

# **PLANNING COMMISSION MEETING AGENDA**

## **July 6, 2023 THURSDAY 6:00 P.M.**

**Location: Kalamazoo Charter Township Hall, 1720 Riverview Drive, Kalamazoo, MI 49004**

### **AGENDA:**

- #1 Call to Order
- #2 Roll call and recognition of visitors
- #3 Approval of the agenda for the July 6, 2023 meeting.
- #4 Approval of the minutes for June 1, 2023 meeting.
- #5 Public Comment (3-minute limit)
- #6 Scheduled Reviews: None.
- #7 Public Hearings:
  - 7a. 3809 E. Michigan Avenue – Consumers Concrete Special Land Use
- #8 New Business:
  - 8a. 3809 E. Michigan Avenue – Consumers Concrete Special Land Use
  - 8b. 3809 E. Michigan Avenue – Consumers Concrete Site Plan Review
- #9 Old Business:
- #10 Open Discussion
  - 10a. Members of the Audience
- #11 COMMUNICATIONS: None.
- #12 REPORT OF THE TOWNSHIP BOARD REPRESENTATIVE.
- #13 REPORT OF THE TOWNSHIP ZBA REPRESENTATIVE.
- #14 COMMENTS FROM PLANNING COMMISSION MEMBERS.
- #15 REPORT OF THE PLANNER.
- #16 REPORT OF THE ZONING ADMINISTRATOR.
  - See report in packet.
- #17 REPORT OF THE TOWNSHIP ATTORNEY.
- #18 ADJOURNMENT.

The public may attend this meeting for your information and comments. Please contact the Planning & Zoning Department if you have any questions at (269) 381-8085.

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**Charter Township of Kalamazoo  
Minutes of a Planning Commission Regular Meeting  
Held on June 1, 2023**

8 A regular meeting of the Charter Township of Kalamazoo Planning Commission was conducted  
9 on June 1, 2023, commencing at 6:00 p.m. at the Charter Township of Kalamazoo Hall.

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**Present were:**

16 William Chapman  
17 Denise Hartsough  
18 Christopher Mihelich  
19 Steve Leuty  
20 Pete Morrison  
21 Warren Cook

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**Absent was:**

26 Fred Nagler, Chairman

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Upon motion by Mihelich, supported by Cook, and unanimous vote, the agenda was approved as presented.

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Also present were Township Planner Danielle Bouchard, Township Attorney Seth Koches, and six (6) interested members from the public.

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**Call to Order**

Hartsough, the Commission's Vice Chair, called the meeting to order at 6:00 p.m.

**Roll Call and Recognition of Visitors**

Hartsough welcomed those in attendance.

**Approval of the Agenda for the June 1, 2023, regular Planning Commission meeting**

The next item on the agenda was approval of the agenda for the June 1, 2023, regular Planning Commission meeting. The Commissioners received the meeting agenda in their packets.

Upon motion by Cook, supported by Chapman, and unanimous vote, the agenda was approved as presented.

**Approval of the minutes for May 4, 2023, regular Planning Commission meeting**

1 The item on the agenda was approval of the minutes of the May 4, 2023, regular Planning  
2 Commission meeting.

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4 A copy of the draft minutes of the May 4, 2023, regular Planning Commission meeting were  
5 provided to the Commissioners in the agenda packet. Hartsough recommended several revisions  
6 to the draft minutes.

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8 Upon motion by Cook, supported by Mihelich, and unanimous vote, the minutes of the May 4,  
9 2023, regular Planning Commission meeting were approved as revised.

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11 **Public Comment**

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13 None.

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15 **Scheduled Reviews.**

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17 **Superior Gravel – 1950 Ravine Road, Annual Renewal**

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19 Bouchard said that a site inspection was conducted on May 10, 2023. Bouchard confirmed that  
20 the site was in compliance and that no complaints have been received by the Township.

21  
22 Upon motion by Cook, supported by Chapman, and unanimous vote, the special land use permit  
23 for Superior Gravel – 1950 Ravine Road is extended for another year, with the following  
24 conditions:

- 25  
26 1. That the \$120 inspection fee is paid to the Township;  
27 2. That a copy of an updated bond is provided to the Township;  
28 3. That a copy of an updated liability insurance policy is provided to the Township.

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31 **Peter’s Construction Co. – 720 Mosel, Annual Renewal**

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33 Bouchard said that a site inspection was conducted on May 10, 2023. Bouchard confirmed that  
34 the site was in compliance and that no complaints have been received by the Township.

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36 Upon motion by Cook, supported by Chapman, and unanimous vote, the special land use permit  
37 for Peter’s Construction Co. – 720 Mosel is extended for another year, with the following  
38 conditions:

- 39  
40 1. That the \$120 inspection fee is paid to the Township;  
41 2. That a copy of an updated bond is provided to the Township;  
42 3. That a copy of an updated liability insurance policy is provided to the Township.

43  
44 **Aggregate Resources – 4272 Ravine Road, Annual Renewal**

1  
2 Bouchard said that a site inspection was conducted on May 10, 2023. Bouchard confirmed that  
3 the site was in compliance and that no complaints have been received by the Township.  
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5 Upon motion by Cook, supported by Chapman, and unanimous vote, the special land use permit  
6 for Aggregate Resources – 4272 Ravine Road is extended for another year, with the following  
7 conditions:  
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- 9 1. That the \$120 inspection fee is paid to the Township;
- 10 2. That a copy of an updated bond is provided to the Township;
- 11 3. That a copy of an updated liability insurance policy is provided to the Township.  
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14 **Public Hearings – 411 Nazareth Road – Rezoning C-1 to R-2**  
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16 The next item on the agenda was the public hearing to consider the request of Mark Paulus and  
17 George Hathaway to rezone property located at 411 Nazareth Road, Parcel No. 06-13-405-020  
18 from C-1, Local Business to R-2, Single and Two-Family Residential in order to build a residential  
19 home. The subject property is currently vacant. Bouchard prepared a staff report and  
20 summarized it. Bouchard said that the subject property is approximately 1.18 acres in size and  
21 noted that it was offered for sale on MLS as being located in a residentially zoned district.  
22 Bouchard said that the applicants want to build a residential home on the property, which will  
23 comply with setback, lot coverage, and building height requirements of the R-2 District.  
24

25 Hartsough opened the public hearing and invited any interested party to speak in support of or  
26 in opposition to the rezoning request. Jeff Swenarton, an attorney representing the applicants,  
27 addressed the Commission on their behalf. Swenarton discussed the topography of the property  
28 and said that the applicants want to build a home. Swenarton said it was unclear why the  
29 property was rezoned to commercial and agreed with Bouchard’s staff report, which  
30 recommended approval of the request for rezoning. Swenarton confirmed that the applicant  
31 obtained water and sewer permits and look forward to developing the property. Swenarton said  
32 that the property abuts the Eastwood neighborhood and is compatible with surrounding land  
33 uses. Swenarton asked that the Commission recommends approving the rezoning request to the  
34 Township Board.  
35

36 Aaron White said that he agreed that the property should be rezoned to R-2. Mark Paulus said  
37 that he was working to clean-up the property and looked forward to building a home.  
38

39 Hearing no additional public comment, Hartsough closed public comment.  
40

41 **New Business.**  
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43 **411 Nazareth Road – Rezoning C-1 to R-2.**  
44



1 The next item on the agenda was to consider the request of Mark Paulus and George Hathaway  
2 to rezone property located at 411 Nazareth Road, Parcel No. 06-13-405-020 from C-1, Local  
3 Business to R-2, Single and Two-Family Residential in order to build a residential home.

4  
5 Bouchard discussed the subject property and noted that is a heavily wooded lot with an existing  
6 shed or barn. Bouchard discussed the Township’s existing zoning map and future land use map  
7 and concluded that the proposed rezoning will be in accordance with the basic intent and  
8 purpose of the zoning ordinance. Bouchard confirmed that rezoning the subject property to R-2  
9 will further the Township’s comprehensive planning goals, as reflected in the master plan.  
10 Additionally, Bouchard stated that the rezoning will correct an inequitable situation created by  
11 the zoning ordinance because C-1 does not permit residential homes therein. Bouchard  
12 concluded that rezoning the property to R-2 will not result in exclusionary zoning and will not set  
13 an inappropriate precedent that will need to be corrected in the future. Lastly, Bouchard said  
14 that rezoning to R-2 is consistent with the zoning classifications of surrounding properties.  
15 Bouchard recommended approving the applicant’s request of rezoning the subject property from  
16 C-1 to R-2.

17  
18 Chapman confirmed the parcel size. Mihelich discussed the history of the property and supported  
19 the rezoning request; the rest of the Commissioners agreed.

20  
21 Upon motion by Cook, supported by Morrison, and unanimous vote, the Planning Commission  
22 recommended approval of the request of Mark Paulus and George Hathaway to rezone property  
23 located at 411 Nazareth Road, Parcel No. 06-13-405-020 from C-1, Local Business to R-2, Single  
24 and Two-Family Residential to the Township Board.

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26 **241 Mosel – Text Amendment to Section 17.02.B - Discussion**

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28 The next item on the agenda was to discuss a text amendment to section 17.02.B of the Township  
29 Zoning Ordinance. Bouchard prepared a staff report and summarized it. Bouchard said that the  
30 applicant applied for a zoning ordinance text amendment to allow an adult-use retailer to be a  
31 special land use in the C-1 District Zoning Classification. An adult-use retailer is currently not  
32 allowed in C-1. The applicant, Aaron White, said that the property is zoned C-1 and only permits  
33 provisioning centers, C-2 allows for Adult-Use Retailers as a special land use.  
34 Bouchard said that to qualify as a provisioning center in the C-1 District, the sale of marijuana can  
35 only occur to a registered patient or caregiver. The Commission discussed the request, noting  
36 that C-1 allows for smaller commercial scale businesses, while C-2 allows for higher intensity  
37 commercial businesses. Morrison said that granting the proposed amendment may lead to  
38 confusion and doesn’t feel that the amendment is beneficial. Mihelich said that liquor sales are  
39 allowed in the RM-2 District as special land uses and questioned why an adult-use marijuana  
40 retailer should be precluded. Leuty said that approving the request may be unfair to previous  
41 businesses who could not located in C-1 and discussed potential Township liability. Cook said that  
42 it is difficult to set regulations and change them to address future needs of the Township. The  
43 Commission discussed the challenges regarding buffer zones and setback requirements. Leuty

1 said that he would discuss the request at the next Township Board meeting because he is the  
2 Board member liaison to the Planning Commission.

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4 **Master Plan 63-Day Comment Period – Forward to Township Board**

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6 Bouchard said that the master plan was forwarded to the Township Board to open the 63-day  
7 comment period.

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9 **Old Business.**

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11 None.

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13 **Members of the Audience.**

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15 Aaron White discussed the proposed text amendment to C-1 to allow adult-use retail facilities as  
16 a special land use. White said that he will be surveying his property to determine compliance with  
17 buffer lines.

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19 **Communications**

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21 None.

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23 **Report of the Township Board Representative.**

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25 Leuty updated the Planning Commission regarding Township Board matters.

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27 **Report of the Zoning Board of Appeals Representative.**

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29 None.

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31 **Comments of the Planning Commission Members.**

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33 The Commissioners generally discussed planning and zoning updates.

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35 **Report of the Planner/Zoning Administrator.**

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37 Bouchard discussed general planning and zoning updates.

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39 **Report of the Township Attorney.**

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41 None.

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43 **Adjournment**

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1 There being no further business to come before the Planning Commission, the regular Planning  
2 Commission meeting was adjourned at 7:55 p.m.

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**SUMMARY OF ACTIONS**

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The Charter Township of Kalamazoo Planning Commission undertook the following actions at its regular Planning Commission meeting held on June 1, 2023:

- 1. Approved the annual special land use permit review and extension of Superior Gravel; Peter’s Construction Co.; and, Aggregate Resources, with conditions.
- 2. Recommended approving the rezoning request of 411 Nazareth Road to the Township Board.

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, Secretary

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, Secretary



**MCKENNA**

# Memorandum

**TO:** Kalamazoo Charter Township Planning Commission  
Danielle Bouchard, AICP, Principal Planner (Township Planner)

**FROM:** Kyle Mucha, AICP, Senior Planner (Township Zoning Administrator)  
Lauren Sayre, Assistant Planner

**SUBJECT:** **3809 East Michigan Avenue – Consumers Concrete Corporation – Special Land Use Review #3**

**DATE:** June 9, 2023

The applicant, Consumers Concrete Corporation (CCC), is proposing to construct a new concrete block manufacturing plant in order to increase efficiency, reduce carbon emissions and update the appearance of the property.

## SUMMARY OF REQUEST

The applicant is requesting special land use approval to operate a concrete block manufacturing plant at 3809 East Michigan Avenue. The new facility is projected to be 38,850 square feet in size; however, 2,100 square feet is second story office space. The building footprints is projected to be 36,750 square feet. In addition to the new facility, the applicant proposes expanding the onsite employee parking, service truck maneuvering areas, and a private septic area to handle waste products.

The property is currently zoned I-2, General Industrial and is an estimated 52.3 acres in size.

Section 20.02.B.15 of the Township Zoning Ordinance classifies concrete plants as a Special Land Use within the I-2 District, subject to review and approval by the Kalamazoo Township Planning Commission.

## STANDARDS FOR GRANTING SPECIAL LAND USE APPROVAL

Pursuant to Section 26.03.C., of the Township’s Zoning Ordinance, the following standards apply for granting special land use approval:

### 1. Compatibility with Adjacent Uses



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*The proposed special land use shall be designed, constructed, operated and maintained to be compatible with uses on surrounding land. The site design of the proposed special land use shall minimize the impact of site activity on surrounding properties. In determining whether this requirement has been met, consideration shall be given to:*

- a. *The location and screening of vehicular circulation and parking areas in relation to surrounding development.* It appears that the subject site has greenspace (approximately 36 feet wide) and mature growth trees located along the western property line, up to the north side of Victor Avenue. We support the preservation of this green space and mature trees in this area, especially to offer buffer between the subject site and adjacent residential home. However, additional landscaping elements on the frontage along E. Michigan Avenue would be a significant improvement to overall site and corridor aesthetics, as well as reduction of impervious surfaces on the site.

The applicant does not propose any screening around the parking or vehicular circulation areas. The applicant provided that the strip of land along E. Michigan Avenue is only 20 feet wide and has a vertical drop of 12 feet. Because of this, there is no space for the installation of natural screening. Additionally, screening in this area would limit the view of vehicles turning out from the site onto E. Michigan Avenue. The applicant also provided that at the entrance from E. Michigan Avenue, there is potential for low profile vegetation, although it is not planned. It is recommended that the applicant plant low profile vegetation along the existing lawn fronting E. Michigan Avenue to better screen the property from the road, without compromising the safety and visibility of exiting vehicles.

- b. *The location and screening of outdoor storage, outdoor activity or work areas, and mechanical equipment in relation to surrounding development.* The applicant does not propose any screening around the outdoor storage areas. The outdoor storage areas are located in the “inventory yard” and “unloading area” as noted on drawing C-7 of the site plans dated April 4, 2023. There is no proposed screening, but the outdoor storage areas appear to be screened from adjacent parcels and roads by natural vegetation buffers.
- c. *The hours of operation of the proposed use. Approval of a special land use may be conditioned upon operation within specified hours considered appropriate to ensure minimal impact on surrounding uses.* The hours of operation for this facility are 7am to 7pm Monday through Saturday.
- d. *The bulk, placement, and materials of construction of the proposed use in relation to surrounding uses.* The project site abuts one residential property, 326 Victor Street. Currently, existing vegetation separates this property from the operations of CCC. There is no additional screening proposed.
- e. *Proposed landscaping and other site amenities. Additional landscaping over and above the requirements of this Ordinance may be required as a condition of approval of a special land use.* The submitted plans do not include a landscape plan. The applicant provided that due to



the configuration of the E. Michigan Avenue frontage, traditional screening measures are not feasible; however low profile vegetation along the existing lawn is recommended. The applicant is requesting a modification from the Planning Commission for the landscape requirements along E. Michigan Ave. as there are no impervious surfaces. The applicant is also requesting a modification for the parking landscaping based on their request for less parking. The applicant intends to build a rain garden type greenspace at the employee parking area. The applicant shall submit a landscaping plan to depict the proposed low-profile vegetation along E. Michigan Avenue. Additionally, a landscaping plan shall note the preservation of the 36-foot greenspace between the subject site and Victor Avenue to ensure the mature growth trees and vegetation are preserved. Further, we recommend the applicant submit plans for parking lot landscaping elements, once the existing building is demolished. The resulting impervious area on the site will include a vast amount of concrete/pavement with a building setback further from the road (compared to the existing building). As such, additional landscaping to provide breaks in the amount of impervious surface on this site would be more in compliance with ordinance requirements, as well as offer elements of environmental justice to the site. These elements will be discussed further during site plan review.

**2. Compatibility with the Master Plan**

*The proposed special land use shall be consistent with the general principles and objectives of the Township's Master Plan.* The 2014 Future Land Use Map designates this site as Industrial, as well as adjacent sites. This use aligns with the intent of the Township's 2014 Master Plan.

**3. Public Services**

*The proposed special land use shall be located so as to be adequately served by essential public facilities and services, such as highways, roads, police and fire protection, drainage systems, water and sewage facilities, and schools, unless the proposal contains an acceptable plan for providing necessary services or evidence that such services will be available by the time the special land use is established.*

Water, natural gas, and electric power are available at this location. Sewer is not available, and a new septic system will be required and is noted on the site plan. The applicant has submitted their proposed gas and electric demand to Consumers Energy. We defer to the Township Engineer for comment on any concerns with regard to public services and utilities available on site. The Kalamazoo County Health Department shall review and approve the proposed septic system conditions. The applicant shall submit proof of approvals from the County to the Township prior to any construction or new uses taking place on site.

The subject site is adequately served by public roads – E. Michigan Ave., running east/west and N. Sprinkle Rd., running north/south. Police and fire protection are handled by the Charter Township of Kalamazoo, and the site is proposing a fire connection at the front of the new concrete plant. We will defer any additional fire safety concerns to the Township Fire Marshal.



The site plan does not show drainage patterns but does indicate the presence of storm water retention on adjacent parcels owned by CCC. Stormwater from the project will drain to a dredge about 1,100 feet northeast of the plant. Stormwater plans are subject to review by the Township Engineer.

#### **4. Impact of Traffic**

*The location of the proposed special land use within the zoning district shall minimize the impact of the traffic generated by the proposed use. In determining whether this requirement has been met consideration shall be given to the following:*

*a. Proximity and access to major thoroughfares.*

The site has primary access to E. Michigan Ave and is adjacent to N. Sprinkle Road. We find that proximity and access to major thoroughfares is achieved.

*b. Estimated traffic generated by the proposed use.*

The applicant projects that aggregate and cement trucks are estimated to double the existing volume. It is estimated that the traffic generated from the new plant will equal eight aggregate trucks, one cement truck, and approximately 45 various finished product vehicles. The applicant has provided a statement pertaining to anticipated traffic:

- Traffic for aggregate trucks and cement trucks will be approximately double the existing. The Traffic expected for the new facility was presented in the Site Plan Application Narrative and is summarized as follows:
  - Aggregate Trucks: 8 gravel train trucks
  - Cement Trucks: 1per day
  - Finished Product Vehicles: Customer dependent sizes. As many as 45 vehicles per day with sizes varying from 53' flatbed to landscape truck with 14' trailer.

Due to the substantial increase (double) truck traffic on site, we highly recommend and encourage the applicant to obtain a traffic impact study to submit to the Township for review.

*c. Proximity and relation to intersections.*

The site has frontage along E. Michigan Ave. and is located in close proximity to E. Michigan Ave. and N. Sprinkle Rd. Currently, there is one access driveway along E. Michigan Ave. already in existence and is not proposed to change.

*d. Adequacy of driver sight distances.*

Driver site distances have not been properly explored. This criterion is subject to review by the Township Engineer. However, we note that the existing driveway on the site from E. Michigan Avenue is compliant with ordinance standards for width requirements to access an industrial parcel. It is not likely that driver site distances are impaired as a result of the proposed special land use.

*e. Location of and access to off-street parking.*





Access to off-street parking for employees will be provided on the east side of the proposed concrete plant. This will be accessed via a newly striped vehicle path on the existing concrete pavement surrounding the existing concrete plant. Off-street parking for maintenance vehicles will be located on the west side of the proposed concrete plant and accessed by a newly constructed driveway.

The applicant has provided the following justification, “We reviewed Section 4.01 (D0(6) - Parking and determined that the new facility does not have need for the number of spaces cited. Consumers will have at most 12 employees in the building at any given time. This includes maintenance personnel. This building is not a public access facility and is not open to the public. Aside from 4 additional maintenance vehicles, there is no need for parking beyond the 18 spaces that we have requested,” however, the applicant shall receive permission from the Planning Commission to reduce the required parking spaces. We do not find the proposed parking plan to be expanded beyond what is proposed, based on the information provided to the applicant. Parking requirements will also be addressed during site plan review.

*f. Required vehicular turning movements.*

The applicant has provided truck turning movements throughout the proposed site, and vehicular turning movements appear to be sufficient.

*g. Provisions for pedestrian traffic.*

There are no indicated provisions for pedestrian traffic. The applicant indicated there are no existing sidewalks on the site and does not propose any new sidewalks. Along E. Michigan Avenue, the applicant indicated there was no space, especially given the height variation and guardrail, for a sidewalk, nor are there existing sidewalks to connect to. The plant is surrounded by concrete surface, and therefore no internal sidewalks are being proposed. It is recommended that pedestrian access from the showroom to the new plant is addressed. Further, the applicant has indicated that a sidewalk on the Sprinkle Road, side is not applicable due to the fact that it is within Comstock Township limits. This will be addressed further during site plan review.

**5. Detrimental Effects**

*The proposed special land use shall not involve any activities, processes, materials, equipment, or conditions of operation, and shall not be located or designed so as to be detrimental or hazardous to persons or property or to public health, safety, and welfare. In determining whether this requirement has been met, consideration shall be given to the level of traffic, noise, vibration, smoke, fumes, odors, dust, glare, and light.*

The applicant proposes safety features built into the new concrete manufacturing facility. These include features to contain and store chemicals, reduce dust pollution, and reduce noise pollution.

The applicant provided that they are working with EGLE regarding the wetland review; however, the property is an active mining operation and is generally considered exempt from wetland delineation. Additionally, an environmental applicability Review has already been performed.





The project is subject to environmental review by relevant environmental agencies. An impact assessment also shall be submitted. The applicant has indicated that an “Environmental Applicability Review” has been submitted to the Township for review. The Township has not received this document.

#### **6. Economic Well-Being of the Community**

*The proposed special land use shall not be detrimental to the economic well-being of those who will use the land, residents, businesses, landowners, and the community as a whole.*

It is not anticipated that the proposed special land use will cause any detrimental effects to the economic well-being of those who will use the land, residents, businesses, landowners, and the community as a whole. The site currently operates as a concrete manufacturing facility, and the proposed use is not changing.

#### **7. Compatibility with Natural Environment**

*The proposed special land use shall be compatible with the natural environment and conserve natural resources and energy. The applicant has provided that they intend to utilize energy efficient design elements, however these are not detailed on the site plan. The applicant also does not detail the plans for stormwater or preserving wetlands on the parcel. They indicate plans to “improve the natural beauty of the site,” and specifies they intend to build a rain garden type greenspace at the employee parking area. The immediately adjacent area will drain to this space for infiltration. The applicant also intends to maintain existing natural vegetation areas throughout the site. The Township promotes and supports landscaping and vegetative elements whenever feasible. The applicant shall detail the proposed energy efficient design materials on the site plan.*

### **RECOMMENDATIONS**

Based upon compliance with Section 26.03, we recommended that the Township Planning Commission grant Special Land Use approval for the proposed new concrete block manufacturing plant at 3809 E. Michigan Avenue provided the following conditions are met:

1. The Planning Commission finds the anticipated doubling of truck traffic is adequate for the proposed use, capacity for E. Michigan Avenue, and surrounding properties. Or, the applicant shall obtain a traffic impact study and submit to the Township for review.
2. The applicant shall receive permission from the Planning Commission to deviate from the Ordinance parking standards. This can be addressed during site plan review.
3. The applicant shall comply with required environmental agency and County Health Department reviews and comments.
4. The applicant shall comply with any Township Fire Marshal and Township Engineer review and comment. This can be addressed during site plan review.
5. The applicant shall receive site plan approval from the Kalamazoo Township Planning Commission.



Respectfully Submitted,  
**McKenna**

*Danielle Bouchard*

Danielle Bouchard, AICP  
Principal Planner

*K. Mucha*

Kyle Mucha, AICP  
Principal Planner

*Lauren Sayre*

Lauren Sayre  
Assistant Planner

**Date:** May 5, 2023

**To:** Daniella Bouchard, AICP  
Kyle Mucha, AICP, Senior Planner (Township Zoning Administrator)  
Lauren Sayre, Assistant Planner

**From:** Steve Frenette P.E., Sali Group ES

**Subject:** **3809 East Michigan Avenue – Consumers Concrete Corporation –  
Special Land Use - SLU#1 05012023**

Thank you for your review notes on the Special Land Use – Review #1. From review of your comments, we offer the following:

The applicant shall clarify the correct building size and amend all applicable application materials to reflect a consistent and accurate number.

*Response: The building footprint is 36,750 square feet. The building includes approximately 2,100 square feet of second story office space. When this space is added to the building footprint, the total floor area is 38,850 square feet.*

1. a. The applicant does not propose any screening around the parking or vehicular circulation areas. The subject site is mostly surrounded by parcels owned by CCC, and used for the concrete manufacturing operation; however, screening along parcels not owned by CCC and along E. Michigan Ave. should be present.

*Response: This response has three specific areas of discussion.*

*Along E. Michigan: The strip of land along E. Michigan is as narrow as 20" and has a vertical drop of greater than 12'-0". Along these areas, there is no space to install any natural screening. Further, any screening would block the view from turning out from the site entrance onto E. Michigan.*

*At the entrance to the site from E. Michigan Avenue, there is space for low profile vegetation. Consumers currently maintains the area as lawn for line of site purposes. As part of this project, CCC has not planned to change the landscape from lawn area. At the showroom, visible from the E. Michigan entrance, CCC is installing 6 large raised bed planters that will be professionally landscaped.*

*Along the east side, the project abuts a natural landscape area. Consumers had not planned to impact this natural landscape area as part of the project. If preferred, Consumers can add a variety of native tree species along this area. It should be noted that this adjacent area east of the proposed sight is located in Comstock Township.*

1. b. The applicant does not propose any screening around the outdoor storage areas. The outdoor storage also needs to be identified on the site plan. The subject site is mostly surrounded by parcels owned by CCC, and used for the concrete manufacturing operation; however, screening along parcels not owned by CCC and along E. Michigan Ave. should be present. Streetview images appear that

there are samples of various brick types located outdoors, visible from E. Michigan Avenue. We defer to the applicant to indicate if outdoor storage is a component of this review.

