



REGULAR MEETING AGENDA

**Tuesday, August 27, 2024
6:30 P.M.**

If you need any assistance due to a disability, please contact the Planning Department at least 48 hours in advance of the meeting at planning@ypsitownship.org or 734-544-4000 ext. 1.

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF THE JULY 23, 2024, REGULAR MEETING MINUTES
4. APPROVAL OF AGENDA
5. PUBLIC HEARINGS
6. OLD BUSINESS
7. NEW BUSINESS
 - A. **PRELIMINARY SITE PLAN – FROST MUSIC VENUE – 2525 STATE STREET – PARCEL K-11-13-255-004 & 1430 WATSON STREET – PARCEL K-11-13-255-006 – TO CONSIDER THE PRELIMINARY SITE PLAN APPLICATION OF BLOOM GENERAL CONTRACTING, INC. FOR THE CONSTRUCTION OF A 4,300 SQ. FT. MARIHUANA CONSUMPTION LOUNGE, 1,260 SQ. FT. STORAGE BUILDING, AND OUTDOOR AMPITHEATER FOR A 3.6-ACRE SITE ZONED I-C, INDUSTRIAL AND COMMERCIAL.**
8. OPEN DISCUSSION FOR ISSUES NOT ON THE AGENDA
 - A. CORRESPONDENCE RECEIVED
 - B. PLANNING COMMISSION MEMBERS
 - C. MEMBERS OF THE AUDIENCE
9. TOWNSHIP BOARD REPRESENTATIVE REPORT
10. ZONING BOARD OF APPEALS REPRESENTATIVE REPORT
11. TOWNSHIP ATTORNEY REPORT
12. PLANNING DEPARTMENT REPORT
13. OTHER BUSINESS
14. ADJOURNMENT

**CHARTER TOWNSHIP OF YPSILANTI
PLANNING COMMISSION MEETING
Tuesday, July 23, 2024
6:30 pm**

COMMISSIONERS PRESENT

Bill Sinkule
Elizabeth El-Assadi
Gloria Peterson
Larry Doe
Bianca Tyson
Darryl Kirby

STAFF AND CONSULTANTS

Fletcher Reyher, Planning and Development Coordinator
Sally Elmiger - Carlisle Wortman
Dennis McLain – Township Attorney

- **CALL TO ORDER/ESTABLISH QUORUM**

MOTION: Mr. Sinkule called the meeting to order at 6:30 pm.

- **APPROVAL OF MARCH 26, 2024, REGULAR MEETING MINUTES**

MOTION: Mr. Doe **MOVED** to approve the March 26, 2024, regular meeting minutes. The **MOTION** was **SECONDED** by Ms. El-Assadi and **PASSED** by unanimous consent.

- **APPROVAL OF AGENDA**

MOTION: Mr. Doe **MOVED** to approve the agenda. The **MOTION** was **SECONDED** by Mr. Kirby and **PASSED** by unanimous consent.

- **PUBLIC HEARINGS**

- a. **SPECIAL LAND USE – WHITE WATER CAR WASH – 2675 WASHTENAW AVENUE – PARCEL K-11-06-304-004:** TO CONSIDER THE SPECIAL CONDITIONAL USE PERMIT APPLICATION OF EROP, LLC TO PERMIT THE CONSTRUCTION OF A 6,820 SQ. FT. CAR WASH FOR A 1.55-ACRE SITE ZONED RC, REGIONAL CORRIDOR, WITH A PROPOSED SITE TYPE C DESIGNATION.

Mr. Fletcher Reyher, Planning and Development Coordinator, presented to the Commission a Preliminary Site Plan and Special Land Use Application from White-Water representative, EROP, LLC, for a proposed 6,820 sq. ft. tunnel car wash with two pay stations and 18 vacuum stations / parking spaces. The parking lot will also offer 5 employee parking spaces. This project is proposed to be at 2675 Washington Avenue and zoned RC (Regional Corridor) with a site type A designation.

The applicant proposes to change the site type designation from A to C which permits a carwash with a special land use approval and would also require a variance for the transparency requirements on the building's front facade.

Mr. Fletcher Reyher informed the Commission that a formal motion would not be passed but be presented for the public hearing to answer questions and to listen to members of the public.

Mr. Fletcher Reyher shared with the Commission the site plan where the carwash is being proposed which is currently the home to a golf course called Putters. The site would be accessed from Boston Avenue, no access is being offered from Washtenaw Avenue.

Reviews of different departments:

- **OHM:** The Township Engineer recommended approval in their letter dated June 25, 2024. OHM provided preliminary detailed engineering comments that will be addressed at the Final Site Plan.
- **Ypsilanti Community Utilities Authority (YCUA):** YCUA has recommended approval in its letter dated June 25, 2024.

- **Ypsilanti Township Fire Department:** YTFD Fire Marshall Steve Wallgren has recommended approval in a letter dated June 20, 2024
- **Washtenaw County Water Resources Commission:** Washington County Water Resources Commission provided a letter to the applicant outlining 22 comments that will need to be addressed to obtain an approval.

The applicant continues to work with the county to address these items. And will be addressed at the time of the final site plan and detailed engineering review.

Ms. Erin McMachen (Stonefield Engineering and Design) represents the applicants; Robert Dixon and Shawn Doherty.

Ms. Erin McMachen shared with Commission that the proposed site is difficult in terms of development for any user since it's a long narrow site with some odd lot lines and corners. There is also a large grade change since Washtenaw Avenue is about 26 feet higher than the south end of the site. Dealing with a grade change for a long building becomes a difficult site to design and construct. Initial investigations on site revealed 5 to 10 feet of fill material that would require usage of some unique building designs, geo piers and a lot of Earth work on site.

The applicant is proposing two curb cuts on Boston Ave, for full movement. The northernmost curb cut will be used for the customer entrance, who will proceed to one of the two pay stations. A lot of White-Water customers are monthly members; one lane will be dedicated to those monthly members. The other lane will be available to both monthly members and one-time customers. The availability of four to five employees on site are available to help new customers and kind of direct traffic across the site as they first open. Pedestrian access would also be provided to the site. Initially Stonefield Engineering and Design provided access down Boston Avenue with a sidewalk and at the request of the planning department, secondary access was provided on Washtenaw Avenue (a set of stairs due to the grade change). The entrance lane into the carwash is four feet lower than Washtenaw Ave, a retaining wall along the front of the site. The four-foot retaining wall would shield all vehicles from Washtenaw Ave. Washtenaw Ave would be four feet higher than any vehicle traffic there. The grade change also was the reason for the variance request.

The rendering of a second overhead door after the awning to serve the purpose for a bypass lane that can be utilized if someone forgets their wallet or doesn't want to proceed through the tunnel, there is option to bypass the wash lane. There are 18 vacuums spaces; mat washing station; detailing carts all available and free for customers. The lighting is compliant with the ordinance. There are vacuum lights at the center 11 vacuums, and the choice not to have vacuum lights on the eastern seven, just to ensure there's no light spill over there. The applicant has proposed 3,000 square feet of open space which would include 75 proposed trees and over 150 shrubs. An additional survey showed nine protected trees are at the site's rear.

Ms. Erin McMachen informed the Commission that White- Water is excited at the opportunity to bring a new service to the township.

Questions from the Commission:

Hours of Operation: Ms. Erin McMachen stated the operations are from 7:30 am until 8:00 pm (Lighting will be turned off an hour after closing hours).

Whether the applicant is ready to make the changes required by Carlisle Wortman: Ms. Erin McMachen stated that they agree to all the recommendations except for lighting that would require further discussion.

The current lighting plan complies with the ordinance; the light levels at the vacuum spaces are higher than the rest of the site.

Parking Lights: All the pole lights, building mounted lights and vacuum lights will be turned off except for the illuminated signage.

Decibel Points during operation: 40 – 50 decibels (the noise level is not louder than the traffic on Washtenaw Ave). The dryers are at the south end of the site and the vacuums are over 100 feet away from any property line at the south.

Mr. Fletcher Reyher informed the Commission that a detailed discussion on the lighting is being addressed at the preliminary site plan (Planning Consultant Sally Elmiger will present her plan review).

PUBLIC HEARING OPENED AT 6:47 PM

- Nathan Frick, residing at 2635 North Lawn Avenue for over 10 years. The property is located right behind the carwash. Mr. Frick shared his concern about the lighting and noise pollution (Car wash/ Vacuum) during the evenings, since he has two small children. Mr. Frick inquired about the proposed planting of trees and whether there is a drive-through from Washtenaw Avenue to North Lawn next to the parking lot.
- Kate Bruno, residing at 2645 North Lawn Avenue. Ms. Bruno shared her concerns about the noise pollution, light pollution, air pollution and cutting down trees, replanting trees that are much smaller than the existing ones. The trees at the rear are dead with no leaves. Ms. Bruno informed the Commission that her house is at the bottom of that hill and the carwash will be at the top of the hill. A short tree screening would not be sufficient; Ms. Bruno stated that her bedroom window looks directly onto that property. The car wash lights are on until 9:00 pm, which would be inconvenient. Ms. Bruno said she is concerned about the 22 water issues proposed by the county since her water shut off several times due to a breakage in the water main. Ms. Bruno inquired what the applicant plans are to mitigate chemical runoff from the site and the proposed lighting in the center that is within the ordinance would be right into her front yard.

PUBLIC HEARING ENDED AT 6:58 PM

Mr. Fletcher Reyher stated that Boston Avenue is considered a county road, and it has been morphed into parking surfaces for commercial businesses nearby. Boston Avenue will not connect to North Lawn, it will end at the second entrance where the car wash users enter in/out.

Mr. Fletcher Reyher informed the residents that the planning department would be addressing some specifics on the site plan during the preliminary site plan. If items aren't addressed, the planning department will collect that information and present that at the next meeting when there is a motion made.

- b. **SPECIAL LAND USE – SHEETZ – 755 S. HEWITT ROAD, 2103 AND 2059 W. MICHIGAN AVENUE – PARCEL K-11-18-100-019, K-11-39-350-023, AND K-11-39-350-022:** TO CONSIDER THE SPECIAL CONDITIONAL USE PERMIT APPLICATION OF SKILKEN GOLD TO PERMIT THE CONSTRUCTION OF A 6,139

SQ. FT. GAS STATION / CONVIENENCE STORE WITH 8 GAS PUMPS FOR A 7.36-ACRE SITE ZONED RC, REGIONAL CORRIDOR WITH A SITE TYPE C DESIGNATION.

Mr. Fletcher Reyher, Planning and Development Coordinator, presented to the Commission a Preliminary Site Plan and special land use application from Skilken Gold representing Sheetz gas station and restaurant. The proposal is for a 6,132 sq. ft. gas station/convenient store/restaurant, and eight (8) gas pumps for sixteen (16) fueling positions at the southeast corner of W. Michigan Avenue and S. Hewitt Road. The site is made up of three (3) sperate parcels. The applicant is proposing to split off the southern portion of property to create a new parcel, which is not part of this development.

The Charter Township of Ypsilanti 2040 Master Plan designates this site as Regional Mixed-Use Corridor. Regional Mixed-Use Corridors areas are along the busiest corridors, which support a high volume of local and regional traffic (Michigan Ave and Washtenaw Ave). This area may include large national chains, regional retailers, and auto oriented uses that draw customers both regionally and locally.

Reviews of different departments:

- **OHM:** The Township Engineer recommended approval in their letter dated June 26, 2024. OHM provided preliminary detailed engineering comments that will be addressed at the Final Site Plan.
- **Ypsilanti Community Utilities Authority (YCUA):** YCUA has recommended approval in its letter dated June 25, 2024.
- **Ypsilanti Township Fire Department:** YTFD Fire Marshall Steve Wallgren has recommended approval in a letter dated June 18, 2024
- **Washtenaw County Water Resources Commission:** Washington County Water Resources Commission provided a letter to the applicant outlining 11 comments that will need to be addressed to obtain an approval.

- **Washtenaw County Road Commission:** Applicant is working with the Washtenaw County Road Commission in regard to the driveway locations.

Carlisle Wortman and the Planning Department reviewed the Preliminary Site Plan and has recommended multiple items to be discussed.

Mr. Fletcher Reyher stated that the Township Planning Commission cannot make a formal motion on this project until the applicant seeks those variances out and comes back for a formal motion.

The applicant David. Bruckelmeyer residing at 393100 West 12 Mile Road, Farmington Hills, Michigan.

David. Bruckelmeyer presented to the Commission and public that Sheetz is family business, started in 1952 in central Pennsylvania. The business extended into dairy deli convenience store (1970); fuel (1980). Sheetz has 700 locations. The restaurant and convenience store are the main focus. Every building comes with standard four-sided architecture, full brick and stone sections, and lots of high-quality architectural materials to give it an outstanding look. Sheetz also provides outdoor dining.

The building will accommodate 30 indoor seats for customers to sit down and have a meal. Sheetz pioneered the touchscreen ordering system within the store market. Orders can be made on the touch screen. Sheetz features a 24/7 365 full kitchen full menu and specialty coffees. Sheetz has heavily invested in security with 60 cameras on site. Sheetz focuses on giving back to the community through donations. Plastics and cardboard are recycled. Sheetz has about 100 Tesla stations across 700 locations. Sheetz is continuous to look into the future with innovation.

Eric Williams (Stonefield Engineering and Designs) presented the 6,139 square foot construction on a 7.36-acre site. There are two points of access proposed, southwest corner for full movement on Hewitt, directly aligned with Wendy's and Tim Hortons. The second approach is directly under West Michigan Ave, that would allow full movement. There are some residences to the east, Sheetz has proposed approximately one-acre green space along that entire eastern boundary; 200 evergreen trees along with existing vegetation to ensure limited impacts to any neighbors.

Outdoor dining would be located on the east side of the building. The applicant is working with the county road commission; 75% of the trips to the property are trips that already exist within the roadway, which would allow only a 25% increase in traffic on the roadway based on the new use.

