

**CHARTER TOWNSHIP OF VAN BUREN
PLANNING COMMISSION
June 12, 2019
MINUTES**

Chairperson Thompson called the meeting to order at 7:32 p.m.

ROLL CALL:

Present: Jahr, Boynton, Kelley, Budd, Franzoi and Thompson.

Excused: Atchinson.

Staff: Director Akers and Secretary Harman.

Planning Representatives: McKenna Associate, Vidya Krishnan and Fishbeck Associate, David Potter.

Audience: Thirteen (13).

APPROVAL OF AGENDA:

Motion Kelley, Jahr second to approve the agenda of June 12, 2019 as presented. Motion Carried.

APPROVAL OF MINUTES:

Motion Jahr, Boynton second to approve the regular meeting minutes of May 22, 2019 as presented. Motion Carried.

NEW BUSINESS:

ITEM # 1 19-020 – MASTER PLAN AMENDMENT, 41620 E. HURON RIVER DRIVE FUTURE LAND USE.

TITLE: THE APPLICANT, SCOTT JONES, IS REQUESTING AN AMENDMENT TO THE TOWNSHIP'S FUTURE LAND USE MAP TO CHANGE THE FUTURE LAND USE DESIGNATION FROM MEDIUM DENSITY SINGLE FAMILY TO MULTIPLE FAMILY RESIDENTIAL TO CONSTRUCT DETACHED CONDOMINIUMS.

LOCATION: THE PROPERTY LOCATED AT 41620 E. HURON RIVER DRIVE IS THE SUBJECT OF THE REQUEST. THIS PROPERTY IS LOCATED ON THE NORTH SIDE OF E. HURON RIVER DRIVE, ADJACENT TO EDISON LAKE ROAD.

Applicant, Scott Jones, gave the presentation. Mr. Jones is requesting an amendment to the Township's Future Land Use Map to change the designation from medium density single-family to multiple-family residential to convert the vacant land located at 41620 E. Huron River Drive into a condominium development. Mr. Jones displayed a previous single-family concept, the condominiums will be 70 single-family detached units, approximately 1,800 to 2,100 square feet per unit (similar in design to the lakefront condominiums on Liberty Street in the City of Belleville), there will be a central area for unit owners and a point of common space. There is no engineering yet for the site.

Director Akers presented his staff memo dated 6-7-19 discussing the potential changes required to accommodate the development, the potential rationale for a Future Land Use Map change and provided a projected timeline for the amendment to the Township's Future Land Use Map if the required Boards and Commissions approve everything in a timely manner.

Commissioners expressed difficulty in conceptualizing without plans or renderings, discussed the possibility of looking at other future land use designations, location of boat slips and docks, the total number of units, use of conditional rezoning, examples of similar housing developments in the area and the projected time line for the amendment to the Future Land Use Map. A layout concept will be provided at a future meeting, Sandy's Marina will likely be utilized by most residents for boat docking and storage, 70 units is the target with a maximum of 74 to 75 units. The Commission asked the applicant if the timeline and conditional rezoning will work for the development project, Mr. Jones agreed the timeline and conditional rezoning would work for the development.

Local Real Estate Broker, Therese Antonelli of Moving the Mitten discussed the target audience of the development being seniors and/or snowbirds who are looking to downsize, gave examples of similar housing developments in neighboring Canton and expressed the need in the community for ranch homes and smaller compact dwellings with main floor masters to provide senior housing options.

The Commission wants to direct staff with an "Intent to Plan" and work with McKenna Associates on the feasibility of adding a residential district and to have it presented at the July 10th meeting.

Motion Boynton, Kelley second to send out the Notice of Intent to Plan. Motion Carried.

ITEM # 2 17-030 – ASHLEY CAPITAL CROSSROADS NORTH DISTRIBUTION CENTER – FINAL SITE PLAN APPROVAL.

TITLE: THE APPLICANT, ASHLEY CAPITAL, IS REQUESTING FINAL SITE PLAN APPROVAL TO CONSTRUCT A DISTRIBUTION CENTER. THE DISTRIBUTION CENTER IS PROPOSED TO CONSIST OF THREE (3) BUILDINGS TOTALING 1,579,325 SQUARE FEET OF SPACE.

LOCATION: THE PROPOSED DEVELOPMENT IS LOCATED NEAR THE NORTHWESTERN INTERSECTION OF ECORSE ROAD AND HAGGERTY ROAD. PARCEL ID #V-125-83-008-99-0002-703 & PARCEL ID #V-125-83-005-99-0009-701 (APPROXIMATELY 158.5 ACRES).

Allen Dresselhouse of Ashley Capital and Joe Webb of Webb Design asked to have the consultants present their review letters first and they would address any comments.