Response: On drawing C-7 we indicate "Inventory Yard" and "Unloading Area" which are the outdoor storage areas. The east side of these areas are bordered by a natural landscaped strip along Sprinkle Road. There were no plans to add trees or landscape to the existing landscape. If preferred, Consumers can add a variety of native trees along this space, however that space is in Comstock Township.

1. c. The applicant shall provide the specific days and intended hours of operation.

Response: The plant hours of operation are planned for 7am-7PM Monday through Saturday.

1. d. We note that the required screening between the commercial use and residential has not been satisfied. The site plan will need to be amended to reflect compliance with ordinance requirements.

Response: The referenced property [3738 Market Street] is approximately one mile from the applicant's site, on the opposite side of the Kalamazoo River. The only residential property adjacent to our property for this project is located on 326 Victor St. This property is surrounded by existing green space with trees and vegetation. Consumers had not intended to install additional landscaping.

1. e. The applicant is requesting a modification from the Planning Commission for landscape requirements along E. Michigan Ave. as there are no impervious surfaces. The applicant is also requesting a modification for the parking landscaping based on their request for less parking. General landscaping requirements are still required, and need to be noted on the site plan, as currently it is unclear if the minimum is being met.

Response: Please reference response to 1.a.

3. Storm water details shall be provided for further review.

Response: New area collected stormwater is planned to be routed to the existing on-site pond. Stormwater elements are shown on drawing C-3 and C-9.

4. b. The applicant has not provided details as to the anticipated traffic generated by the proposed use. Further narratives and/or business plan may address this provision.

Response: Traffic for aggregate trucks and cement trucks will be approximately double the existing. The Traffic expected for the new facility was presented in the Site Plan Application Narrative and is summarized as follows:

- Aggregate Trucks: 8 gravel train trucks [lead+pup]
- Cement Trucks: 1 per day

- *Finished Product Vehicles: Customer dependent sizes. As many as 45 vehicles per day with sizes varying from 53' flatbed to landscape truck with 14' trailer.*

4. d. This criterion is subject to review by the Township Engineer. However, we note that the existing driveway on the site from E. Michigan Avenue is compliant with ordinance standards for width requirements to access an industrial parcel. It is not likely that the driver site distances are impaired as a result of the proposed special land use.

Response: *Please advise if any additional information is required from Consumers.*

4. e. The location and access appear to be adequate, however the applicant is requesting a modification to the number of parking spaces required. The applicant shall provide proper justification to the Planning Commission's satisfaction that lesser parking is adequate for the proposed use.

Response: *We reviewed Section 4.01 (D0(6)) - Parking and determined that the new facility does not have need for the number of spaces cited. Consumers will have at most 12 employees in the building at any given time. This includes maintenance personnel. This building is not a public access facility and is not open to the public. Aside from 4 additional maintenance vehicles, there is no need for parking beyond the 18 spaces that we have requested.*

4. g. There are no indicated provisions for pedestrian traffic. The applicant indicated there are no existing sidewalks on the site and does not propose and new sidewalks, therefore this standard is not met. Although we understand the location of the guardrail and height variation along E. Michigan Ave may cause several challenges for implementing a new sidewalk on this site.

Response: *There is no physical land space between the road and the retaining wall to install a sidewalk along Michigan Avenue east of the entrance. West of the entrance, there is no connecting walk, so we have not included a sidewalk.*

5. This project is subject to environmental review by relevant environmental agencies. An impact assessment also shall be submitted.

Response: *An environmental applicability Review has been performed as part of the 30% project design phase and is attached separately with this response letter.*

*Separately, we are working with EGLE regarding the wet land review, however the property is an active mining operation and is generally considered exempt from wetland delineation.*

7. The applicant must provide more details on the intended landscape plans for the site, as it is presently unclear if this standard is met. We also recognize the vast area of impervious surface on site. The Township promotes and supports landscaping and vegetative elements whenever feasible.

Response: *Consumers intends to build a rain garden type greenspace at the employee parking area. The immediately adjacent area will drain to this space*

*for infiltration. This planned area is approximately 1,800 SF and exceeds the ordinance requirement of 30 SF per parking space, allowing the requested variance of 18 spaces. This area is shown on drawings C-6, C-7 and newly created C-11. Additional details regarding planting schedules will be submitted this week.*

**NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)**  
**Act 451 of 1994**

\*\*\*\*\* 324.30305 THIS SECTION IS REPEALED BY ACT 98 OF 2013 EFFECTIVE 160 DAYS AFTER THE EFFECTIVE DATE, AS PUBLISHED IN THE FEDERAL REGISTER, OF AN ORDER BY THE ADMINISTRATOR OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY UNDER 40 CFR 233.53(c)(8)(vi) WITHDRAWING APPROVAL OF THE STATE PROGRAM UNDER 33 USC 1344(g) AND (h). (See enacting section 2 of Act 98 of 2013.) \*\*\*\*\*

**324.30305 Activities not requiring permit under part; uses allowed without permit; farming operation in wetland not requiring permit; incidental creation of wetland; area created as result of commercial excavation; activities not subject to regulation; subsection (6) inapplicable to certain lands; "agricultural drain" defined.**

Sec. 30305. (1) Activities that require a permit under part 325 or part 301 or a discharge that is authorized by a discharge permit under section 3112 or 3113 do not require a permit under this part.

(2) The following uses are allowed in a wetland without a permit subject to other laws of this state and the owner's regulation:

- (a) Fishing, trapping, or hunting.
- (b) Swimming or boating.
- (c) Hiking.

(d) Grazing of animals, including fencing and post placement if the fence is designed to control livestock, does not exceed 11 feet in height, and utilizes an amount of material that does not exceed that of a woven wire fence utilizing 6-inch vertical spacing and posts.

(e) Farming, horticulture, silviculture, lumbering, and ranching activities, including plowing, irrigation, irrigation ditching, seeding, cultivating, minor drainage, harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices. All of the following apply for the purposes of this subdivision:

(i) Beginning October 1, 2013, to be allowed in a wetland without a permit, these activities shall be part of an established ongoing farming, ranching, horticultural, or silvicultural operation. Farming and silvicultural activities on areas lying fallow as part of a conventional rotational cycle are part of an established ongoing operation, unless modifications to the hydrological regime or mechanized land clearing are necessary to resume operation. Activities that bring into farming, ranching, horticultural, or silvicultural use an area not in any of these uses, or that convert an area from a forested or silvicultural use to a farming, ranching, or horticultural use, are not part of an established ongoing operation.

(ii) Minor drainage does not include drainage associated with the immediate or gradual conversion of a wetland to a nonwetland, or conversion from 1 wetland use to another. Minor drainage does not include the construction of a canal, ditch, dike, or other waterway or structure that drains or otherwise significantly modifies a stream, lake, or wetland.

(iii) Wetland altered under this subdivision shall not be used for a purpose other than a purpose described in this section without a permit from the department.

(f) Maintenance or operation of serviceable structures in existence on October 1, 1980 or constructed pursuant to this part or former 1979 PA 203.

(g) Construction or maintenance of farm or stock ponds.

(h) Maintenance of an agricultural drain, regardless of outlet, if all of the following requirements are met:

(i) The maintenance includes only activities that maintain the location, depth, and bottom width of the drain as constructed or modified at any time before July 1, 2014.

(ii) The maintenance is performed by the landowner or pursuant to the drain code of 1956, 1956 PA 40, MCL 280.1 to 280.630.

(iii) The maintenance does not include any modification that results in additional wetland drainage or conversion of a wetland to a use to which it was not previously subject.

(i) Maintenance of a drain that was legally established and constructed pursuant to the drain code of 1956, 1956 PA 40, MCL 280.1 to 280.630, if the drain was constructed before January 1, 1973 or under a permit issued pursuant to this part. As used in this subdivision, "maintenance of a drain" means the physical preservation of the location, depth, and bottom width of a drain and appurtenant structures to restore the function and approximate capacity of the drain as constructed or modified at any time before July 1, 2014, including the placement of spoils removed from the drain in locations along that drain where spoils have been previously placed. Maintenance of a drain under this subdivision does not include any modification that results in additional wetland drainage or conversion of a wetland to a use to which it was not previously

subject.

(j) Construction or maintenance of farm roads, forest roads, or temporary roads for moving mining or forestry equipment, if the roads are constructed and maintained in a manner to ensure that any adverse effect on the wetland will be minimized. Borrow material for road construction or maintenance shall be taken from upland sources if feasible. In determining whether an alternative will minimize any adverse effect on the wetland, the department shall consider cost, existing technology, and logistics in light of overall project purposes.

(k) Maintenance of public streets, highways, or roads that meets all of the following requirements:

(i) Does not include any modification that changes the original location or footprint.

(ii) Is done in a manner that minimizes any adverse effect on the wetland.

(l) Maintenance or repair of utility lines and associated support structures that meets all of the following requirements:

(i) Is done in a manner that minimizes any adverse effect on the wetland.

(ii) Does not include any modification to the character, scope, or size of the originally constructed design.

(iii) Does not convert a wetland area to a use to which it was not previously subject.

For the purposes of this subdivision and subdivision (m), "utility line" means any pipe or pipeline used for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone or telegraph messages, or radio or television communication.

(m) Installation of utility lines having a diameter of 6 inches or less using directional drilling or boring, or knifing-in, and the placement of poles with minimal (less than 1 cubic yard) structure support, if the utility lines and poles are installed in a manner that minimizes any adverse effect on the wetland. Directional drilling or boring under this subdivision shall meet all of the following requirements:

(i) The top of the utility line is at least 4 feet below the soil surface of the wetland. However, if the presence of rock prevents the placement of the utility line at the depth otherwise required by this subparagraph, the bottom of the utility line is not placed higher than the top of the rock.

(ii) The entry and exit holes are located a sufficient distance from the wetland to ensure that disturbance of the wetland does not occur.

(iii) The operation does not result in the eruption or release of any drilling fluids up through the ground and into the wetland and there is an adequate plan to respond to any release of drilling mud or other fill material.

(n) Operation or maintenance, including reconstruction of recently damaged parts, of serviceable dikes and levees in existence on October 1, 1980 or constructed pursuant to this part or former 1979 PA 203.

(o) Placement of biological residuals from activities, including the cutting of woody vegetation or the in-place grinding of tree stumps, performed under this section within a wetland, if all the biological residuals originate within that wetland.

(3) An activity in a wetland that was effectively drained for farming before October 1, 1980 and that on and after October 1, 1980 has continued to be effectively drained as part of an ongoing farming operation is not subject to regulation under this part.

(4) A wetland that is incidentally created as a result of 1 or more of the following activities is not subject to regulation under this part:

(a) Excavation as part of commercial sand, gravel, or mineral mining, if the area was not a wetland before excavation. This exemption from regulation applies until the property on which the wetland is located meets both of the following requirements:

(i) Is no longer used for excavation as part of commercial sand, gravel, or mineral mining.

(ii) Is being used for another purpose unrelated to excavation as part of commercial sand, gravel, or mineral mining.

(b) Construction and operation of a water treatment pond, lagoon, or storm water facility in compliance with the requirements of state or federal water pollution control laws.

(c) A diked area associated with a landfill if the landfill complies with the terms of the landfill construction permit and if the diked area was not a wetland before diking.

(d) Construction of drains in upland for the sole purpose of removing excess soil moisture from upland areas that are primarily in agricultural use.

(e) Construction of roadside ditches in upland for the sole purpose of removing excess soil moisture from upland.

(f) An agricultural soil and water conservation practice designed, constructed, and maintained for the purpose of enhancing water quality.

(5) An area that becomes contiguous to a water body created as a result of commercial excavation for sand, gravel, or mineral mining is not subject to regulation under this part solely because it is contiguous to the



created water body. This exemption from regulation applies until the property on which the wetland is located meets both of the following requirements:

(a) Is no longer used for excavation as part of commercial sand, gravel, or mineral mining.

(b) Is being used for another purpose unrelated to excavation as part of commercial sand, gravel, or mineral mining.

(6) Except as provided in subsection (7), the following activities are not subject to regulation under this part:

(a) Leveling of sand, removal of vegetation, grooming of soil, or removal of debris, in an area of unconsolidated material predominantly composed of sand, rock, or pebbles, located between the ordinary high-water mark and the water's edge.

(b) Mowing of vegetation between the ordinary high-water mark and the water's edge.

(7) Subsection (6) does not apply to lands included in the survey of the delta of the St. Clair River, otherwise referred to as the St. Clair flats, located within Clay township, St. Clair county, as provided for in 1899 PA 175.

(8) As used in this part, "agricultural drain" means a human-made conveyance of water that meets all of the following requirements:

(a) Does not have continuous flow.

(b) Flows primarily as a result of precipitation-induced surface runoff or groundwater drained through subsurface drainage systems.

(c) Serves agricultural production.

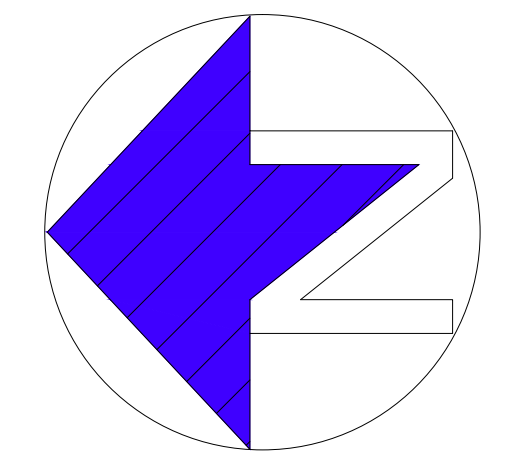
(d) Was constructed before January 1, 1973, or was constructed in compliance with this part or former 1979 PA 203.

**History:** Add. 1995, Act 59, Imd. Eff. May 24, 1995;—Am. 1996, Act 550, Imd. Eff. Jan. 15, 1997;—Am. 2003, Act 14, Imd. Eff. June 5, 2003;—Am. 2012, Act 247, Imd. Eff. July 2, 2012;—Am. 2013, Act 98, Imd. Eff. July 2, 2013;—Am. 2018, Act 631, Eff. Mar. 29, 2019.

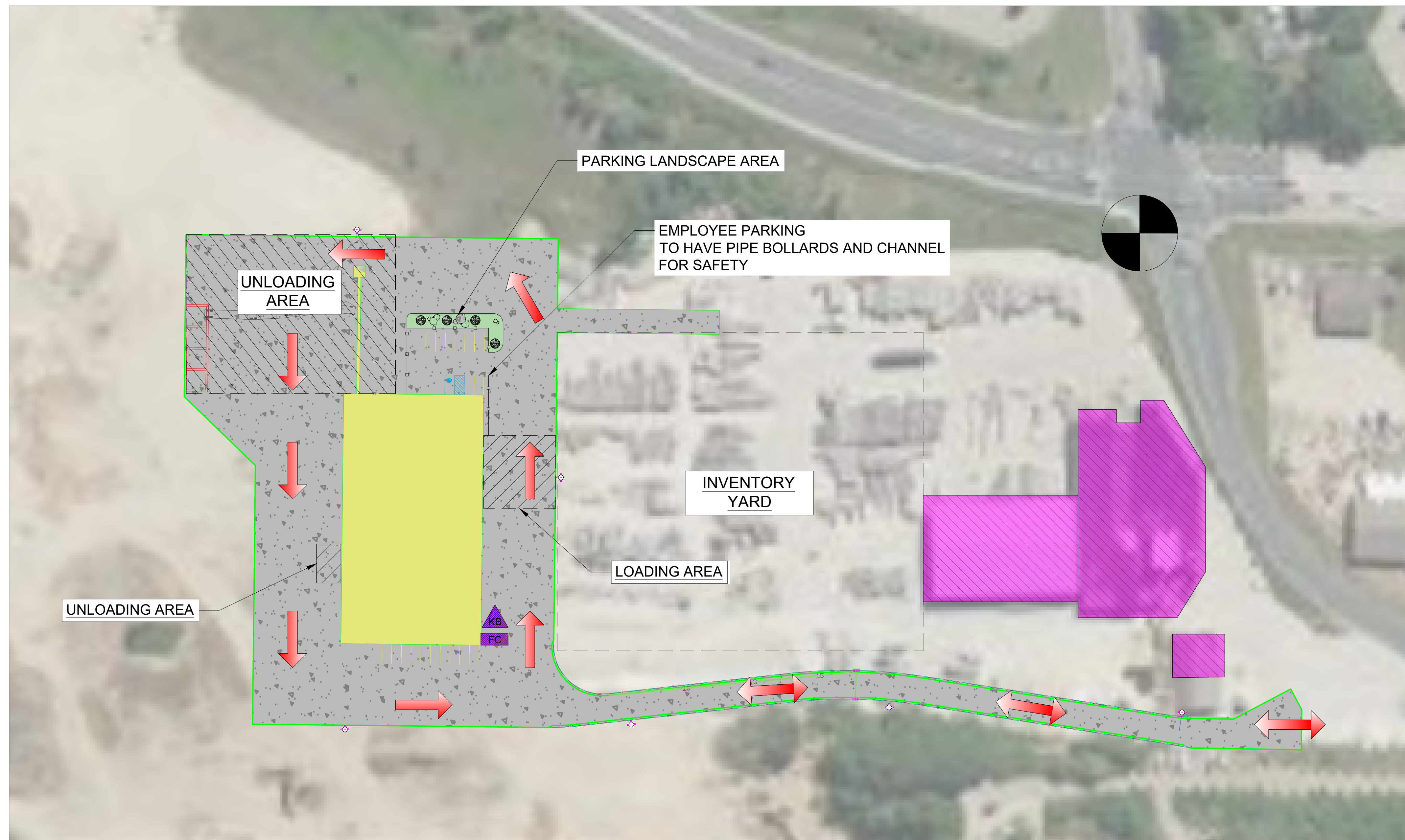
**Popular name:** Act 451

**Popular name:** NREPA

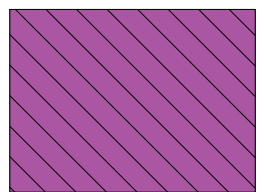
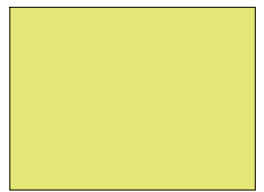
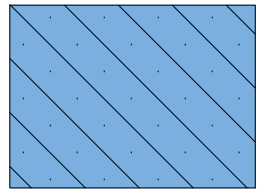
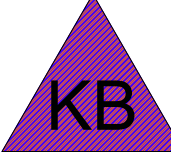

**Popular name:** Wetland Protection Act



NORTH



**LEGEND**

-  EXISTING FACILITIES
-  PROPOSED NEW CONSTRUCTION
-  PROPOSED NEW CONSTRUCTION
-  KNOX BOX
-  FIRE CONNECTION

NOT FOR CONSTRUCTION

INDICATED SCALE FACTOR ONLY ACCURATE IF PRINTED ON 24 x 36 DRAWING SHEET.



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| NO. | DATE | DESCRIPTION | APPROV |
|-----|------|-------------|--------|
|     |      |             |        |
|     |      |             |        |
|     |      |             |        |

|             |          |           |          |
|-------------|----------|-----------|----------|
| PROJECT NO: | -        | DRAWN:    | CSPENCER |
| DATE:       | 3-7-2023 | CHECKED:  | -        |
| SCALE:      | AS NOTED | APPROVED: | -        |

PROJECT CONSUMERS CONCRETE BLOCK PLANT  
KALAMAZOO TWP, MI

TITLE SITE PLAN

TRAFFIC PATTERN/ FIRE LANE

DRAWING NUMBER: C-7

SHEET of SHEETS

**VARIANCE REQUEST**

• SECTION 4.01 (D0(6)) - PARKING-

○ PER THE ORDINANCE, 1 PARKING SPACE IS REQUIRED FOR EVERY 750 SF OF GROSS FLOOR AREA. OUR GROSS BUILDING FLOOR AREA IS 38,800SF. USING THIS SQUARE FOOTAGE, THE CALCULATED NUMBER OF SPACES IS 51.75 SPACES. THE NEW FACILITY WILL EMPLOY AT MOST 12 PERSONS DURING THE DAY SHIFT. IN ADDITION, THERE WILL BE A NEED FOR AS MANY AS 4 PARKING SPACES FOR MAINTENANCE EQUIPMENT. THIS NEW FACILITY IS NOT OPEN TO THE PUBLIC NOR DOES IT HAVE ANY ACCESS FROM PUBLIC ROADS THAT WOULD NECESSITATE PARKING. FOR THIS REASON, CONSUMERS PROPOSES TO PROVIDE 18 PARKING SPACES, OF WHICH ONE IS A VAN ACCESSIBLE ADA CONFORMING SPACE.

• SECTION 5.02 (B) -LANDSCAPING.

○ ALONG E. MICHIGAN AVENUE THERE CURRENTLY IS NO IMPERVIOUS SPACE ON WHICH TO PLANT ANY LANDSCAPING WITHOUT IMPACTING EXISTING PRODUCTION ACTIVITIES THE EXISTING PLANT AT A FUTURE DATE IS PLANNED TO BE ABANDONED AND DEMOLISHED. AT THAT TIME, AS PART OF THE AREA REDEVELOPMENT CONSUMERS CAN INCLUDE A LANDSCAPE PLAN THAT IS IN ACCORDANCE WITH TOWNSHIP ORDINANCE.

• SECTION 5.02 (F) -LANDSCAPING PARKING LOTS

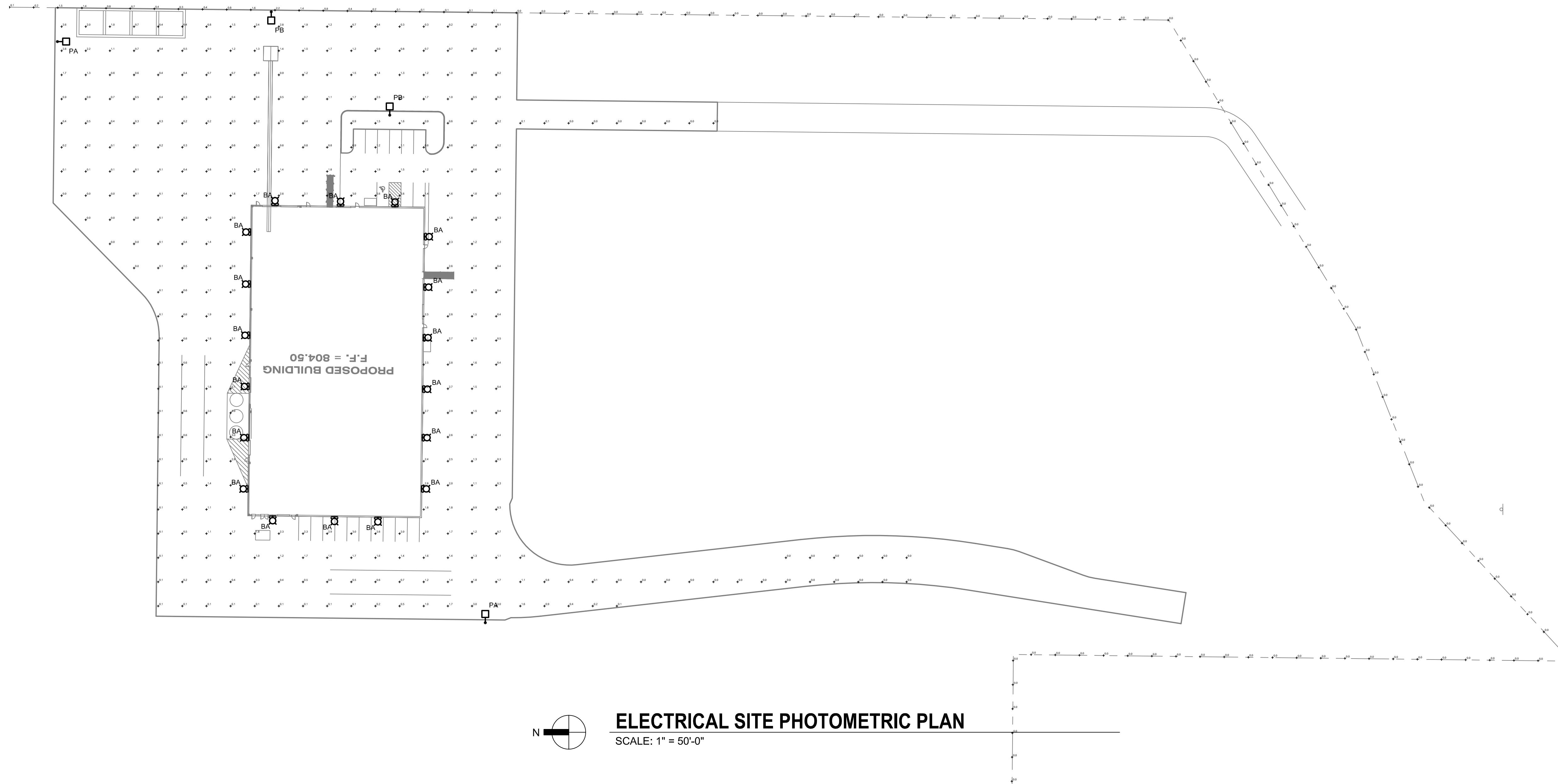
○ THE ORDINANCE CALLS FOR 30SF OF LANDSCAPE AREA PER PARKING SPACE PLUS 1 SHADE TREE FOR EVERY 5 PARKING SPACES. WITH THE REQUESTED VARIANCE FOR NUMBER OF PARKING SPACES [18], WE PROPOSE A PARKING LANDSCAPE AREA OF 1,700 SQUARE FEET TO INCLUDE 4 TREES AROUND THE PARKING AREA AT THE SOUTHEAST CORNER OF THE PROPOSED FACILITY.

• SECTION 25.02, BUILDING HEIGHT-

○ THE ORDINANCE LIMITS AVERAGE BUILDING HEIGHT TO A MAXIMUM OF 45'-0". OUR BUILDING HAS TWO BAYS. THE LOW BAY HAS AN AVERAGE HEIGHT OF 34'-3". OUR HIGH BAY HAS AN AVERAGE HEIGHT OF 50'-10". CONSUMERS IS ASKING FOR A VARIANCE TO ALLOW THE HIGH BAY TO REMAIN AS DESIGNED TO BEST ACCOMMODATE OUR PRODUCTION. GENERALLY, OUR PROPOSED BUILDING FLOOR [804.5'] IS MORE THAN 30' BELOW THE CENTERLINE OF SPRINKLE ROAD. SEE DRAWING C-10.