Questions from the Commission:

Would a 24/7 operation increase the traffic: Mr. Williams stated that the peak hours would be the am and pm people coming to and from work on a typical shift. The round the clock caters to first responder; shift workers.

Lighting: Mr. Williams stated that safety is key; all light fixtures are top quality LED. Light poles closer to the residential areas were reduced to 18 feet. The applicant has met all standards and there will be no impact in terms of light pollution.

PUBLIC HEARING OPENED AT 7:20 PM

- Issac Faro residing at 4 N Hewitt stated that public records from the Madison Heights city councilor shows that Sheetz has been inconsistent with their tentative views on what they project and present. The kiosk machines for 24/7 business would not add value to the community, by offering jobs. Additions to the property in the future could cause issues with pollution, contamination and health. Sheets could take advantage of the smaller business by offering cheaper gas.
- Margaret Cell, residing at 808 S. Michigan Avenue (east of the proposed site) shared her concern that the fencing for her property and the neighbors are broken and does not serve the purpose. West Michigan Avenue, and the east of Hewitt is already a busy traffic area which could lead to congestion on i94.
- Fadi Farhat residing at 2060 West Michigan Avenue (located across the street from the proposed plan) shared his concern on the safety hazard, due to occurrence of accidents during rush hours. Lighting for 24/7 could be a disturbance to the neighborhood.
- Corrie, resident of West Michigan Avenue shared her concern on the litter. Sheetz operation for 24/7 with a liquor permit would add on to the current problems faced.

PUBLIC HEARING ENDED AT 7:32 PM

Mr. Fletcher Reyher informed the residents that the planning department would be addressing some specifics on the site plan during the preliminary site plan

- c. **SPECIAL LAND USE – BLUEMIND THERAPY – 1122 WALNUT STREET – PARCEL K-11-03-463-014:** TO CONSIDER THE SPECIAL CONDITIONAL USE PERMIT APPLICATION OF ZEINAB HASSAN TO PERMIT A CHILD DAYCARE CENTER FOR A 1.7-ACRE SITE ZONED R-5, ONE-FAMILY RESIDENTIAL.

Mr. Fletcher Reyher, Planning and Development Coordinator, presented to the Commission a special land use application from the applicant Zeinab Hassan representing Blue Mind Therapy, requesting authorization for the use of an existing 7,622 square foot building located at 1122 Walnut Street for a childcare center.

Blue Mind Therapy provides applied behavior analysis therapy (ABA), education, and support services to children with autism spectrum disorder and related development disabilities.

The Charter Township of Ypsilanti 2040 Master Plan designates this site Neighborhood Preservation, a designation intended for older neighborhoods within the Township’s urbanized footprint. The Neighborhood Preservation area features older housing stock on smaller lots. The Plan contemplates continued preservation and improvement, with quality rehabilitation and infill new construction that is sensitive to the character of existing residences.

Mr. Fletcher Reyher presented an aerial view of the property; located between East force Avenue and East Cross Street, this site is surrounded by R-5 one family residential zoning district all with the Master Plan designation of Neighborhood Preservation. Section 420 of the township zoning ordinance permits child daycare centers and preschools with a special land use approval from the planning commission. The site has a history of being used both as a school and a childcare center. The building has remained vacant for some time, thus requiring special land use approval.

Blue Mind therapy provides ABA therapy and support services to children with autism spectrum disorder. Helping kids with essential life skills, communication abilities, and behavioral management techniques to get to the next phase in life. The hours of operation are Monday – Friday (8:00 am – 8:00pm), with a possibility of some Saturday operations from 9:00 am to 5:00 pm. The Centre would be closed in the holidays. There would be a maximum of 35 kids per day and these students do not attend daily but come to the site two to three times per week. The center employs enough staff members to maintain a 1:1 staff-to- student ratio.

The Township defines a childcare center as a facility other than a private residence receiving more than six children for group daycare for periods of less than 24 hours a day, and where the parents or guardians are not immediately available to the child. It includes a facility which provides not less than two consecutive weeks regardless of the number of hours of care per day. The facility is generally described as a childcare center, day care center, day nursery, nursery school, parent cooperative preschool, play group, or drop-in center. This childcare care center is different from a religious institution providing childcare while parents are in service.

The Township Planning Department classifies Blue Mind Therapy as a childcare center; however, this organization does not fall under the jurisdiction of the State of Michigan like traditional childcare centers and group daycare homes. Blue Mind Therapy will still need to undergo local inspections performed by the Building Department and Fire Department to ensure the building is safe to occupy.

Blue Mind Therapy provides specialized services ABA (autism) from the age 1.5-15 years specializing in these services when compared to traditional childcare.

Mr. Fletcher Reyher gave a short brief on the site's history; The building was constructed by Calvary Baptist Church in 1980 and initially served as a school for the Ypsilanti Boys Preparatory Academy, accommodating preschool through 6th-grade students. During this period, childcare services were provided; 2012: site was continued to be used as a childcare center; 2017: Childcare center continued; 2023: The childcare center ceased operations, and the property was listed for sale; 2024: Blue Mind Therapy is proposing to re-establish a childcare center at this location with a capacity of 35 children.

Standards for Special Use review is set forth in Sec. 1003. The Planning Commission presented the following standards and required findings.

- Will be harmonious, and in accordance with the objectives, intent, and purpose of this ordinance. The Blue Mind therapy's proposals are to operate a childcare center that aligns with the objectives of the zoning district. The district aims to provide a variety of residential uses, including childcare services that support family needs within the community.
- Will be compatible with the natural environment and existing and future land uses. The existing building has a long history of being used as a childcare center.
- Will be compatible with the Township Master Plans. Master Plan supports diverse and inclusive services that cater to the needs of residents in the community
- Will be served adequately by essential public facilities and services, such as highways, streets, police and fire protection, drainage ways and structures, refuse disposal, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately for such services.
- Will not be detrimental, hazardous, or disturbing to existing or future neighboring uses, persons, property, or public welfare. Blue Mind therapy has stated that all activities would be conducted indoors.
- Will not create additional requirements at public costs for public facilities and services that will be detrimental to the economic welfare of the community.

The applicant Zeinab Hassan shared with the Commission that she is a Board-Certified Behavior Analyst working in the field of applied behavior analysis since 2019. Zeinab Hassan works with individuals with autism and other intellectual disabilities and developmental delays.

Ms. Hassan stated that she was fortunate enough to get credentialed and contracted with Washtenaw County. Blue Mind Therapy began operations in September 2022. The center has experienced remarkable growth exceeding the initial expectations. Most of the consumers reside in Ypsilanti, the distance posed a significant challenge having to drive 25 to 35 minutes to get their child to the center to get the services that they need. Blue Mind provided transportation, which went well but it has been challenging to drive during peak time which has cut into therapy time and has caused lot of delays.

Recognizing the need to better serve consumers, Blue Mind Therapy made the decision to relocate closer to Ypsilanti. This move aims to eliminate the transportation hurdle ensuring that clients will have more accessible and convenient access to the high-quality services that are provided.

Each child would get one-to-one attention with a professional. Some things that set Blue Mind Therapy apart from other ABA providers are being accredited by the BHCOE (Behavioral Health Center of Excellence); the highest standard for operational quality. Transportation is provided free of cost to the clients. Blue Mind Therapy has a contract with Washtenaw County community mental health.

Blue Mind Therapy provides assistance with academic skills and school readiness, social skills training and programs that are designed to help children interact more effectively with peers. Blue Mind Therapy also provides support to parents and caregivers with resources to support their child's development at home.

Blue Mind Therapy would operate from 8:00 am – 8:00 pm (Washtenaw County had specifically requested after school hours). The center would operate on Saturdays (twice a month) from 9:00 am – 5:00pm.

Questions from the Commission:

Parking: Parking spaces of 18 for 20 staff members is because some of the staff carpool or take the bus. Parents don't usually park; they usually pull up and a technician is present to transfer the child into the center.

Tony Capri (commercial real estate agent with Swisher commercial) represented Vanita Bird during the sale proceedings. The site has been used for the last 30 years as a childcare center. Blue Mind Therapy would bring a valuable service to Ypsilanti Township and the surrounding communities.

PUBLIC HEARING OPENED AT 7:59 PM

- Jane Wolf residing at Cross St (neighboring the site) shared that she is looking forward to the center opening and to have kids around.

- Moral. C residing at 1145 East Cross St stated that property had been vacant for a while and it's good that it is going to be used as a childcare center.
- Kate Whitaski residing at 1155 Maple expressed her concern of any buildings to be constructed in the open space that would be adjacent to her site; Tony Capri (commercial real estate agent with Swisher commercial) stated that the open lot (3.5 acre) is located at the west of the property and has no potential future plans.

PUBLIC HEARING ENDED AT 8:03 PM

MOTION: Ms. El-Assadi **MOVED** to approve the Special Land Use Permit submitted by Zeinab Hassan to permit the establishment of a childcare center as described in this application, utilizing the existing building on the 1.7-acre site zoned R-5, One-Family Residential, located at 1122 Walnut Street, Ypsilanti, MI 48198, Parcel K-11-03-463-014, with the following conditions:

- The applicant shall submit a Business Registration application to the Office of Community Standards.
- For the safety of all occupants and upon sufficient notice, the applicant shall permit, prior to operation of a childcare center, the facility to be inspected by the Township Building official and/or Fire Marshal to ensure compliance with the adopted property maintenance code.
- The applicant owner shall comply with the Township Sign Ordinance.
- The applicant should repaint the parking lot striping/markings to ensure safe and orderly vehicle maneuvering and parking for the public.
- Any other conditions based upon Planning Commission discussion.

The **MOTION** was **SECONDED** by Mr. Kirby.

Roll Call Vote: Mr. Doe (Yes); Ms. Peterson (Yes); Mr. Sinkule (Yes); Ms. El-Assadi (Yes); Ms. Tyson (Yes); Mr. Kirby (Yes).

MOTION PASSED.

- **OLD BUSINESS**
None to Report.

- **NEW BUSINESS**

- a. **PRELIMINARY SITE PLAN – WHITE WATER CAR WASH – 2675 WASHTENAW AVENUE –PACEL K-11-06-304-004:** TO CONSIDER THE PRELIMINARY SITE PLAN APPLICATION OF EROP, LLC TO PERMIT THE CONSTRUCTION OF A 6,820 SQ. FT. CAR WASH FOR A 1.55-ACRE SITE ZONED RC, REGIONAL CORRIDOR, WITH A PROPOSED SITE TYPE C DESIGNATION.

Mr. Fletcher Reyher, Planning and Development Coordinator informed the Commission that Sally Elmiger (Planning Consultant - Carlisle Wortman) would provide a detailed understanding based on the public comments.

Ms. Elmiger informed the Commission that she would pinpoint the items the ordinance gives them the flexibility to decide, since a formal motion won't be made, and it would help in the direction of thinking.

Ms. Elmiger stated that the applicant (White Water Car Wash) had agreed that they would address all of the items in the review letter.

Items for the Commission to consider:

- Adding 13 more shrubs along the Boston Ave frontage; Planning Commission to consider proposed modification of screening between land uses.
- The Planning Commission to consider the proposed modification of screening between this use and the Street to the south residential street (South).
- To consider the property (back end of his property is a lot lower than the front end); Having shorter trees (6 ft) would not serve the purpose of screening from the street and the neighbors. Options to consider are having larger trees; screen wall; adding deciduous trees to the evergreens.
- Since the site has special land use this would require discretionary decision. The ordinance does allow the Commission to place conditions on special land use. One of the criteria in this special land use is that the land use will not be a nuisance to the neighbors.
- Lighting: Some of the photometric readings under the light fixtures (near the vacuum stations) are on the higher side (11-foot candles – 17-foot candles). Since the neighbors have expressed that lighting is a concern, the Planning

Commission would have to request the applicant to consider revising the lighting levels at the vacuum stations.

Ms. El-Assadi (Commissioner) inquired about the hours of operation; Ms. Elmiger stated that since the site is a special land use, and if the Commission feel that the hours of operation are directly related to the criteria for special land use; the special land use does not cause nuisance to the neighbors, the Commission can make a condition for the lights to be turned off earlier, since the operation is from 7:30 am until 8:00 pm (Lighting will be turned off an hour after closing hours: 9:00 pm).

Ms. Peterson (Commissioner) shared her concern about noise control (especially from the customers); and requested the Planning Commission to consider the blockage/screening for the houses at the back of the proposed site. Ms. Peterson requested the applicant to share their ideas to mitigate the noise pollution that could arise from the carwash premises; Ms. Elmiger recommended planting of taller trees or building a wall (wall are considered a better noise barrier); conducting a sound study, when all 18 vacuums are operated simultaneously alongside with the car wash. This would help in understanding the kind of noise the neighbors would experience.

Ms. Peterson suggested to the Commissioners on having the applicant conduct a sound study.

Ms. El-Assadi stated that she noticed online that trees are dead, and it would be required for them to be replaced.

Mr. Fletcher Reyher stated that the applicant would have to confirm whether or not this tree falls within their property boundaries or the current owner's property boundaries. Once determined, the Township Ordinance Department can have that tree removed.

Mr. Fletcher Reyher addressed the question regarding Boston Ave running into the neighborhood; White Water Carwash had a discussion with Washtenaw County Road Commission about vacating the right of way, since there was no interest, the street can be accessed by White Water as well for the adjacent neighbors.

Mr. Fletcher Reyher addressed the question on water damage and other issues; he would request Scott Westover (YCUA) to provide additional comments on the water main that runs through Westlawn neighborhood.

Ms. Erin McMachen (Stonefield Engineering and Design) representing White Water stated that the east vacuums are about 10 feet away from the property line, and lighting in that space would have a spill over so it was decided by the engineering team not to place any lighting on that side of the site. The initial site plan, submitted about a year ago, required by the ordinance was a 10-foot greenbelt on the South property line and a 25-foot setback from the south property line for the vacuums. The applicant could look into the possibility of reducing the number of vacuums on site and adding extra green space. False windows have been added to the East elevation within 100 FT of the front elevation. At the north end of the vacuum rooms, there is a six-foot masonry wall covering all four sides, with a small opening for employee access. This wall will do a great job at preventing noise.