Vidya Krishnan of McKenna Associates presented her final site plan review letter dated 6-6-19 recommending the Planning Commission grant final site plan approval to the Ashley Capital Crossroads North project to be located on the north side of Ecorse Road, west of Haggerty Road, subject to the condition below:

1. Constructing the base of the monument signs with brick as the masonry material.

David Potter of Fishbeck Associates presented his final site plan review letter dated 6-7-19 recommending engineering site plan and final site plan approval subject to the review comments noted in the letter, in the marked-up plans and in accordance with the *Engineering Standards Manual*.

GENERAL DISCUSSION:

ITEM #1: LAKE FRONT LOT ANALYSIS AS DIRECTED BY THE BZA

The Board of Zoning Appeals (BZA) has seen a variance request on the lake. Director Akers will bring this item to the June 26, 2019 meeting for discussion.

ADJOURNMENT:

Motion Budd, Jahr second to adjourn at 8:32 p.m. Motion Carried.

Respectfully submitted,

Christina Harman
Recording Secretary

David C. McInally II
Fire Marshal
O: 734-699-8900 ext. 9416

Van Buren Fire Department
46425 Tyler Rd
Van Buren Twp, MI 48111



May 30th 2019

Director of Building and Planning
46425 Tyler Road
Belleville, MI 48111

Re: Ashley Capital, #17-030
North Side of Ecorse Rd., West of Haggerty

To Whom it may concern:

I have reviewed a set of plans drawn by Webb Engineering Inc. 29488 Woodward Ave, Suite 101, Royal Oak, MI, 48073. These were received March 22nd for the above referenced project. All NFPA guidelines adopted by the Township of Van Buren were used in referencing this project.

Project Overview:

The submitted site plans are for a new construction of a 261,347 square foot commercial distribution and storage facility and a 660,408 Square foot commercial distribution and storage facility on the same property. A third building #6 to be built in the future. NFPA 1 and 101 2018 are the adopted fire code of Van Buren Township and were used in this review.

CRN4:

1. Passenger car parking lot on West end of CRN4 needs to have access on North end of lot. NFPA 1-18.2.3.5.4 dead ends cannot be more than 150ft. Plans are marked on C3. Agreement with developer is that remote FDC's will be placed next to hydrants. Location to be confirmed with AHJ during suppression submittal.
- ~~2. Passenger car parking lot on East end of CRN4 needs to have access on North end of lot. NFPA 1-18.2.3.5.4 dead ends cannot be more than 150ft. Plans are marked on C3.1~~
- ~~3. FDC needs to be moved to the North side of the North West corner of building CRN4. FDC must be within 50ft of the closest hydrant. Plans are marked on C3.1~~
- ~~4. FDC needs to be moved on the East side of building to line up with hydrant. No parking obstructions between the hydrant and the FDC.~~

Our Mission: The members of the Van Buren Fire Department shall work together in a professional and caring way to protect life and property from the adverse effects of fire, trauma, illness and dangerous conditions. Our services will be provided in a fair, honest, and ethical manner with the highest respect and dignity to all.

CRN5:

- ~~1. FDC on CRN5 pump room needs to be moved South of Domestic water line, so there are no parking obstructions between road access to FDC or Hydrant.~~

FDC's:

1. All FDC connections will be a 4inch storz connection with 30 degrees down turn.
2. All FDC signs will meet NFPA requirements for height, color, and size.
3. Below all FDC signs will be a sign of same requirements as in item 2. And will indicate PSI required for system support.
4. No FDC should be more than 50ft from the closest hydrant.

Emergency Responder Radio Coverage System:

1. A signal strength test must be completed prior to final C/O to determine if such system will be required.
2. If a system is not already put in place for the building, a test will be required of each leased suite; after the tenant has occupied the space, and prior to a final C/O for that occupant.
3. I have attached with the site plan review an information sheet which explains the fire code, and requirements of system.

Plans are approved with exceptions, as long as the remaining items are addressed with AHJ

The fire department requires involvement in the continuing plan review, inspection, and Certificate of Occupancy process and will require various inspections during the construction phases and immediately prior to opening to verify compliance with the appropriate codes. One set of as built construction drawings, schedules, and details, as it relates to construction, fire protection and response, will be required, as well as a **digital cad layout** of the building by this department prior to our final C of O inspection.

Review and approval by the Authority Having Jurisdiction shall not relieve the applicant of the responsibility of compliance with these codes.

Respectfully submitted,

David McInally- Fire Marshal
Van Buren Fire Department



MCKENNA

June 6, 2019

Planning Commission
Charter Township
of Van Buren
46425 Tyler Road
Belleville, Michigan 48111

Subject: VBT-17-030; Ashley Capital Crossroads North/ North of Ecorse Road, west of Haggerty Road; Site Plan Review #5; Revised Site Plans Dated May 24, 2019.