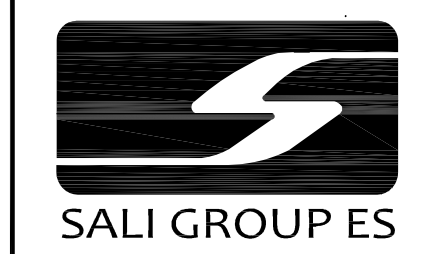
| SITE LUMINAIRE LEGEND |  |          |  |                       | 23031 CCC NEW BLOCK PLANT     |  |                     |
|-----------------------|--|----------|--|-----------------------|-------------------------------|--|---------------------|
| BA                    | BUILDING MOUNT AREA LIGHT              | LITHONIA | DSXW2LED-30C-700-40K-T4M-MVOLT-PIRH1FC3V-BSW.* | BUILDING @ 20'-0" AFG | N/A                           | 8,000 LM<br>4000 K<br>70 CRI<br>71 W   | FINISH BY ARCHITECT |
| PA                    | POLE MOUNT AREA LIGHT - TYPE IV DIST.  | LITHONIA | RSX1LED-P4-40K-R4-MVOLT-SPA-PE.*               | POLE                  | 30FT SQUARE STRAIGHT ALUMINUM | 16,500 LM<br>4000 K<br>70 CRI<br>133 W | FINISH BY ARCHITECT |
| PB                    | POLE MOUNT AREA LIGHT - TYPE III DIST. | LITHONIA | RSX1LED-P4-40K-R3-MVOLT-SPA-PE.*               | POLE                  | 30FT SQUARE STRAIGHT ALUMINUM | 16,300 LM<br>4000 K<br>70 CRI<br>133 W | FINISH BY ARCHITECT |

| Statistics Description     | Avg    | Max    | Max/Min | Avg/Min | Min    |
|----------------------------|--------|--------|---------|---------|--------|
| Property Line Photometrics | 0.0 fc | 2.2 fc | N/A     | N/A     | 0.0 fc |
| Parking Lot Photometrics   | 1.0 fc | 3.2 fc | N/A     | N/A     | 0.0 fc |

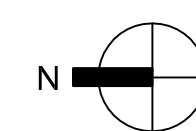


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**ELECTRICAL SITE PHOTOMETRIC PLAN**  
 SCALE: 1" = 50'-0"

| NO. | DATE       | DESCRIPTION | APPRVD |
|-----|------------|-------------|--------|
|     | 2023/05/05 | PLAN REVIEW |        |
|     | 2023/04/18 | 30% REVIEW  |        |

|             |              |           |         |
|-------------|--------------|-----------|---------|
| PROJECT NO: | 044.0-001-23 | DRAWN:    | DWALZER |
| DATE:       | -            | CHECKED:  | -       |
| SCALE:      | NONE         | APPROVED: | -       |

PROJECT CONSUMERS CONCRETE BLOCK PLANT  
 KALAMAZOO TWP, MI  
 TITLE ELECTRICAL SITE PHOTOMETRIC PLAN

DRAWING NUMBER: ES.2  
 SHEET OF SHEETS

## **GENERAL**

This Basis of Design [BOD] document has been prepared in coordination with Consumers Concrete [CCI] personnel, key supplier subject matter experts and good engineering practices for industrial production facilities.

## **BACKGROUND**

Consumers Concrete Corporation [CCC] is an integrated gravel, Redi-mix and block production company that started in 1933 as a sand and gravel operation in Kalamazoo, MI. CCC currently has three block plants in Michigan that manufactures a complete line of standard concrete block, architectural block and landscape products including segmental retaining walls, concrete pavers and an exciting array of outdoor kitchens, fireplaces and water features.

## **STATEMENT OF UNDERSTANDING**

CCC is planning to build a new block plant at its Kalamazoo location. The new plant will allow for production of up to 20,000 units per day. The new facility is intended to be a state-of-the-art facility with the latest in automation and quality production systems, housed in a building that is approximately 33,000 square feet.

***Discipline Specific Basis of Design follows.***

## **ENVIRONMENTAL REGULATION REVIEW**

For this project MEC Environmental Consulting reviewed the proposed site activities, including a review of the Safety Data Sheets for the materials intended to be processed and used by the new facility. The activities and components of the materials to be used were checked against potentially applicable environmental and select health and safety regulations at both the federal and state level, considering thresholds and exemptions of the regulations. Based on this review, MEC Environmental Consulting prepared a detailed list of the findings and recommendations, which are appended to this letter.

A brief summary of our findings is presented in the section below. For each of the regulations listed please see the matrix for details.

### **Solid Waste [RCRA & Part 111 of NREPA]**

This federal and state regulation does apply to the facility as it will likely have solid waste. The solid waste will generally consist of plastic banding, shrink wrap and general residential waste. The lead agency for implementation of this standard is The State of Michigan EGLE.

### **Air Pollution [CAA- NESHAPS Subpart JJJJJJ]**

This federal regulation does apply to the facility because it will likely have a water heater. It will be necessary to demonstrate that the emissions from the water heater are exempt.

### **Air Pollution [Part 55 of NREPA]**

This state regulation does apply to the facility because it will emit air contaminants and it is necessary to demonstrate that such emissions are either exempt or require a permit. MEC anticipates the former.

### **Pollution Prevention [Part 5 of Part 31 of NREPA]**

This state regulation does apply to the facility because it will have polluting materials on-site. The polluting materials will generally consist of the admixtures used to make the block products. All chemicals are stored inside the building. The operation will not have more than 8-10 totes of the chemicals on-site at any time. The existing facility has the required PIPP, the plan will need to be updated and the agency notified of the update.

### **Storm Water Pollution [CWA and Part 21 of NREPA]**

This federal and state regulation does apply to the facility because it is a manufacturing facility in the appropriate SIC code and has a point source discharge of storm water. Although the former facility has a storm water permit and a required SWPPP, the permit can be transferred, and the plan must be updated.

### **Emergency Planning and Community Right-To-Know [EPCRA, Section 312]**

This federal regulation does apply to the facility because it has on-site hazardous chemicals (i.e., those requiring an SDS) in an amount greater than 10,000 pounds at any one time, viz., Portland Cement.

### **Respirable Crystalline Silica Standard [OSHA & MIOSHA]**

This federal and state regulation may apply to the facility if it cannot be demonstrated through air sampling that operations are below the required action level.

**Occupational Noise Standard [OSHA & MIOSHA]**

This federal and state regulation may apply to the facility if it cannot be established through noise monitoring and calculations that operations are below the action level.



## **BUILDING SYSTEM**

### **Architectural -Structural Building Code Review**

The following structural codes and standards will be followed:

- 2015 Michigan Building Code- International Building Code with amendments
- 2015 Michigan Energy Code- IECC with amendments
- Minimum Design Loads for Buildings and Other Structures. American Society of Civil Engineers (ASCE) 7-10
- Building Code Requirements for Structural Concrete, American Concrete Institute (ACI) 318-14 with amendments
- Code Requirements for Environmental Engineering Concrete Structures, ACI 350-06
- Detailing Manual, American Concrete Institute; SP-66, 2004
- Specification for Structural Steel Buildings: American National Standards Institute (ANSI)/American Institute of Steel Construction (AISC) 360-10
- Structural Steel Detailing Manual, AISC
- Structural Welding Code - Steel, ANSI/American Welding Society (AWS) D1.1:2010

#### General

The building shall include a high bay for silos [aggregate and cement] and mixing system and a low bay for production. Low bay shall be concrete masonry unit (CMU) wall construction with joists and metal deck. High bay shall be a steel structure with Insulated metal panel [IMP] shell, joists and metal deck – explore insulated metal roof option. All concrete work shall be in accordance with the requirements of ACI methods and practices.

All exterior walls shall have cast-in-place concrete foundation walls that extends to 42" below finished grade minimum for frost protection and 48" above grade. This wall will have 3"-4" of embedded rigid foam insulation sandwiched between the interior and exterior concrete faces. Final foundation selection will depend on findings and recommendations of a geotechnical investigation that has not yet taken place. Likely, the foundations will consist of shallow strip footings beneath exterior walls, bearing walls, and shear walls and shallow spread footings beneath steel columns.

#### Employee Support Spaces

- Employee Support Spaces to be built out within the Production Room as 8" CMU walls with concrete plank and 2" topping and shall include restrooms, office, break room, changing and locker areas, a unisex toilet room with a shower, and a janitor's closet on the main level and a mezzanine with an office, vendor conference room and equipment platform above.,
- Walls shall consist of traditional load-bearing 8" CMU walls. The CMU walls shall also act as shear walls, comprising the lateral system.
- CMU walls shall be supported on cast-in-place concrete foundation walls with shallow strip footings where load-bearing and on thickened slabs where not load-bearing.

#### Exterior Low Bay Walls

- 12" OmniBlock CMU set on the top of the foundation wall (described above under general)
  - Exterior block walls shall be colored and finished per drawings.

Origin Date: January 16, 2023

Revision: R5

Revision Date: April 20, 2023

- Combination of solid grout and insulation to meet energy code requirements
- Block shall be set flush with outside of foundation wall
- Colored Bands of Omnibrick to be incorporated per exterior elevations. Omnibrick will be 2 courses of the same width as the omniblock wall and will be set flush with the exterior face of the wall
- Foundation wall shall include vertical control joints to prevent unplanned cracking. Vertical control joints shall use PVC seal cast in place type water stop. Vertical joint shall carry through to block wall as well.
- The southern and eastern wall is to have punched openings with translucent structural composite sandwich panels at the Production room and 2"x4" thermally broken storefront frames with 1" insulated glazing at the break room
- The 12" OmniBlock CMU set on top of the foundation wall is to be the standard Consumers Concrete tan block color as the primary with orange and gray as secondary to serve as part of the exterior design.
- The steel structure shall consist of steel bar joists bearing on 12" OmniBlock CMU walls at the exterior. The steel bar joists shall bear on joist girders at the interior, and the joist girders frame into steel columns. The lateral system of the low bay shall consist of the load-bearing masonry walls acting as shear walls.
- CMU walls shall be supported on cast-in-place concrete foundation walls with shallow strip footings. Steel columns shall be supported on cast-in-place concrete piers (at the exterior only) and cast-in-place concrete spread footings.

#### Exterior High Bay Walls

- 4" Insulated Metal Panel on girts with insulated concrete foundation wall
  - Foundation wall shall include vertical control joints to prevent unplanned cracking. Vertical control joints shall use PVC seal cast in place type water stop. Vertical joint shall carry through to block wall as well
- All structural steel shall be shop primed, field coated. This includes columns, wall girts, trusses. Roof decking shall be galvanized.
- The southern wall is to have punched openings with translucent structural composite sandwich panels
- The steel structure shall consist of steel bar joists bearing on steel beams, which frame into steel columns. The lateral system shall consist of moment frames across the high bay and braced frames along the high bay.
- Metal panel walls shall be supported on cast-in-place concrete foundation walls with shallow strip footings. Steel columns shall be supported by cast-in-place concrete piers (at the exterior) and cast-in-place concrete spread footings. These spread footings shall be designed to resist the overturning moment induced on them by the moment frames.

#### Curing Room

- 2" Insulated Metal Panel. Standard vinyl ester coated panels, white on exterior and 304 stainless steel on the inside.
- No columns in Curing Room.
- Exterior walls shall consist of traditional load-bearing 8" CMU walls. The CMU walls shall also act as shear walls, comprising the lateral system.



- CMU walls shall be supported on cast-in-place concrete foundation walls with shallow strip footings where load-bearing and on thickened slabs where not load-bearing.
- Interior demising wall to be 4" insulated metal panel
- Roof decking and exposed structure including bar joists and girders shall be galvanized in this space.

#### Interior Block Walls

- 8" gray traditional CMU walls. Installed vertical control joints per architectural drawings.
- Sound proof added to interior wall space in mold room. Mold room shall also be separated from control room to minimize vibration and sound.
- CMU walls shall be supported on cast-in-place concrete foundation walls with shallow strip footings where load-bearing and on thickened slabs where not load-bearing.

#### Roof System

- Steel roof deck, Membrane
  - Decking shall be typical 1.5" wide rib galvanized steel deck.
  - Insulation 6" or 8" [3 layers of Firestone Polyiso 95+ or equal]. Review LEED.
  - Membrane shall be 60 mil EPDM, white.
- The high bay roof shall be supported by steel bar joists on load-bearing masonry walls at the north and south sides and joist girders at the center of the building. The low bay roof shall be supported by steel bar joists on beams.
- Single slope for each bay with tapered insulation to roof drains and overflow drains with piped downspouts.
- Clear height of building interior at curing room shall be 28'-4" minimum. Clear height of building interior at aggregate bay shall be 49'-4" minimum.
- Joists shall be designed to carry all pipe, electrical conduit/wiring and mechanical Make Up Air [MAU] units.
- Low bay roof structure shall be designed to carry solar panels

#### Floor

- All floors shall be troweled concrete finish with clear acrylic concrete sealer equal to H&C Waterproofing Sealer. Two coats.
  - Flakeline [or decorative] urethane floor system for offices, breakroom and restrooms.
- Interior floor slab shall be conventional slab-on-grade with 4,000 psi concrete and welded wire fabric reinforcing. Review Helix as an option to thin up the floor.
- Mezzanine floor and lid system for area above restroom, maintenance shop and mold room shall be 8" or 6" hollowcore precast concrete with a minimum of 2" concrete topping.
- Additional steel beams, steel columns, and cast-in-place concrete spread footings shall be utilized to support the mezzanine floor and lid systems where the walls are not load-bearing.
- Flatness tolerance specification [ACI-117]. Non-compliant surfaces may be rejected.
  - Trowel finished floors shall achieve composite FF40/FL30 value and minimum FF27/FL20 value for individual floor section.
  - Float finished floors shall achieve composite FF25/FL20 values and minimum FF18/FL13 value for individual floor sections

### Interior Finishes:

Ceilings shall be 2 x 2 lay in style ceilings in an aluminum grid for corrosion resistance Any carpet desired in any areas?

Block walls in offices, toilet room and break areas to be primed, and epoxy painted in restrooms, latex painted in other regularly occupied spaces.

Break room millwork uppers and lower cabinets to be plastic laminate faces and boxes and solid surface tops

### Doors:

- All personnel doors shall be hollow metal doors, insulated. All exterior and access to control room personnel doors shall be half lite style.
- Access doors into mechanical room, motor control room and janitor closet shall be flush type doors
- Curing room personal access doors shall be fiberglass with SS kick plates. Doors shall be equal to Edgewater ES series doors.
  - All doors in into Curing room shall be trimmed with stainless steel.
- Overhead Doors: insulated panel doors with electric actuation and manual pull override. All overhead doors to be vertical high lift doors where possible
  - Include Controller with both wireless remote operation and push button operation at panel.
  - Roll-up doors NOT allowed.
- Locksets.
  - To be determined.

### **Standard Details**

1. Overhead door threshold, jamb and lintel. Block, concrete and IMP
2. Personnel door thresholds, jamb and lintel. Block, concrete and IMP
3. Office/Break room window jamb and lintel
4. Standard stair and handrails
5. Handrails for top of room storage areas. Removeable rail
6. Access stair to roof deck from above Mold Room
7. Walk over stair for assembly lines
8. Reinforcing lap and tie detail
9. Foundation wall/footer details inc. reinforcing
10. Column pier and foundation details
11. Crane foundation w/reinforcing
12. Floor details, inc. control joints.
13. Wall penetration and flashing. Block, IMP Hollow-core deck
14. Connection detail IMP to Block

## **MECHANICAL [TP LEAD]**

### **Mechanical Code Review**

- American Society of Mechanical Engineers (ASME) for Tanks and Design Standards
- American Petroleum Institute (API) Standards for Pumps and Tanks
- American Society for Testing and Materials (ASTM) for Materials Specifications
- American National Standards Institute (ANSI) and Hydraulic Institute (HI) Standards
- Michigan Mechanical Code – 2015
- Michigan Plumbing Code – 2018
- International Fuel Gas Code – 2018
- ASHRAE 15 – Refrigeration Standard
- ASHRAE 62.1-2013 – Ventilation Standard
- ASHRAE 90.1-2013 – as adopted by the State of Michigan, Energy Code

### HVAC

- Production Room:
  - Maintain room under negative pressure relative to outside.
  - Ventilation: minimum 4,400 CFM when dust collector is off
  - Direct fired air turnover air units [ATU 01-04] with economizer cooling only, no mechanical cooling
  - Electric infrared heaters [EIH-01, 02, 03] for task location heating
  - Temperature: 55 Winter, 95 Summer.
  - High Temperature actuated VFD driven exhaust fans to supplement the air turnover units
  - Dust Collector, 2500 CFM per collection point
    - Dust collector is intended to recirculate filtered air back into the room, if air is not sufficiently cleaned then it will be exhausted outside.
  - Air filtration integrated into the air turnover units, minimum of 8 air changes per hour.
    - It is anticipated that integrating HEPA filtration into the air turnover units will be less expensive than purchasing dedicated filtering units
- Aggregate Bay 104:
  - Maintain room under negative pressure relative to outside.
  - Ventilation: minimum 2,300 CFM when dust collector is off
  - Gas fired Infrared heaters [GIH-01, 02]. Heating capacity sized to handle 66 tph of cold aggregate [32F].
    - Note: exhausting heated air from the production room into the aggregate bay (for passive heating) is not permitted by code without extensive filtration.
  - Temperature: 55 Winter, 95 Summer.
  - High Temperature actuated VFD driven exhaust fans with makeup air through openings and doors
  - Dust Collector, 2500 CFM per collection point
    - Dust collector is intended to recirculate filtered air back into the room, if air is not sufficiently cleaned then it will be exhausted outside.
- Motor Control 108 and Operator Control Room 201:
  - Maintain each room under positive pressure relative to the production room

- Ventilation: 100 CFM each
- Grade-mounted RTU will supply heating, cooling, ventilation and maintain air pressure relationship.
- Temperature Ranges
  - 65 Winter, 75 Summer
  - Both rooms will be provided with cooling to avoid adding another makeup air unit, exhaust fan and related ductwork.
- Compressor Room:
  - Maintain room under positive pressure using a direct fired make-up air unit.
  - Ventilation: 75 CFM
  - No air conditioning.
  - Temperature: 55 Winter, 95 Summer.
  - Temperature actuated exhaust fan with speed control.
- Mold 103/Maintenance 102:
  - Maintain room under positive pressure using a direct fired make-up air unit.
  - Ventilation: 225 CFM
  - No air conditioning.
  - Temperature: 65 Winter, 95 Summer.
  - Temperature actuated exhaust fan with speed control.
- Electrical Room 101:
  - Maintain room under positive pressure using a direct fired make-up air unit with cooling.
  - Ventilation: 50 CFM
  - Temperature: 65 Winter, 95 Summer.
  - Temperature actuated exhaust fan.
- Vestibule 100:
  - Maintain room under positive pressure relative to production room.
  - Ventilation: 20 CFM
  - Temperature: 65 Winter, 95 Summer.
  - Temperature actuated exhaust fan with speed control.
  - Electric cabinet heater for supplemental heat
- Block Production:
  - Maintain room under negative pressure using a direct fired make-up air unit.
  - Ventilation: minimum 380 CFM when dust collector is off
  - No air conditioning
  - Temperature: 65 Winter, 95 Summer.
  - Dust collector, 2500 CFM per collection point
    - Dust collector is intended to recirculate filtered air back into the room, if air is not sufficiently cleaned then it will be exhausted outside.
  - Exhaust fan.
- Curing Room: (NOT IN TOWERPINKSTER SCOPE)
  - Maintain room under positive pressure
  - Ventilation: 1460 CFM
- Toilet 110/Shower & Janitor 111:
  - Maintain room at neutral pressure relative to production room. (Negative pressure will draw dust into rooms, positive pressure is prohibited for these room)
  - Ventilation: 100 CFM each
  - Grade-mounted rooftop unit with gas heat and DX cooling

- Temperature: 72 Winter, 75 Summer.
  - Exhaust fan
- Men's 112/Women's 113 Restrooms:
  - Maintain room under negative pressure relative to corridor.
  - Ventilation: 200 CFM each
  - Grade-mounted rooftop unit with gas heat and DX cooling
  - Temperature: 72 Winter, 75 Summer.
  - Exhaust fan
- Corridor 114:
  - Maintain room under positive pressure relative to production.
  - Ventilation: 20 CFM
  - Grade-mounted rooftop unit with gas heat and DX cooling
  - Temperature: 72 Winter, 75 Summer.
- Office 131, 202 CONFERENCE ROOM 2XX:
  - Maintain room under positive pressure relative to production.
  - Ventilation: 30 CFM each
  - Grade-mounted rooftop unit with gas heat and DX cooling
  - Temperature: 72 Winter, 75 Summer.
- Break Room 118:
  - Maintain room under positive pressure relative to production.
  - Ventilation: 120 CFM
  - Grade-mounted rooftop unit with gas heat and DX cooling
  - Temperature: 72 Winter, 75 Summer.
- Changing Rooms:
  - Maintain room under negative pressure relative to corridor.
  - Ventilation: 50 CFM each
  - Grade-mounted rooftop unit with gas heat and DX cooling
  - Temperature: 72 Winter, 75 Summer.
  - Exhaust fan

#### Plumbing

- No Floor Drains
- Safety Shower with Eyewash, dedicated gas fired water heater, and ASSE 1071 mixing valve
- Compressed air loop MOC: copper, 304SS or aluminum based on best price.
- Potable water MOC: copper.
- Sanitary MOC: cast iron above floor, PVC below floor.
- Storm MOC: cast iron above floor, PVC below floor.
- Plumbing Fixtures
  - Toilets will be floor mounted with manual flush valves.
  - Urinal wall mounted with a manual flush valve.
  - Hand washing lavatories will be porcelain with manual faucets.
  - Break room sink will be double basin stainless steel with manual faucet.
  - Shower will be a fiberglass insert with a manual mixing valve and spray head.

#### Fire Protection

- The building will not include fire protection.

## **ELECTRICAL [CE LEAD]**

### Electrical Code Review

The electrical design will be governed by the following codes as adopted by AHJ:

- 2015 Michigan Building Code (2015 IBC with amendments)
- 2012 Michigan Life Safety Code (2012 NFPA 101 with amendments)
- 2017 Michigan Electrical Code (2017 NFPA 70 with amendments)
- 2013 Michigan Fire Alarm Code (2013 NFPA 72 w/o amendments)
- 2013 Michigan Commercial Energy Code (2013 ASHRAE 90.1)

Standards from the following organizations will be used for the electrical design:

- ANSI (American National Standard Institute)
- NEMA (National Electrical Manufacturers Association)
- IEEE (Institute of Electrical and Electronic Engineers)
- UL (Underwriters Laboratories)
- NFPA (National Fire Protection Association)
- NFPA 70E Standard for Electrical Safety in the Workplace (2018 Edition)
- NFPA 780, Standard for Installation of Lightning Protection Systems

### General

- All electrical systems in production areas shall be NEMA 4 [IP66] rated. These areas are subject to heavy dust.
  - specifically listed light fixtures and devices
  - equipment enclosures
  - IMC or RMC
- SGL to review all motor loads and starter types [VFD, Across line, etc].
- Include 20% future loads for each voltage.

### Power

- New primary power from utility [Consumers Energy], new primary switch, new exterior pad mount transformer, new main distribution panels inside building.
- Power distribution panels feeding IEC rated control and drive panels for production equipment (control and drive panels by others).
- Dry-type transformers feeding branch circuit panels serving non-production spaces.
- Arc flash study and labeling shall be included as part of the contract final delivery.
- All equipment disconnects shall have lock-out capability.

### Lighting

- All lighting shall be sealed LED fixtures. Dust and moisture are a concern.
- Lighting controls complying with energy code requirements.
- Recommended Light Levels (per area):
  - Production Areas 45fc
  - Office and Control Rooms 35fc
  - Utility Areas 25fc

- Ancillary Rooms 25fc
- Active Site Areas 10fc

Systems

- Infrastructure provisions (junction boxes and raceway) for building low-voltage systems, including empty conduits for telecom service entrance.
- Fire alarm system as required by code.

## **SECURITY AND SAFETY**

### **Fencing**

To be evaluated once traffic patterns confirmed

### **Gates**

To be evaluated once traffic patterns confirmed.

### **Camera System**

No camera system to be part of this project. May be considered at a later date.





# Memorandum

**TO:** Kalamazoo Charter Township Planning Commission

**FROM:** Danielle Bouchard, AICP, Principal Planner – Township Planner  
 Kyle Mucha, AICP, Senior Planner – Township Zoning Administrator  
 Lauren Sayre, Assistant Planner

**SUBJECT:** Site Plan Review #3– Consumers Concrete Corporation, 3809 E. Michigan Avenue

**DATE:** June 9, 2023

The applicant, Consumers Concrete Corporation (CCC), is proposing to construct a new 37,750 square foot concrete block manufacturing plant in order to increase efficiency, reduce carbon emissions and update the appearance of the property. The proposed project is located at 3809 E. Michigan Avenue (TaxID: 3906-13-480-011). The accompanying image shows the current site, which includes an existing block manufacturing facility. The existing facility *may* be removed once the new facility is completed and operational.

While the site plans do include removal of berms, storage bins, retaining walls, and gravel in certain areas, they do not include demolition plans for the existing building. **The applicant indicated there are no plans to demolish the existing plant until the new plant is fully operational and can produce products to quality standard. CCC plans to evaluate if the old plant can be repurposed, but if demolition is the best option, an application for demolition will be submitted.**

This review concludes that the existing structures will **not** be demolished, and that there will be essentially several principal structures and uses on site and the current operations on site will be substantially increased and intensified. If the applicant proposes to demolish the existing structures, a revised site plan, depicting such changes, shall be submitted to the Township for review and approval.



## OVERVIEW

The subject site is located on East Michigan Avenue, just west of North Sprinkle Road. The parcel is zoned I-2, General Industrial. The applicant, Consumers Concrete Corporation, is proposing to construct a new 37,750 square foot concrete block manufacturing plant to the north of the existing concrete block manufacturing plant.

## PROPOSED IMPROVEMENTS

The proposed improvement to the property includes leveling non-wetland areas, emphasizing visual and pedestrian accessibility to the natural wetland features, and landscaping with native vegetation.



The new concrete block manufacturing plant will include features to mitigate noise nuisance such as isolating the block mold operation and utilizing noise absorbing wall panels within the building. It is also planned that dust nuisance will be mitigated through use of baghouses, dust capture filters, and dust capture hoods. Additionally, energy efficient considerations are proposed for this facility including solar panels and LED lighting.

According to the applicant, the front of the proposed facility will have a single story “low bay” area that will be used for manufacturing concrete block products as well as housing the office and employee spaces. The back of the building is a single story “high bay” area that will house the material handling and mixing operations as well as maintenance rooms. Exterior aggregate bins will be located on the north side of the building (see below).



SOUTHWEST CORNER VIEW



SOUTHEAST CORNER VIEW



NORTHEAST CORNER VIEW



NORTHWEST CORNER VIEW

The applicant has also indicated that this proposed new facility is a component of a larger vision CCC has for the entire site. See page C-9 for the “master plan” for the entire site. When complete, the site will include a total of 10 buildings (including the new block plant as proposed by this application). Each of these buildings/development phases shall be subject to Township application and review procedures. CCC owns several adjoining parcels in the immediate vicinity, which are also outlined on page C-9 of the site plan package.

## USE OF THE PROPERTY

The current use of the property is industrial in nature and is not proposed to change. A separate Special Land Use application has been submitted by the applicant and requires a separate review by Township staff.