Ms. Erin McMachen informed the Commission that a sound study was conducted at a recently constructed site in Ohio, and the data is available for the Commission to review.

Ms. Erin McMachen addressed the issue of trash/ air pollution/ chemical runoff; each vacuum station has a trashcan mounted on it, which minimizes any type of litter on site. Employees are constantly walking the site to ensure customers don't need help as well as maybe picking up any stray items across the site and emptying those trash bins daily when they close. White Water Carwash uses eco-friendly soaps, the oil / water separator is housed inside of the building. A series of 3 tanks is proposed providing oil /water separation and treatment per state standards prior to discharging into the sanitary sewer. A reclamation tank plumbing plan from a recent White-Water development has been added to the site development.

Ms. Erin McMachen stated that Boston Avenue is to remain a County Road, and the access easement will not be required as Boston Avenue is no longer being Vacated. The dead trees would be removed and replaced with the ordinance requirements for tree replacement. White Water Carwash provides water quality for stormwater treatment and water would be treated before it enters any type of municipal system.

Mr. Fletcher Reyher informed the Commission that a letter from the Washtenaw County Water Resources Commission states that the site is extremely difficult to engineer, and the stormwater is going to be underground with specified requirements for final site plan approval.

MOTION: Ms. El-Assadi **MOVED** to postpone the request for special land use approval for the construction of a 6,820 sq. ft. tunnel carwash with two pay stations and 18 vacuum stations at the property located at 2675 Washtenaw Avenue, Ypsilanti, MI 48197, Parcel K-11-06-304-004, to allow the applicant time to obtain the required variance as outlined in the staff report

The **MOTION** was **SECONDED** by Ms. Peterson.

Roll Call Vote: Mr. Doe (Yes); Ms. Peterson (Yes); Mr. Sinkule (Yes); Ms. El-Assadi (Yes); Ms. Tyson (Yes); Mr. Kirby (Yes).

MOTION PASSED.

MOTION: Ms. El-Assadi **MOVED** to postpone the request for preliminary site plan approval for the construction of a 6,820 sq. ft. tunnel carwash with two pay stations and 18 vacuum stations at the property located at 2675 Washtenaw Avenue, Ypsilanti, MI 48197, Parcel K-11-06-304-004, to allow the applicant time to obtain the required variance as outlined in the staff report.

The **MOTION** was **SECONDED** by Mr. Kirby.

Roll Call Vote: Mr. Doe (Yes); Ms. Peterson (Yes); Mr. Sinkule (Yes); Ms. El-Assadi (Yes); Ms. Tyson (Yes); Mr. Kirby (Yes).

MOTION PASSED.

- b. **PRELIMINARY SITE PLAN – SHEETZ – 755 S. HEWITT ROAD, 2103 AND 2059 W. MICHIGAN AVENUE – PARCEL K-11-18-100-019, K-11-39-350-023, AND K-11-39-350-022:** TO CONSIDER THE PRELIMINARY SITE PLAN APPLICATION OF SKILKEN GOLD TO PERMIT THE CONSTRUCTION OF A 6,139 SQ. FT. GAS

STATION / CONVIENENCE STORE WITH 8 GAS PUMPS FOR A 7.36-ACRE SITE ZONED RC, REGIONAL CORRIDOR WITH A SITE TYPE C DESIGNATION.

Ms. Sally Elmiger (Planning Consultant - Carlisle Wortman) would provide a detailed understanding based on the public comments.

- On this site, these slopes will be graded flat to accommodate the proposed development. Therefore, the only standard that could be applied to this site is Stormwater runoff shall be reduced, and infiltration of stormwater enhanced through best management practices (Planning Commission to consider the approval).
- Planning Commission and applicant to discuss shifting the gas-pump canopy to the west to allow easier turning movements for tanker trucks around canopy. The easterly position of the canopy makes the tanker truck movements a little tight. The canopy could be shifted to the west to give the tanker more space to make this movement, while still providing enough space for users of the west parking spaces to access and exit these spaces.
- Planning Commission to consider allowing location of parking lot trees from the perimeter onto the island.
- Planning Commission to consider allowing 14 parking spaces (ordinance permits only 12 parking spaces in a row) with the addition of the landscaped island on the east end of this bay of spaces.
- Planning Commission to consider the heavy landscaped screen vs. six-foot-tall screening wall along property line abutting residential district.
- Planning Commission to evaluate the proposed design with unattached canopy.

The applicant David. Bruckelmeyer stated that he was confident that the tanker trucks can be driven completely under the canopy and delivery trucks/ fuel tanker trucks can make the turn very safely. The applicant stated that he would make the changes as requested. Mr. Bruckelmeyer stated that they kept a lot of open landscape on the site to help preserve green space. There is no wetland impact, received initial feedback from EGLE that they agree to the development (applicant continues to work with EGLE). Mr. Bruckelmeyer informed the Commision that the site would provide 30 to 35 jobs (24/7 365days; 3 shifts a day; multiple managers and a General Manager). The plan is to hire locals and give jobs to the community. Many trash cans would be put around the site to help people have easy access to getting rid of trash. There would be hourly lot checks 24/7 365, where the employees would walk

the site and pick up trash and empty trash bins that are full. Acquiring a liquor license is not easy; it will not be an onsite consumption license but a carry out license. It won't be a 24-hour liquor sale abiding to state regulations.

Mr. Bruckelmeyer addressed the environmental impact of fuel stations; Sheetz purchases and maintains one of the most expensive UST systems on the market; that sensor and monitors all the processes. The UST system is monitored 24/7.

Mr. Bruckelmeyer stated there would be light music been played underneath the canopy; and it won't be blaring for a spill over.

MOTION: Ms. El-Assadi **MOVED** to postpone the request for Preliminary Site Plan approval for construction of a 6,132 sq. ft. convenience store / gas station / restaurant building, and eight (8) gas pumps (for a total of sixteen (16) fueling positions) at the properties located at 755 S. Hewitt Road and 2103 and 2059 W. Michigan Avenue, Ypsilanti, MI 48197, Parcel K-11-18-100-019, K-11-39-350-023, K-11-39-350-022 to allow the applicant to obtain the required variances as outlined in the staff report.

The **MOTION** was **SECONDED** by Mr. Doe

Roll Call Vote: Mr. Doe (Yes); Ms. Peterson (Yes); Mr. Sinkule (Yes); Ms. El-Assadi (Yes); Ms. Tyson (Yes); Mr. Kirby (Yes).

MOTION PASSED.

MOTION: Ms. El-Assadi **MOVED** to postpone the request for special land use approval for construction of a 6,132 sq. ft. convenience store / gas station / restaurant building, and eight (8) gas pumps (for a total of sixteen (16) fueling positions) at the properties located at 755 S. Hewitt Road and 2103 and 2059 W. Michigan Avenue, Ypsilanti, MI 48197, Parcel K-11-18-100-019, K-11-39-350-023, K-11-39-350-022 to allow the applicant to obtain the required variances as outlined in the staff report.

The **MOTION** was **SECONDED** by Mr. Doe.

Roll Call Vote: Mr. Doe (Yes); Ms. Peterson (Yes); Mr. Sinkule (Yes); Ms. El-Assadi (Yes); Ms. Tyson (Yes); Mr. Kirby (Yes).

MOTION PASSED.

- **OPEN DISCUSSIONS FOR ISSUES NOT ON AGENDA**

- **Correspondence Received**

- None to Report.

- **Planning Commission members**

- None to Report.

- **Members of the audience**

- Issac Faro residing at 4 N Hewitt stated that public records from the Madison Heights city councilor shows that Sheetz has been inconsistent with their tentative views on what they project and present.

- **TOWNSHIP BOARD REPRESENTATIVE REPORT**

None to Report.

- **ZONING BOARD OF APPEALS REPRESENTATIVE REPORT**

Ms. El-Assadi reminded the Commission on the Zoning Board meeting scheduled for next week.

- **TOWNSHIP ATTORNEY REPORT**

None to Report.

- **PLANNING DEPARTMENT REPORT**

Mr. Fletcher Reyher informed the Planning Commissioners; Opening of Roundhouse in the next few weeks. Children's Healing Center recently obtained their certificate of occupancy. Golf Village (no updates).

- **OTHER BUSINESS**

None to Report.

- **ADJOURNMENT**

MOTION: Ms. El-Assadi **MOVED** to adjourn at 9:03 pm. The **MOTION** was **PASSED** by unanimous consent.

=====

Respectively Submitted by Minutes Services.

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— PLANNING & ZONING DEPARTMENT —

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Ryan Hunter

**Staff Report
Frost Music Venue
2525 State Street, Ypsilanti, MI 48198
Preliminary Site Application**

August 27, 2024

Applicant: Michael Ludtke

Project Name: Frost Music Venue

Plan Date: May 05, 2024

Location: 2525 State Street, Ypsilanti, MI 48198, Parcel K-11-13-255-005 & 1430
Watson Street, Ypsilanti, MI 48198, Parcel K-11-13-255-006

Zoning: IC, Industrial and Commercial

Action Requested: Preliminary Site Plan Approval

CASE LOCATION AND SUMMARY

The Office of Community Standards is in receipt of a Preliminary Site Plan Application from Frost Music Venue representative Michael Ludtke, for a proposed 4,300 sq. ft. marihuana consumption lounge, 1,260 sq. ft. storage building, and outdoor amphitheater. The plans include associated site utilities, lighting, parking, drive-lanes, and pedestrian walks. The proposed project is affiliated with an existing development to the north: Frost Dispensary & Cultivation Center.

The 3.87-acre site is located on the north side of State Street, between Wiard Road and Watson Street. The site abuts the Frost Dispensary & Cultivation Center, which is directly to the north. The site is zoned I-C Industrial and Commercial, where the intent is to revitalize the area and provide employment opportunities with a focus on high-tech industrial and manufacturing, distribution, and marihuana uses. Marihuana is a permitted use in the I-C, Industrial and Commercial Zoning District.

SUBJECT SITE USE, ZONING AND COMPREHENSIVE PLAN

The Charter Township of Ypsilanti 2040 Master Plan designates this site as Innovation and Employment District. Innovation and Employment areas are the major employment areas of the township. The areas will be dominated by advanced companies which are at the cutting edge of innovation with a combination technology, office, craft manufacturing or light industrial uses. The Innovation and Employment District focuses on strategies for new investment and redevelopment that relies on proximity, connections and physical

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— PLANNING & ZONING DEPARTMENT —

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Ryan Hunter

relationships of mutually supportive industries and businesses. This designation includes the American Center for Mobility and the Yankee Air Museum

2525 State Street & 1430 Watson Street, Ypsilanti, MI 48198
Aerial Photograph – 2023





ANALYSIS

The plans have been reviewed by Township Staff and Consultants in accordance with our procedures.

Planning Consultants (Carlisle/Wortman Associates):

Carlisle Wortman Associates, Inc. reviewed the Preliminary Site Plan and has recommended multiple items to be discussed with the Planning Commission prior to Preliminary Site Plan approval. The discussion items are listed below:

Trash and Recycling Containers

- 1) *Provide trash enclosure screening details.*

Lighting

- 1) *Provide lighting fixture cut sheets.*

Noise and Vibration

- 1) *Planning Commission shall have applicant discuss conclusions of noise study.*
- 2) *Planning Commission and Staff shall confirm that a bandshell is proposed.*

Elevations and Floorplans

- 1) *Applicant shall provide canopy elevation and material details for canopy, retaining wall, and seating area.*

Development Agreement

- 1) **Events**
 - a. *Number of amphitheater use*
 - b. *Number of large events that use temporary parking area but not amphitheater.*
- 2) **Security conditions**
 - a. *Defer to County Sheriff's Office.*
- 3) **Lighting**
 - a. *Number and use of portable lights.*
- 4) **Portable toilets**
 - a. *Number and use of portable toilets.*
- 5) **Capacity**
 - a. *Cap maximum capacity.*
- 6) *Limit hours of operation for amphitheater and outdoor use.*
- 7) *Noise based review.*



Recommendations

- 1) *Applicant and Township shall draft a development agreement with Township attorney to be approved by the Township Board. Planning Commission may make suggestions for inclusion in Development Agreement.*
- 2) *Application shall provide lighting fixture cut sheets.*
- 3) *Applicant shall provide enclosure screening details.*
- 4) *Applicant shall provide elevation and material details for canopy, retaining wall, and seating area.*

Engineering Consultants (OHM):

The Township Engineer recommended approval in their letter dated June 24, 2024. OHM has provided preliminary detailed engineering comments that will be addressed at the time of Final Site Plan and Detailed Engineering.

Ypsilanti Community Utilities Authority (YCUA):

YCUA reviewing agent Scott Westover has recommended conditional approval in his letter dated June 26, 2024.

Ypsilanti Township Fire Department:

YTFD Fire Marshall Steve Wallgren has recommended approval in a letter dated June 21, 2024.

Washtenaw County Water Resources Commission:

Reviewing agent Theresa Marsik has recommended approval in a letter dated June 28, 2024.

Washtenaw County Road Commission:

WCRC Project Manager Gary Straight shared comments with the Planning Department on June 19, 2024. The TIS provided by the applicant has been approved.