Dear Commissioners:

The applicant, Ashley Crossroads North LLC, to construct three (3) industrial Buildings with a gross floor area of 1,579,325 square feet on a 162.13-acre site located on the north side of Ecorse Road west of Haggerty Road. This site of Ashley Crossroads North consists of 3 parcels. The proposed 3 buildings are named "Building 4," "Building 5," and "Building 6". Buildings 1-3 are in Ashley Crossroads South, located on the south side of Ecorse Road. The applicant received preliminary site plan approval from the Planning Commission on April 24th, 2019, subject to several conditions.

We have reviewed the revised site plan for compliance with the conditions of preliminary site plan approval and offer the following comments (any items that require changes or additional information are underlined):

COMMENTS

- 1. Correction to the maximum docks allowed calculation on Sheet C2, and addition of a note restricting the maximum number of docks on Buildings 5 and 6 to 108, as shown.** This condition has been met. The note has been revised to state that the maximum number of docks permitted would be 164 (1/4,000 square feet); however the number of docks shown and approved at this time is 108 per building.
- 2. Revision of the phasing plan notation to ensure weed free maintenance of stone pad for Building 6 at all times (not just growing season), in the event Phase 2 is delayed or does not materialize.** This condition has been met. The revised plan includes a note that the stone pad will be maintained with weed control throughout the year.
- 3. Addition of a note stating that screening planted around the mechanical units shall be at least one foot above the top of the unit.** This condition has been met. Sheet L1 notes that height of plantings around transformer units shall be increased to one foot above the top of the unit, once the final size of the units is determined prior to installation.

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4. **Addition of greenbelt plantings on the west side of the detention pond area, along the west property line, with the exception of those areas with existing landmark trees, which must be shown on the tree survey.** This condition has been met. The applicant has submitted a tree survey that indicates a cluster of existing trees in a portion of the area noted above. As recommended, 24 additional evergreen trees (varieties of Spruce) have been added to an area with relatively sparse vegetation cover to provide adequate screening. The proposed addition of trees in conjunction with the existing trees acts as a significant greenbelt buffer.
5. **Inclusion of greenbelt trees along north property line as part of Phase 1 planting plan within 18 months of completion of Building 4, if Building 6 construction has not commenced.** This condition has been met. Landscape plan sheets L4 and L5 show the proposed row of trees along the north property line as part of Phase 1 planting.
6. **Notation of details of monument sign base on the final site plan.** This condition can be met. The site plan includes the monument sign detail on Sheet C10 (previously C8). The base is still shown as masonry, but the actual material has not been identified as required. The sign must be constructed of brick.
7. **Notation that rooftop equipment will be placed in a manner to conceal its view from any right-of-way areas.** This condition has been met. The site plan notes that roof top mechanical equipment shall be setback from the edge of the roof and concealed from view of the public rights-of-way and residential areas.
8. **Planning Commission and Township Board of Trustees approval of the proposed special land use.** This condition has been met. The applicant received a recommendation for approval of the special land use from the Planning Commission on April 24, 2019, and received approval from the Township Board of Trustees on May 7, 2019.
9. **Substitution of the proposed Elm tree species on the landscape plan.** This condition has been met. At the preliminary hearing it was recommended that the Elm species proposed be substituted since Elms tend to be disease prone. Upon further research we have learnt that the Triumph Elm species proposed is in fact suitable for the local climate and region, is resistant to the Dutch elm disease and allows for good growth of foliage. The landscape plan still includes the Elm species and is acceptable.

RECOMMENDATION

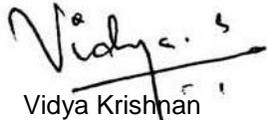
Most of the conditions of preliminary plan approval have been met at this time. Therefore, we recommend that the Planning Commission grant final site plan approval to Ashley Capital Crossroads North project to be located on the north side of Ecorse Road, west of Haggerty Road, subject to the condition below being met:

1. Constructing the base of the monument signs with brick as the masonry material.



Respectfully submitted,

McKENNA


Vidya Krishnan
Principal Planner

c: Ron Akers, Van Buren Township Director of Planning & Economic Development
Matt Best, Van Buren Township Director of Public Services
David Potter, FTCH, Township Engineers
David McNally, Van Buren Township Fire Marshal





June 7, 2019
Fishbeck Project No. 171601
VBT Project No. 17-030

Ms. Carol Thompson
Planning Commission Chairperson
Van Buren Township
46425 Tyler Road
Van Buren Township, MI 48311

Re: Crossroads Distribution Center North, Building Nos. 4-6
North Side of Ecorse Road, West of Haggerty Road, Section 2
Engineering Plan and Final Site Plan Review

Dear Ms. Thompson:

Fishbeck, Thompson, Carr & Huber, Inc. (FTCH) has completed the Engineering Plan and Final Site Plan review of the plans dated May 24, 2019, for the proposed Crossroads Distribution Center North, Buildings No. 4-6 project.