## EXISTING AND SURROUNDING CONDITIONS

The site in its current state includes the following: impervious pavement; a storm water retention basin; concrete block outdoor storage; gravel pit; wetlands, and a concrete block manufacturing plant. The proposed changes to the site occur on the southern half of the parcel, which include only the concrete block manufacturing plant, impervious surfaces, and concrete block outdoor storage. The site and surrounding properties are zoned I-2.

The site has been the subject of recent noise complaints. According to the complaint received, CCC has been running a truck route north and south of Nazareth Road, adjacent to residential homes during all hours of the night and early mornings. We defer to the applicant to describe the intended hours of operation and provide further detail on the anticipated truck traffic route(s).

## SITE PLAN REVIEW

Site plans are subject to Planning Commission approval and are reviewed according to the standards in Section 26.02.F.

### A. Adequacy of Information

*The site plan shall include all required information in sufficiently complete and understandable form to provide an accurate description of the proposed uses and structures.*

The applicant has provided the dimensions of the subject site. The entire parcel is approximately 52.31 acres in size.

### B. Site Design Characteristics

*All elements of the site design shall be harmoniously and efficiently organized in relation to topography, the size and type of parcel, the character of adjoining property, and the type and size of buildings. The site shall be developed so as not to impede the normal and orderly development or improvement of surrounding property for uses permitted by this Ordinance.*

It is not anticipated that the proposed new concrete plant will impede development of the surrounding area. Further, this parcel is mostly surrounded by properties also owned by CCC. Moving the concrete plant further north will reduce the visual and noise impacts for traffic on E. Michigan Ave, if the existing building were to be demolished. If existing operations continue within the current building in addition to the new building, we are concerned that the noise impacts on E. Michigan Avenue would worsen given the higher intensity of use. Although, it should be considered that E. Michigan Avenue is a highly traveled industrial corridor where not many residential uses are within proximity. We defer to the applicant to provide justification to the Planning Commission's satisfaction that noise nuisance will not cause adverse effects to surrounding properties, motorists, or pedestrians traveling along E. Michigan Avenue.

The site would be significantly improved (and closer to compliance) with more landscaping elements. It appears that the applicant is also requesting to expand the pavement area intended for the new facility. This will increase the overall coverage of impervious surfaces on-site, thus contributing to the noise factor. We defer to the Township Engineer for comment on drainage implications.

### C. Appearance

*Landscaping, earth berms, fencing, signs, wall and other site features shall be designed and located on the site so that the proposed development is aesthetically pleasing and harmonious with nearby existing or future developments.*

In accordance with Article 5, Landscaping and Screening, of the Zoning Ordinance, the site is required to have the following landscaping:



| Landscaping: General Requirements | Requirements   | Site Plan Conditions | Compliance with Ordinance Standards |
|-----------------------------------|--|----------------------|-------------------------------------|
| General Landscaping Ratio         | 1 tree per 3,000 sq. ft.   | Not provided         | <u>No</u>                           |
| Landscaping Adjacent to Roads     | 1 tree per 40 ft. (D)<br>1 tree per 100 ft. (O)<br>8 shrubs per 40 ft. | Not provided         | <u>No</u>                           |
| Berms In Front Yard               | Maximum of 3 ft. height  | Not provided         | <u>No</u>                           |

| Parking Lot Landscaping      | Requirements  | Site Plan Conditions | Compliance with Ordinance Standards |
|------------------------------|---|----------------------|-------------------------------------|
| General Landscaping Ratio    | 30 sq. ft. per parking space = 570 sq. ft.  | 1,732 sq. ft.        | <u>Yes</u>                          |
| Minimum Planting Area Width  | 9 feet  | Needs dimensions     | <u>Unclear</u>                      |
| Deciduous or Evergreen Trees | One (1) shade tree per 10 vehicle parking spaces in the lot<br>19 spaces proposed = 2 trees | 2 deciduous trees    | <u>Yes.</u>                         |

Should the Planning Commission require additional parking to meet minimum standard, more parking lot landscaping shall be required.

The applicant has provided a landscaping plan depicting the proposed elements within the parking area adjacent to the new building, and a cluster of low-profile plantings along E. Michigan Avenue (southwest side of the site where the existing unimproved greenspace is located). The proposed low-profile landscaping along E. Michigan Avenue includes three perennials within two plant beds along the road frontage, equating to 23 plants. The applicant also intends to install raised bed planter boxes in front of the showroom that will be visible from E. Michigan Avenue. The site plans depict a natural buffer of 30 feet in width to remain on the west side of the site. We support the preservation of this natural greenbelt and mature tree growth.

We defer to the Planning Commission to determine that the lesser amount of site landscaping is appropriate for the proposed use and site. We highly encourage more pervious surfaces, vegetation, and beautification to be included in this project. Note that trees along E. Michigan Avenue would likely cause line of sight issues.

Section 5.01.D – Design Creativity – does permit landscaping to be planted at uniform intervals, at random or in groupings, depending on the designers desired visual effect. We find that this provision of the site plan should be enhanced to meet ordinance requirements.

#### **D. Compliance with District Requirements**

*The site plan shall comply with the district requirements for minimum floor space, height of building, lot size, open space, density and all other requirements set forth in the Schedule of Regulations (Article 25.00) unless otherwise provided in this Ordinance.*

Schedule of Regulations (Section 25.02) and Section 8.02.K:



| Type of Standard               | I-2 District Requirements | 3809 E. Michigan Ave. Conditions | Status of Compliance                         |
|--------------------------------|---------------------------|----------------------------------|--|
| Road setback                   | 300 ft                    | Min. 616 ft                      | Yes  |
| Adjacent property line setback | 100 ft                    | Min. 162 ft                      | Yes  |
| Residential zoned setback      | 500 ft                    | NA                               | Yes  |
| Maximum Lot Coverage           | 75%                       | < 75%                            | Yes  |
| Building Height                | 45 ft (2 stories)         | <u>50'10"</u>                    | <u>No (applicant is requesting variance)</u> |
| Lot Size                       | 130,680 sq ft (3 acres)   | 2278623.6 sq. ft. (52.31 acres)  | Yes  |
| Lot Width                      | 150 feet                  | > 150 feet                       | Yes  |

Variance application details are undergoing separate review by Township Staff.

**E. Preservation of Natural Areas**

*The landscape shall be preserved in its natural state as much as possible, by minimizing tree and soil removal alteration to the natural drainage course and the amount of cutting, filling, and grading.*

The plan narrative indicates that non-wetland areas will be leveled. Drainage is subject to the review of the Township Engineer.

**F. Privacy**

*The site design shall provide reasonable visual and sound privacy. Fences, walls, barriers, and landscaping shall be used, as appropriate if permitted, for the protection and enhancement of property and the safety and privacy of occupants and uses.*

Plans do not include fencing, walls, barriers, or landscaping. Fencing, wall, or screening shall be required when abutting any residential use.

Additionally, there are limitations in providing screening along E. Michigan Avenue, including the height difference between the road and the site, and the narrow easement. Low profile vegetation in the form of 23 perennial plantings are proposed.

**G. Emergency Vehicle Access**

*All buildings or groups of buildings shall be so arranged as to permit convenient and direct emergency vehicle access.*

This standard is subject to the review of the Township Fire Marshal.





## H. Ingress and Egress

*Every structure or dwelling unit shall be provided with adequate means of ingress and egress via public streets and walkways.*

Per Section 8.02. K, concrete plants shall have direct access onto a paved public road, and all driveways, loading areas, staging areas, and truck maneuvering areas within the site shall be paved. The Project does not propose any new curb cuts and currently has direct access to a paved public road. Additionally, all driveways, loading, staging, truck maneuvering areas are paved, so it is anticipated that this standard is met, however this standard is subject to the review of the Township Engineer.

The main access drive to the site off E. Michigan Avenue is approximately 84 feet in width. This is compliant with ordinance standards.

The applicant provided the following traffic implications:

- 8 gravel train trucks
- 12 employee vehicles
- 1 cement truck per day
- Approximately 45 vehicles per day varying in size (from 53' flatbed to 14' trailer)

The applicant provided that the existing truck traffic is planned to double from current capacity. The applicant shall provide specifics on the number of trucks anticipated at a given time and how they plan to accommodate double the trucks on the site without causing backups.

The applicant also provided that the hours of operation are from 7am through 7pm Monday through Saturday. There have been noise complaints that trucks are operating during the night. CCC has been running a truck route north and south of Nazareth Road, adjacent to residential homes during all hours of the night and early mornings. The applicant shall provide information pertaining to the intended truck traffic route(s) and hours of operation.

## I. Pedestrian Circulation

*Each site plan shall provide a pedestrian circulation system that is insulated as completely as is reasonably possible from the vehicular circulation system.*

The applicant does not identify any sidewalks. Sidewalks are required for new developments or change of use per Section 2.18. The applicant has indicated that sidewalks would not be feasible along E. Michigan Avenue. Pedestrian access from the old plant and showroom to the new plant is recommended. A sidewalk along Sprinkle Road on the east side of the building cannot be proposed due to its location within Comstock Township. The applicant has stated the following: "There is no land space along E. Michigan Avenue frontage that could accommodate a sidewalk with the exception of the frontage between the site entrance and heading west to Victors Ave east curb cut. This run is approximately 100' but has no connections to the east or west. Consumers does not plan to install sidewalk on this stretch." We recommend a sidewalk be constructed wherever feasible.

## J. Vehicular and Pedestrian Circulation Layout

*The arrangement of public and common ways for vehicular and pedestrian circulation shall respect the pattern of existing or planned streets or pedestrian or bicycle pathways in the vicinity of the site. The width of streets shall be appropriate for the volume of traffic they will carry, based on Road Commission of Kalamazoo*



*County standards. In order to ensure public safety and promote efficient traffic flow and turning movements, the applicant may be required to limit street access points or construct a secondary access road.*

The applicant is not proposing any changes to the existing curb cuts. It is anticipated that the existing and planned street pattern will be respected. Additionally, the applicant has provided truck turning movements indicating that circulation within the site is adequate. Due to the wide driveway entrance and large paved area conditions on site, it is likely that trucks and employee vehicles will have enough space and room to circulate the site. This standard is subject to the review of the Township Engineer.

Site plans indicate the installation of directional signage on E. Michigan Avenue that will direct trucks to the left of the site and employee vehicles to the right. This will assist with the ease of traffic flow around the site. The employee vehicle path will be located on the west side of the site. This is proposed to be 24 feet in width. We defer to the Fire Marshal to determine the adequacy of the proposed driveway widths and cite circulation pattern for fire vehicle access.

18 parking spaces are proposed where the Kalamazoo Township Zoning Ordinance requires 52 spaces. The parking spaces for employee vehicles are approximately 10 feet wide and 20 feet in length, which is compliant with ordinance standards. The employee parking area will be located on the east side of the building and maintenance vehicle parking will be located on the west side of the building (also 10'x20'). The maintenance vehicle parking area is comprised of 10 spots. We defer to the applicant to provide justification for the Planning Commission's satisfaction that the proposed parking plan is adequate for the proposed use.

#### **K. Drainage**

*Appropriate measures shall be taken to ensure that the removal or drainage of surface waters will not adversely affect adjoining properties or the capacity of the public or natural storm drainage system. Provisions shall be made for a feasible storm drainage system, the construction of stormwater facilities, and the prevention of erosion. Surface water on all paved areas shall be collected at intervals so that it will not obstruct vehicular or pedestrian traffic and will not create nuisance ponding in paved areas. Final grades may be required to conform to existing and future grades of adjacent properties. Grading and drainage plans shall be subject to review by the Township Engineer.*

This standard is subject to the review of the Township Engineer.

#### **L. Soil Erosion and Sedimentation**

*The proposed development shall include measures to prevent soil erosion and sedimentation during and upon completion of construction, in accordance with current County and Township standards.*

This standard is subject to the review of the Township Engineer.

#### **M. Exterior Lighting**

*Exterior lighting shall be designed so that it is deflected away from adjoining properties and so that it does not impede vision of drivers along adjacent streets.*

The proposed lighting must adhere to Section 2.12. The proposed building includes 18 building mounted lights and 3 pole mounted lights. Photometric plan conditions indicate a footcandle emission of 3.0 on the western portion of the site. This is not in compliance with ordinance standards. However, we do not anticipate the light emissions to cause adverse effects on adjacent properties, given that CCC owns surrounding sites. Footcandle emissions on the east side of the site indicate a maximum of 2.2. This also is not in compliance



with Ordinance standards, but we note that CCC owns additional land on the east side within Comstock Township limits. We do not anticipate lighting to cause sight challenges for motorists along E. Michigan Avenue, given that the proposed building is setback further from the road. All lights shall be fully shielded and pole mounted lights shall not exceed 22 feet in height, unless approved by Planning Commission, then pole lights may increase to 30 feet in height (proposed).

**However, footcandles at the property line MUST meet ordinance requirements, even if the adjacent property is owned by the applicant. This provision has not been satisfied.**

#### **N. Public Services**

*Adequate services and utilities, including water, sewage disposal, sanitary sewer, and stormwater control services, shall be available or provided, and shall be designed with sufficient capacity and durability to properly serve the development. All streets and roads, water, sewer, and drainage systems, and similar facilities shall conform to the design and construction standards of the Township or County, as appropriate.*

It is anticipated that this standard is met, however this is subject to the review of the Township Engineer.

#### **O. Screening**

*Off-street parking, loading and unloading areas, outside refuse storage areas, and other storage areas that are visible from adjacent homes or from public roads, shall be screened by walls or landscaping of adequate height and shall comply with Articles 5.00 and 6.00 of this Ordinance.*

The applicant has not identified any proposed screening on the submitted site plans. Per Section 8.02.K, the concrete plant, off-street parking areas, and loading areas must be screened. Due to the use of the eastern and northern adjacent parcels as part of the concrete manufacturing operation for CCC, it is recommended the screening requirement is waived for this parcel along these sites. The applicant indicated that there is a natural vegetation buffer existing between the site and the parcels along the western edge of the parcel. The applicant intends to maintain this buffer, and it appears to sufficiently provide screening. We support the preservation of this existing buffer. The Planning Commission shall determine if the proposed screening is adequate. Given that the surrounding properties are also owned by CCC and intended for industrial uses, the existing screening is likely sufficient.

Additionally, there are a couple limitations in providing screening along E. Michigan Avenue, including the height difference between the road and the site, and the narrow easement. There is an existing lawn with perennials planted (23) along E. Michigan. This condition is subject to the discretion of Planning Commission if the proposed screening is adequate.

#### **P. Danger from Hazards**

*The level of vulnerability to injury or loss from incidents involving hazardous materials or processes shall not exceed the capability of the Township to respond to such hazardous incidents so as to prevent injury and loss of life and property. In making such an evaluation, the Township shall consider the location, type, characteristics, quantities, and use of hazardous materials or processes in relation to the personnel, training, equipment and materials, and emergency response plans and capabilities of the Township.*

*Sites which include storage of hazardous materials or waste, fuels, salt, or chemicals shall be designed to prevent spills and discharge of polluting materials to the surface of the ground, groundwater, or nearby water bodies.*





The applicant indicated that all chemicals will be stored in an isolated and contained space to eliminate any potential for chemical release. Additionally, the applicant indicated measures to mitigate dust and noise pollution. The plans also indicated the presence of a Knox Box and fire connection at the front of the building. It is anticipated that this standard is met, however it is subject to the review of the Fire Marshal.

#### **Q. Health and Safety Concerns**

*Any use in any zoning district shall comply with applicable Federal state, county, and local health and pollution laws and regulations with respect to noise; dust, smoke and other air pollutants; vibration; glare and heat; fire and explosive hazards; gases; electromagnetic radiation; radioactive materials; and, toxic and hazardous materials.*

Per Section 8.02.K, an impact assessment is required to be submitted, pursuant to Section 2.09. The applicant completed an environmental regulation review. Per this review (generated by MEC Environmental Consulting), the following findings apply:

- EGLE shall review and approve the solid waste removal plan. Proof of this approval shall be provided to the Township.
- The site will include a water heater, as such air pollution emissions are subject to review. The applicant shall provide details noting that water heater emissions are exempt. Further, the applicant shall provide proof that due diligence was followed to determine if a permit is needed for possible emissions.
- The applicant shall conduct and file a PIPP to determine that pollution prevention measures are adequate.
- The applicant shall provide details of the updated stormwater permit approval.  
The applicant shall provide details that the proposed Emergency Planning and Community Right-To-Know requirements are met.

#### **R. Sequence of Development**

*All development phases shall be designed in logical sequence to ensure that each phase will independently function in a safe, convenient and efficient manner without being dependent upon subsequent improvements in a later phase or on other sites.*

The site is under a mining lease contract for the next ten years. The future master plan for the site is still in conceptual form, and no further site developments are planned presently. Any future construction or improvements are subject to review and approval by the Township.

#### **S. Coordination with Adjacent Sites**

*All site features, including circulation, parking, building orientation, landscaping, lighting, utilities, common facilities, and open space shall be coordinated with adjacent properties.*

Many of the adjacent properties are owned by CCC and are planned to coordinate with the operations of the concrete block plant. It is anticipated that the proposed screening will be adequate, and that the appropriate measures are being taken to ensure minimal negative impact to surrounding properties.

#### **T. Characteristics of the Soils**

*Soils shall have the physical, chemical, and engineering properties necessary to support the development being proposed. By way of example, consideration shall be given to the capability of soils to support the type*



*of proposed structure and the potential impact that anticipated modifications to soils would have on ground or surface water quality.*

This standard is subject to the review of the Township Engineer.

## **ADDITIONAL STANDARDS**

### **1) Off-Street Parking**

Per Section 4.01, 1 parking spaces is required for every 750 sq. ft. of building space. The proposed building is 38,800 sq ft. This means that 52 spaces are required. 18 parking spaces, including 1 barrier free space, are proposed, which does not meet the standard; however, the applicant intends to request a deviation from parking requirements from the Planning Commission.

Section 8.02.K specifies that a minimum of 5 stacking spaces shall be provided for trucks waiting to be loaded. An unloading area is specified, but the dimensions for the 5 required stacking spaces are required to be depicted on the site plans. The applicant states, "Consumers has set aside an off-drive lane along the inventory yard as staging for any waiting trucks. The run is 300 feet. This area is indicated on the revised C-3 [attached]." We have not been able to determine if this requirement is met.

### **2) Outdoor Storage**

The outdoor storage of materials other than sand, gravel, and other natural materials used in the process shall be prohibited. Materials will be stored in the storage bins and in the inventory yard. Outdoor storage areas shall comply with provisions set forth in Section 20.03.3. We defer to the applicant to provide these details as to determine compliance.

### **3) Pollution Control**

Concrete plants must comply with the dust and noise standards set forth in Section 9.00. The applicant submitted a regulatory applicability review. It is anticipated that these standards are met, however this is subject to review by the relevant environmental agencies.

### **4) Excess Concrete**

The proposed recovery system for excess concrete must be noted on the site plan and approved by the Township. Storage of excess concrete on the site shall not exceed the limits specified in the approved recovery plans. Excess concrete from other locations shall not be brought onto the site for recovery. The applicant stated that CCC does not anticipate excess concrete from this operation, and no excess concrete products will be brought to this proposed operation.

### **5) Trash Removal and Disposal**

Trash removal and disposal plans are not provided. The applicant provided trash removal shall be as currently employed at existing operations. Any trash generated from the new facility will be picked up weekly by applicable personnel and transferred to the existing hopper that is located at the existing block plant. Any dumpster located on site shall be properly screened.

## **RECOMMENDATIONS**

We have reviewed the site plans submitted for the proposed new concrete block manufacturing plant located at 3809 E. Michigan Avenue and recommend the Planning Commission to **table** the proposed application. However, staff *could* support an approval recommendation with the several conditions as noted below (to the Planning Commission's discretion):



1. The applicant shall provide specifics on the number of trucks anticipated at a given time, how they plan to accommodate double the trucks on the site without causing backups, intended truck routes, and trucking hours to the Planning Commission's satisfaction.
2. A sidewalk is included on site plans.
3. Landscaping and screening plans are satisfactory to the Planning Commission.
4. On-site lighting meets the footcandle requirements at the property line, regardless of adjacent properties being owned by the applicant. These adjacent properties could be sold at a future date, which would then make the lighting non-conforming. This standard is applied to all properties within the Township – therefore, Consumers shall be held to the same standard.
5. The lesser number of parking spaces is satisfactory to the Planning Commission.
6. An environmental review showing positive findings is submitted to the Township prior to operation.
7. The applicant shall receive a dimensional variance from the Kalamazoo Township Zoning Board of Appeals to permit the taller building height.
8. All requirements pertaining to outdoor storage areas shall be met in accordance with Section 20.03.A.3.

The applicant is also required to obtain the following approvals, which may be sought separately at any point during the Township site plan review.

1. The applicant obtains all necessary stormwater, drainage, and floodplain review(s) and approval(s) from Township Engineers and all review(s) and approval(s) from applicable Township safety personnel.
2. The applicant obtains a Soil Erosion and Sedimentation Control (SESC) permit from the Kalamazoo County Drain Commissioner's Office.
3. The applicant obtains approval from the Michigan Department of Environmental Quality (MDEQ) or successor agency, Air Quality Control Division, Michigan Pollution Control Commission and Ground Water Division.
4. The applicant obtains special land use approval from the Kalamazoo Township Planning Commission.

Please feel free to reach out to Danielle Bouchard at [dbouchard@mcka.com](mailto:dbouchard@mcka.com) or Kyle Mucha, AICP at [kmucha@mcka.com](mailto:kmucha@mcka.com) if you have any questions regarding this review.

Respectfully Submitted,

**McKenna**

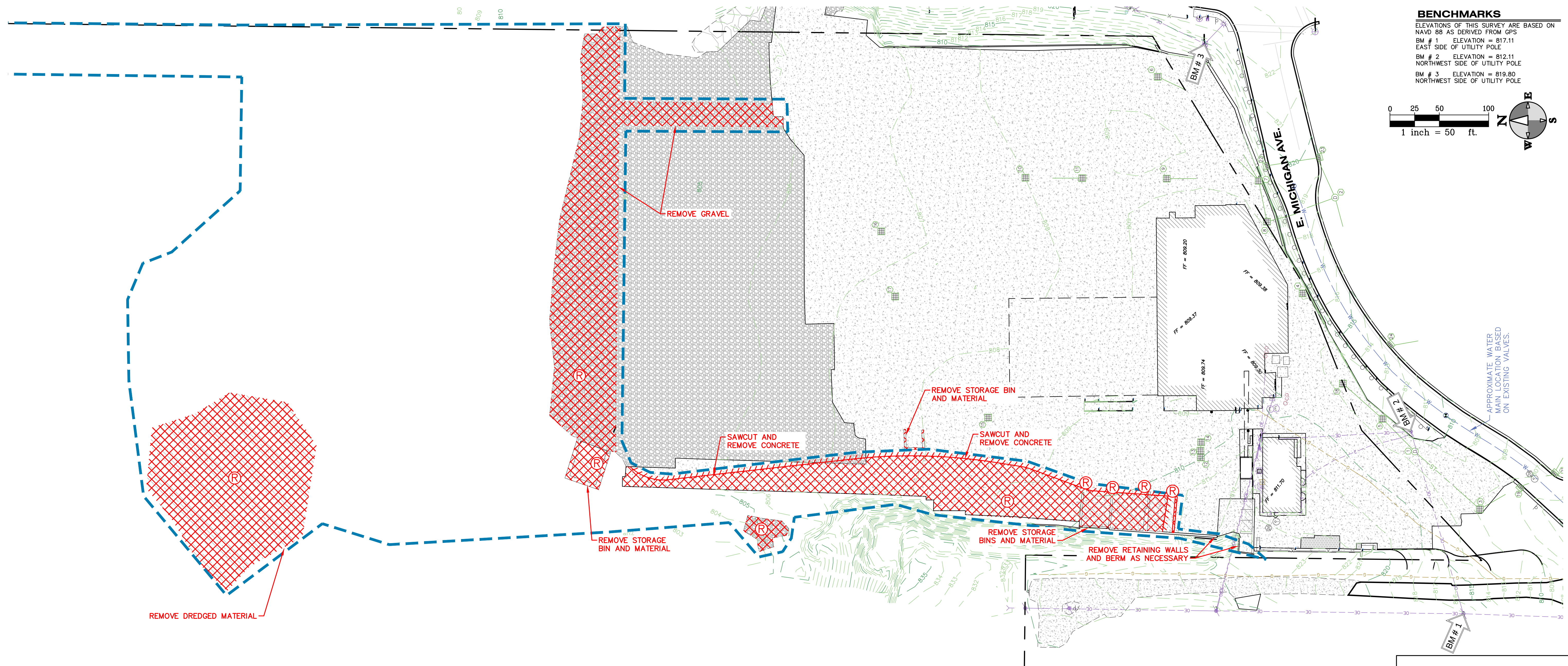
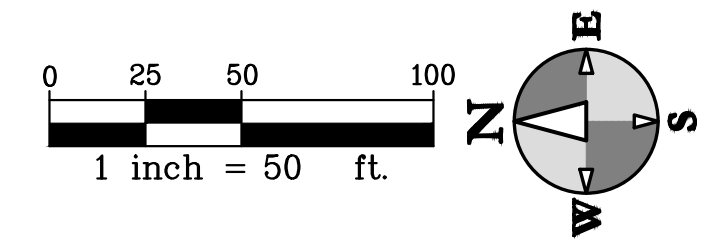
Danielle Bouchard, AICP  
Principal Planner

Kyle Mucha, AICP  
Senior Planner

Lauren Sayre  
Assistant Planner



**BENCHMARKS**  
 ELEVATIONS OF THIS SURVEY ARE BASED ON NAVD 88 AS DERIVED FROM GPS  
 BM # 1 ELEVATION = 817.11  
 EAST SIDE OF UTILITY POLE  
 BM # 2 ELEVATION = 812.11  
 NORTHWEST SIDE OF UTILITY POLE  
 BM # 3 ELEVATION = 819.80  
 NORTHWEST SIDE OF UTILITY POLE



**REMOVAL NOTES**

1. REVIEW ALL THE REMOVALS AND PROTECTION WITH OWNER PRIOR TO COMMENCING CONSTRUCTION. INSTALL TEMPORARY SNOW FENCE AROUND ALL TREES REQUIRING PROTECTION. SNOW FENCE SHALL BE PLACED AT EDGE OF DRIP LINE.
2. SAWCUT ALL CURB, SIDEWALK, AND PAVEMENTS PRIOR TO REMOVAL. ADDITIONAL SAWCUT MAY BE NECESSARY PRIOR TO REPLACEMENT TO ENSURE CLEAN EDGE.
3. ALL REMOVALS SHALL BE TAKEN OFF-SITE AND DISPOSED OF. NO STOCKPILE OR BURNING OF DEBRIS IS ALLOWED.
4. COMPLY WITH ALL ASPECTS OF THE SOIL EROSION CONTROL PERMIT AS ISSUED BY THE KALAMAZOO COUNTY DRAIN COMMISSIONER. ALL TEMPORARY CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION.
5. ALL REMOVALS SHALL BE TO THE LIMITS INDICATED ABOVE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNAUTHORIZED REMOVALS AND SUBSEQUENT REPLACEMENT SHALL BE AT THE CONTRACTOR'S EXPENSE.
6. REMOVE, STORE, AND RESET ANY EXISTING SIGNS AS DIRECTED BY THE ENGINEER/OWNER.
7. REMOVE ALL TREES TO THE CLEARING LIMITS AS SHOWN. REMOVE ALL EXISTING TREES, STUMPS AND BRUSH FROM THE SITE AS NECESSARY TO CONSTRUCT THE IMPROVEMENTS.
8. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
9. FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