Preliminary Site Plan

Suggested motions: *The following suggested motions and conditions are provided to assist the Planning Commission in making the most appropriate motion for this application. The Commission may utilize, add or reject any conditions suggested herein, as they deem appropriate.*

Motion to postpone:

*"I move to postpone the request for **Preliminary Site Plan** approval of Bloom General Contracting, Inc. to permit the construction of a 4,300 sq. ft. Marihuana consumption lounge, 1,260 sq. ft. storage building, outdoor amphitheater, and associated site upgrades for a 3.87-acre site zoned IC, Industrial and Commercial, located at 2525 State Street and 1430 Watson Street, Ypsilanti, MI 48198, Parcel K-11-13-255-004 & K-11-13-255-006, to allow the applicant to address comments presented at this evenings Planning Commission Meeting.*

Motion to approve:

*"I move to approve the **Preliminary Site Plan** of Bloom General Contracting, Inc. to permit the construction of a 4,300 sq. ft. Marihuana consumption lounge, 1,260 sq. ft. storage building, outdoor amphitheater, and associated site upgrades for a 3.87-acre site zoned IC, Industrial and Commercial, located at 2525 State Street and 1430 Watson Street, Ypsilanti, MI 48198, Parcel K-11-13-255-004 & K-11-13-255-006, with the following conditions:*

- 1. The Applicant shall address all outstanding comments from reviewing agencies prior to Final Site Plan approval.*
- 2. The Applicant shall obtain all applicable internal and outside agency permits prior to construction.*
- 3. The Applicant shall enter into a Development Agreement with the Charter Township of Ypsilanti that will address items such as, but not limited to, large events, security conditions, lighting, portable toilets, capacity, hours of operation.*
- 4. Any other conditions based upon Planning Commission Discussion.*

Motion to deny:

*"I move to deny the **Preliminary Site Plan** of Bloom General Contracting, Inc. to permit the construction of a 4,300 sq. ft. Marihuana consumption lounge, 1,260 sq. ft. storage building, outdoor amphitheater, and associated site upgrades for a 3.87-acre site zoned IC, Industrial and Commercial, located at 2525 State Street and 1430 Watson Street,*

Township Supervisor
Brenda L. Stumbo
Township Clerk
Heather Jarrell Roe
Township Treasurer
Stan Eldridge



**YPSILANTI
TOWNSHIP**
— PLANNING & ZONING DEPARTMENT —

Trustees
John Newman II
Gloria Peterson
Debbie Swanson
Ryan Hunter

Ypsilanti, MI 48198, Parcel K-11-13-255-004 & K-11-13-255-006, due to the following reasons:

1. _____
2. _____
3. _____

Respectfully submitted,

Fletcher Reyher

Fletcher Reyher, AICP
Planning & Development Coordinator
Charter Township of Ypsilanti Planning Department

Planning Department Report

Project Name: Frost Music Venue

Location: 2525 State Street, Ypsilanti, MI 48198

Date: August 07, 2024

- | | |
|---|---|
| <input checked="" type="checkbox"/> Full Preliminary Site Plan Review # 3
<input type="checkbox"/> Sketch Preliminary Site Plan Review #
<input type="checkbox"/> Administrative Preliminary Site Plan Review #
<input type="checkbox"/> Detailed Engineering/Final Site Plan Review #
<input type="checkbox"/> Special Use Permit
<input type="checkbox"/> Public Hearing | <input type="checkbox"/> Rezoning
<input type="checkbox"/> Tentative Preliminary Plat
<input type="checkbox"/> Final Preliminary Plat
<input type="checkbox"/> Final Plat Process
<input type="checkbox"/> Planned Development Stage I
<input type="checkbox"/> Planned Development Stage II |
|---|---|

Contact / Reviewer	Consultants, Departments, & Agencies	Approved	Approved with Conditions	Denied	N/A	See email/letter attached or comments below
Planning Department	Township Planning Department	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See comments below
Carlisle/Wortman Associates	Planning Consultant	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See letter dated 08-02-2024
OHM / Stantec	Engineering Consultant	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See letter dated 06-24-2024
Steven Wallgren, Fire Marshal	Township Fire Department	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See letter dated 06-21-2024
Dave Bellers, Building Official	Township Building Department	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Brian McCleery, Deputy Assessor	Township Assessing Department	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Scott Westover, Engineering Manager	Ypsilanti Community Utilities Authority	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See letter dated 06-26-2024
Gary Streight, Project Manager	Washtenaw County Road Commission	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See email dated 06-19-2024
Theresa Marsik, Stormwater Engineer	Washtenaw County Water Resources Commission	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See letter dated 06-28-2024
James Drury, Permit Agent	Michigan Department of Transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Planning Department Recommended Action:

The Frost Music Venue is now eligible for Preliminary Site Plan consideration by the Township Planning Commission. This project will be on the agenda for the regularly scheduled Planning Commission Meeting on Tuesday, August 27, 2024. The Planning Department recommends that the Planning Commission grant Preliminary Site Plan approval, as the project meets the Township Zoning Ordinance conditions for this type of development. Approval should be contingent on the applicant addressing the remaining comments in this report and the conditions of approval outlined in the Planning & Zoning Report as part of the Final Site Plan / Detailed Engineering Design.



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: January 29, 2024
June 20, 2024
August 2, 2024

**Preliminary Site Plan
For
Ypsilanti Township, Michigan**

Applicant:	Michael Ludtke
Project Name:	Frost Music Venue
Plan Date:	January 2, 2024
Location:	2525 State Street
Zoning:	I-C, Industrial and Commercial
Action Requested:	Preliminary Site Plan

PROJECT AND SITE DESCRIPTION

The applicant is seeking preliminary site plan approval to construct a new 4,300 sq/ft marijuana consumption lounge, 1,260 sq/ft storage building, and outdoor amphitheater. The plan includes associated site utilities, lighting, parking, drive-lanes, and pedestrian walks. The proposed project is affiliated with an existing development to the north: the Frost Dispensary & Cultivation Center.

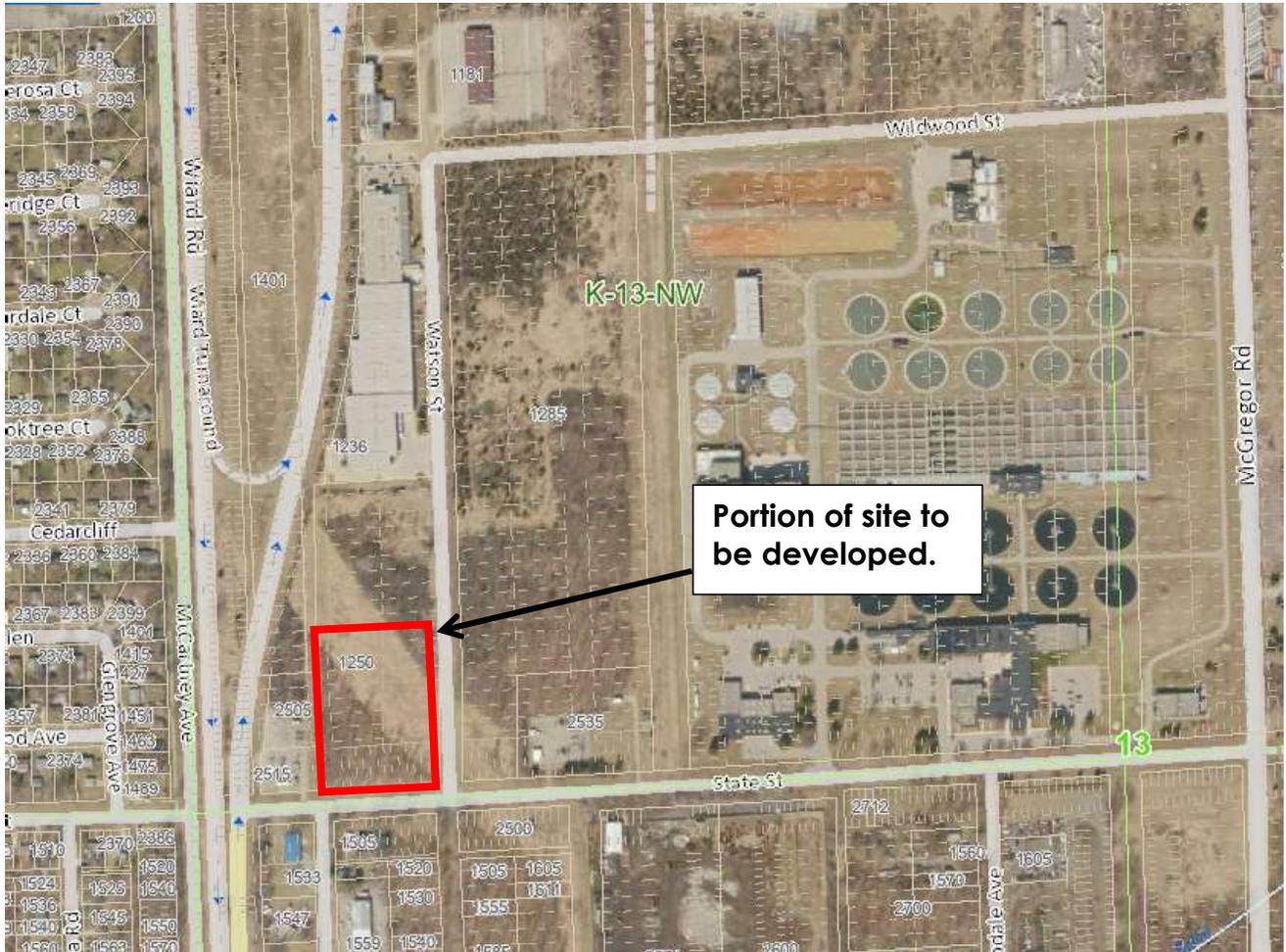
The 3.87-acre site is located on the north side of State Street, between Ward Road and Watson Street. The site abuts the Frost Dispensary & Cultivation Center, which is directly to the north. The site is zoned I-C Industrial and Commercial, where the intent is to revitalize the area and provide employment opportunities with a focus on high-tech industrial and manufacturing, distribution, and marijuana uses.

Marihuana is a permitted use in the I-C, Industrial and Commercial District.

Benjamin R. Carlisle, President Douglas J. Lewan, Executive Vice President John L. Enos, Vice President
David Scurto, Principal Sally M. Elmiger, Principal R. Donald Wortman, Principal
Paul Montagno, Principal Megan Masson-Minock, Principal Laura Kreps, Senior Associate
Richard K. Carlisle, Past President/Senior Principal

Location of Subject Site:

Aerial Image of Subject Site and Vicinity



Source: MapWashtenaw

Size of Subject Site:

3.87 acres

Current Use of Subject Site:

Vacant

Current Zoning:

I-C, Industrial and Commercial District

Proposed Use of Subject Property:

Marihuana music venue, featuring consumption lounge and outdoor amphitheater.

Adjacent zoning and land uses are as follows:

Direction	Zoning	Use
North	IC, Industrial and Commercial	Marihuana Dispensary and Cultivation Center
South	IC, Industrial and Commercial	Single Family Residential
East	IC, Industrial and Commercial	ROW/Vacant
West	IC, Industrial and Commercial	Vacant

MARIHUANA ZONING

With the adoption of the comprehensive zoning ordinance rewrite by the Board of Trustees, the Township has authorized the operation of, and provided regulations for, medical marihuana and adult use/recreational establishments within the boundaries I-C, Industrial and Commercial zoning district.

OPERATIONAL DETAILS

In order to better evaluate the project, we asked that the following operational details be provided. Their responses are italicized.

1. Hours of operation

Pipeline will be open Monday-Sunday, 12:00 pm-10:00 pm or 5:00 pm-10:00 pm depending on the day. Last call for delivery from Frost Cannabis is 8:45pm. State law prohibits sale of adult use cannabis after 9pm.

3 days per week, 12:00 pm to 10:00 pm will be devoted to "open-to-the-public" entertainment. Anyone 21+ can access Pipeline for a \$25 entry fee (free with a \$50 purchase at Frost (free with a \$50 purchase at Frost Cannabis). During the winter, there will be light entertainment - background music, acoustic musicians, games, and movie showings. During the summer, patrons will also be able to consume within the fenced-in area outside. Capacity will be 215 and parking is limited to the permanent parking.

One day per week will be devoted to private events. These events may include corporate activities, weddings, birthday parties, etc. Doors will not be open to the public during private events and a prepared guest list is required. Capacity will be 215 and parking is limited to the permanent parking lot. Private event guests will have access to the indoor venue and food truck area. During warm months they will also have access to the amphitheater and grass area.

The remaining 3 days per week will be used for concerts with pre-booked entertainment. Tickets will be available for pre-sale online and at the door with prices ranging from \$25-\$50. Capacity will be 215 and parking is limited to the permanent parking lot. Concert days will be 5:00 pm -10:00 pm. Patrons will be able to enter/exit only from the southern drive.

2. Number of employees at highest shift

- *Winter months-peak at 10 employees including 3rd party security*
- *Summer months-peak at 16 employees including 3rd party security*

3. Max occupancy of consumption lounge and outdoor amphitheater, and how these numbers were calculated.

Capacity will be 215 and parking is limited to the permanent parking lot. The combined temporary parking spots from the grass consumption area and Frost Cannabis will increase total capacity to 649 for the special, outdoor events.

4. Security

All areas of Pipeline (except bathrooms), indoor and outdoor, will be under Video surveillance, monitored from a secure non-smoking room located inside the venue. Police will have access to the running 60-days of footage per state law.

Third-party security will be provided by Koda Group Inc for every scheduled event as well as Frost Cannabis next door. Koda Group Inc runs security for Pine Knob and many cannabis-related businesses and are well suited to provide security for the first cannabis music venue in Michigan. Normal operations will include 1-2 security personnel. Larger events that utilize the grass for parking will require up to 8 security personnel (Koda Group recommends 1-2 security per 200 people).

5. Noise containment and mitigation plan

See section below

6. Capacity

- *Winter months-215 occupants only utilizing the paved parking lot*
- *Summer months(normal operations)-215 occupants utilizing the paved parking lot*
- *Summer months(amphitheater event)-649 occupants utilizing the paved parking lot, overflow grass parking lot, and Frost Cannabis parking lot next door*

The following additional information was provided by the applicant:

Pipeline will be an entertainment site catering to music, live performances, and private events with cannabis consumption allowed on-site. The site will consist of two venues that operate as a single entity and do not compete for bookings or parking: an indoor venue designed for year round events and an outdoor amphitheater for summer events as well as daily outdoor consumption.