Preliminary Plans for Crossroads Distribution Center North, dated August 11, 2017, were submitted; Preliminary Site Plan approval was granted by the Planning Commission on November 8, 2017. Revised Preliminary Plans, dated February 4, 2019, were submitted and recommended for approval by FTCH in our letter dated April 5, 2019. These were approved by the Planning Commission on April 24, 2019. Engineering and Final Site Plans, dated March 4, 2019, were submitted and recommended for approval in the FTCH Engineering and Final Site Plan Review letter dated May 13, 2019; however, this letter was not submitted to the Planning Commission but instead was sent to the applicant for review and response. This letter is in response to the developer response letter dated May 24, 2019, and the revised Engineering Plans dated May 24, 2019.

This proposed project entails constructing one new 261,347-square-foot (sqft) building; two new 658,989-sqft buildings; a new public 12-inch (in) water main loop; a public sanitary sewer system comprised of 10- and 12-in PVC mains; and a private storm sewer system to accommodate the building and parking lot runoff with dual detention pond systems drained by way of a pump station and various other landscaping and site plan improvements.

In this letter, any previous comments from the second review that have not been completed will remain. The applicant's response to each comment, as documented in a letter to Ms. Carol Thompson, Chairperson on May 13, 2019, will be listed and any additional action items required by the *Engineering Standards Manual, Charter Township of Van Buren (April 2014)* that were not completed in this submittal will be listed.

Below, responses from the Applicant and additional action items will be listed as:

- (R) Applicant Response
- (C) Additional Comment

General

The following items are general requirements established as part of the *Engineering Standards Manual, Charter Township of Van Buren (April 2014)*. The applicant must include the following items as part of the construction plans.

1. The permanent water elevation within existing ditches and drains should be field measured and indicated on the plans.
(R) The permanent water elevation within existing ditches and drains is indicated on Plan sheets 8.1 & C9.0.
(C) Developer to verify that the invert elevation of the county drain outlet is below the permanent pool elevation of the county drain.
2. The landscape plans dated January 22, 2019, must ensure that no trees are planted within the water utility easement or the sanitary sewer utility easement. (see callout 25, Sheet L1)
(R) The landscape plans have been reviewed and any trees within public utility easements have been relocated outside of said easement are required.
(C) Confirmed.
3. Soil borings indicating the groundwater elevations should be provided.
(R) Soil borings indicating the ground water elevations have been provided (via email) to the Township Engineer.
(C) Confirmed.
4. Driveway culverts shall be indicated in plan and profile view. Plans shall include diameter, length, grade, and material of driveway culvert and culvert end sections (see callout 24, Sheet C5.1).
(R) The Delaney Drain culvert shall be added in profile & section views on sheet C5.9.
(C) Confirmed. The Delaney Drain Culvert profile and cross section have been added to plan set Sheet C5.9
5. Drainage flow arrows must be shown to indicate the direction of surface water flows on the lots and pavement.
(R) Drainage flow arrows are now shown on the site grading plans, sheet C5.1 – C5.6
(C) Confirmed (Sheet C3.1-C3.6).
6. The 100-year flood elevation must be shown on the plans when within the site.
(R): The McClaughry and Delany Drains have drainage areas less than two square miles and have no 100-year flood elevations per FEMA flood Insurance Rate Maps
(C) Confirmed.
7. A note indicating the proposed buildings that will not have a basement should be provided for buildings without basements.
(R) A note indicating the proposed buildings will not have a basement has been added on Sheet C2.0, General Note #33.
(C) Confirmed.
8. Plans must indicate relocating and/or addressing the overhead utilities that run through the proposed site plan improvements. The applicant must supply any and all easement information to VBT for review. Plans must indicate the location of any proposed relocated overhead utility poles (see callout 6, sheet C3.2).



(R) Notes have been added to Sheet C2.1 indicating the proposed DTE relocation route of the overhead utilities. DTE is currently planning on utilizing their existing corridor & poles so that no new easements would be required.

(C) Confirmed.

9. Plans must include phase lines (see callout 31, Sheet C2.0).

(R) Phase Lines added to sheet C2.0 as requested

(C) Confirmed.

10. Required notes:

- a. A statement that all construction shall conform to the current standards, specifications and general conditions of the Charter Township of Van Buren (VBT).
- b. The Developer is responsible for resolving any drainage problems on adjacent properties which are the result of the Developer's actions.

(R) The required notes were indicated in the General Notes on Sheet C2.0

- a. **Note #26 "all construction shall conform to the current standards, specifications and general conditions of the Charter Township of Van Buren".**
- b. **Note #27 "the developer is responsible for resolving any drainage problems on adjacent properties which are the result of the Developer's actions".**

(C) Confirmed.