**REMOVALS LEGEND**

- XXXXXX CURB REMOVAL
- ////// SAWCUT
- XXXXXX PAVEMENT/SIDEWALK REMOVAL
- (R) REMOVE
- (P) PROTECT
- (S) SALVAGE
- LIMITS OF CONSTRUCTION

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| NO.         | DATE         | DESCRIPTION                | APPROV |
|-------------|--------------|----------------------------|--------|
| 2           | 18APR        | QUADRA 11APR LAYOUT UPDATE |        |
| 1           | 11APR        | QUADRA 11APR LAYOUT UPDATE |        |
| PROJECT NO: | 066.0-001-23 | DRAWN:                     | TTR    |
| DATE:       | 05/22/23     | CHECKED:                   | EMB    |
| SCALE:      | AS NOTED     | APPROVED:                  | EMB    |

|                 |   |
|-----------------|---|
| PROJECT         | CONSUMERS CONCRETE BLOCK PLANT<br>KALAMAZOO TWP, MI |
| TITLE           | EX. CONDITIONS AND DEMO PLAN                        |
| DRAWING NUMBER: | C-1   |
| SHEET OF SHEETS |   |

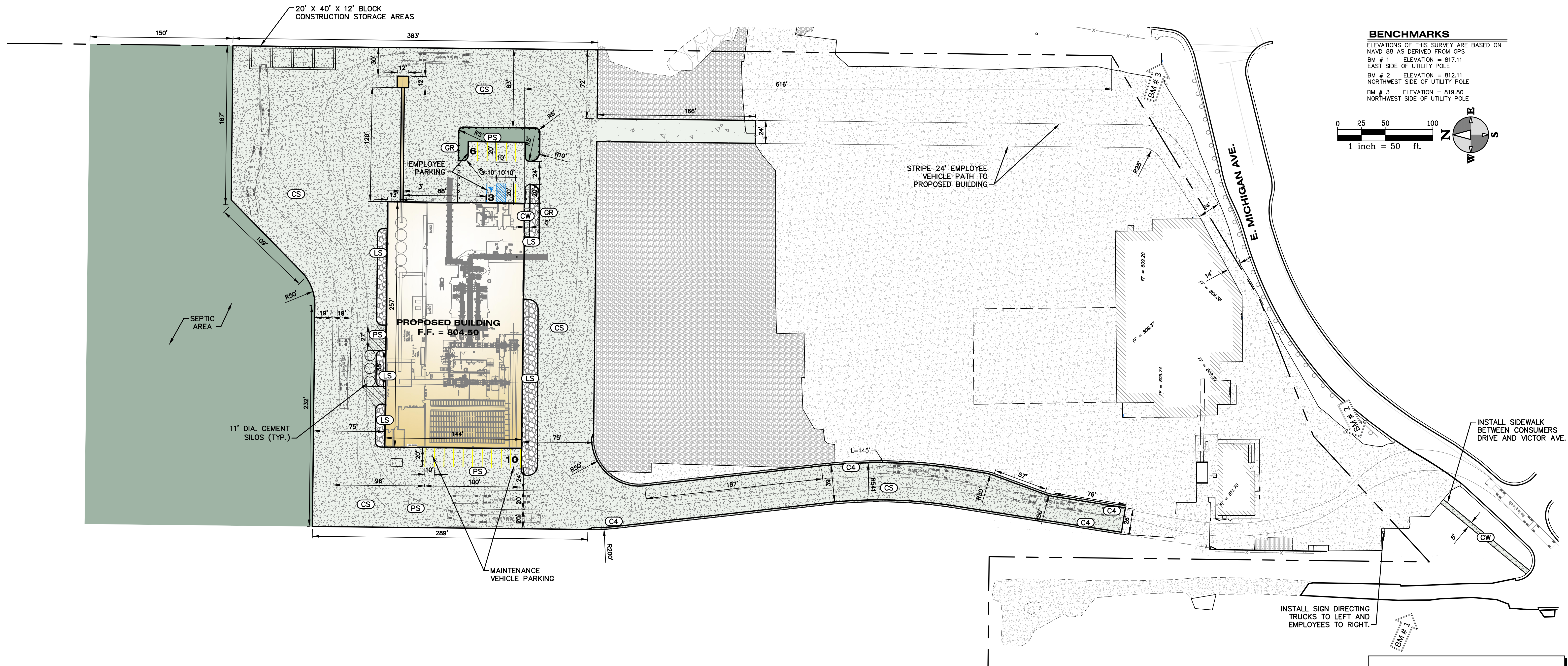


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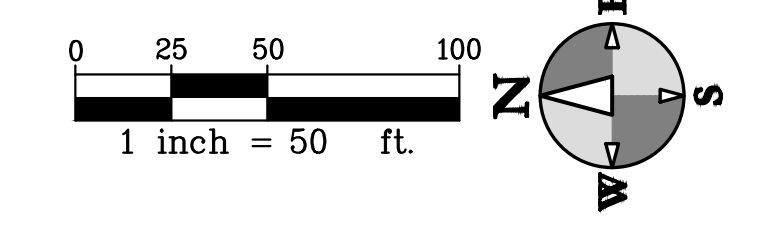


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**BENCHMARKS**  
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 BM # 3 ELEVATION = 819.80 NORTHWEST SIDE OF UTILITY POLE



- SITE LEGEND**
- (C4) C4 CURB AND GUTTER (SEE DETAIL)
  - (CS) CONCRETE SURFACE
  - (CW) CONCRETE WALK
  - (PS) PARKING STRIPING
  - (RB) RETENTION BASIN
  - (SF) SEDIMENT FOREBAY
  - (GR) GUARD RAIL
  - (LS) LANDSCAPE STONE

- LEGEND**
- HEAVY-DUTY BITUMINOUS PAVEMENT
  - CONCRETE PAVEMENT AND SIDEWALK
  - RIP RAP
  - PROPOSED BUILDING

**GENERAL NOTES**

1. ALL DIMENSIONS SHOWN ARE TO THE EDGE OF METAL.
2. PAVEMENT MARKINGS AND SIGNAGE SHALL CONFORM TO THE CURRENT MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND MICHIGAN BARRIER FREE CODE.
3. SEE ARCHITECTURAL PLANS FOR MORE DETAILS ON TRUCK DOCK WALLS, STAIRS, AND RAMPS.
4. MATCH EXISTING CURB & GUTTER SECTIONS WHEN CONNECTING TO THEM. CONDITIONS VARY THROUGHOUT PROJECT.
5. EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AND KALAMAZOO TOWNSHIP STANDARDS SPECIFICATIONS.
6. ALL WORK SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL LAWS, RULES AND REGULATIONS IN FORCE AT THE TIME OF CONSTRUCTION.
7. ALL EXTERIOR CONCRETE SHALL BE MDOT GRADE P1 (3500PSI), AIR ENTRAINED, LIMESTONE AGGREGATE, BROOM FINISHED, CURING SEAL.
8. THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.
9. ALL REQUIRED FILL FOR THIS PROJECT SHALL BE SELECTED EXCAVATED MATERIAL FROM THE SITE APPROVED BY THE ENGINEER OR CLASS II GRANULAR MATERIAL FROM BORROW AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
10. FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.
11. ANY BITUMINOUS OR CONCRETE PAVEMENT, SANITARY SEWER, SANITARY SEWER SERVICE LEADS, OR STORM SEWER, WHICH IS DAMAGED BY THE CONTRACTOR DURING HIS OPERATIONS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AND AT THE CONTRACTOR'S EXPENSE.
12. THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
13. ALL UNSUITABLE SUBBASE MATERIAL MUST BE REMOVED TO A MINIMUM DEPTH OF 24" BELOW THE TOP OF THE SUBGRADE OR AS DETERMINED BY THE COUNTY ENGINEER.
14. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.

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| NO. | DATE  | DESCRIPTION                | APPROVED |
|-----|-------|----------------------------|----------|
| 2   | 18APR | QUADRA 11APR LAYOUT UPDATE |          |
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|             |              |           |     |
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| DATE:       | 05/22/23     | CHECKED:  | EMB |
| SCALE:      | AS NOTED     | APPROVED: | EMB |

PROJECT: CONSUMERS CONCRETE BLOCK PLANT  
 KALAMAZOO TWP, MI

TITLE: SITE LAYOUT PLAN

DRAWING NUMBER: C-2

SHEET OF SHEETS

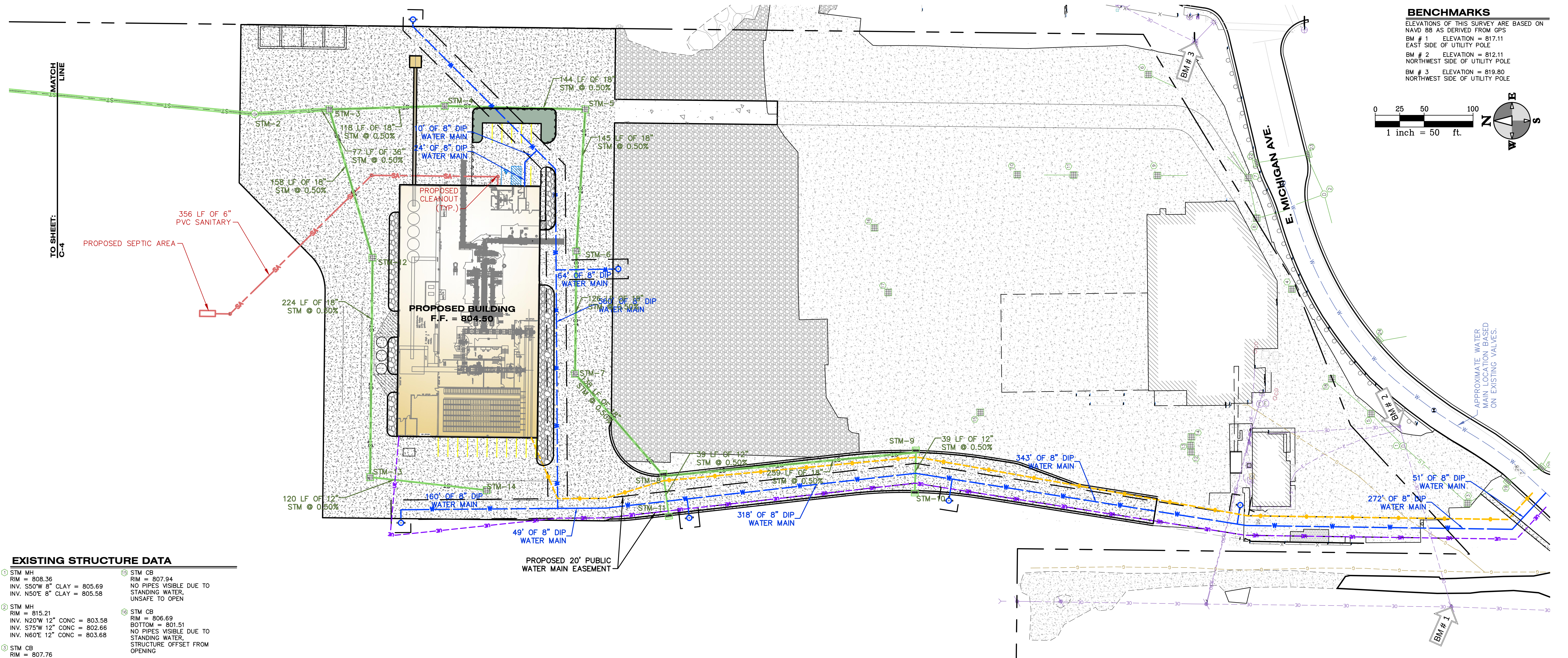


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**EXISTING STRUCTURE DATA**

- |  |   |
|--|---|
| 1 STM MH<br>RIM = 808.36<br>INV. S50'W 8" CLAY = 805.69<br>INV. S50'E 8" CLAY = 805.58                                   | 15 STM CB<br>RIM = 807.94<br>NO PIPES VISIBLE DUE TO STANDING WATER, UNSAFE TO OPEN                                   |
| 2 STM MH<br>RIM = 815.21<br>INV. N20'W 12" CONC = 803.58<br>INV. S75'W 12" CONC = 802.66<br>INV. N60'E 12" CONC = 803.68 | 16 STM CB<br>RIM = 806.69<br>BOTTOM = 801.51<br>NO PIPES VISIBLE DUE TO STANDING WATER, STRUCTURE OFFSET FROM OPENING |
| 3 STM CB<br>RIM = 807.76<br>INV. N50'E 8" CLAY = 804.83<br>INV. S30'E 8" CLAY = 804.85                                   | 17 STM CB<br>RIM = 807.02<br>BOTTOM = 803.18<br>NO PIPES VISIBLE DUE TO STANDING WATER                                |
| 4 STM CB<br>RIM = 808.93<br>BOTTOM = 802.61<br>NO PIPES VISIBLE DUE TO STANDING WATER                                    | 18 STM CB<br>RIM = 808.59<br>INV. S50'W 8" CLAY = 806.46<br>IMPACTED WITH SEDIMENT                                    |
| 5 STM CB<br>RIM = 808.65<br>INV. S50'W 8" CLAY = 805.88<br>INV. N50'E 8" CLAY = 806.15                                   | 19 STM CB<br>RIM = 806.68<br>INV. S20'E 12" CONC = 800.88   |
| 6 STM CB<br>RIM = 808.37<br>INV. S25'W 6" PVC = 807.37   | 20 STM CB<br>RIM = 803.76<br>INV. N60'W 12" CONC = 800.16<br>INV. S40'E 12" CONC = 798.88                             |
| 7 STM CB<br>RIM = 808.74<br>INV. E 12" CONC = 806.13<br>INV. S19'E 15" CONC = 804.15                                     | 21 STM CB<br>RIM = 806.69<br>INV. N10'W 12" CONC = 801.39<br>INV. S60'E 12" CONC = 801.42                             |
| 8 STM CB<br>RIM = 808.83<br>INV. S80'W 12" CONC = 806.99<br>INV. N60'E 12" CONC = 806.22<br>INV. N45'E 6" CONC = 806.64  | 22 STM CB<br>RIM = 819.36<br>INV. S 12" CONC = 816.07   |
| 9 STM CB<br>RIM = 808.87<br>INV. S 6" CONC = 807.10  | 23 STM CB<br>RIM = 819.54<br>INV. N 12" CONC = 814.39<br>INV. S60'W 12" CONC = 808.07                                 |
| 10 STM CB<br>RIM = 807.98<br>BOTTOM = 804.53<br>NO PIPES VISIBLE DUE TO STANDING WATER                                   | 24 STM CB<br>RIM = 812.45<br>INV. S10'E 12" CONC = 806.75   |
| 11 STM CB<br>RIM = 808.45<br>INV. N 6" CONC = 806.84<br>IMPACTED WITH SEDIMENT   | 25 STM CB<br>RIM = 801.97<br>INV. S 60'E 12" CONC = 798.67  |
| 12 STM CB (LEACHING BASIN)<br>RIM = 809.95<br>INV. S80'E 3" PVC = 805.75   | 26 UNKNOWN MH (WELL PIT)<br>RIM = 811.95<br>BOTTOM = 806.65   |
| 13 STM CB (LEACHING BASIN)<br>RIM = 809.68<br>INV. S80'E 3" PVC = 806.68<br>INV. N80'W 3" PVC = 806.18                   | 27 UNKNOWN MH<br>RIM = 804.60<br>INVERTS UNAVAILABLE DUE TO TRAFFIC CONDITIONS  |
| 14 STM CB (LEACHING BASIN)<br>RIM = 809.51<br>INV. N80'W 3" PVC = 806.95   | 28 UNKNOWN MH<br>RIM = 806.89<br>INVERTS UNAVAILABLE DUE TO TRAFFIC CONDITIONS  |
|  | 29 UNKNOWN MH<br>RIM = 823.11   |

**UTILITY NOTES**

- ALL STRUCTURE CASTINGS TO BE EAST JORDAN IRON WORKS OR APPROVED EQUAL. SEE STRUCTURE TABLE FOR SPECIFIC CASTING AT EACH STRUCTURE.
- STORM SEWERS SHALL BE CONCRETE C76-III, SOLID WALL ADS N-12 RIGID PIPE MEETING AASHTO M-294, TYPE S, OR APPROVED EQUAL INSTALLED PER THE REQUIREMENTS OF MDOT AND KALAMAZOO TOWNSHIP MANDREL TESTING SHALL BE PERFORMED PRIOR TO PAVING. USE CONCRETE PIPE WHERE INDICATED.
- THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
- DEWATERING MAY BE REQUIRED TO INSTALL OR REMOVE SOME UTILITIES. REFER TO SPECIFICATIONS FOR SPECIFIC REQUIREMENTS. REFER TO GEOTECHNICAL REPORT FOR MORE INFORMATION.
- REMOVE SEDIMENT FROM ALL STRUCTURES ONCE PAVING IS COMPLETE AND REMOVE SILT SACKS.
- ANY UTILITIES REQUIRING DEWATERING SHALL BE INSTALLED TO KALAMAZOO TOWNSHIP STANDARDS AND INCLUDED IN THE INSTALLATION COSTS. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING NECESSARY TO CONSTRUCT UTILITIES IN THE DRY. ANY DEWATERING WILL REQUIRE SAMPLING.
- IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
- VERIFY NUMBER OF FITTINGS PRIOR TO ORDERING. TOTALS DO NOT INCLUDE VERTICAL DEFLECTIONS THAT MAY BE NEEDED.
- PROVIDE 18" WATER MAIN SEPARATION WHEN CROSSING OTHER UTILITIES. DEFLECT UNDER OTHER UTILITIES W/O USING FITTINGS WHENEVER POSSIBLE. SEE WATER MAIN PROFILE SHEET.
- WATER MAIN MATERIALS AND INSTALLATION SHALL COMPLY WITH THE CITY OF KALAMAZOO STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE INSTALLATION, 2021.

**STORM SEWER STRUCTURE SCHEDULE**

| STR. # | RIM EL. | DIAM. | CASTING    | PIPES IN:                       | PIPES OUT                       |
|--------|---------|-------|------------|---------------------------------|---------------------------------|
| STM-2  | 804.53  | 60"   | 1040 A     | 36" S: 796.05                   | 36" N: 796.05                   |
| STM-3  | 803.21  | 48"   | 5105 M1    | 18" S: 796.43                   | 18" W: 796.73<br>36" N: 796.43  |
| STM-4  | 803.05  | 48"   | 5105 M1    |                                 | 18" N: 797.02<br>18" S: 797.02  |
| STM-5  | 803.45  | 48"   | 5105 M1    | 18" N: 797.74                   | 18" W: 797.74                   |
| STM-6  | 803.45  | 48"   | 5105 M1    | 18" E: 798.46                   | 18" W: 798.46                   |
| STM-7  | 803.09  | 48"   | 5105 M1    | 18" E: 799.09<br>18" SW: 799.09 |                                 |
| STM-8  | 804.33  | 48"   | 7030 M4 T1 | 18" S: 800.33                   | 18" NE: 799.78<br>12" W: 800.33 |
| STM-9  | 808.03  | 48"   | 7030 M4 T1 | 12" W: 803.83                   | 18" N: 801.62                   |
| STM-10 | 808.03  | 48"   | 7030 M4 T1 |                                 | 12" E: 804.03                   |
| STM-11 | 804.33  | 48"   | 7030 M4 T1 | 12" E: 800.53                   |                                 |
| STM-12 | 803.45  | 48"   | 5105 M1    | 18" W: 797.52<br>18" E: 797.52  |                                 |
| STM-13 | 803.45  | 48"   | 5105 M1    | 12" S: 798.64                   | 18" E: 798.64                   |
| STM-14 | 803.24  | 48"   | 5105 M1    |                                 | 12" N: 799.24                   |

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| NO. | DATE  | DESCRIPTION                | APPROV        |
|-----|-------|----------------------------|---------------|
| 2   | 18APR | QUADRA 11APR LAYOUT UPDATE |               |
| 1   | 11APR | QUADRA 11APR LAYOUT UPDATE |               |
|     |       | PROJECT NO: 066.0-001-23   | DRAWN: TTR    |
|     |       | DATE: 05/22/23             | CHECKED: EMB  |
|     |       | SCALE: AS NOTED            | APPROVED: EMB |

PROJECT: CONSUMERS CONCRETE BLOCK PLANT  
 KALAMAZOO TWP, MI

TITLE: UTILITY PLAN - SOUTH

DRAWING NUMBER: C-3

SHEET OF SHEETS



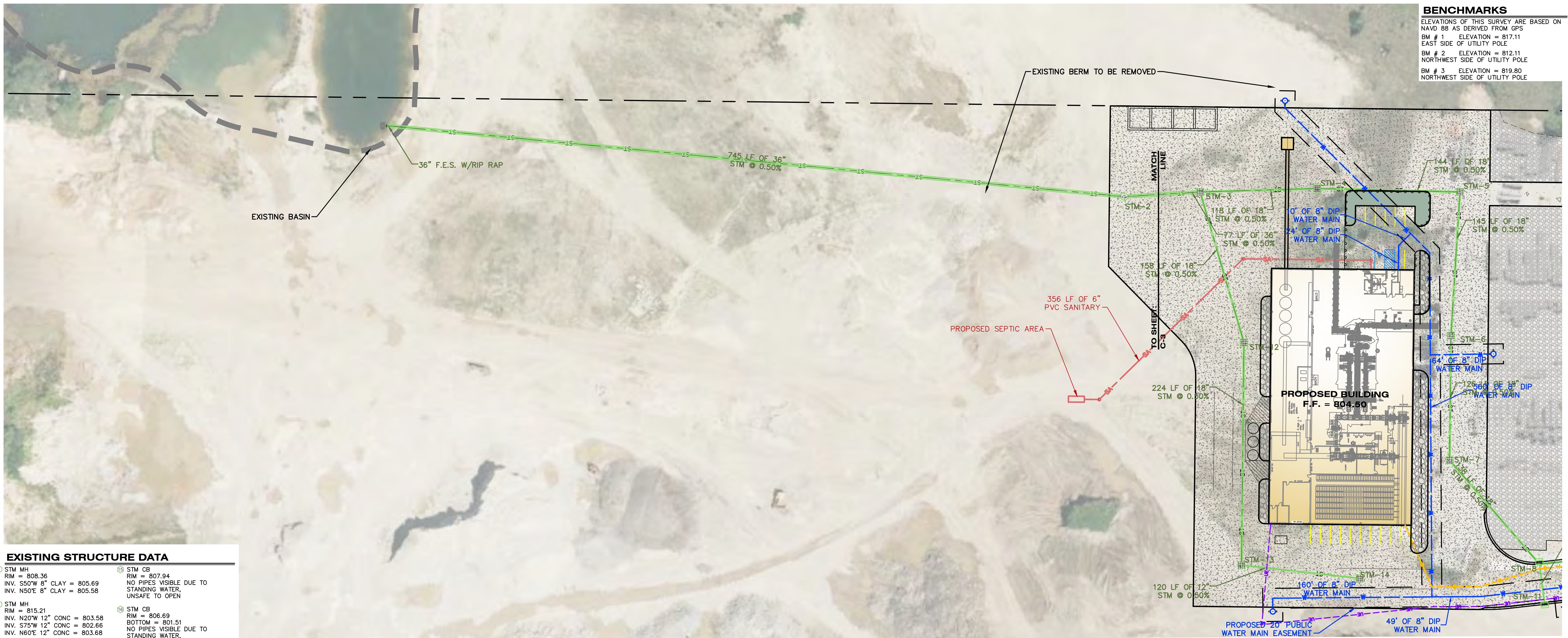
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 2800 s. 11th street  
 kalamazoo, michigan 49009  
 269.552.4960 fax 269.552.4961  
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**BENCHMARKS**  
 ELEVATIONS OF THIS SURVEY ARE BASED ON NAVD 88 AS DERIVED FROM GPS  
 BM # 1 ELEVATION = 817.11 EAST SIDE OF UTILITY POLE  
 BM # 2 ELEVATION = 812.11 NORTHWEST SIDE OF UTILITY POLE  
 BM # 3 ELEVATION = 819.80 NORTHWEST SIDE OF UTILITY POLE



**EXISTING STRUCTURE DATA**

- 1 STM MH  
RIM = 808.36  
INV. S50°W 8" CLAY = 805.69  
INV. N50°E 8" CLAY = 805.58
- 2 STM MH  
RIM = 815.21  
INV. N20°W 12" CONC = 803.58  
INV. S75°W 12" CONC = 802.66  
INV. N60°E 12" CONC = 803.68
- 3 STM CB  
RIM = 807.76  
INV. N50°E 8" CLAY = 804.83  
INV. S30°E 8" CLAY = 804.85
- 4 STM CB  
RIM = 808.93  
BOTTOM = 802.61  
NO PIPES VISIBLE DUE TO STANDING WATER
- 5 STM CB  
RIM = 808.65  
INV. S50°W 8" CLAY = 805.88  
INV. N50°E 8" CLAY = 806.15
- 6 STM CB  
RIM = 808.37  
INV. S25°W 6" PVC = 807.37
- 7 STM CB  
RIM = 808.74  
INV. E 12" CONC = 806.13  
INV. S15°E 15" CONC = 804.15
- 8 STM CB  
RIM = 808.83  
INV. S80°W 12" CONC = 806.99  
INV. N60°E 12" CONC = 806.22  
INV. N45°E 6" CONC = 806.64
- 9 STM CB  
RIM = 808.87  
INV. S 6" CONC = 807.10
- 10 STM CB  
RIM = 807.98  
BOTTOM = 804.53  
NO PIPES VISIBLE DUE TO STANDING WATER
- 11 STM CB  
RIM = 808.45  
INV. N 6" CONC = 806.84  
IMPACTED WITH SEDIMENT
- 12 STM CB (LEACHING BASIN)  
RIM = 809.95  
INV. S80°E 3" PVC = 805.75
- 13 STM CB (LEACHING BASIN)  
RIM = 809.68  
INV. S80°E 3" PVC = 806.68  
INV. N80°W 3" PVC = 806.18
- 14 STM CB (LEACHING BASIN)  
RIM = 809.51  
INV. N80°W 3" PVC = 806.95
- 15 STM CB  
RIM = 807.94  
NO PIPES VISIBLE DUE TO STANDING WATER, UNSAFE TO OPEN
- 16 STM CB  
RIM = 806.69  
BOTTOM = 801.51  
NO PIPES VISIBLE DUE TO STANDING WATER, STRUCTURE OFFSET FROM OPENING
- 17 STM CB  
RIM = 807.02  
BOTTOM = 803.18  
NO PIPES VISIBLE DUE TO STANDING WATER
- 18 STM CB  
RIM = 808.59  
INV. S50°W 8" CLAY = 806.46  
IMPACTED WITH SEDIMENT
- 19 STM CB  
RIM = 806.68  
INV. S20°E 12" CONC = 800.88
- 20 STM CB  
RIM = 803.76  
INV. N60°W 12" CONC = 800.16  
INV. S40°E 12" CONC = 798.88
- 21 STM CB  
RIM = 806.69  
INV. N10°W 12" CONC = 801.39  
INV. S60°E 12" CONC = 801.42
- 22 STM CB  
RIM = 819.36  
INV. S 12" CONC = 816.07
- 23 STM CB  
RIM = 819.54  
INV. N 12" CONC = 814.39  
INV. S60°W 12" CONC = 808.07
- 24 STM CB  
RIM = 812.45  
INV. S10°E 12" CONC = 806.75
- 25 STM CB  
RIM = 801.97  
INV. S 60°E 12" CONC = 798.67
- 26 UNKNOWN MH (WELL PIT)  
RIM = 811.95  
BOTTOM = 806.65
- 27 UNKNOWN MH  
RIM = 804.60  
INVERTS UNAVAILABLE DUE TO TRAFFIC CONDITIONS
- 28 UNKNOWN MH  
RIM = 806.89  
INVERTS UNAVAILABLE DUE TO TRAFFIC CONDITIONS
- 29 UNKNOWN MH  
RIM = 823.11

**UTILITY NOTES**

1. ALL STRUCTURE CASTINGS TO BE EAST JORDAN IRON WORKS OR APPROVED EQUAL. SEE STRUCTURE TABLE FOR SPECIFIC CASTING AT EACH STRUCTURE.
2. STORM SEWERS SHALL BE CONCRETE C76-III, SOLID WALL ADS N-12 RIGID PIPE MEETING AASHTO M-294, TYPE S, OR APPROVED EQUAL INSTALLED PER THE REQUIREMENTS OF MDOT AND KALAMAZOO TOWNSHIP. MANDREL TESTING SHALL BE PERFORMED PRIOR TO PAVING. USE CONCRETE PIPE WHERE INDICATED.
3. THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
4. DEWATERING MAY BE REQUIRED TO INSTALL OR REMOVE SOME UTILITIES. REFER TO SPECIFICATIONS FOR SPECIFIC REQUIREMENTS. REFER TO GEOTECHNICAL REPORT FOR MORE INFORMATION.
5. REMOVE SEDIMENT FROM ALL STRUCTURES ONCE PAVING IS COMPLETE AND REMOVE SILT SACKS.
6. ANY UTILITIES REQUIRING DEWATERING SHALL BE INSTALLED TO KALAMAZOO TOWNSHIP STANDARDS AND INCLUDED IN THE INSTALLATION COSTS. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING NECESSARY TO CONSTRUCT UTILITIES IN THE DRY. ANY DEWATERING WILL REQUIRE SAMPLING.
7. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
8. VERIFY NUMBER OF FITTINGS PRIOR TO ORDERING. TOTALS DO NOT INCLUDE VERTICAL DEFLECTIONS THAT MAY BE NEEDED.
9. PROVIDE 18" WATER MAIN SEPARATION WHEN CROSSING OTHER UTILITIES. DEFLECT UNDER OTHER UTILITIES W/O USING FITTINGS WHENEVER POSSIBLE. SEE WATER MAIN PROFILE SHEET.
10. WATER MAIN MATERIALS AND INSTALLATION SHALL COMPLY WITH THE CITY OF KALAMAZOO STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE INSTALLATION, 2021.