Physical Structure

The indoor building is equipped with sliding glass garage doors that face the amphitheater. Weather permitting, these doors will be open, allowing patrons to enjoy the music while inside or outside. The perimeter of the area that encompasses the grass area, indoor consumption building, and amphitheater will be enclosed with an 8-foot no-visibility fence. Per Michigan law, cannabis consumption is permitted in this area.

Cannabis Products

Patrons will be carded at the main gate to verify everyone is 21+ to comply with local/state laws. Patrons may then order cannabis for delivery from the Frost Cannabis dispensary or walk next door to Frost Cannabis and purchase in person. Consumption is not permitted on Frost Cannabis property due to State Law, so consumption must take place at Pipeline. Cannabis products purchased offsite are prohibited - Frost Cannabis products purchased next door may be consumed at Pipeline.

Food and Beverage

Pre-packaged snacks and drinks will be available for purchase within the indoor venue. Freshly prepared food will be available in the food truck area. Patrons can purchase food and consume it anywhere on-site.

Food trucks will operate 5 days per week from 12pm-9pm (subject to change depending on season and event) and will not remain overnight. Each food truck will provide their own power, water, and trash removal. Food trucks will adhere to all local ordinance and are subject to approval by the township. The sale of fresh food takes place in the food truck area to comply with state law. This parcel will be separated from the other properties with no-visibility fencing to adhere to state law. Patrons are permitted to possess cannabis while inside the food truck area but cannot consume cannabis until they return to Pipeline.

Amphitheater Events

During the warmer months, a few larger events will be scheduled on specific weekends. During these events, the outdoor grass consumption area will convert into temporary parking. Traffic/parking will be supervised in the grass area (formerly the grass consumption area) and parking spots will be visibly marked. Traffic will flow in from the southern gate and exit out of the northeastern gate. The northeastern gate will only be used for traffic exit during large events and will not be open during regular operation.

Towable light towers will be brought into the grass parking area to provide lighting for parking. Eight portable toilets will be provided for the outdoor area as well. In addition, during large events Frost Cannabis will close to the public and will only be open for sales to Pipeline. The Frost Cannabis parking lot will be used for overflow parking for Pipeline. Patrons can park in the Frost cannabis parking lot and walk south through the gates shown in the diagram. During these events, Patrons will be checked at the driveway entrance to Frost Cannabis for event tickets. Only those attending will be allowed to park there. The combined temporary parking spots from the grass consumption area and Frost Cannabis will increase total capacity to 649 for the special, outdoor events.

Items to be Addressed: *None*

NATURAL FEATURES

Topography: The site has little topography.

Woodlands: The applicant has provided a tree survey for the entirety of the site. The applicant notes that 139 total trees were surveyed: 92 trees are to be removed and 47 retained. The applicant proposes to replace 92 of the 92 trees required.

Wetlands: There are no wetlands on site.

Items to be Addressed: *None.*

AREA, WIDTH, HEIGHT, SETBACKS

Section 4.16 outlines bulk requirements for I-C, Industrial and Commercial District:

Table	Required / Allowed	Provided	Complies with Ordinance
Front Setback (south)	20 feet	172.7 feet	Complies
Front Setback (east)	20 feet	66.7 feet	Complies
Side Setback (west)	50 feet	50 feet	Complies
Rear Setback (north)	40 feet	40 feet	Complies
Building Height (feet)	50 feet	38 feet	Complies

Items to be Addressed: None

MARIHUANA SUPPLEMENTAL REGULATIONS

Section 416(5) outlines the specific use regulations for marihuana uses. The use regulations include odor and emissions control, licensing requirements, visibility control, location regulations, amount and use of marihuana, waste disposal, and permits.

Unlike traditional marihuana dispensaries, the proposed development includes a consumption lounge and outdoor amphitheater. For this reason, we ask that the applicant address how they are able to meet certain regulations set forth in Section 416(5). Some of these regulations include:

- (8) A marihuana facility or establishment shall be closed for business, and no sale or other distribution of marihuana in any form shall occur upon the premises or be delivered to or from the premises, between the hours of 9:00 p.m. and 7:00 a.m.

Consumption is not permitted on Frost Cannabis property due to State Law, so consumption must take place at Pipeline. Cannabis products purchased offsite are prohibited - Frost Cannabis products purchased next door may be consumed at Pipeline. Last call for delivery from Frost Cannabis is 8:45pm. State law prohibits sale of adult use cannabis after 9pm.

- (9)(c) Sufficient measures and means of preventing smoke, odors, debris, dust, fluids, and other substances from exiting a marihuana commercial entity must be provided at all times.

The applicant notes that Marijuana use is permitted outdoors inside the 8-foot non visibility fencing. The only exception is the food truck area, which has its own 8ft fence. Marijuana can be possessed in this area, but consumption must wait until re-entering the main venue space.

When consumed indoors, the applicant notes that air exchange and filtering if based off the code requirements for indoor smoking

- (12) Use of marihuana: The sale, consumption or use of alcohol or tobacco products on the permitted premises is prohibited. Smoking or consumption of controlled substances, including marihuana, on the permitted premises is prohibited except as expressly allowed by state law.

The applicant shall be required to comply with all state consumption law requirements.

Items to be Addressed: None

PARKING, LOADING

Parking Requirements	Number of Spaces Required	Number of Spaces Provided	Compliance
Consumption Lounge	1 sp. per each 70 sq/ft of useable floor area (3,714.12 S.F./70)= 53 spaces	54 spaces	Compliant
Amphitheater	1 sp. for every 3 seats (649 seats/3)= 217 spaces PLUS 1 sp. for each 2 employees (8 employees/2)= 4 spaces 221 spaces	224 spaces (187 on-site / 37 at Frost Retail)	Compliant but see comments below
Barrier-Free Spaces	7 spaces	7 spaces	Compliant
Loading Spaces	Contextual	1 spaces	TBD
Bicycle Parking	2 spaces	2 spaces	Compliant

Parking is sufficient for consumption lounge use.

Parking for the amphitheater includes the temporary grass parking area located between the Pipeline consumption lounge and the Frost Cannabis retail building. The applicant notes that during amphitheater use the Pipeline consumption lounge and the Frost Cannabis Dispensary building will be closed.

The applicant notes:

There will be a security check at the Frost Parking Lot Entrance to ensure only Event ticket holders and staff have access to the parking area. The indoor consumption lounge will function together with the amphitheater. There are 2 garage doors on the eastern wall of the building that will be opened, allowing people to flow in and out of the building from the amphitheater at will. This does NOT add more capacity, 649 is the max for the entire business.

Items to be Addressed: None

SITE ACCESS, CIRCULATION, and TRAFFIC

Access to the site is via State Street. Fire Protection Site Plan is provided on Sheet C04. The Township Fire Marshall shall review the fire turning truck template.

During amphitheater use, traffic flow will enter from the south driveway on State Street, and exit from the northeastern driveway (on Watson Street). Parking operations will be supervised and directed by staff, and if needed, temporary signage will be utilized.

Items to be Addressed: None

SCREENING & LANDSCAPING

	Required	Provided	Compliance
Street Yard Landscaping: 1 large dec tree per 40 L.F. of frontage 1 orn tree per 100 L.F. of frontage 1 shrub per 10 L.F. of frontage	Watson Street: 487 L.F./40 L.F.= 12 dec trees 487 L.F./100 L.F.= 5 orn trees 487 L.F./10 L.F.= 49 shrubs State Street: 320 L.F. / 40 L.F. = 8 dec trees 320 L.F. / 100 L.F. = 3 orn trees 320 L.F. / 10 = 32 shrubs	Watson Street: 12 dec trees, 5 orn trees, 57 shrubs State Street: 9 existing trees, 3 orn trees, 36 shrubs	Complies
General Landscaping: 1 tree per 1,000 sq/ft 1 shrub per 500 sq/ft of lawn area	27,694 S.F./1000= 28 trees 27,694/500= 55 shrubs	16 existing trees, 27 proposed trees, 63 shrubs	Complies
Parking Lot: 1 large dec tree per 2,000 sq/ft of pavement 1 per 40 feet of lot perimeter	14,450.89/2000= 7 trees interior 406 L.F./40 L.F.= 10 trees perimeter	7 trees interior 10 existing trees perimeter	Complies
Stormwater: 1 tree per 50 feet 10 shrubs per 50 feet	385.99 L.F. 415 L.F. / 50 L.F. = 8 trees 415.45 L.F. / 50 X 10 = 83 shrubs	Provided: 8 trees and 83 shrubs	Complies

Mitigation	92 trees	92 trees	Complies

Trash and Recycling Containers:

A dumpster enclosure is shown on the plans, however screening details were not provided.

Items to be Addressed: Provide trash enclosure screening details.

LIGHTING

The applicant is proposing six (6) pole lights for their permanent parking lot, eight (8) canopy lights, seventeen (17) bollard lights, and 34 recessed lights for the amphitheater. The photometrics comply with ordinance requirements; however, the applicant did not provide lighting fixture details to confirm if they are in compliance with Section 1303.

The applicant is not proposing any permanent lighting for the grass (temporary parking) area. Rather they propose bringing mobile light towers. They will rent the mobile light towers only for large event use. The number of large events has not been confirmed by the applicants.

Items to be Addressed: 1). Provide lighting fixture cut sheets.

NOISE AND VIBRATION

At any given time, noise levels in industrial zones shall not exceed 65 A-weighted decibels (dBA). Refer to Section 1400(6)(C) for details. The applicant has not provided details regarding noise generation and mitigation. No use shall generate any ground-transmitted vibration in excess of the limits set forth in the Maximum Vibration Standards Table in Section 1400(8)(D). Of particular concern is amplified noise and how it may impact the West Willow neighborhood to the west.

The applicant has provided a sound study completed by K&S Engineering. The study notes that the amphitheater was positioned with the stage facing east, away from the residential neighborhood of West Willow. The study included two models. Model 1 incorporate an open stage design. Model 2 includes a band shell to further reduce sound projecting to the west.

The study concludes that the sound adjacent to properties in residential zones is limited to a level of 65 dB(A), and the sound level to the west will be limited to 60, 55, and 50 dB(A) for daytime, evening, and nighttime periods. A band shell is recommended. If band shell is proposed, the noise would be reduced to 40 dB(A) for the West Willow neighborhood.

Items to be Addressed: 1). Township shall confirm conclusions of noise study; and 2). Confirm that a bandshell is proposed.

ELEVATIONS AND FLOORPLANS

Elevations:

Elevations and setbacks are compliant with zoning district regulations. Exterior building materials include metal and wood siding. Exterior walls are wood panel siding in the color 'natural cedar' and trimmed with black prefinished aluminum. A black metal roof system is shown topped with metal fascia. A reversed box rib design is proposed for texture on both the siding and roofing. We find that these proposed building materials are consistent with the venue to the north. As requested, the applicant has broken up the west and east wall elevation to provide more architectural relief. We note that it is a very attractive building.

Floorplans:

The floorplan contains two (2) buildings which are connected by a covered patio in-between. The first building is the consumption lounge, which is an open area filled with many tables and chairs, as well as a 160 sq/ft stage. This building also contains separate rooms for security, water, electric, consumption storage, and restrooms. The second building is used strictly for storage.

In addition, the applicant shows a food truck area. The applicant should provide details of the food truck area (number of trucks, time, parking plan, et).

We request the applicant provide additional information regarding the open areas on-site, such as:

Amphitheater and Canopy Details:

The applicant has shown the amphitheater in the 3-D renderings but did not provide any elevations of the proposed structure including material use. The canopy materials appear to match the primary building. In addition, materials of proposed retaining walls and amphitheater seating area were not provided.

Restrooms

The applicant is proposing to bring in portable toilets for large events including amphitheater use.

Food Truck Area

The Food Truck area provides a gravel area for trucks to park and serve customers, and a grass area for picnic tables/a place for people to eat. Video/audio of the entertainment will be provided to customers in this area.

Building Materials:

Items to be Addressed: Provide canopy elevation and material details for canopy, retaining wall, and seating area.

DEVELOPMENT AGREEMENT

This is a very unique use and we have worked with the applicant to address a number of our initial concerns with regards to impacts. However, we note that there are simply issues that can't be addressed through zoning, and we suggest that the applicant and Township engage in a Development Agreement which will allow the township to work with the applicant to place any conditions on the proposed use

Items to consider:

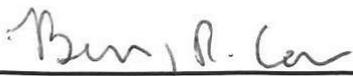
1. Events
 - a. Number of amphitheater use
 - b. Number of large events that use temporary parking area but not amphitheater.
2. Security conditions
 - a. Defer to County Sheriff's Office
3. Lighting
 - a. Number and use of portable lights
4. Portable toilets
 - a. Number and use of portable toilets
5. Capacity
 - a. Cap maximum capacity
6. Limit hours of operation for amphitheater and outdoor use
7. Noise based on review by Stantec

RECOMMENDATIONS

We encourage the investment that Pipeline consumption lounge and music venue proposes. We find that Frost Music Venue is complementary to the establishment to the north and that such establishments are the intent for revitalization of the I-C District.

We recommend that the Planning Commission approve the preliminary site plan with the following conditions:

1. Applicant and Township draft development agreement with Township Attorney to be approved by the Township Board. Planning Commission may make suggestions for inclusion in Development Agreement
2. Provide lighting fixture cut sheets
3. Provide trash enclosure screening details
4. Provide canopy elevation and material details for canopy, retaining wall, and seating area.



CARLISLE/WORTMAN ASSOC., INC.
Benjamin R. Carlisle, AICP, LEED AP
President

June 24, 2024

Mr. Fletcher Reyher
Township Planning and Development Coordinator
Charter Township of Ypsilanti
7200 S. Huron River Drive
Ypsilanti, MI 48197

RE: Frost Music Venue
Preliminary Site Plan Review #2

Dear Mr. Reyher:

We have completed the second preliminary site plan review of the plans dated September 5, 2023, with a latest revision date of June 12, 2024, and stamped received by OHM Advisors on June 13, 2024.