Water Main Service

Existing:

VBT water main records indicate a public 12-inch water main that runs east and west along Ecorse Road.

Proposed:

The applicant's proposed plan shows a public 12-inch water main loop around the property with 8-inch hydrant leads, private 12-inch primary and redundant fire service leads, and private 4-inch domestic service leads. The plans indicate a 12-foot wide public water main easement with 3 connections overall to the existing 12-inch water main.

Comments:

1. Valves in wells and hydrants shall be placed on all dead-end mains for future extension. A 12-inch gate valve in well needs to be placed in the northeast corner prior to reducing the line for the hydrant (see callout 27, Sheet C5.6).

(R) A 12-inch gate valve in well has been added to the northeast corner prior to reducing the line for the hydrant, Sheet C5.6.

(C) Confirmed.

2. For "Special Crossings" (McClaghrey Drain), include details indicating the construction of the jack and bore: casing pipe details including length, thickness, diameter, and grouting (see callout 33, Sheet C8.5).

(R) Notes have been added at the McClaghrey Drain water main crossing to see VBT Detail Sheet MD-1 for details indicating the construction of the jack and bore, Sheets C5.1 & C8.5.

(C) Confirmed.

3. Applicant must verify demand pressure requirements for building service and fire flow. The minimum water pressure at the dead-end of the main shall be 20 pounds per square inch (psi) (residual) with a minimum flow of 1,500 gallons per minute (gpm).

(R) Notes have been added to the Watermain Notes on Sheet C5.3 indicated the fire flow (#10) and domestic water demand (#11).

(C) Confirmed. A hydraulic analysis was performed and summarized in our Construction Plan Review letter dated July 16, 2018, which determined that the existing water system has an available fire flow of 2,709 gpm. According to water main notes #10 & #11 on plan Sheet C5.3, the fire demand of the development will be 2,167 gpm; therefore, the system should be able to meet the fire flow demands of the development.

4. Gate valve spacing must be provided so that in the event of a breakage no more than two hydrants will be out of service (see callout 9, Sheet C5.1).

(R) A in-line isolation gate valve has been added so that in the event of a breakage no more than two hydrants will be out of service, Sheet C5.1.

(C) Confirmed.

5. Hydrants must be placed so that no part of any building or structure shall be more than 250 ft from a hydrant unless Fire Marshall approval is given to do otherwise. This distance shall be measured along the shortest feasible exterior route for laying fire hose. Hydrant No. 4-235 should be moved west to provide better coverage of Building 4 (see callout 34, Sheet C5.0).

(R) Our office has incorporated the Fire Marshall's review comments based upon the April 4th letter.

(C) Confirmed.

6. All lawn sprinkler and irrigation systems shall be equipped with a suitable backflow preventer in compliance with the Michigan Department of Environmental Quality.

(R) Watermain Note #8 on Sheet C5.3 indicates "all lawn sprinkler and irrigation systems shall be equipped with a suitable backflow preventer in compliance with the Michigan Department of Environmental Quality".

(C) Confirmed.

7. Applicant to indicate distance to nearest valves to the water main connections. Valve isolation necessary for water main connections must be coordinated with the VBT. Contractor shall prepare all water main connections to be performed concurrently.

(R) A note has been added to Sheet C5.2 indicating the locations of the existing in-line isolation valves. Watermain Note #9 states that "isolation necessary for water main connections must be coordinated with the VBT. Contractor shall prepare all water main connections to be performed concurrently".

(C) Understood. Van Buren Township is working on locating the valve at Station 28+60. If this valve does not exist, the next valve is at approximately 42+00.

Sanitary Sewer

Existing:

VBT sanitary sewer records indicate an existing public 15-inch concrete, gravity sanitary sewer along the north side of Ecorse Road. At the easterly property line of the Crossroads property, the public 15-inch sewer coming from the south has been abandoned and replaced with a public 30-inch sewer on the south side of Ecorse Road. The remaining 15-inch sewer is still in service to the east on the north side of the road.

Proposed:

The applicant's proposed sanitary sewer plans indicate the buildings being serviced by public 10-inch PVC SDR 35 mains with 6-inch wye connections for service leads. The downstream end of the system increases the sewer

size to 12-inch prior to tapping into the existing system in the southeast corner of the property. The plans indicate a 20-foot wide public sanitary sewer easement centered on all legs of the sanitary sewer main throughout.

Comments:

1. The "Crossroads North Basis of Sanitary Sewer Design" shows adequate capacity for the 10-inch sanitary sewer based on the numbers/values indicated in the *Van Buren Township Water & Sewer Department Schedule of Rates (effective January 1, 2018)*. Developer must verify whether the warehouse Residential Equivalent Use rate value is based on warehouses with fire suppression or without fire suppression. (The rate schedule is available here: <http://vanburen-mi.org/dpw/> under Public Works Information Links section.)