**STORM SEWER STRUCTURE SCHEDULE**

| STR. # | RIM EL. | DIAM. | CASTING    | PIPES IN:                       | PIPES OUT                       |
|--------|---------|-------|------------|---------------------------------|---------------------------------|
| STM-2  | 804.53  | 60"   | 1040 A     | 36" S: 796.05                   | 36" N: 796.05                   |
| STM-3  | 803.21  | 48"   | 5105 M1    | 18" S: 796.43                   | 18" W: 796.73<br>36" N: 796.43  |
| STM-4  | 803.05  | 48"   | 5105 M1    |                                 | 18" N: 797.02<br>18" S: 797.02  |
| STM-5  | 803.45  | 48"   | 5105 M1    | 18" N: 797.74                   | 18" W: 797.74                   |
| STM-6  | 803.45  | 48"   | 5105 M1    | 18" E: 798.46                   | 18" W: 798.46                   |
| STM-7  | 803.09  | 48"   | 5105 M1    | 18" E: 799.09<br>18" SW: 799.09 |                                 |
| STM-8  | 804.33  | 48"   | 7030 M4 T1 | 18" S: 800.33                   | 18" NE: 799.78<br>12" W: 800.33 |
| STM-9  | 808.03  | 48"   | 7030 M4 T1 | 12" W: 803.83                   | 18" N: 801.62                   |
| STM-10 | 808.03  | 48"   | 7030 M4 T1 |                                 | 12" E: 804.03                   |
| STM-11 | 804.33  | 48"   | 7030 M4 T1 | 12" E: 800.53                   |                                 |
| STM-12 | 803.45  | 48"   | 5105 M1    | 18" W: 797.52<br>18" E: 797.52  |                                 |
| STM-13 | 803.45  | 48"   | 5105 M1    | 12" S: 798.64                   | 18" E: 798.64                   |
| STM-14 | 803.24  | 48"   | 5105 M1    |                                 | 12" N: 799.24                   |

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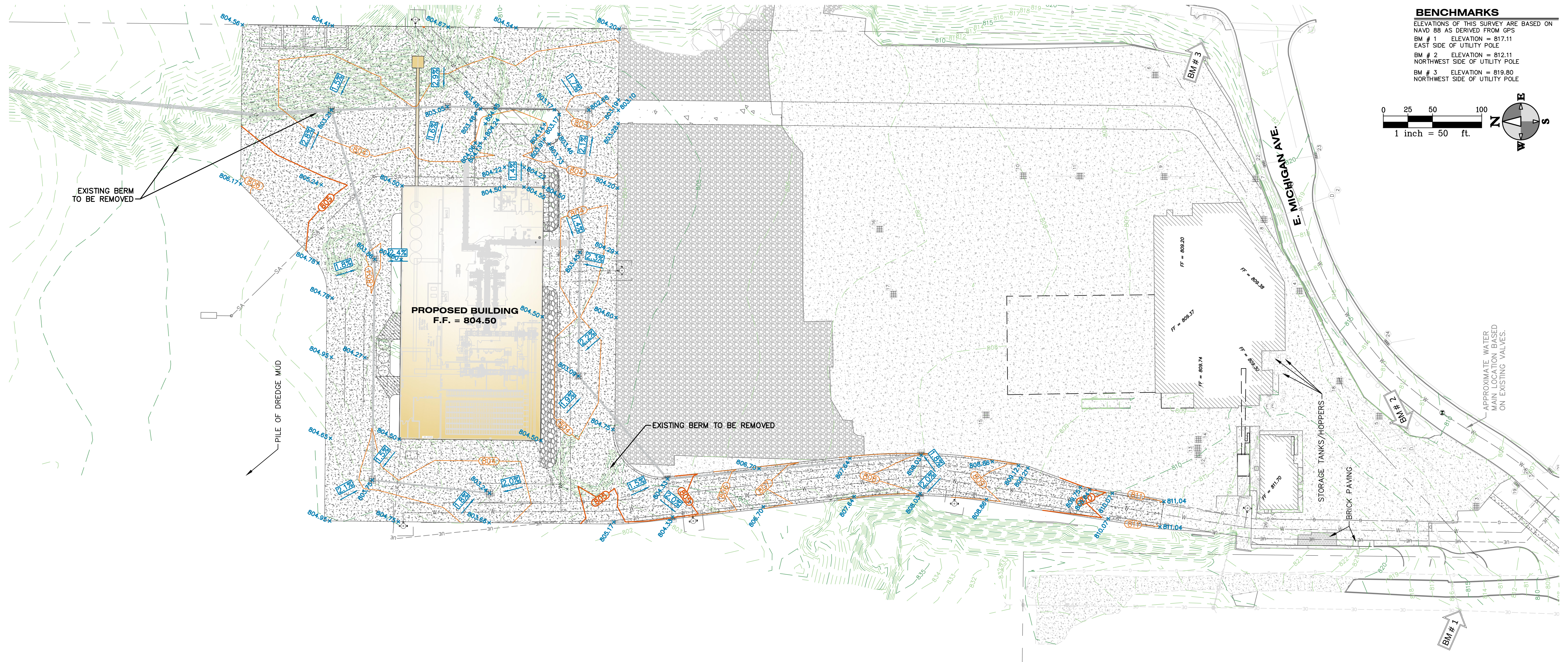
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|-----|-------|----------------------------|--------|
| 2   | 18APR | QUADRA 11APR LAYOUT UPDATE |        |
| 1   | 11APR | QUADRA 11APR LAYOUT UPDATE |        |

PROJECT: CONSUMERS CONCRETE BLOCK PLANT KALAMAZOO TWP, MI  
 TITLE: UTILITY PLAN - NORTH  
 DRAWING NUMBER: C-4  
 SHEET OF SHEETS

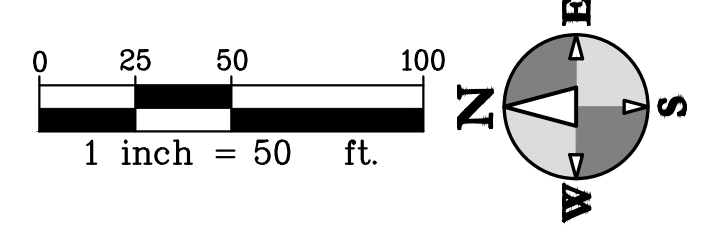
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**BENCHMARKS**  
 ELEVATIONS OF THIS SURVEY ARE BASED ON NAVD 88 AS DERIVED FROM GPS  
 BM # 1 ELEVATION = 817.11 EAST SIDE OF UTILITY POLE  
 BM # 2 ELEVATION = 812.11 NORTHWEST SIDE OF UTILITY POLE  
 BM # 3 ELEVATION = 819.80 NORTHWEST SIDE OF UTILITY POLE



**GRADING NOTES**

1. MATCH EXISTING GRADES AROUND PERIMETER WITH SLOPES AS SHOWN. MATCH AT 1 ON 3 MAX.
2. THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
3. ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT GRADES AT EDGE OF METAL (EOM) UNLESS OTHERWISE NOTED.
4. ALL EXISTING ELEVATIONS ARE TO BE VERIFIED AND ACCEPTED AS SHOWN PRIOR TO COMMENCEMENT OF WORK.
5. REMOVE AND REPLACE WITH CONTROLLED FILL ANY AREAS THAT HAVE BEEN SOFTENED BY RAINS, FREEZING, CONSTRUCTION EQUIPMENT, ETC.
6. ALL REQUIRED FILL FOR THIS PROJECT SHALL BE SELECTED EXCAVATED MATERIAL FROM THE SITE APPROVED BY THE ENGINEER OR CLASS II GRANULAR MATERIAL FROM BORROW AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
7. ALL COMPACTION SHALL BE ACCOMPLISHED BY PLACING THE FILL IN 12" LOOSE LIFTS AND MECHANICALLY COMPACTING EACH LIFT TO AT LEAST THE SPECIFIED MINIMUM DRY DENSITY. FIELD DENSITY TESTS SHOULD BE PERFORMED ON EACH LIFT AS NECESSARY TO ENSURE THAT ADEQUATE MOISTURE CONDITIONS AND COMPACTION ARE BEING ACHIEVED.
8. SITE CONTRACTOR SHALL REMOVE AND STOCKPILE ALL TOPSOIL AND BLACK ORGANIC SOILS ON-SITE TO BE USED IN THE REGRADING OF LANDSCAPE AREAS. THIS MATERIAL IS NOT TO BE USED FOR FILL OR PAVEMENT SUBBASE. REMOVAL OF ANY EXCESS SOIL OFF-SITE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
9. CONTRACTOR RESPONSIBLE FOR VERIFYING EARTHWORK CALCULATIONS PRIOR TO COMMENCING WORK. NO EXTRA EARTHWORK WILL BE PAID FOR ONCE EARTHWORK HAS BEGUN. ANY DISCREPANCIES WITH THE EARTHWORK CALCULATIONS SHALL BE REVIEWED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
10. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.

**SESC NOTES**

1. ALL WORK WILL COMPLY WITH THE PROVISIONS OF THE SOIL EROSION AND SEDIMENTATION CONTROL ACT (PA 347 OF 1972 AS AMENDED) ADMINISTERED BY THE KALAMAZOO COUNTY DRAIN COMMISSIONER.
2. AVOID UNNECESSARY DISTURBING OR REMOVING EXISTING VEGETATED TOPSOIL OR EARTH COVER. THESE AREAS ACT AS SEDIMENT FILTERS.
3. CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE SOIL EROSION CONTROL PERMIT FROM KALAMAZOO COUNTY DRAIN COMMISSIONER.
4. ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL REMOVAL IS REQUIRED FOR FINAL CLEANUP AND APPROVAL.
5. THE CONTRACTOR SHALL COMPLY WITH THE WEEKLY RECOMMENDATIONS OF THE CERTIFIED STORM WATER OPERATOR.
6. PLACE TRACK MATS AT THE ENTRANCE OF SITE TO REDUCE MATERIAL TRACKED OFF SITE.
7. IT IS THE INTENT FOR THE EARTHWORK TO BALANCE AND THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT THE EARTHWORK SHOWN BALANCES PRIOR TO BEGINNING WORK.
8. PLACE "DO NOT ENTER CONSTRUCTION ZONE" SIGNS AT ALL ENTRY POINTS TO PROJECT.
9. PROVIDE SILT SACKS IN EACH CATCH BASIN UNTIL SITE IS STABILIZED.
10. MAINTAIN A VEGETATIVE BUFFER WHEREVER POSSIBLE.
11. SEE LANDSCAPING PLAN FOR FINAL SLOPE TREATMENTS.
12. PLACE TOPSOIL AND SEED ACCORDING TO THE LANDSCAPE PLANS AS SOON AS AREAS ARE BROUGHT TO GRADE.
13. CLEAN ADJACENT ROADWAYS WHEN NECESSARY.
14. WATER SITE WHEN NECESSARY TO PREVENT AIR BORNE SEDIMENT TRANSFER.
15. PLACE MULCH BLANKET AN ALL SLOPES 1 ON 3 OR STEEPER.

**GRADING PLAN LEGEND**

- 720 PROPOSED CONTOUR 5-FT
- 719 PROPOSED CONTOUR NORMAL
- 720 EXISTING CONTOUR 5-FT
- 719 EXISTING CONTOUR NORMAL
- BENCH MARK

**NOT FOR CONSTRUCTION**

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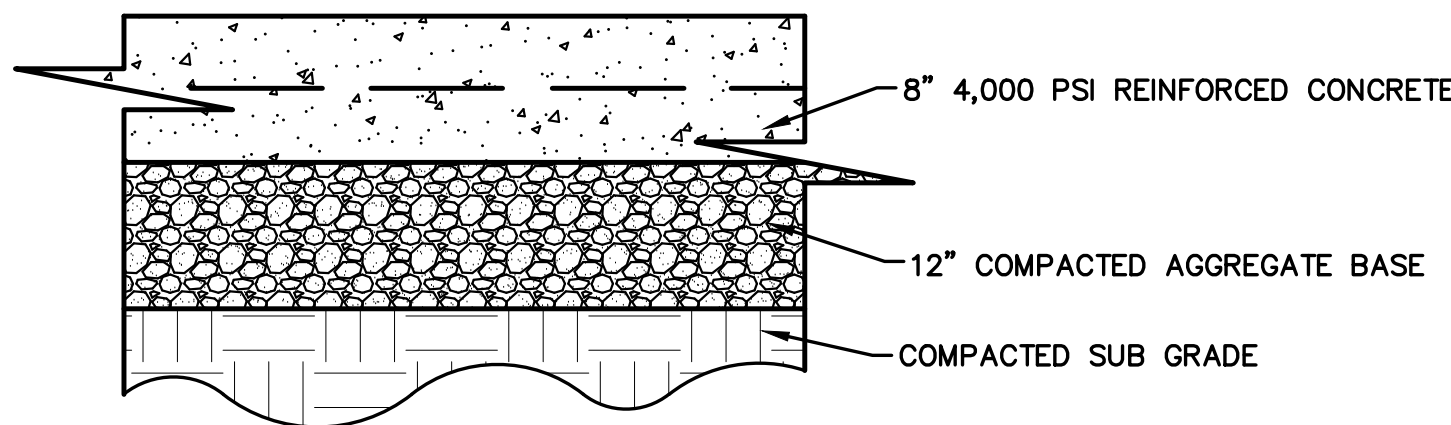
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| PROJECT NO: 066.0-001-23 |       | DRAWN: TTR                 |        |
| DATE: 05/22/23           |       | CHECKED: EMB               |        |
| SCALE: AS NOTED          |       | APPROVED: EMB              |        |

PROJECT CONSUMERS CONCRETE BLOCK PLANT KALAMAZOO TWP, MI  
 TITLE GRADING & SESC PLAN  
 DRAWING NUMBER: C-5  
 SHEET OF SHEETS

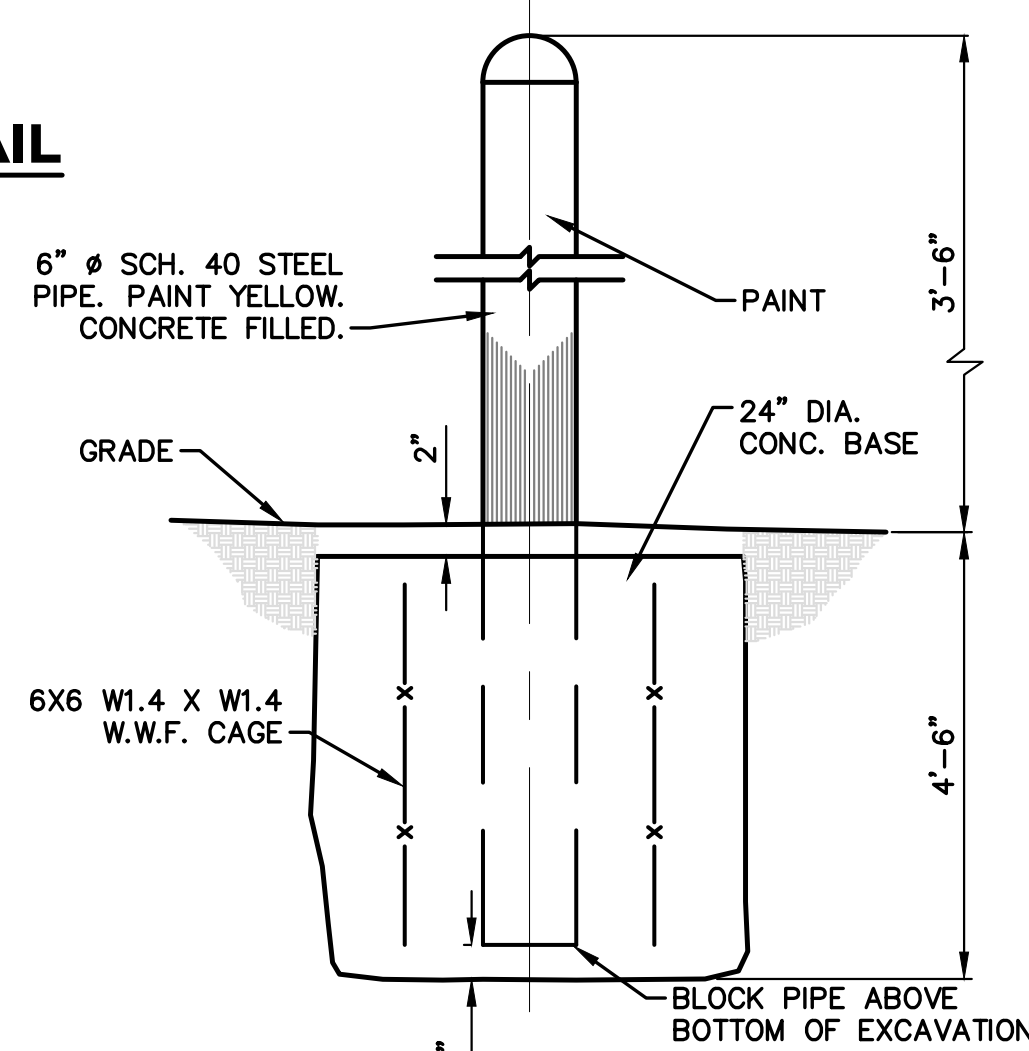
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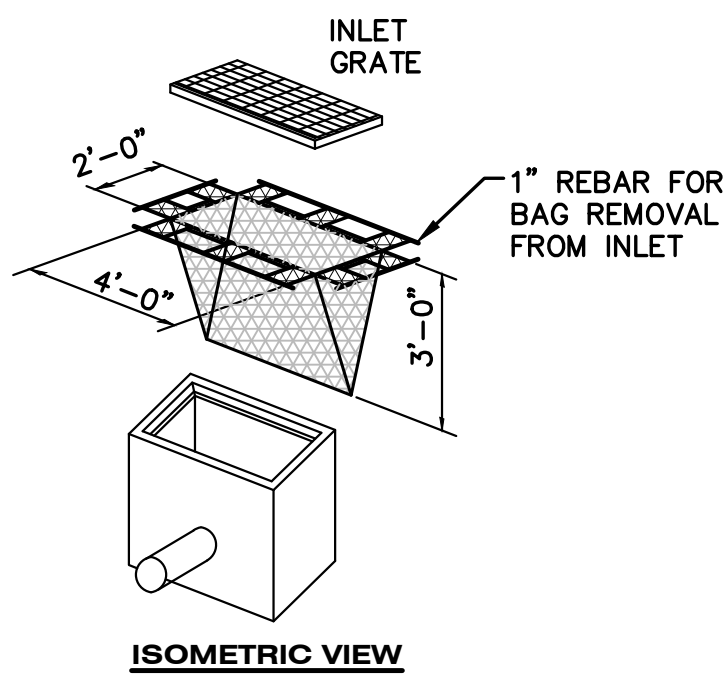




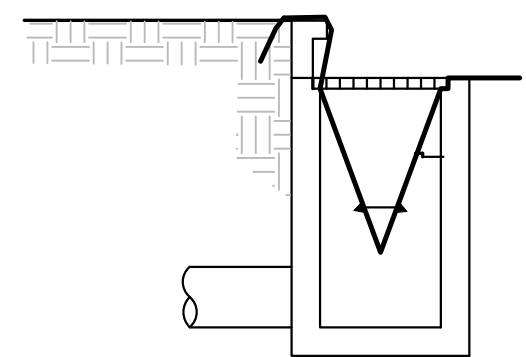
**HEAVY DUTY CONCRETE DETAIL**  
NOT TO SCALE



**6" Ø PIPE BOLLARD**  
NOT TO SCALE

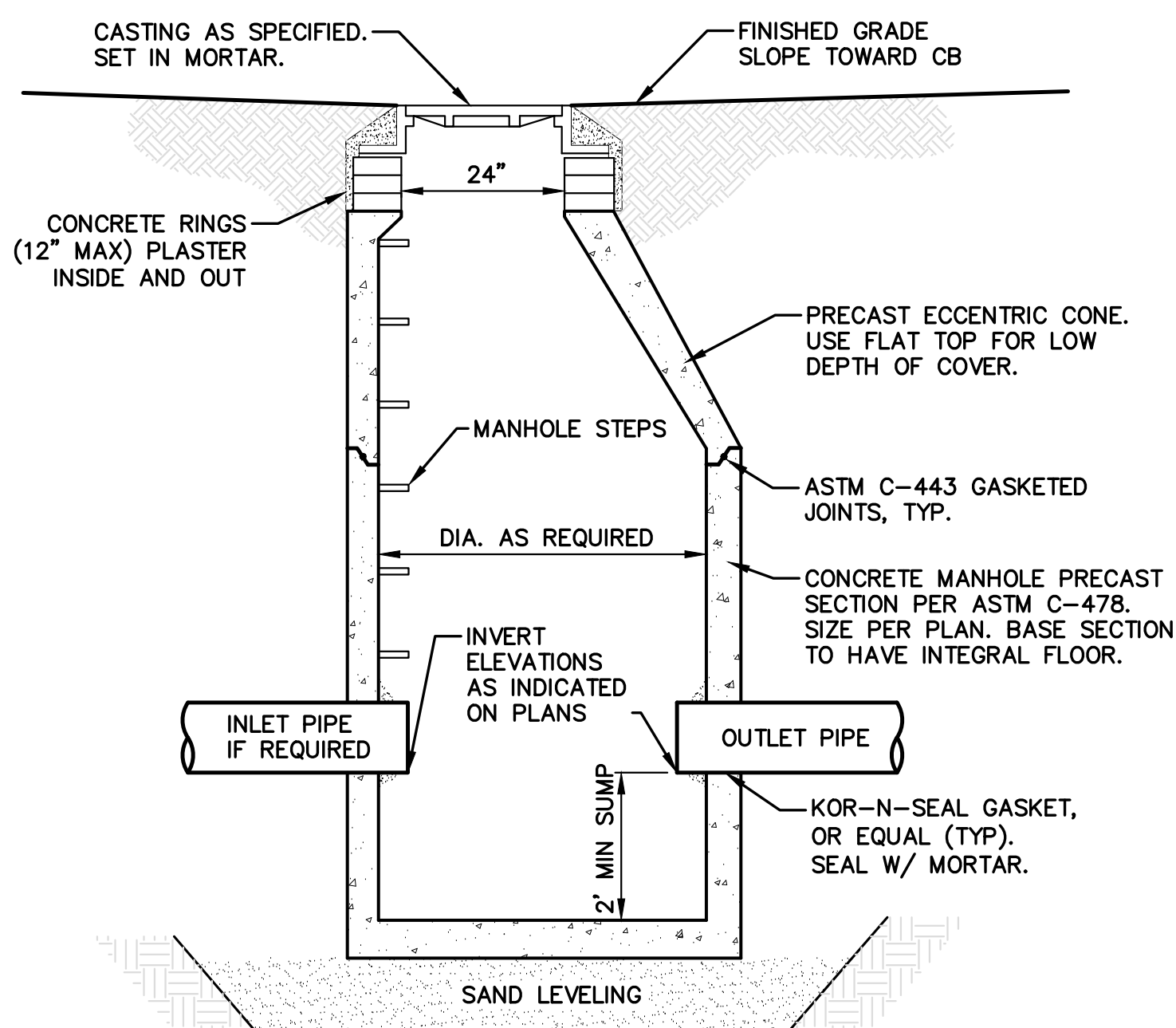


ISOMETRIC VIEW

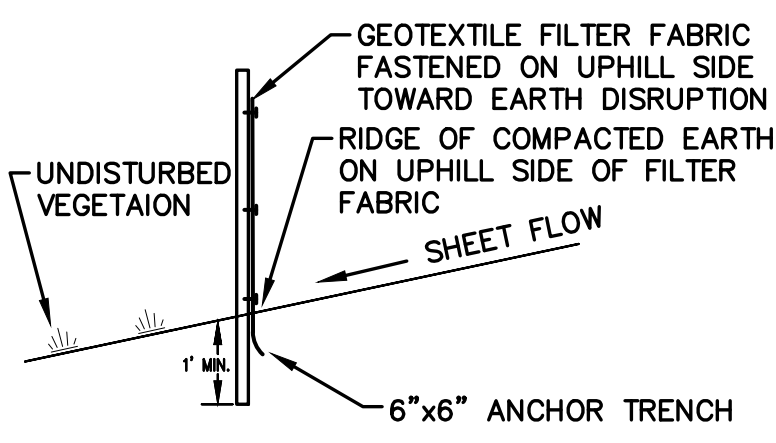
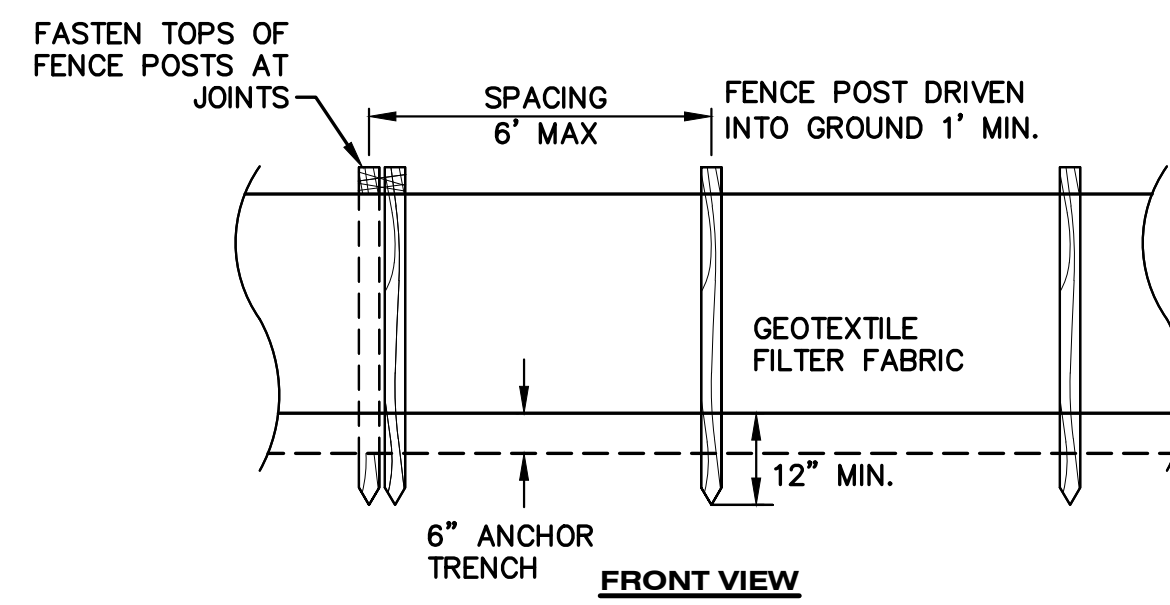