At this time, the plans are recommended for approval for the Planning Commission's consideration, contingent on the following comments being addressed. Preliminary detailed engineering comments have been provided to the applicant as a courtesy and shall be addressed prior to submitting detailed engineering plans for review.

A brief description of the project has been provided below, followed by our comments and a list of anticipated required permits and approvals. Comments in Section C are detailed in nature, do not influence the overall site layout, and can be addressed during the detailed engineering drawing submittal.

A. PROJECT AND SITE DESCRIPTION

The applicant is proposing to construct the Frost Music Venue inclusive of a marijuana consumption building, a storage building, an outdoor amphitheater, and associated parking, sidewalk, and landscaping at 2525 State Street. The proposed development will be associated with the recently approved nearby Frost Dispensary.

The proposed facilities will be serviced by connection to a new 8-inch water main extension that will loop through the proposed site and the nearby Frost Dispensary project. The site will also be serviced by connection to the existing 12-inch sanitary sewer along State Street. The proposed stormwater runoff will be managed by an underground conveyance system and an underground detention system.

B. SITE PLAN COMMENTS

Site Utilities

1. The applicant shall provide all correspondence with Enbridge/Nexus for construction of the re-configured water main extension within the existing easement and workspace.

Site Layout

2. The applicant shall verify the firetruck turning template within the proposed entrance drive off State St as there appears to be potential conflicts with the proposed curb. This office defers to the Ypsilanti Township Fire Department on the review and approval of site accessibility.



C. PRELIMINARY DETAILED ENGINEERING COMMENTS

The following comments shall be addressed by the applicant during the detailed engineering drawing submittal, and do not affect the recommendation for approval to the Township of Ypsilanti Planning Commission. It should be noted that this is not an all-inclusive list and additional comments may be generated as new information is presented.

1. The applicant shall provide the proposed water main extension for both the Frost Music Venue and the Frost Dispensary projects, re-configured per YCUA request, on the plans for review.
2. The applicant shall provide utility pipe profiles, including pipe diameter, material, length, slope, and hydraulic grade line (where applicable) for all proposed utilities (water, sanitary, storm), including the re-configured water main extension for both the Frost Music Venue and the Frost Dispensary projects, on the plans. The applicant shall also provide a utility crossing table to ensure sufficient clearance between existing and proposed utilities is provided.
3. The applicant shall provide additional spot elevations at all four (4) corners of all barrier-free parking spaces, access aisles, ramps, and level landings. The applicant shall note that the cross-slope shall not exceed 2%, per ADA Standards.
4. The applicant shall clarify the height of the proposed boulder retaining wall and note that structural calculations are required for all retaining walls and boulder walls greater than two (2) feet in height, per Township Standards.
5. The applicant shall provide a gate valve on the southern end of the proposed development. This office defers to YCUA on gate valve locations.
6. The applicant shall provide the orifice calculations for the proposed outlet control structure, including the pond contour elevations and areas, on the plans.
7. The applicant shall provide a standard detail of the proposed underground detention system on the plans.
8. The applicant shall provide the manufacturer's specification for use of the proposed N-12 HDPE under the influence of the pavement on the plans.
9. It is recommended that the applicant provide a minimum HMA cross-section of four (4) inches for ease of future maintenance.
10. The applicant shall provide a quantity list for all proposed utilities (water, sanitary, storm) on the Cover Sheet, delineated by existing or proposed road right-of-way or easement, per Township Standards. The applicant shall also provide a brief project narrative on the Cover Sheet.
11. The applicant shall provide the applicable Ypsilanti Township Standard Detail Sheets within the plan set. These Sheets can be obtained by emailing stacie.monte@ohm-advisors.com.

D. REQUIRED PERMITS & APPROVALS

The following outside agency reviews and permits will be required for the project. Copies of any correspondence between the applicant and the review agencies, as well as the permit or waiver, shall be sent to both the Township and OHM Advisors (email: stacie.monte@ohm-advisors.com).

- ✦ **Ypsilanti Community Utilities Authority (YCUA):** Review and approval of all water main and sanitary sewer improvements is required.
- ✦ **Ypsilanti Township Fire Department:** Review and approval of site accessibility and hydrant/FDC layout/coverage is required.
- ✦ **Washtenaw County Water Resources Commissioner's Office (WCWRC):** Review and approval is required.
- ✦ **Washtenaw County Road Commission (WCRC):** Review and approval is required.
- ✦ **Michigan Department of Environment, Great Lakes & Energy (EGLE):** An EGLE Act 399 and Part 41 permit will be required for construction of all public water main and sanitary sewer systems improvements.
- ✦ **Michigan Department of Environment, Great Lakes & Energy (EGLE):** An EGLE permit will be required for any work and/or stormwater discharge into the wetlands.



- ▼ **Ypsilanti Township Office of Community Standards:** A Soil Erosion and Sedimentation Control permit shall be secured from the Ypsilanti Township Office of Community Standards.

Should you have any questions regarding this matter, please contact this office at (734) 466-4580.

Sincerely,
OHM Advisors



Stacie L. Monte



Matthew D. Parks, P.E.

SLM/MDP

cc: Doug Winters, Township Attorney
Steven Wallgren, Township Fire Marshall
Scott Westover, P.E., YCUA
File

P:\0000_0100\SITE_YpsilantiTwp\2023\0098231110_2525 State St_Frost Dispensary Lounge\MUNI\01_SITE\PSP#2\Frost Music Venue_PSP#2_2024-06-24.docx

CHARTER TOWNSHIP OF YPSILANTI FIRE DEPARTMENT

BUREAU OF FIRE PREVENTION

222 South Ford Boulevard, Ypsilanti, MI 48198



June 21, 2024

Fletcher Reyher, Planning and Development Coordinator
Charter Township of Ypsilanti
7200 S. Huron River Drive
Ypsilanti, MI 48197

RE: Preliminary (non-residential) Site Plan Review #2

Project Name:	Frost Music Venue
Project Location:	2525 State St. Ypsilanti, MI 48198
Plan Date:	6/12/2024
Applicable Codes:	IFC 2018
Engineer:	Nowak & Fraus Engineers
Engineer Address:	46777 Woodward Ave. Pontiac, MI 48342

Status of Review

Status of review: Approved as Submitted

All pages were reviewed

Site Access

Comments:

- The turnaround Extension to the driveway is acceptable.
- The Added gate to the food court from Watson Ave. meets the Fire Department access needs.

Suppression / Hydrants

Comments: The proposed Hydrant locations are acceptable for FDC and Facilities coverage.

Sincerely,

A handwritten signature in cursive script that reads "Steve Wallgren".

Steve Wallgren, Fire Marshal
Charter Township of Ypsilanti Fire Department
CFPS, CFI I



YPSILANTI COMMUNITY UTILITIES AUTHORITY

2777 STATE ROAD
YPSILANTI, MICHIGAN 48198-9112
TELEPHONE: 734-484-4600
WEBSITE: www.ycua.org

June 26, 2024 REVISED

VIA ELECTRONIC MAIL

Mr. Fletcher Reyher, Planning and Development Coordinator
Office of Community Standards
CHARTER TOWNSHIP OF YPSILANTI
7200 S. Huron River Drive
Ypsilanti, MI 48197

Re: Preliminary (non-residential) Site Plan Review #2
Frost Dispensary Phase 2
Charter Township of Ypsilanti (Plan Date: 06-12-2024)

Dear Mr. Reyher:

In response to the electronic mail message from your office dated June 13, 2024, we have reviewed both the referenced plans as well as the conceptual plan for offsite water main with regards to water supply and wastewater system design. The plans are **not** acceptable to YCUA for this stage of review. The following comments are offered for consideration by the Applicant and/or the Applicant's design engineer prior to the Detailed Engineering phase of the project.

1. The proposed water main is currently shown as ending after it crosses from the phase 2 parcel onto the previously approved first phase site – the water main will need to be extended to the existing 8" diameter water main stub installed as part of the Hercules Concrete Plant project and located just south of the drive approach to that site on the east side of Watson Street. Recent communications with the Applicant and the Applicant's design engineer assumed the loop would be completed by connecting the proposed water main on the current phase 2 plans to the on-site portion of the previously approved and permitted first phase water main (depicted by the orange line on the enclosed marked-up copy of page C12 from the plans for the first phase of the project). It is now understood that the first phase may not proceed as designed, therefore it is recommended that the proposed water main on the current phase 2 plans be connected to the previously approved and permitted water main that runs due east to Watson Street and then north on Watson Street (depicted by the green line on the enclosed marked up copy of page C12 from the plans for the first phase of the project). Both of the options described herein as well as the water main within both the State Road and Beverly Street rights-of-way assume use of the previously approved and permitted alignments such that revision of or reapplication for Act 399 Permit for those sections of pipe is not necessary. It is acknowledged that the exact alignment of the proposed water main through the phase 2 site may need to be shifted between now and approval of Detailed Engineering plans.

Mr. Fletcher Reyher
CHARTER TOWNSHIP OF YPSILANTI
June 26, 2024
Page 2

2. It is recommended that proposed sanitary manhole S4 be constructed at the location where the proposed sanitary building sewer connects to the existing sanitary sewer in the State Road right-of-way.

As communicated prior to the preapplication meeting, connection fees apply to the proposed project. Please note that the total cash price for connection fees, **\$18,085.84, plus the construction phase escrow deposit, Authority administration fee, and record plan guarantee**, must be paid to YCUA by the Applicant, with a receipt delivered to the Township, before either the building or soil and grading permit is issued. The construction phase escrow deposit and associated fees and deposits and the entity responsible for maintaining those accounts will be determined during the Detailed Engineering phase of the project in conjunction with your office and the Township Engineer. Should there be any questions please contact this office.

Sincerely,



SDW Digital Signature

SCOTT D. WESTOVER, P.E., Director of Engineering
Ypsilanti Community Utilities Authority

cc: Mr. Luke Blackburn, Mr. Sean Knapp, File, YCUA
Mr. Fletcher Reyer, Charter Township of Ypsilanti
Mr. Steve Wallgren, Township Fire Department
Mr. Matt Parks, P.E., Ms. Stacie Monte, Township Engineer
Mr. Michael Ludtke, Applicant
Mr. Paul Tulikangas, P.E., Applicant's design engineer

WCRC App. 20224 - Frost Music Venue

SG

Streight, Gary <streightg@wcroads.org>

To: Paul Tulikangas <ptulikangas@nfe-engr.com>

Cc: Fletcher Reyher; Lawrence, Callie <lawrencec@wcroads.org>; McCulloch, Mark <mccullochm@wcroads.org>;

Yadykina, Elena <yadykinae@wcroads.org>; Ford, Michele <fordm@wcroads.org>



Wed 6/19/2024 8:05 AM

Paul,

I have completed the review of the submitted Traffic Impact Study(TIS) and site plans which propose access to Watson Ave. and State Street and offer the following comments for your consideration:

- The TIS is approved with two driveways on Watson Ave. and one on State Street.
- What is the plan for the storm sewer connection and open cut of State Street? Will a road closure be required and if so for how long? If a closure will be needed a detour route must be provided in the plan set.
- Provide an updated cost estimate to include the addition of the third driveway.
- An inspection fee equal to 3% of the cost estimate, \$500 minimum, shall be provided along with a deposit equal to the full amount of the cost estimate in the form of a letter of credit or cashier's check.

Once you have addressed the comments above, please send revisions to permits@wcroads.org for review. If there are any questions feel free to contact me.

Gary Streight, P.E.
Project Manager



Washtenaw County Road Commission
555 N. Zeeb Road, Ann Arbor, Michigan

Direct: (734) 327-6692 | Main: (734) 761-1500
wcroads.org | [Follow us on Facebook](#)

← Reply
↶ Reply all
→ Forward



EVAN N. PRATT, P.E.

Water Resources Commissioner

705 N Zeeb Road
Ann Arbor, MI 48103
734-222-6860

Drains@washtenaw.org

Harry Sheehan
Chief Deputy Water Resources Commissioner

Scott Miller P.E.
Deputy Water Resources Commissioner

Theo Eggermont
Public Works Director

June 28, 2024

Mr. Paul Tulikangas, P.E.
Nowak & Fraus Engineers
46777 Woodward Avenue
Pontiac, Michigan 48342-5032

RE: Frost Music Venue
Ypsilanti Township, Michigan
WCWRC Project No. 10491

Dear Mr. Tulikangas:

This office has reviewed the site plans for the above-referenced project to be located in Ypsilanti Township. These plans have a job number of M994, a date of June 12, 2024, and were received on June 13, 2024. As a result of our review, we would like to offer the following comments:

1. The design plans are technically correct and do not require revisions at this time. An approval letter will be issued upon payment of the attached invoices.
 - a. Please note any future revisions should be submitted to our office for further review.
 - b. A drain use permit application, affidavit of pollution prevention, and associated permit fees must be submitted at this time.
2. Please see the attached invoices for the current and past due review fees, and remit these fees upon receipt. As requested, the invoices are being submitted directly to Frost Cannabis.

If you have any questions, please contact our office.

Sincerely,

A handwritten signature in blue ink that reads "Theresa M. Marsik".

