the applicant and reviewed by the Village.

RESPONSE: SIGMA WILL PROVIDE AN EXHIBIT REFLECTING THE VACATION ON THE WEST SIDE OF ELM GROVE ROAD AND THE VACATION ON THE EAST SIDE TO THE SOUTHERN PROPERTY LINE OF PHASE 1.

8. If two or more parcels will be combined as part of the re-development plan, then a Certified survey Map will be required.

RESPONSE: AT THIS TIME WE DO NOT EXPECT ANY LAND COMBINATION.

9. The larger parcel where all of the proposed multi-family units are located is currently zoned M-1. It is my understanding the parcel will be rezoned to RM-1 as the underlying zoning. The parcel will also be included within a Planned Development Overlay (PDO) providing flexibility to some of the requirements of the underlying zoning.

RESPONSE: UNDERSTOOD.

10. The density of multifamily units proposed by the Concept Plan is higher than is allowed by the proposed underlying zoning. The PDO provides flexibility for the applicant to increase the density. The Concept Plan proposes a density that requires the highest degree of flexibility. We understand

the Village will need to decide if the development meets the criteria to allow the proposed density level.

RESPONSE: UNDERSTOOD

11. Building Footprint, Impervious Area and Parking:

- ☐ Impervious area of the larger parcel is summarized on the Site Plan. According to the summary, approximately 64% of the lot area will be impervious assuming the right-of-way is vacated as requested. This amount meets the limit of impervious area required by the underlying proposed RM-1 zoning.
- ☐ A separate summary of impervious area will need to be provided for the smaller parcel.
- ☐ The impervious area summaries for each parcel will need to be broken out to show how much impervious area is created by building footprint, sidewalks and pavements (including curb and gutter or curb and gutter separately).
- ☐ RM-1 zoning limits building footprint area to 30% of the lot area.
- ☐ Buildings 'B', 'C' and 'D' are situated over the top of an underground parking area that is bigger than the three buildings combined. The overall size of the underground parking structure will also need to be provided. The Village will need to consider whether or not the larger footprint of the underground parking structure will be counted toward the total building footprint on the lot.
- ☐ The total number of indoor and outdoor parking stalls including the number of stalls reserved for those with disabilities will need to be provided. The PDO provides some flexibility to Village Code parking requirements. However, the number of stalls needed to be reserved for those with disabilities will need to meet ADA requirements in the Federal Code.

RESPONSE: IMPERVIOUS AREA FOR EACH SITE AND PARKING COUNTS WILL BE INCLUDED IN FUTURE SUBMITTALS.

12. The PDO district provides flexibility to yard setbacks required by the proposed underlying RM-1 zoning. Regardless, the Concept Plan will need to provide dimensions of yard setbacks from all existing or future lot lines for review.

RESPONSE: REVISED PLANS SHOW BUILDING AND PARKING LOT SETBACKS FOR VILLAGE USE.

13. Floodplain: The effective FEMA floodplain map shows proposed development will occur within the regulatory floodplain. The applicant will need to prepare a floodplain impact study and obtain approval from FEMA to place fill within the floodplain.

RESPONSE: BASED ON EXISTING BASE FLOOD ELEVATIONS (NOT MAPPING) FROM THE EFFECTIVE FEMA MAPS, THE SITE IS NOT IMPACTED BY THE EXISTING FLOODPLAINS AND THERE IS NO PLAN TO FILL ANY FLOODPLAINS ON SITE. WE WOULD PREFER TO PROCEED WITH DEVELOPMENT BASED ON THE EXISTING ELEVATIONS ON SITE AS WE HAVE NO PROPOSED BUILDINGS IN THESE "MAPPED" AREAS.

IF THE VILLAGE FEELS THAT MAPPING CHANGE IS CRITICAL WE COULD CONSIDER A LOMA (NO FILL IS REQUIRED WEST OF CREEK) FOR THE WEST SIDE

OF THE CREEK AS LONG AS TIMING OF THE APPROVAL OF THE MAPPING CHANGE DOES NOT IMPACT THE OVERALL APPROVAL AND CONSTRUCTION PROJECT.