INSTALLATION DETAIL

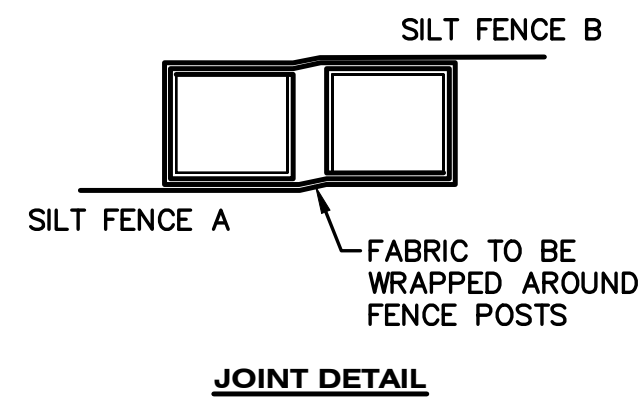
**S58 INLET PROTECTION FABRIC DROP**  
NOT TO SCALE



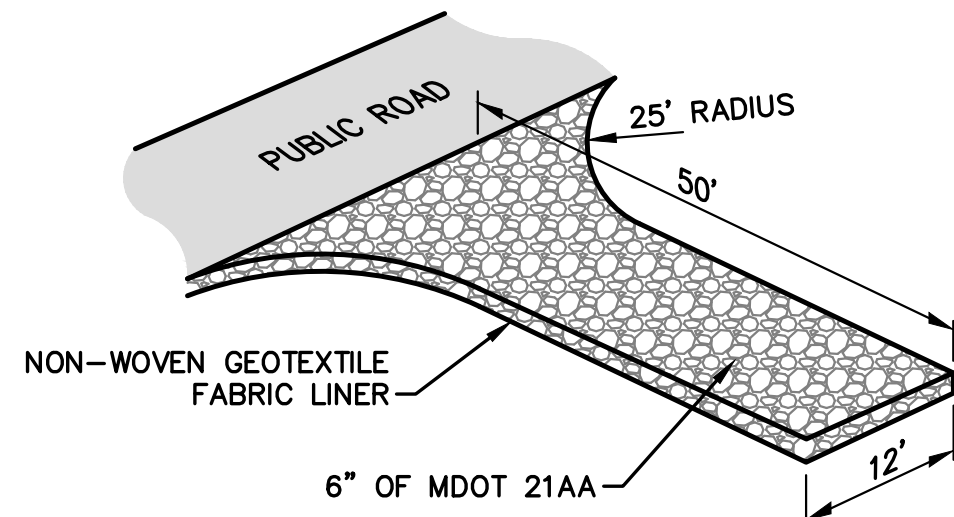
**CATCH BASIN DETAIL**  
NOT TO SCALE



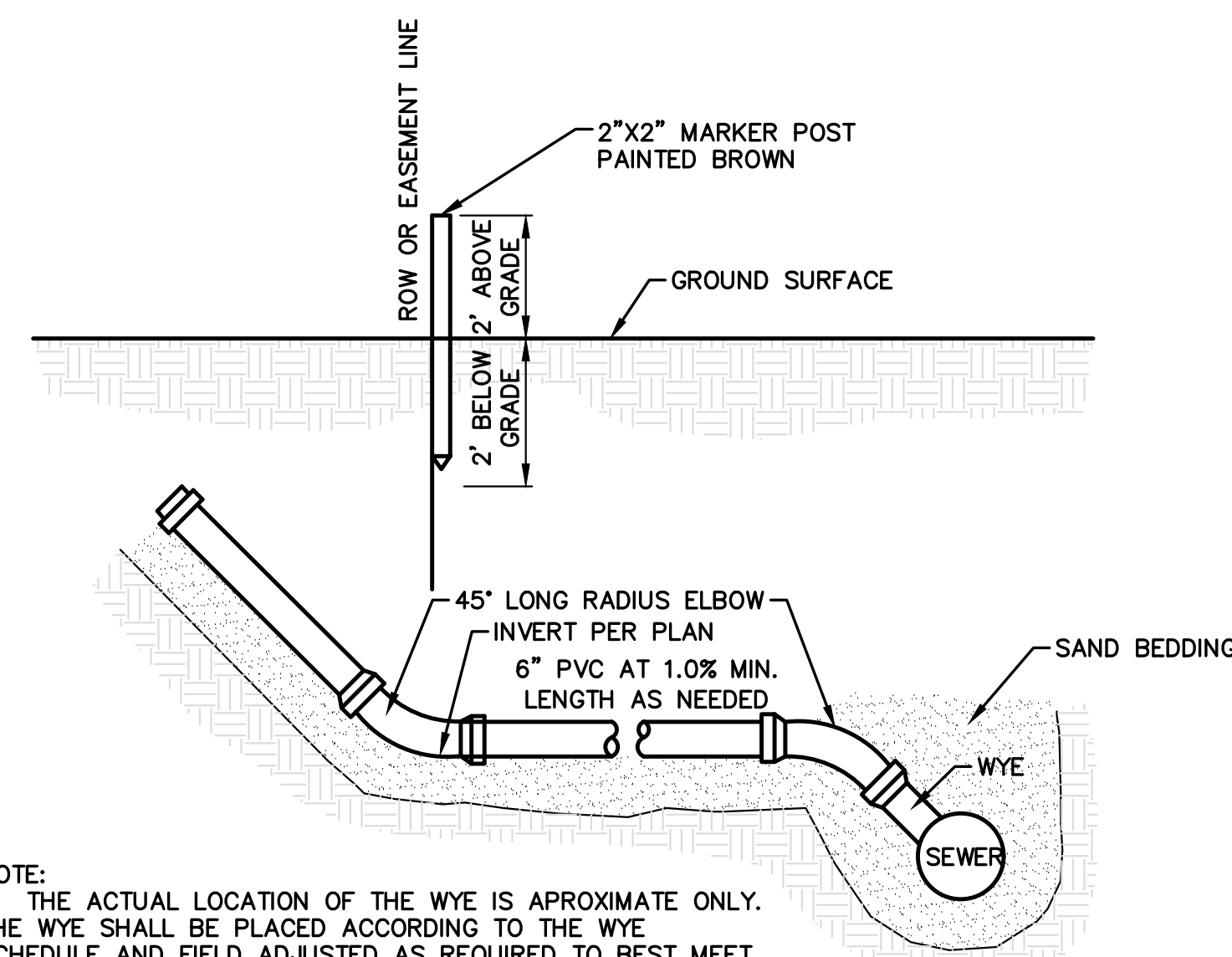
**S51 SILT FENCE DETAIL**  
NOT TO SCALE



JOINT DETAIL

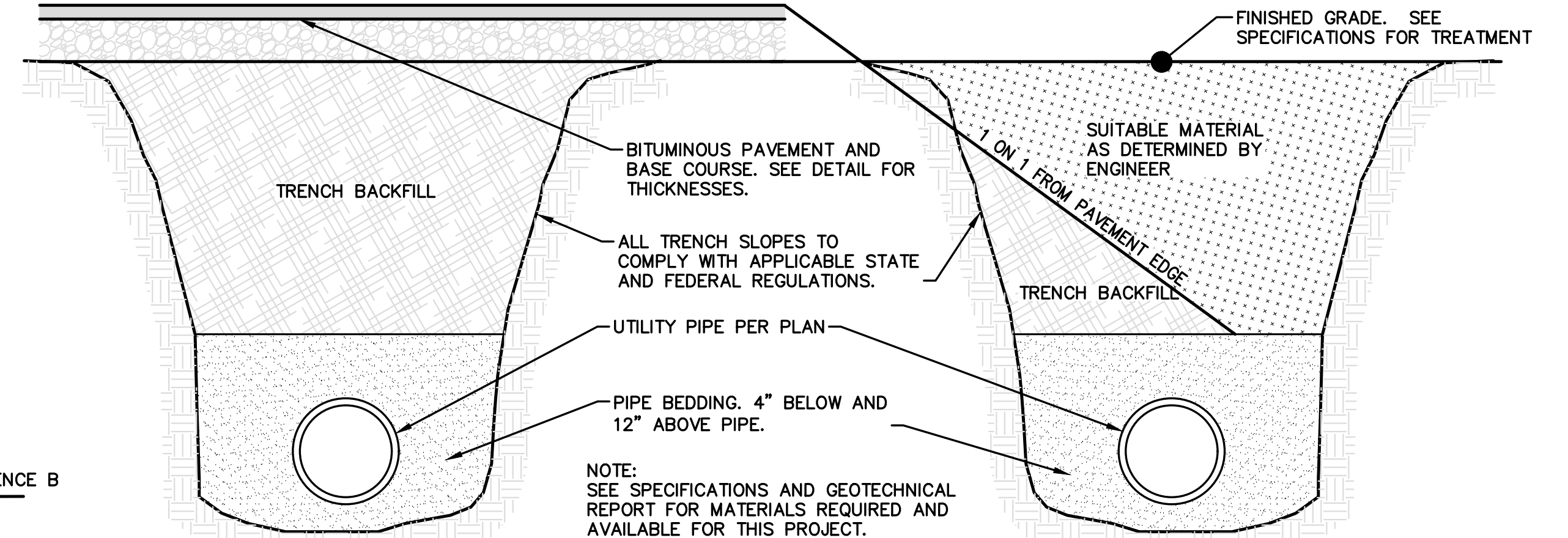


**S53 STABILIZED CONSTRUCTION ACCESS**  
NOT TO SCALE

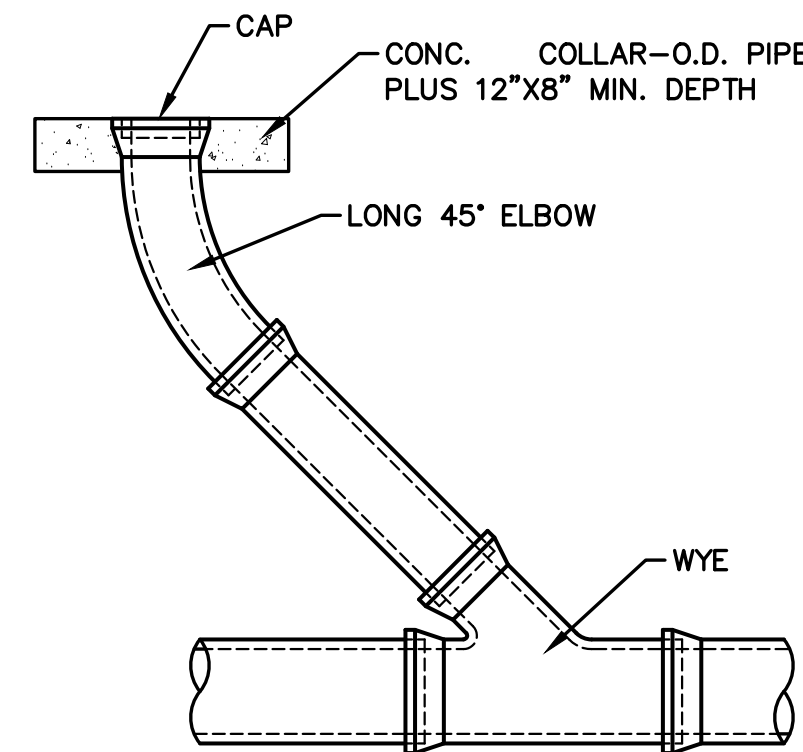


NOTE:  
1. THE ACTUAL LOCATION OF THE WYE IS APPROXIMATE ONLY. THE WYE SHALL BE PLACED ACCORDING TO THE WYE SCHEDULE AND FIELD ADJUSTED AS REQUIRED TO BEST MEET THE NEEDS OF THE PROPERTY.  
2. RECORD ALL WYE LOCATIONS ON THE DRAWINGS.

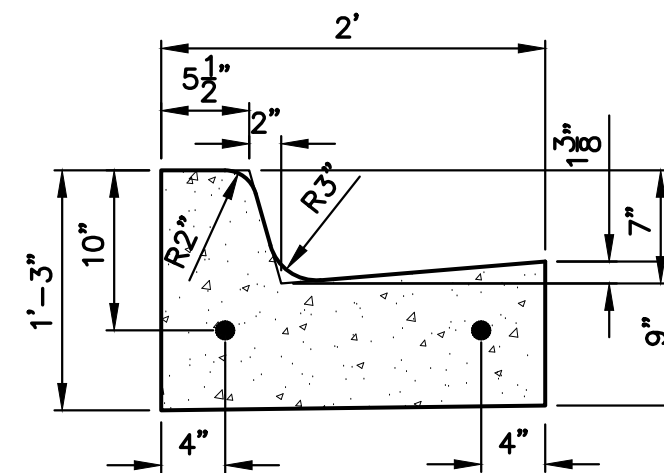
**SANITARY LEAD DETAIL**  
NOT TO SCALE



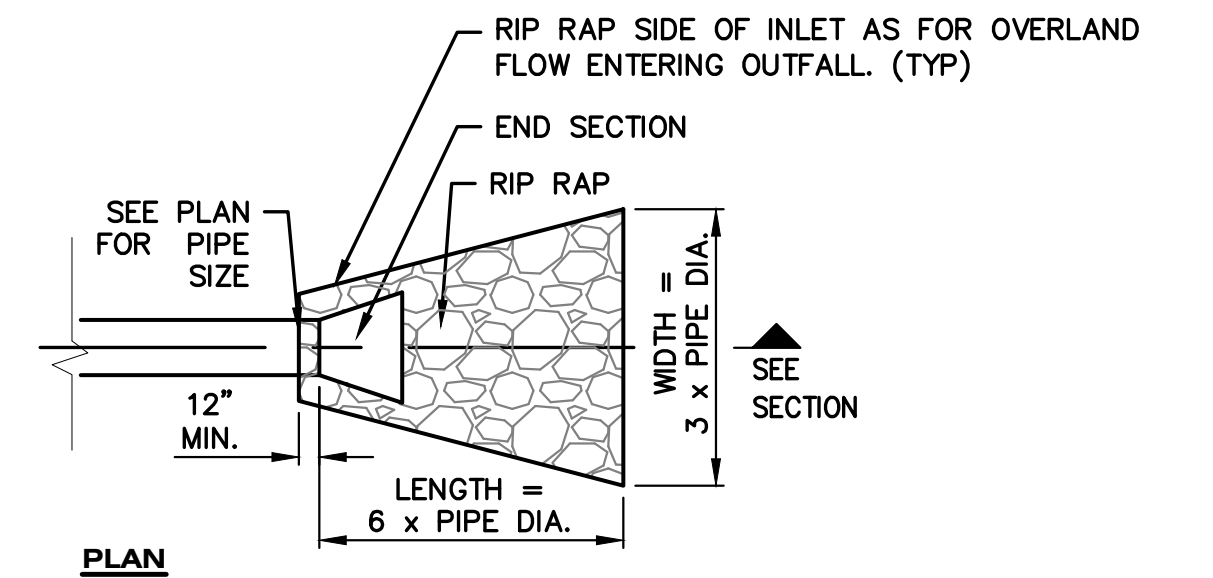
**TRENCH DETAILS**  
NOT TO SCALE



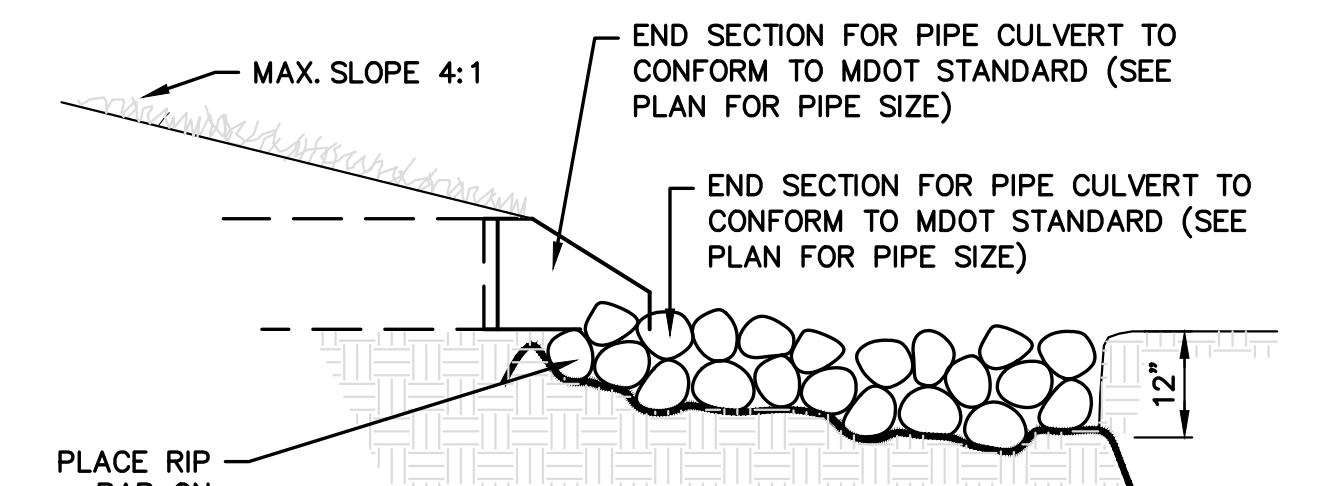
**SANITARY CLEANOUT DETAIL**  
NOT TO SCALE



**"C4" CURB DETAIL**  
NOT TO SCALE

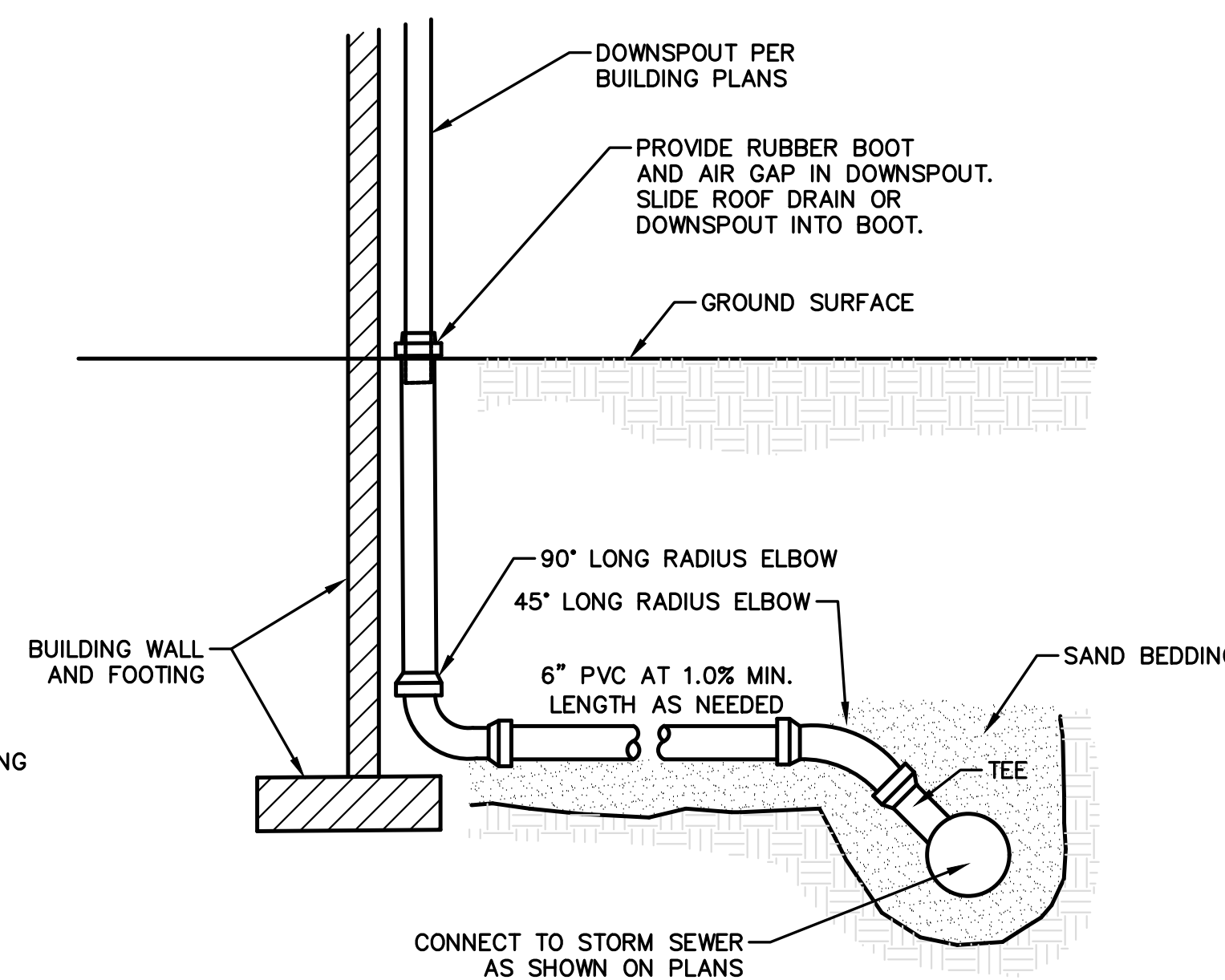


PLAN



SECTION

**PIPE CULVERT WITH FLARED END SECTION DETAIL**  
NOT TO SCALE



**ROOF LEAD/ DOWNSPOUT DETAIL**  
NOT TO SCALE

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| 2   | 18APR | QUADRA 11APR LAYOUT UPDATE |          |
| 1   | 11APR | QUADRA 11APR LAYOUT UPDATE |          |

|                 |  |           |     |
|-----------------|--|-----------|-----|
| PROJECT NO:     | 066.0-001-23                                     | DRAWN:    | TTR |
| DATE:           | 05/22/23   | CHECKED:  | EMB |
| SCALE:          | AS NOTED   | APPROVED: | EMB |
| PROJECT         | CONSUMERS CONCRETE BLOCK PLANT KALAMAZOO TWP, MI |           |     |
| TITLE           | DETAILS  |           |     |
| DRAWING NUMBER: | C-6  |           |     |
| SHEET OF SHEETS | C-6  |           |     |