Theresa M. Marsik, P.E.
Stormwater Engineer
(permit:\Frost Music Venue rev3)

cc: Michael Ludtke, Frost Cannabis
Laura Doppke, Ypsilanti Township Planning Department
Belinda Kingsley, Ypsilanti Township Planning & Zoning Coordinator
Doug Winters, McLain and Winters
Matt Parks, P.E., Ypsilanti Township Engineer (OHM)
Stacie Monte, Ypsilanti Township Engineer (OHM)

Response To The Carlisle Wortman Review

- A. Employee Numbers-
 - a. Winter months-peak at 10 employees including 3rd party security
 - b. Summer months-peak at 16 employees including 3rd party security
- B. Security Plan
 - a. All areas of Pipeline (except bathrooms), indoor and outdoor, will be under Video surveillance, monitored from a secure non-smoking room located inside the venue. Police will have access to the running 60-days of footage per state law.
 - b. Third-party security will be provided by Koda Group Inc for every scheduled event as well as Frost Cannabis next door. Koda Group Inc runs security for Pine Knob and many cannabis-related businesses and are well suited to provide security for the first cannabis music venue in Michigan. Normal operations will include 1-2 security personnel. Larger events that utilize the grass for parking will require up to 8 security personnel (Koda Group recommends 1-2 security per 200 people).
- C. Capacity Figures
 - a. Winter months-215 occupants only utilizing the paved parking lot
 - b. Summer months(normal operations)-215 occupants utilizing the paved parking lot
 - c. Summer months(amphitheater event)-649 occupants utilizing the paved parking lot, overflow grass parking lot, and Frost Cannabis parking lot next door
- D. Marijuana use is permitted outdoors inside the 8-foot non visibility fencing. The only exception is the food truck area, which has its own 8ft fence. Marijuana can be possessed in this area, but consumption must wait until re-entering the main venue space.
- E. HVAC
 - Air exchange and filtering if based off the code requirements for indoor smoking.
- F. There will be a security check at the Frost Parking Lot Entrance to ensure only Event ticket holders and staff have access to the parking area. The indoor consumption lounge will function together with the amphitheater. There are 2 garage doors on the eastern wall of the building that will be opened, allowing people to flow in and out of the building from the amphitheater at will. This does NOT add more capacity, 649 is the max for the entire business.
- G. Per follow-up discussions, we understand that this project will be subject to a development agreement which will allow for additional stipulations pertaining to the proposed temporary lighting system for the grass parking lot. As such, the Township and Carlisle-Wortman indicated that the typical 20-footcandle maximum light level per pole listed in the zoning ordinance will not apply to the

proposed temporary lighting system. Attached are the cut sheets for the temporary light towers.

- H. See attached lighting fixture cut sheets as requested.
- I. 8 portapoties will be onsite
 - a. See revised architectural plans for the requested dumpster enclosure details.
- J. The Food Truck area provides a gravel area for trucks to park and serve customers, and a grass area for picnic tables/a place for people to eat.
 - a. Video/audio of the entertainment will be provided to customers in this section
- K. The Architect added a door for receiving.

ENGINE

- Mitsubishi® L3E- liquid cooled, diesel engine; Final Tier 4
 - Standby - 12.2 hp @ 1800 rpm
 - Prime - 10.5 hp @ 1800 rpm
 - 3 cylinder
 - 0.95 L displacement
- Polyethylene Fuel Tank:
 - Fuel Type: Diesel
 - Fuel Capacity: 39.9 gal (151.04 L)
 - External 3.5 in. (89 mm) fill port
- Fuel Consumption:
 - Full Load: 0.59 gph (2.24 Lph)*
 - Lights Only: 0.43 gph (1.62 Lph)*
 - Maximum Runtime (Lights Only): 93 hours*
- Cooling system capable of operating at 120°F (49°C) ambient
- 750-hour** service interval
- Full flow filter, spin on type
- Dry type cartridge air filter
- 60 Hz engine/generator
- Wind Rating: 65 mph (105 kph)



**Results based on engine manufacturer and field test data after 100-hour engine break-in period and may vary based on factors including age and maintenance of equipment, environmental conditions and fuel density. Consult the Owner's Manual for fuel and maintenance recommendations.*

***To achieve maximum service interval, replacement of oil filter after 50-hour break-in period is required. Consult Owner's Manual for required oil filter model number.*

GENERATOR

- Marathon Electric®, Brushless
- Up to 6kW power output
- 120/240 VAC – 50/25A
- +/-6% capacitor voltage regulation

ENGINE CONTROLS

- External, illuminated control panel with sealed switches
- Four position keyed switch – (off, run, glow start)
- Digital hour meter
- Automatic low oil pressure/high temperature shutdown system

ELECTRICAL SYSTEM

- 30A start trip breaker (assures no load condition exists before starting)
- Individual floodlight circuits with sealed 15A breakers
- Standard individually breakered convenience outlets:
 - (1) 120 VAC 20 Amp GFCI duplex outlet (NEMA 5-20R type)
 - (1) 240 VAC 30 Amp twist lock outlet (NEMA L6-30R type)
- Wiring is sized and fused to the amperage draw required
- 440CCA wet cell battery

FLOODLIGHTS

- Four (4) 1,100 watt metal halide
 - 132,000 bare bulb lumens each
 - 70,356 fixture lumens each
 - Total bare bulb lumens (x4): 528,000
 - Total fixture lumens (x4): 281,424
- Coverage @ 0.5 ft-c: 31,863 ft² (2,960 m²)
- Efficiency: 120 lumens per watt
- Oval aluminum reflector
- Tempered glass lens
- Silicone gaskets for moisture and dust protection
- Friction disc mounting for tool less positioning
- Individual floodlight On/Off switches

MAST

- Vertical mast; 23 ft. (7 m), 5-section with ground adjustable light fixtures
- Dual handle manual winch for ease of deployment; electric winch optional
- Distinctive angle fixture mount for common light distribution
- 359° ground rotational mast with mast fully extended
- Industrial black powder coat finish with polymer guides

ENCLOSURE

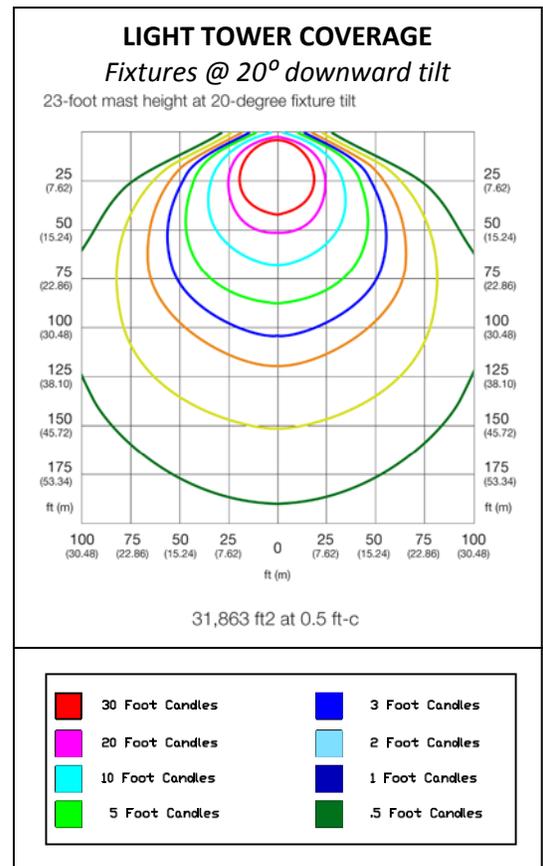
- Injection-molded hood enclosure with UV protected colorant
- Flip hood engine compartment for ease of service
- Multi-lingual operating/safety decals
- License plate holder with light
- Manual holder with operating manual
- 68 dB(A) at 23 ft. (7 m) – prime power

TRAILER

- Tubular steel frame
- (3) 1200 lb. (544 kg) tube and sleeve leveling jacks
- All jacks transport and lock in position for storage
- Side outriggers deployed – 10 in. (25.4 cm) span
- 7800 lb. (3538 kg) safety chains with spring loaded safety hooks
- 2 in. (50.8 mm) ball hitch
- Molded polyethylene fenders
- DOT-approved LED tail, side, brake, and directional lights
- 2200 lb. (907 kg) leaf spring axle
- ST175/80D13 – 6 ply
- 47 in. (119.4 cm) track width

WEIGHT & DIMENSIONS

- Dry weight: 1290 lbs. (585 kg)
- Operating weight: 1560 lbs. (708 kg)
- Mast stowed: 118 x 57 x 101 in (3 x 1.45 x 2.6 m)



WARRANTY

1 Year, Unlimited Hours / 2 Years, 2000 Hours

CERTIFICATIONS

CSA Approved / Listed

OPTIONS

Contact sales representative or factory for a list of current available options.

For more information, consult the Owner's Manual at <http://www.generacmobileproducts.com/resources-tools/manuals>

PLT240

LINKTower™
PORTABLE LED LIGHT TOWER

GENERAC | **MOBILE**

SPECIFICATIONS

ELECTRICAL INLET / OUTLET

- One 120 V, 15 A power inlet (NEMA 5-15R)
- One 120 V, 20 A power inlet (NEMA L5-20P)
- One 120 V, 20 A, GFCI duplex outlet (NEMA 5-20R)

ELECTRICAL CONTROLS

- 15A / 20A power distribution switch
- 15A / 20A main breaker
- 5A Individual Light Switches

FLOODLIGHTS

- Four 240 W LED fixtures
 - Lm/fixture: 34,800
 - Total lm: 139,200
 - Efficiency: 130 lpw
- Coverage at 0.5 ft-c: 15,770 ft² (1,465 m²)
- IP68 LED modules (50,000 hour life expectancy)
- Aluminum and polymer housing
- Cabinet-mounted drivers
- Individually adjustable light fixtures
- 48 V mast cord and fixture

MAST

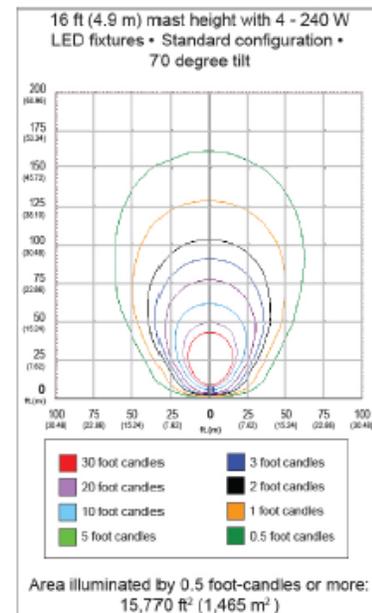
- Vertical operation and storage
- Four galvanized steel sections
- Winch: Dual-handle, manual crank
- Fixtures adjustable from ground
- Self-retracting, coiled mast cord
- Equipped with single lifting eye
- 45 mph (72 km/h) wind rating

CHASSIS

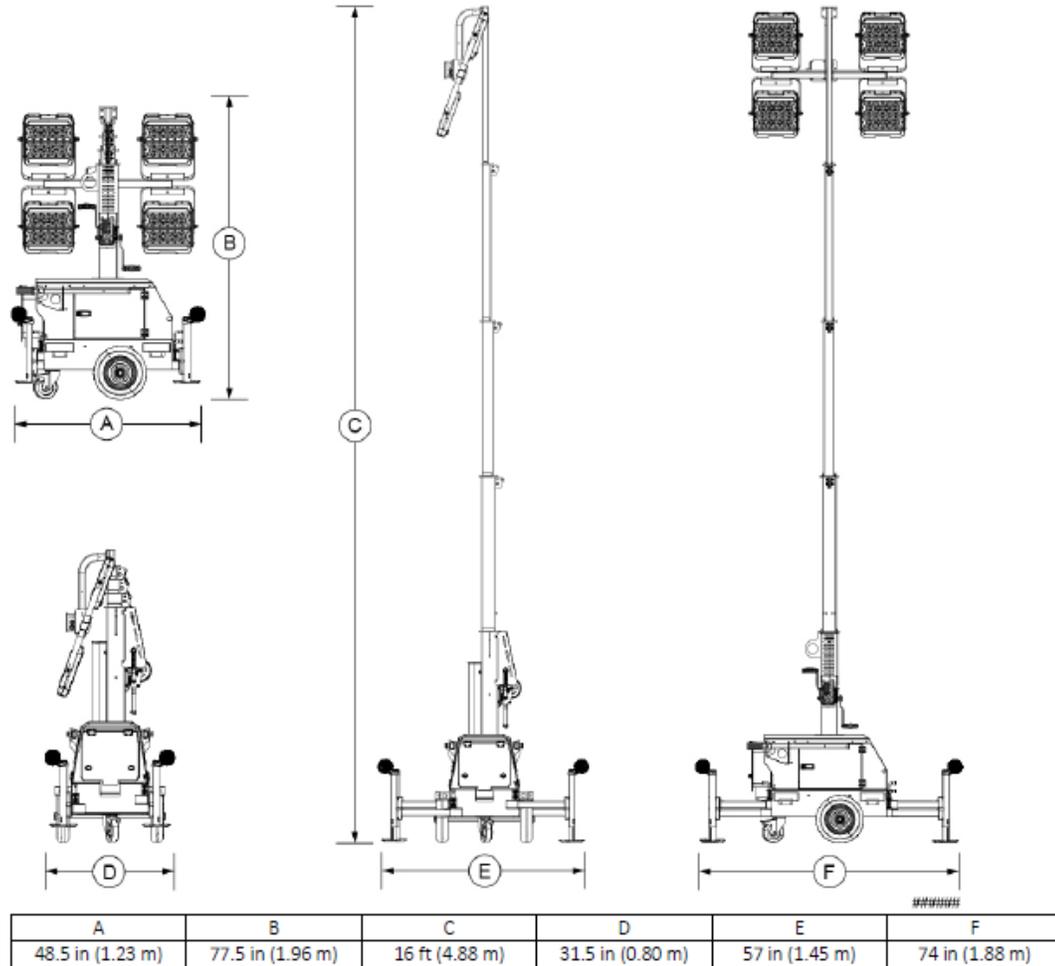
- Steel frame with galvanized fork pockets
- Four 1,200 lb (544 kg) leveling jacks
- Galvanized side outriggers lock in position for storage
- 3.5x8 in (89x203 mm) rubber tires
- 24 in (61 cm) track width
- 6 in (152 mm) caster wheel with brake



Picture shown may not reflect actual configuration.