ON THE EAST SIDE OF THE CREEK OUR TEAM WILL KEEP THE GRADE LOW AND NOT FILL ANY FLOODPLAIN AND LEAVE MAPPING AS IS ON THAT PARCEL. IN THE FUTURE WE MAY CONSIDER A LOMR-F IF FILLING IS MORE CONDUSIVE TO THE PLAN.

14. Building 'A' is shown to have a lower level at elevation 737.00 with a storm sewer system connecting the lower level to Underwood Creek. According to the Site Survey the 100-year flood elevation is 738.8, which would back up into the lower level of this building. Additionally, the catch basin located at the bottom of the underground parking ramp is shown to have an invert that is lower than the outfall of the downstream storm sewer.

RESPONSE: WE WILL NO LONGER HAVE UNDERGROUND PARKING ON BUILDING 'A'. BECAUSE OF THIS CONDITION WE WILL RAISE THE ELEVATION ABOVE THE 100 YEAR FLOODPLAIN.

15. Topography of the existing site generally slopes east or southeast toward Underwood Creek. Elm Grove Road borders the western side of the larger parcel and is generally higher than the adjacent site but slopes downward from north to south. The Concept Plan shows five multifamily buildings on the site. Four of those buildings front Elm Grove Road and the fifth building (Building 'A') is situated behind Building 'C'. A summary of the first floors of these buildings is as follows:

☐ North Building (Townhomes) – Proposed first floor elevation

• Building 'D' – Proposed first elevation of 757.50, which is approximately 0.5 feet above Elm Grove Road pavement.

☐ Building 'B' - Proposed first elevation of 757.50, which is approximately 1.5 feet above Elm Grove Road pavement.

☐ Building 'C' - Proposed first elevation of 757.50, which is approximately 2 feet above Elm Grove Road pavement.

☐ Building 'A' - Proposed first elevation of 747.00. Although it does not front Elm Grove Road this building is approximately 8 feet below Elm Grove Road pavement.

RESPONSE: CONCUR ALTHOUGH WE MAY CONSIDER RAISING THE BUILDING UP TO 1 FOOT FOR SOIL MANAGEMENT REASONS.

16. Underwood Creek is located on the smaller of the two parcels. Normally, wetlands are located adjacent to creeks and vary in width. A wetland investigation will need to be completed on the entire site and a delineation will need to be performed to locate any wetlands that may exist.

RESPONSE: WE ARE IN THE PROCESS OF A WETLAND DELINEATION AND WILL PROVIDE TO VILLAGE IN FUTURE SUBMITTALS. BASED ON A VISUAL REVIEW WITH WDNR STAFF IT WILL ONLY BE ALONG THE CREEK AND WILL HAVE NO IMPACT ON PROJECT.

17. Grading more than 10,000 square feet within the setbacks of waterways as well as any impacts to waterways and wetlands will require permits from the Department of Natural Resources (DNR) and possibly the US Army Corps of Engineers. Additionally, because the redevelopment plan will disturb more than 1 acre, a Construction Site Storm Water Discharge Permit from the DNR will also be required. During the February 5th meeting we recommended the applicant contact representatives from the DNR to verify what permits and approvals will be needed.

RESPONSE: SIGMA STAFF HAS BEEN WORKING WITH THE WDNR WATER COORDINATOR GERI AND SHE HAS REVIEWED IN GENERAL THE PROJECT. THERE WILL BE NO GRADING PERMIT REQUIRED FOR THE PROJECT BUT THERE WILL BE A CONSTRUCTION SITE STORM WATER DISCHARGE PERMIT.