(R) No Comment to Address

(C) The Basis of Sanitary Sewer Design on Sheet C5.2 shows an Equivalent Residential Unit (ERU) rate of 0.15 unit per 1,000 square feet of warehouse building. According to the Van Buren Township Water & Sewer Department Schedule of Rates (effective January 1, 2018) the Equivalent Residential Units (ERU) for a Warehouse with fire suppression is 0.35 units per 1,000 square feet. The peak flow calculation must be recalculated using the correct ERU for the warehouse building area.

2. Sanitary sewers shall be matched at the eight-tenths diameter depth above invert in manhole when changing internal diameter sizes of sewers or connecting to exiting system.

(R) We have revised the sanitary sewer to match the eight-tenths diameter depth above invert in manhole when changing internal diameter sizes of sewers or connecting to exiting system.

(C) Confirmed.

3. All Sanitary Sewer crossings must show a minimum clearance of 18 inches, including the storm sewer roof drains. In general, water mains should cross over top of sanitary sewer utilities.

(R) We have revised the sanitary sewer (lowered) where feasible to increase the sanitary & roof conductor crossing clearance to 18-inches.

(C) Confirmed.

4. No sanitary sewer shall have less than six feet of cover. Insulation must be provided for any portion of the sewer that cannot be placed at a depth sufficient to prevent freezing, including any sewer service lead. Pipe cover and insulation details must be included on the sewer profile sheets (see callout 35, Sheets C5.7 & C5.8).

(R) Where feasible we have lowered the sanitary sewer to maintain six-feet of cover and pipe with less than six-feet of cover have been shown with insulation in the profile views, Sheets C5.7 & C5.8.

(C) Confirmed.

5. Sanitary sewers must provide a drop of one-tenth foot in the downstream sewer invert for direction changes in excess of 30 degrees to compensate for velocity head loss of the incoming flow.

(R) Sanitary structures have the required 0.1-foot drop with deflection of greater than 90-degrees

(C) Confirmed.

6. Sewers must not be oversized in order to lower pipe slopes unless it can be shown that they will flow at least one-half full during peak flows.

(R) No Comment to Address

(C) Confirmed.

7. As part of the new Department of Environment, Great Lakes and Energy (EGLE) Part 41 permit approval, the applicant will be required to get Wayne County approval for modifications to the Rouge Valley Sewage Disposal System.

Storm Sewer and Storm Water Storage

Existing:

Existing topography shows multiple field drains flowing to the south/southwest towards the existing Delaney Drain and McClaughrey Drain. There are currently no existing underground drainage systems on the property.

Proposed:

The applicant's proposed plan shows a full, privately-owned underground drainage system that flows from east to west. Pipe sizes range from 10 inches to 66 inches, with the majority being C76 CL4 reinforced concrete pipe (RCP). Roof drains are proposed to be schedule 40 PVC. Overall water quality and site detention is handled by two separate wet detention ponds with forebays. The ponds are drained by way of a pump station that ultimately discharges into the Delaney Drain.

Comments:

1. The plans must show the existing overland flow route prior to and after construction (see callout 37, Sheet C9.0).
(R) The Existing Conditions Plan, Sheet C9.0, has been corrected to show the existing wetlands at the NE corner of the site. This wetland is the low point for this area. A storm structure is also the west of the area and will provide an overflow route.
(C) Confirmed.
2. A drop of 0.10 feet shall be provided in the downstream sewer invert elevation for directional changes in excess of 30 degrees to compensate for the hydraulic head losses.
(R) From a conversation with the Township Engineer a drop of 0.10-ft is not required in storm sewer structures with a "wet" sump. The "wet" sump does not add to the hydraulic head losses.
(C) Confirmed.
3. Detailed plans, profile, details, and notes need to be submitted for the McClaughry Drain crossing driveway box culvert (see callout 30, Sheet C8.5).
(R) Detailed plans, profile, details, and notes of the McClaughry Drain crossing driveway box culvert will be provided from the manufacturer.
(C) Understood. Prior to the preconstruction meeting being held, all aspects of culvert design must be approved by the Township and governing authorities.
4. Pump Station Layout/Schematic needs to illustrate the layout of system (control panel, valve box, etc.). If a backup generator is to be used, a schematic of the location, fuel source, and overall layout relative to control panels and other apparatus must be shown for the site.
(R) Pump Station Layout/Schematic illustrating the layout of system (control panel, valve box, etc.) will be forwarded with received from the supplier. It has been noted on the plan views, Sheet C4.1 & C5.1, the proposed location of the pump control panel and that it will have an electrical transfer switch and portable generator hook-up. Basin "A" has an overland overflow route directly into the Delaney Drain and Basin "B" has six feet of freeboard.
(C) Understood. Prior to the preconstruction meeting being held, all aspects of lift station design must be approved by the Township and governing authorities.