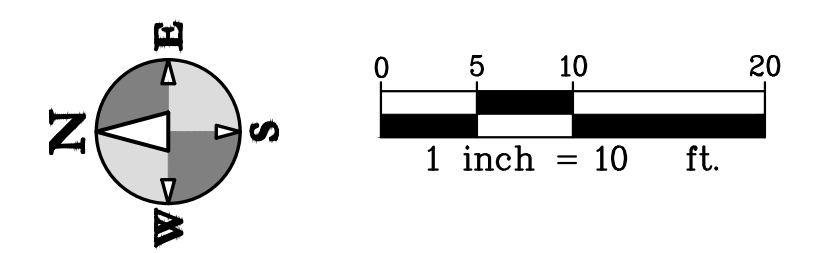
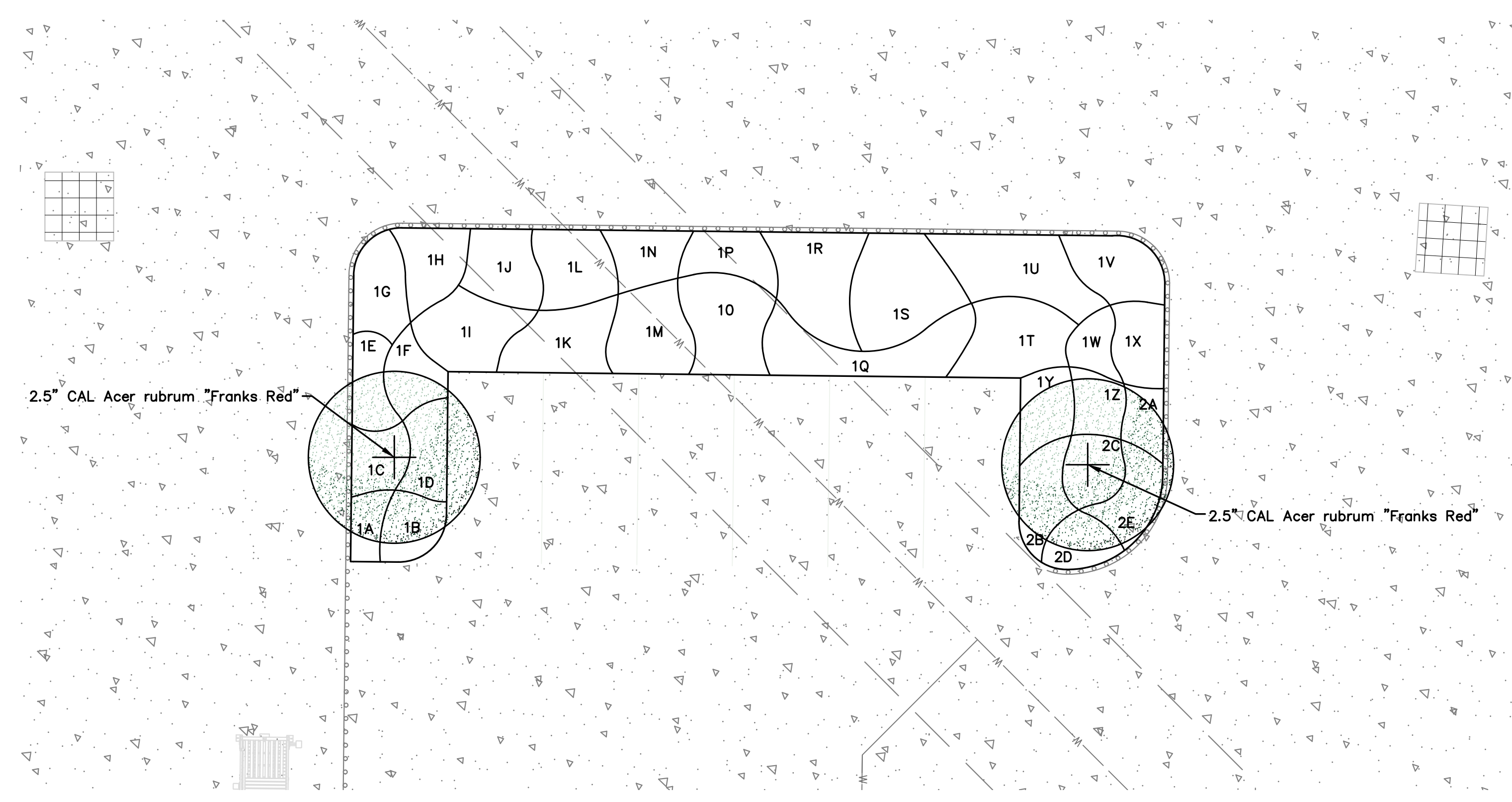


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**LEGEND**

PROPOSED DECIDUOUS TREE

**KALAMAZOO TOWNSHIP PLANTING REQUIREMENTS**

30 SF OF INTERNAL LANDSCAPE PER PARKING SPACE  
 19 PARKING SPACE X 30 SF = 570 SF OF INTERIOR LANDSCAPE REQUIRED  
 1,732 SF INTERIOR LANDSCAPE PROVIDED  
 1 TREE PROVIDED PER 10 PARKING SPACES  
 19 PARKING SPACES/ 10= 2 TREES REQUIRED  
 2 TREES PROVIDED

- LANDSCAPE NOTES:**
1. PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY OF EXTERIOR PLANTS INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS IN ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK." MEASURE ACCORDING TO ANSI Z60.1 STANDARDS.
  2. WARRANT TREES AND PERENNIALS FOR ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM INCIDENTS THAT ARE BEYOND CONTRACTOR'S CONTROL. REMOVE AND REPLACE DEAD PLANTS IMMEDIATELY. REPLACE PLANTS THAT ARE MORE THAN 25% DEAD OR IN AN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD. A LIMIT OF ONE REPLACEMENT OF EACH PLANT WILL BE REQUIRED, EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH REQUIREMENTS.
  3. MAINTAIN TREES AND PERENNIALS FOR ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION BY PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, RESTORING PLANTING SAUCERS, TIGHTENING AND REPAIRING STAKES AND GUY SUPPORTS, AND RESETTling TO PROPER GRADES OR VERTICAL POSITION, AS REQUIRED TO ESTABLISH HEALTHY VIABLE PLANTINGS. SPRAY AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE.
  4. APPLY PRE-EMERGENT HERBICIDE TO ALL PLANTING BEDS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS REAPPLY AS RECOMMENDED BY PRODUCT DURING ONE YEAR WARRANTY PERIOD.

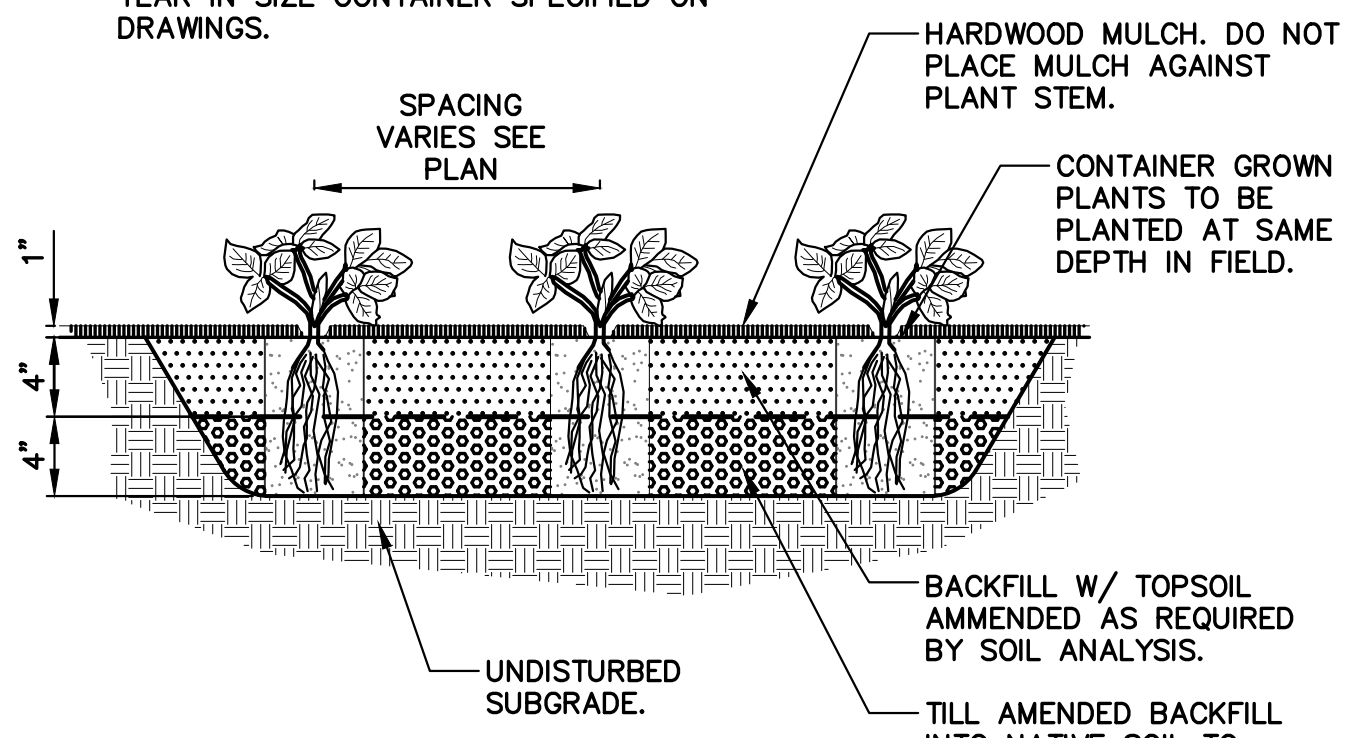
| Planting Schedule Perennials |                                |       |                |
|------------------------------|--------------------------------|-------|----------------|
| Latin Name                   | Common Name                    | Size  | Container Type |
| Acornus americanus           | Sweet Flag                     | quart | Cont.          |
| Andropogon gerardii          | Big Bluestem Grass             | quart |                |
| Aquilegia canadensis         | Wild Columbine                 | quart | Cont.          |
| Asclepias incarnata          | Swamp Milkweed                 | quart | Cont.          |
| Asclepias syriaca            | Common Milkweed                | quart | Cont.          |
| Asclepias verticillata       | Whorled Milkweed               | quart | Cont.          |
| Baptisia australis           | Blue Wild Indigo               | quart | Cont.          |
| Baptisia bracteata           | Cream Wild Indigo              | quart | Cont.          |
| Bouteloua curtipendula       | Side-Oats Grama                | quart | Cont.          |
| Coreopsis lanceolata         | Sand Coreopsis                 | quart | Cont.          |
| Dalea purpurea               | Purple Prairie Clover          | quart | Cont.          |
| Echinacea pallida            | Purple Coneflower              | quart | Cont.          |
| Echinacea purpurea           | Broad-Leaved Purple Coneflower | quart | Cont.          |
| Heliopsis helianthoides      | False Sunflower                | quart | Cont.          |
| Koeleria macrantha           | June Grass                     | quart | Cont.          |
| Liatris aspera               | Rough Blazing Star             | quart | Cont.          |
| Liatris spicata              | Marsh Blazing Star             | quart | Cont.          |
| Monarda fistulosa            | Wild Bergamot                  | quart | Cont.          |
| Parthenium integrifolium     | Wild Quinine                   | quart | Cont.          |
| Ratibida pinnata             | Yellow Coneflower              | quart | Cont.          |
| Schizachyrium scoparium      | Little Bluestem                | quart | Cont.          |
| Silene regia                 | Royal Catchfly                 | quart | Cont.          |
| Silphium laciniatum          | Compass Plant                  | quart | Cont.          |
| Sorghastrum nutans           | Indian Grass                   | quart | Cont.          |
| Sporobolus heterolepis       | Prairie Dropseed               | quart | Cont.          |
| Symphotrichum laeve          | Smooth Blue Aster              | quart | Cont.          |
| Symphotrichum novae-angliae  | New England Aster              | quart | Cont.          |
| Symphotrichum oolentangiense | Sky-Blue Aster                 | quart | Cont.          |
| Tradescantia ohiensis        | Common Spiderwort              | quart | Cont.          |
| Veronicastrum virginicum     | Culver's Root                  | quart | Cont.          |

**PLANTING REQUIREMENTS**

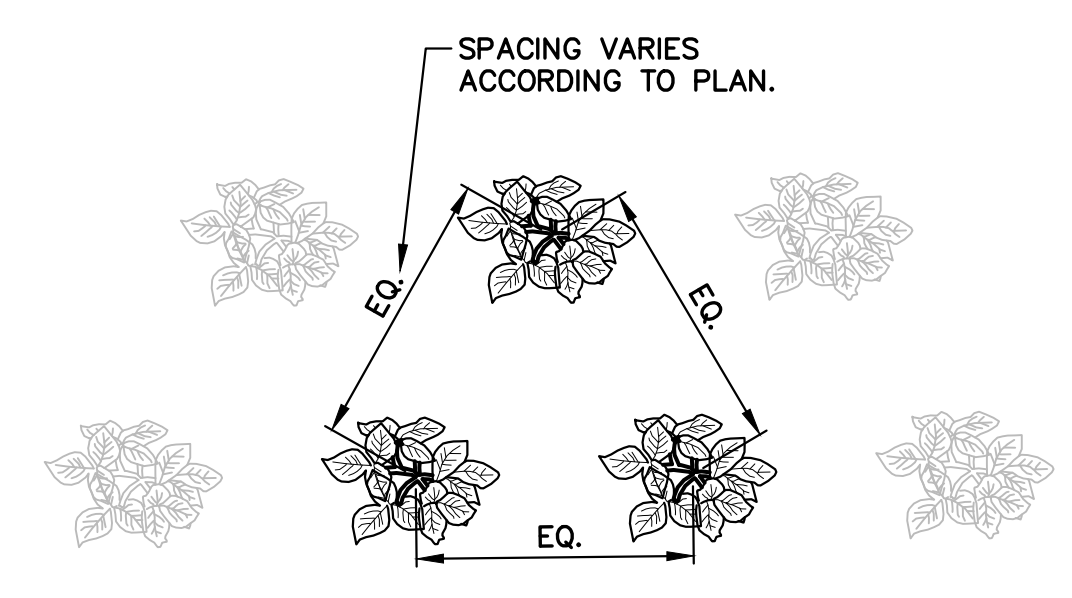
PLANT BY NUMBERED SEGMENT WITH PLANTS AS DIRECTED BELOW EVENLY SPACE PER DETAIL APPROXIMATELY 18" ON CENTER.

- 1A- 5 WILD COLUMBINE, 6 MARSH BLAZING STAR
- 1B- 9 COMMON MILKWEED, 9 PURPLE PRAIRIE CLOVER
- 1C- 9 WILD BERGAMOT, 8 INDIAN GRASS
- 1D- 10 WILD COLUMBINE, 9 MARSH BLAZING STAR
- 1E- 9 CULVERS ROOT, 8 NEW ENGLAND ASTER
- 1F- 18 LITTLE BLUESTEM
- 1G- 12 WHORLED MILKWEED, 12 PRAIRIE DROPSEED
- 1H- 12 COMPASS PLANTS, 11 SMOOTH BLUE ASTER
- 1I- 16 FALSE SUNFLOWER, 16 INDIAN GRASS
- 1J- 25 BIG BLUESTEM GRASS
- 1K- 30 ROYAL CATCHFLY
- 1L- 14 WHORLED MILKWEED, 14 LITTLE BLUESTEM
- 1M- 16 BLUE WILD INDIGO, 17 COMMON SPIDERWORT
- 1N- 9 WILD BERGAMOT, 10 INDIAN GRASS
- 1O- 19 WILD COLUMBINE, 19 MARSH BLAZING STAR
- 1P- 10 COMMON MILKWEED, 10 SWEET FLAG
- 1Q- 43 COMPASS PLANT
- 1R- 40 BROAD-LEAVED PURPLE CONEFLOWER
- 1S- 24 COMMON MILKWEED, 24 INDIAN GRASS
- 1T- 19 SAND COREOPSIS, 18 PURPLE PRAIRIE CLOVER
- 1U- 22 SKY-BLUE ASTER, 22 JUNE GRASS
- 1V- 13 WHORLED MILKWEED, 13 SIDE-OATS GRAMA
- 1W- 6 CREAM WILD INDIGO, 6 CULVER'S ROOT
- 1X- 10 YELLOW CONEFLOWER, 10 ROUGH BLAZING STAR
- 1Y- 10 WILD COLUMBINE, 10 SAND COREOPSIS
- 1Z- 8 PURPLE CONEFLOWER, 7 INDIAN GRASS
- 2A- 12 WILD QUININE
- 2B- 10 BIG BLUESTEM GRASS, 11 WILD BERGAMOT
- 2C- 10 WHORLED MILKWEED, 9 SAND COREOPSIS
- 2D- 8 COMMON MILKWEED, 8 SIDE-OATS GRAMA
- 2E- 20 PURPLE PRAIRIE CLOVER

NOTE: CONTAINER GROWN PLANTS MUST BE GROWN FOR A MINIMUM OF ONE FULL YEAR IN SIZE CONTAINER SPECIFIED ON DRAWINGS.

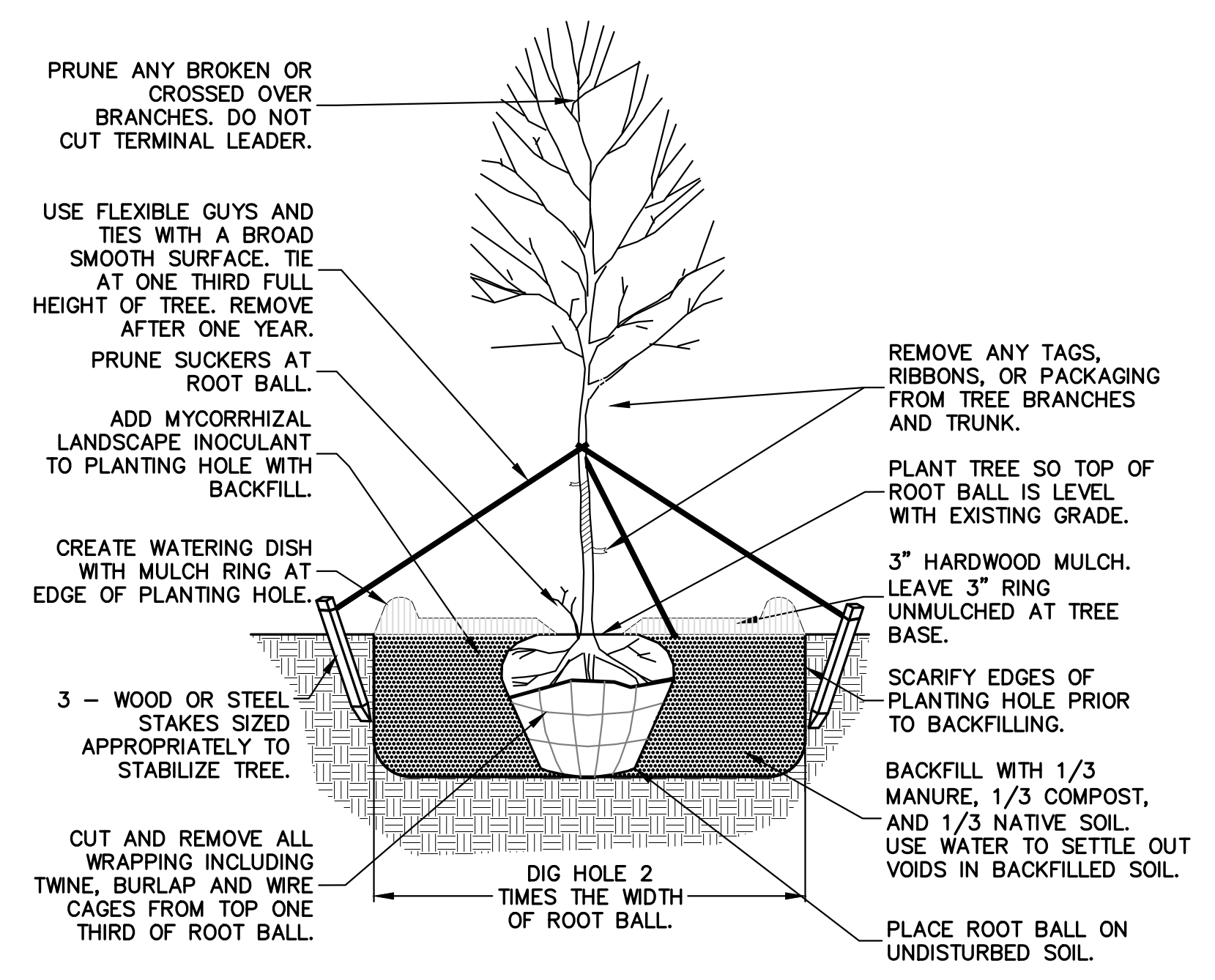


**PERENNIAL AND GROUNDCOVER PLANTING DETAIL**  
NOT TO SCALE

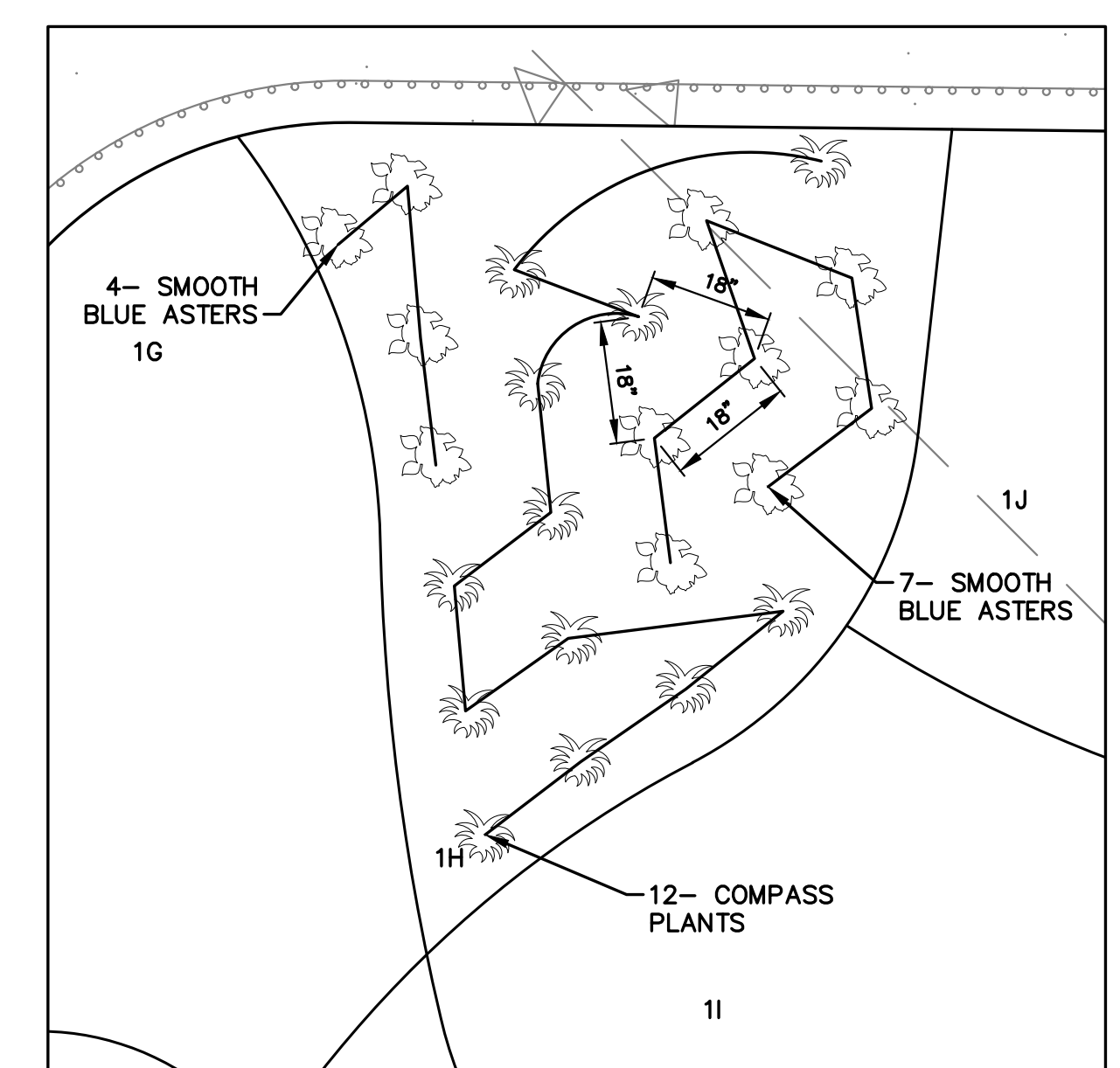


**PERENNIAL AND GROUNDCOVER PLANT SPACING DETAIL**  
NOT TO SCALE

NOTE: STAKING OF BALL AND BURLAP TREES REQUIRED AT THE DISCRETION OF THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL STAKING AT END OF ONE YEAR WARRANTY PERIOD.



**DECIDUOUS TREE**  
NOT TO SCALE



PLANTING SAMPLE SEGMENT 1H

NOT FOR CONSTRUCTION

INDICATED SCALE FACTOR ONLY ACCURATE IF PRINTED ON 24 x 36 DRAWING SHEET.

| NO. | DATE  | DESCRIPTION                | APPROV |
|-----|-------|----------------------------|--------|
| 2   | 18APR | QUADRA 11APR LAYOUT UPDATE |        |
| 1   | 11APR | QUADRA 11APR LAYOUT UPDATE |        |

PROJECT: CONSUMERS CONCRETE BLOCK PLANT KALAMAZOO TWP, MI  
 TITLE: LANDSCAPE PLAN  
 DRAWING NUMBER: C-7  
 SHEET OF SHEETS



## Memorandum

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|            |  |
|------------|--|
| Date:      | June 1, 2023                             |
| To:        | Planning Commission                      |
| Company:   | Charter Township of Oshtemo              |
| From:      | Ryan M. Russell, P.E., Township Engineer |
| Project #: | 2230509                                  |
| Re:        | Consumers Concrete Site Plan Review      |

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On behalf of Kalamazoo Township, our office has completed a review of the site plan drawings for the proposed Consumers Concrete New Block Plant located in Kalamazoo Township. Our understanding is the applicant is Consumers Concrete Corporation.

Plans received were dated May 22, 2023 and include a proposed 36,750 square foot facility at 3809 E. Michigan Avenue with associated site improvements including: asphalt parking lot, private storm water detention, and utility service connections to public water and a private septic system. Site plans were prepared by Hurley and Stewart.

This letter provides a review of the site related to water, sewer, and other engineering considerations.

Our comments are as follows:

1. Grading:

The grading plan has been reviewed and is found to be generally acceptable.

2. Traffic Flow:

- a. The Township fire chief shall review the site for emergency access.
- b. Show permanent signage. No ADA signage is shown.

3. Soil Erosion Control:

- a. A SESC plan is provided on page C-5 and will need to be submitted and approved by the Kalamazoo County Drain Commissioner's Office.

4. Water Main:

- a. 8" ductile iron water main is proposed.
- b. Six fire hydrants are proposed, and the number and location shall be reviewed by the township fire chief.
- c. Hydrants and service connections must meet city of Kalamazoo specifications.
- d. The proposed connection shall be coordinated with the City of Kalamazoo Department of Public Services – Anna Crandall (269) 337-8055. Once approved by the City please send the Township plans and a copy of the permit for final approval prior to construction.

5. Sanitary Sewer:

- a. 6" sanitary sewer is proposed and is satisfactory.
- b. We do note that the sanitary treatment facility is to be reviewed and permitted by the Kalamazoo County Health Department

We hope these comments are helpful in your review of this site plan.



**MCKENNA**

June 27, 2023

Kalamazoo Charter Township Planning Commission  
1720 Riverview Drive  
Kalamazoo, MI 49004

**Subject: Zoning Administrator Report**

Dear members of the Kalamazoo Charter Township Planning Commission,

The following memo highlights ongoing activities as it relates to Zoning Administration within the Township.

**ZONING ADMINISTRATION**

**Sign Ordinance Update**

Staff will begin reviewing the existing sign ordinance to ensure it complies with the 2015 United States Supreme Court ruling in *Reed vs. Town of Gilbert*. *Reed vs. Gilbert*, invalidated an ordinance that treated signs differently based on their content. Sign regulations now have to be “content-neutral”.

Anticipated draft to Planning Commission: September 2023.

Respectfully submitted,

**McKENNA**

Kyle Mucha, AICP  
Senior Planner/Township Zoning Administrator