ALTHOUGH THE WETLAND DELINEATION IS NOT COMPLETE, BASED ON INITIAL CONVERSATION WE FEEL THAT MOST LIKELY OUR ONLY IMPACT NEAR THE CREEK WILL BE A STORM SEWER OUTFALL FOR THE NORTH HALF OF THE SITE. WE PLAN TO AVOID EXISTING WETLANDS AND STAY ABOVE THE ORDINARY HIGH WATER MARK AND THEREFORE WOULD BE EXEMPT FROM ADDITIONAL WDNR AND CORPS PERMITTING.

18. During the February 5th meeting we discussed that contamination has been documented to exist on the site. The applicant will need to coordinate with DNR to determine how the contamination may restrict work on the site, disposal of excess soils that may be contaminated, infiltration or treatment of storm water runoff, utility trench backfill and utility piping materials.

RESPONSE: WE WILL WORK WITH THE WDNR FOR AN APPROVED REMEDIAL ACTION PLAN AND SOIL MANAGEMENT PLAN WHICH MOST LIKELY INCLUDE CAPPING THE ENTIRE SITE.

19. The site is located within the Milwaukee Metropolitan Sewerage District (MMSD). The re-development plan will need to follow MMSD Chapter 13 requirements for storm water management and obtain an approval from MMSD.

RESPONSE: UNDERSTOOD. WE HAVE COMPLETED PRELIMINARY SWMP AND BELIEVE THE PLAN MEETS BOTH QUANTITY AND QUALITY REQUIREMENTS.

20. Both parcels are located adjacent to a railroad. It appears the building proposed to be removed from the smaller parcel is located within the railroad right-of-way and possibly within an easement according to the Site Survey of the Concept Plan. Work within a railroad right-of-way will require a permit from the railroad.

RESPONSE: UNDERSTOOD.

21. There are a number of existing bridges that cross Underwood Creek which appear to be reused as part of the re-development plan. We recommend the applicant have the bridges inspected to determine their condition and fitness for use moving forward.

RESPONSE: AN INSPECTION WILL BE INCLUDED IN FUTURE SUBMITTALS.

22. Additional tracking pads will be necessary if construction traffic will be allowed to leave the site onto Elm Grove Road.

RESPONSE: UNDERSTOOD.

23. Site Grading and Drainage:

☐ A retaining wall is shown along the railroad right-of-way with a height of 5 feet. Retaining walls more than 4 feet tall and those with loadings greater than level earth dead loads need to be designed by a professional engineer licensed in the State of Wisconsin. The design will need to consider possible impacts from the railroad live loads behind the wall.

RESPONSE: WALL WILL BE DESIGN-BUILD AND STAMPED BY STRUCTURAL ENGINEER.

☐ The Grading Plan shows multiple low points in paved areas adjacent to proposed biofiltration facilities and Underwood Creek without catch basins. Future designs will need to show how these low points will drain into the biofiltration facilities.

RESPONSE: CURB OPENINGS WITH RIP RAP AND SLOPE STABILIZATION WILL BE USED.

☐ Future designs will need to show an overland flow path from the biofiltration facilities for runoff from large storm events without discharging flows onto neighboring properties.

RESPONSE: UNDERSTOOD. WILL BE PROVIDED IN FUTURE SUBMITTALS.

☐ The southern storm sewer system collects runoff from pavements without providing treatment or removal of suspended solids. Storm water quality measures may be required on the system before flows are discharged to Underwood Creek.

RESPONSE: SUMPED CATCH BASINS WILL BE USED FOR ANY AREAS THAT ARE NOT TREATED.

☐ Future designs will need to show how drainage will be handled for the circular driveway and the curb and gutter shown along Elm Grove Road.

RESPONSE: UNDERSTOOD. WILL BE PROVIDED IN FUTURE SUBMITTALS.

☐ The vertical alignment and cross slope of the proposed bike path may need to be revised to meet ADA requirements if it will be considered an accessible route.