5. Plans currently indicate VBT maintenance responsibility (Sheet C4.0) as being the majority of the storm sewer pipe network. A method of facility maintenance acceptable to VBT shall be submitted and approved prior to final plan approval. This method shall provide for private maintenance.
(R) The owner has been made aware that they are required to accept maintenance responsibility of the storm water system from the Township.
(C) Understood.
6. The minimum size for the storm sewer is 12 inches in diameter (see callout 28, Sheet C5.12).
(R) The two storm sewer runs have been corrected to 12-inch diameter, Sheet C5.12.
(C) Confirmed.
7. The flow capacity of each reach of a closed conduit that is part of a storm water management system must be equal to or greater than the peak flow rate for a 10-year storm.
(R) From a conversation with the Township Engineer because the County's more restrictive requirement of the hydraulic grade line being 2.5-feet below any rim (Township's 1-foot below rim) being met; the storm sewer's slope matching the slope of the hydraulic grade line is acceptable.
(C) Understood.
8. Plans must include a detail for MH 8 and the proposed dissipation of outflow (see callout 36, sht C4.1).
(R) the County is requiring MH 8 to be a standard manhole with no special internal energy dissipator. However, we concur with the Township Engineer and will ask the WCDPS if an additional dissipator can be added to the structure.
(C) Understood. Developer must address changes or submit a response from Wayne County prior to scheduling the preconstruction meeting.

Paving and Grading

1. Drainage flow arrows shall be shown to indicate the direction surface water flows on the pavement.
(R) Drainage flow arrows are now shown on the site grading plans, Sheets C5.1 – C5.6.
(C) Confirmed (Sheet C3.1-C3.6).
2. A pavement marking plan shall be included as part of the submittal.
(R) Additional directional pavement markings have been added to Sheets C2.1 & C2.2.
(C) Confirmed.

Soil Erosion and Sedimentation Control (SESC)

1. An SESC Plan has been provided in accordance with the *Engineering Standards Manual*, Chapter II, Plan Requirements, Paragraph D, SESC Plan Requirements. A permit must be acquired from the Wayne County SESC County Enforcing Agency (CEA).
<https://www.waynecounty.com/departments/environmental/landresources/soil-erosion.aspx>
(R) The owner has received approval from the WCDPS LRMD for the Soil Erosion Control.
(C) Confirmed. The letter dated June 5, 2018, from Wayne County, shows SESC approval (permit #18-165). The developer must submit the permit prior to scheduling the pre-construction meeting.
2. Additional silt fence may be necessary along the northern property line once the existing overland flow routes are determined.
(R) The owner & general contractor have been made aware that additional silt fence may be necessary along the northern property line.

(C) SESC plans must include a silt fence along the northern property line.

3. Straw mulch blankets shall be used on 3:1 slopes or greater.

(R) It was noted on Sheet C6.2 General Soil Erosion Control Notes #10 that straw mulch blankets shall be used on 3H:1V slopes or greater.

(C) Confirmed.

Traffic Impact Study

A Traffic Impact Study, performed by Parsons and dated October 27, 2017, to determine the impact that the Crossroads North development would have on the area roadways. It was used to identify any needed improvements to mitigate these impacts and to see if a driveway signal would be warranted at the project location. The study suggested a 'wait and see' approach to observe the volume of traffic in the future and determine if a signal is warranted for this location. A Traffic Impact Study review letter was prepared by FTCH sub-consultant RS Engineering (RSE), dated November 28, 2017, which agreed with the Parson's Traffic Impact Study approach. An email from Dave Potter, dated December 8, 2017, recommended stipulations on the Developer to provide the funds for the reevaluation in the form of an escrow with an agreed upon date that would allow VBT to have the Traffic Impact Study updated, with the provision that the developer would pay for the signal improvements if deemed warranted. However, a Wayne County letter dated July 23, 2018 references the Parson's Traffic Impact Study and mentions that a proposed signal plans must be included with the following submittal. The current set of Engineering Plans also indicate that a traffic signal improvement plan is proposed for the western approach.

1. Applicant must submit the Traffic Signal Plans as part of the Engineering Plan approval. Engineering Plans must be updated to reflect the signal changes.

(R) The Traffic Signal Plan has been forward to the WCDPS and the Township Engineer (via email).

(C) The Traffic Signal Plans dated May 17, 2019 have been received. The plans appear to be preliminary and are not included in the revised Engineering Plans. Traffic Signal Plans will need to be submitted as part of the revised Issued for Construction plans prior to scheduling the preconstruction meeting showing the updated traffic signal.

Wayne County/EGLE/MDEQ Permits

1. Applicant to verify with EGLE which permits will be required for impacts to wetlands or floodplains. A draft MDEQ permit has been granted dated March 11, 2019, requiring a final mitigation plan to be submitted by the permittee and approved in writing by EGLE. Applicant must obtain an EGLE permit for the wetlands and floodplains prior to construction.

(R) A draft MDEQ Pat 31 & 301 Permit was granted on March 11, 2019. The required wetland credits to finalize the permit are to be purchased the week of May 26th. We will forward the finalized permit for the Township's records.

(C) Understood.

2. An MDEQ permit dated June 12, 2015, has been acquired for the work on McClaughery Drain, including the removal of two culverts, construction of a 120-foot long box culvert and a 48-inch diameter culvert, installation of a 12-inch water main by jack and bore below the stream bed, and earthwork cut and fill. The current set of Engineering Plans indicate a 90-foot long box culvert; **applicant must verify that the permit is still current**. Also, since the permit does not allow extensions, a new permit will need to be obtained if the work is not completed by the expiration date of June 12, 2020. Any new or revised permits must be submitted to VBT.



(R) Our office has verified with Mr. Patrick Durack of the Michigan Department of Environment, Great Lakes, and Energy (formally MDEQ) that because the culvert was decreased in length to 90-feet that the permit is still valid.

(C) Understood.

3. A letter from Wayne County dated July 6, 2018, lists several review comments for the plans submitted May 15, 2018. Applicant must address Wayne County comments and submit and obtain stormwater and right-of-way (ROW) approval from Wayne County prior to construction.

(R) The owner has revised Mass Grading and Temporary Drive Approach Approval from the WCDPS, a copy has been forwarded to your office (via email)

(C) A letter dated May 9, 2019, grants Mass Grading and Temporary Drive Approach approval from Wayne County (permit #R15-093). Applicant must obtain stormwater and ROW approval from Wayne County prior to scheduling the preconstruction meeting.

4. Applicant must obtain and submit a separate approval for the Traffic Signal Plans from Wayne County.

(R) Plans have been submitted to WC Traffic for the proposed signal at the west drive approach. WCDPS has said that this would not delay the issuance of Storm / ROW approvals.

(C) Understood. Applicant must obtain approval for the Traffic Signal plans from Wayne County prior to scheduling a preconstruction meeting.

5. The current property developers Ashley Capital, Ashley Crossroads North, LLC, have indicated on the drawings (Sheet C8.0, dated March 4, 2019) that Cross Roads North (CRN) and Cross Roads South (CRS) Western approach along Ecorse Road is to be signalized per W.C.D.P.S Traffic.

- a. Based upon a conversation that we had with the Wayne County Traffic Engineer on May 13, 2019, the signal plans have not been designed or submitted for review to Wayne County.
- b. It was noted that the current traffic study indicated that a low amount of eastbound truck movements is anticipated entering the site through the western approach.
- c. Our concern is that if eastbound truck or car movements increase and are greater than what was anticipated in the current traffic study, the roadway would have to be improved to add a greater queuing length for the left turn movements into Cross Roads North.

(R) No comment to address.

(C) Based on the Traffic Signal plan that we received, dated May 17, 2019, our comments and concerns are still current.

FTCH shared our concerns and suggestions with the Wayne County Traffic Engineer, including the issuance of a two-phase permit for the signal, whereby an updated traffic study would be required by Wayne County after the site is completed and in use. This would reflect actual conditions, and if warranted, additional road improvements would be required by Wayne County associated with the new signal and property use at the time, including the addition of a longer queue west over the existing county culvert. These potential improvements, if required, would be paid for by the current property owner.

6. Applicant will be required to obtain approval for both Act 399 and part 41 permits through EGLE. These permits must be obtained prior to scheduling the preconstruction meeting.

Recommendation

FTCH had previously recommended Engineering and Final Site Plan approval in our Engineering and Final Site Plan Review Letter dated May 13, 2019. At this time, we are continuing to recommend Engineering Site Plan and Final Site Plan approval subject to the review comments noted above, in the marked-up plans, and in

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accordance with the *Engineering Standards Manual*. All comments must be addressed, and all required permits must be obtained from Wayne County Department of Public Services (stormwater, ROW, SESC, sanitary sewer) and EGLE/MDEQ (water main, sanitary sewer, wetlands) and the plans resubmitted for final approval in an Issued-For-Construction plan set prior to the scheduling of the Preconstruction Meeting.

If you have any questions regarding this project, please contact me at 248.324.4791 or dpotter@ftch.com.

Sincerely,
FISHBECK, THOMPSON, CARR & HUBER, INC.



David L. Potter, PE, CSI-CCCA



Paul J. Kammer, PE

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By email

cc: Mr. Ron Akers – VBT
Mr. Joseph Webb, PE – Webb Engineering, Inc.