RESPONSE: THE BIKE PATHS ARE NOT CONSIDERED ADA ACCESIBLE ROUTES SO WE PROPOSE A MAX SLOPE OF 8.5% AT THE MAIN ENTRY.

☐ An easement may need to be granted to the Village for the existing storm sewer that crosses through the site. The storm sewer was not installed by the Village. If the storm sewer becomes publicly owned, then the pipes will need to be upgraded to reinforced concrete.

RESPONSE: DETAILS ON OWNERSHIP, INSPECTION, AND EASEMENT NEED TO BE AGREED TO IN THE FUTURE.

24. Proposed utilities on site that will be publicly owned will need to be located within easements.
RESPONSE: UNDERSTOOD.

25. Future designs will need to show how the southern building will be served by sanitary sewer.

RESPONSE: DETAILS OF SEWER WILL BE SHOWN ON FUTURE PLANS.

26. Normally we do not recommend sanitary laterals to be connected directly to manholes. However, in this case because the laterals are shown to be 8-inch diameter pipes and each lateral serves multiple units we would recommend having laterals connected to the public sewer system at manholes. Two of the laterals are shown to connect to existing manholes. The benches and inverts of these structures will need to be reconstructed. We also recommend new sanitary manholes be constructed where the other three sanitary laterals connect to the public sanitary sewer system.

RESPONSE: UNDERSTOOD.

27. The site does not currently have access to public water service. Public water main will need to be extended from the intersection of Elm Grove Road and Wall Street. Before our meeting on February 5th the Village had contemplated extending the 16-inch diameter public water main northerly along Elm Grove Road from Wall Street to Watertown Plank Road, then easterly along Watertown Plank Road across the bridge to Legion Drive. Public water service to this site was planned to be provided by a connection to the future water main along Watertown Plank Road.

RESPONSE: UNDERSTOOD.

28. During the meeting on February 5th we discussed an alternative plan to possibly extend public water main northerly along Elm Grove Road from Wall Street crossing Watertown Plank Road and continuing on to the northern part of the site. The water main north of Watertown Plank Road has not been sized but would be smaller than 16-inch diameter. Water service to the site would then be provided to the site initially from the water main in Elm Grove Road. This alternative plan may avoid having a public water main in an easement though the site and possibly minimize the exposure of public water main to contamination that exists on the site. The City of Brookfield will need to determine whether on site water main will be considered public or private for either water service piping alternative.

RESPONSE: UNDERSTOOD.

29. Eventually, the 16-inch diameter water main would be extended easterly along Watertown Plank Road from the intersection of Elm Grove Road. If multiple interconnecting connections to the public water system are made, then backflow preventers will need to be installed at each connection point.

RESPONSE: UNDERSTOOD. WE WILL PROVIDE SOIL AND ENVIRONMENTAL INFORMATION TO VILLAGE FOR REVIEW.

30. During our meeting on February 5th we discussed the parking lot layout as it relates to emergency access. The Concept Plan shows a continuous access drive from the south end of the site to the north end with three access points to public roads (one on Watertown Plank Road and two on Elm Grove Road). However, there are three tight turns in the pavement that may be difficult for larger emergency vehicles to pass through. During the meeting we recommended the Concept Plan be provided to the Fire Chief to obtain his comments regarding emergency access and hydrant locations. Subsequent to this review I also recommend the designer run turning templates through the site using various design vehicles such as delivery trucks, moving vans and emergency vehicles resembling those used by the Village.

RESPONSE: SIGMA HAS MODELED THE TURNING FOR EMERGENCY VEHICLES AND WITH SLIGHT MODIFICATIONS ACCESS DOES WORK. FUTURE SUBMITTALS WILL INCLUDE A TURNING MOTION EXHIBIT.

Sincerely,

THE SIGMA GROUP, INC.

A handwritten signature in cursive script that reads "Christopher Carr".

Christopher T. Carr, P.E.
Civil Engineering Group Leader

Cc: Emily Pier, Wangard
Wayne Wiertzema, Wangard