DIMENSIONS



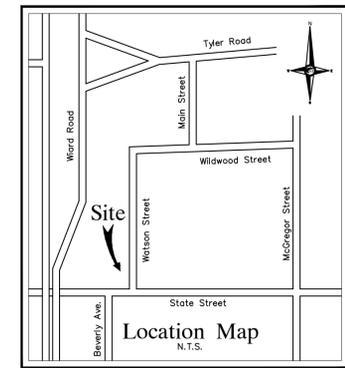
WEIGHT

- Operating weight: 558 lb (252.6 kg)

WARRANTY

- Tower: 2 years/2,000 hours
- LED modules and drivers: 5 year limited

Part No. A0001402648
Rev A 04/08/2021



SITE DATA

SITE AREA: 168,369.03 SQ. FT. OR 3.87 ACRES
 PROPOSED PARCEL (GROSS/NET): 168,369.03 SQ. FT. OR 3.87 ACRES

ZONING: I-C (INDUSTRIAL COMMERCIAL)
 EXISTING PARCEL: I-C (INDUSTRIAL COMMERCIAL)
 ADJUTING PARCELS: I-C (INDUSTRIAL COMMERCIAL)

PARKING REQUIRED:
 CONSUMPTION LOUNGE:
 1 SPACE / 70 SF USEABLE FLOOR AREA
 USABLE FLOOR AREA (PER ARCHITECT PLAN) = 2,838 SF
 TOTAL SPACES REQ. = 41 SPACES
 AMPHITHEATER:
 1 SPACE / 3 SEATS GSF = 648 SEATS/3 = 216 SPACES REQUIRED
 PLUS:
 1 SPACE FOR 216 SPACES REQUIRED
 TOTAL SPACES REQ. = 224 SPACES
 TOTAL BIKE SPACES REQ. = 2 SPACES

PROVIDED:
 NOTE: PER OPERATIONAL REPORT, THE CONSUMPTION LOUNGE AND AMPHITHEATER WILL NOT CONCURRENTLY BE IN OPERATION, AND THEREFORE THE FOLLOWING PROVIDED PARKING CALCULATIONS ARE INTENDING TO MEET THE MAXIMUM USE DURING AMPHITHEATER EVENTS.
 222 TOTAL PARKING SPACE PROVIDED, INCLUDING:
 • 187 TOTAL ON-SITE VEHICLE SPACES, INCLUDING 7 BARRIER-FREE SPACES, 7 BIKE SPACES PROVIDED.
 • OF THE 187 TOTAL PROVIDED SPACES ON-SITE, 61 SPACES (INCLUDING 54 PAVED AND 7 GRASS SPACES) WILL BE EXTERIOR OF THE PROPOSED FENCING, AND THEREFORE ALLOCATED TO HANDS MEETING THE "STAND-ALONE" CONSUMPTION LOUNGE COMPONENT OF PARKING REQUIREMENT.
 • A TOTAL OF 37 OFF-SITE SPACES FROM ADJACENT LOT K-11-13-255-003 (THE PROPOSED FROST CANNABIS RETAIL FACILITY, ADDRESS: 1250 WATSON STREET) WILL BE UTILIZED TO ACCOMMODATE LARGE EVENTS.
 • SEE OPERATIONAL REPORT PROVIDED BY OWNER FOR COMPLETE DETAILS ON PARKING OPERATIONS.

SITE AREA	168,369 SFT.	100.0%
BUILDING FOOTPRINT	5,421 SFT.	3.2%
PARKING & DRIVES (PAVED)	15,548 SFT.	9.2%
OPEN SPACE	X SFT.	87.6%
SETRACK REQUIREMENTS	REQUIRED	PROVIDED
FRONT	20' (E.C.S)	66' (172.7')
SIDE	40' (N.S)	235.1'
REAR	10' (N.S)	103.0'

ENVIRONMENTAL IMPACT ANALYSIS
 THE FOLLOWING ARE KEY CONSIDERATIONS REGARDING ENVIRONMENTAL IMPACTS FOR THE PROPOSED DEVELOPMENT.
 1. ENTIRE PARCEL IS SURROUNDED BY THE SAME ZONING (I-C) ON ALL SIDES.
 2. THERE ARE NO REGULATED FLOODWAYS, FLOODPLAINS, WOODLANDS, WETLANDS, STEEP SLOPES, OR OTHER PROTECTED ENVIRONMENTAL FEATURES KNOWN FOR EXIST ON THE PARENT PARCEL.

DIMENSIONING NOTE
 LINEAR DIMENSIONS ARE FROM FACE OF CURB TO FACE OF CURB, FACE OF WALK OR CENTER OF STRIPING UNLESS OTHERWISE NOTED (TYP). RADIAL DIMENSIONS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED (TYP).

LOADING/UNLOADING NOTE
 LOADING/UNLOADING FOR THE FACILITY WILL OCCUR WITHIN DESIGNATED AREA ON THE WEST OF THE BUILDINGS.

LEGAL DESCRIPTION - PARCEL K-11-13-355-004
 ALL OF LOTS 173 THROUGH 186, ALL OF LOTS 416 THROUGH 433, PART OF LOTS 434 THROUGH 437, ALL OF VACATED 20 FOOT WIDE ALLEY AND PART OF THE EAST 1/2 OF VACATED BEVERLY AVENUE (60 FEET WIDE), ALL LOCATED, WATSONIA PARK SUBDIVISION BEING A PART OF THE NORTHWEST 1/4 OF SECTION 13, TOWN 3 SOUTH, RANGE 7 EAST AS RECORDED IN LIBER 6 OF PLATS 35, WASHINGTON COUNTY RECORDS ALL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 186; THENCE SOUTH 88 DEGREES 34 MINUTES 52 SECONDS WEST ALONG THE NORTH LINE OF STATE STREET (66 FEET WIDE) 320.01 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE CENTERLINE OF SAID VACATED BEVERLY AVENUE, 69.24 FEET; THENCE SOUTH 33 DEGREES 17 MINUTES 48 SECONDS EAST ALONG THE EASTERLY LINE OF A TEMPORARY WORK SPACE EASEMENT RECORDED IN LIBER 5473, PAGE 802, WASHINGTON COUNTY RECORDS, 232.18 FEET; THENCE NORTH 88 DEGREES 34 MINUTES 52 SECONDS EAST ALONG THE NORTH LINE OF SAID LOTS 416 AND 433, 192.50 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE WEST LINE OF WATSON STREET (60 FEET WIDE), 487.01 FEET TO THE POINT OF BEGINNING.
 CONTAINING 168,369.03 SQUARE FEET OR 3.87 ACRES OF LAND.

UTILITY CROSSING SCHEDULE

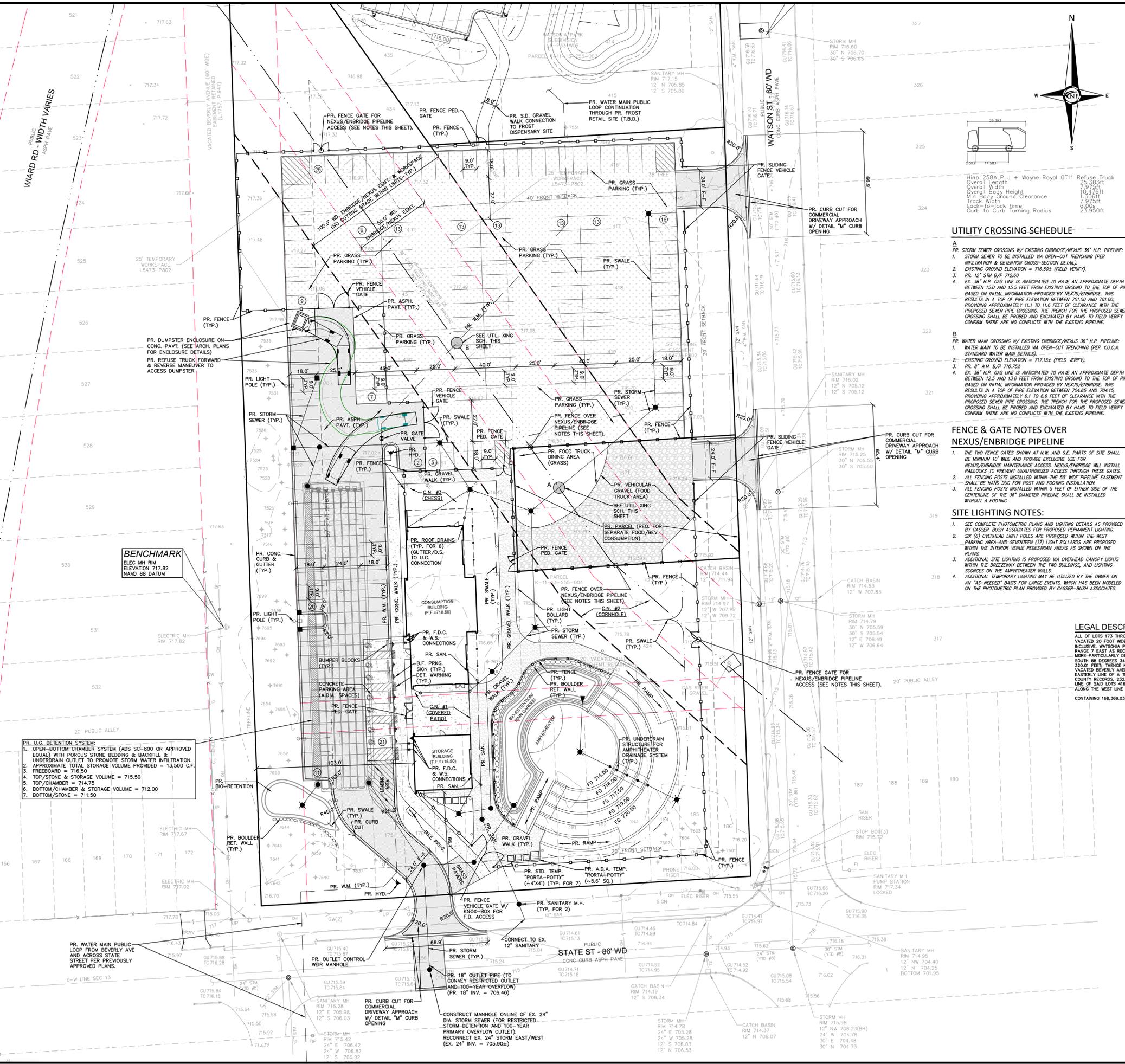
- A**
 PR. STORM SEWER CROSSING W/ EXISTING ENBRIDGE/NEXUS 36" H.P. PIPELINE:
 1. STORM SEWER TO BE INSTALLED VIA OPEN-CUT TRENCHING (PER UTILIZATION & RETENTION CROSS-SECTION DETAIL).
 2. EXISTING GROUND ELEVATION = 716.50A (FIELD VERIFY).
 3. PR. 12" STM 8/P 712.60
 EX. 36" H.P. GAS LINE IS ANTICIPATED TO HAVE AN APPROXIMATE DEPTH BETWEEN 15.0 AND 15.5 FEET FROM EXISTING GROUND TO THE TOP OF PIPE BASED ON INITIAL INFORMATION PROVIDED BY NEXUS/ENBRIDGE. THIS RESULTS IN A TOP OF PIPE ELEVATION BETWEEN 701.50 AND 701.00, PROVIDING APPROXIMATELY 11.1 TO 11.6 FEET OF CLEARANCE WITH THE PROPOSED SEWER PIPE CROSSING. THE TRENCH FOR THE PROPOSED SEWER CROSSING SHALL BE PROBED AND EXCAVATED BY HAND TO FIELD VERIFY & CONFIRM THERE ARE NO CONFLICTS WITH THE EXISTING PIPELINE.
- B**
 PR. WATER MAIN CROSSING W/ EXISTING ENBRIDGE/NEXUS 36" H.P. PIPELINE:
 1. WATER MAIN TO BE INSTALLED VIA OPEN-CUT TRENCHING (PER Y.U.C.A. STANDARD WATER MAIN DETAILS).
 2. EXISTING GROUND ELEVATION = 717.15A (FIELD VERIFY).
 3. PR. 4" W.M. 8/P 715.75
 EX. 36" H.P. GAS LINE IS ANTICIPATED TO HAVE AN APPROXIMATE DEPTH BETWEEN 12.5 AND 13.0 FEET FROM EXISTING GROUND TO THE TOP OF PIPE BASED ON INITIAL INFORMATION PROVIDED BY NEXUS/ENBRIDGE. THIS RESULTS IN A TOP OF PIPE ELEVATION BETWEEN 704.65 AND 704.15, PROVIDING APPROXIMATELY 6.1 TO 6.6 FEET OF CLEARANCE WITH THE PROPOSED WATER MAIN CROSSING. THE TRENCH FOR THE PROPOSED WATER MAIN CROSSING SHALL BE PROBED AND EXCAVATED BY HAND TO FIELD VERIFY & CONFIRM THERE ARE NO CONFLICTS WITH THE EXISTING PIPELINE.

FENCE & GATE NOTES OVER NEXUS/ENBRIDGE PIPELINE

- THE TWO FENCE GATES SHOWN AT N.W. AND S.E. PARTS OF SITE SHALL BE MINIMUM 10' WIDE AND PROVIDE EXCLUSIVE USE FOR NEXUS/ENBRIDGE MAINTENANCE ACCESS. NEXUS/ENBRIDGE WILL INSTALL PADLOCKS TO PREVENT UNAUTHORIZED ACCESS THROUGH THESE GATES.
- ALL FENCING POSTS INSTALLED WITHIN THE 50' WIDE PIPELINE EASEMENT SHALL BE HAND DUG FOR POST AND FOOTING INSTALLATION.
- ALL FENCING POSTS INSTALLED WITHIN 5 FEET OF EITHER SIDE OF THE CENTERLINE OF THE 36" DIAMETER PIPELINE SHALL BE INSTALLED WITHOUT A FOOTING.

SITE LIGHTING NOTES:

- SEE COMPLETE PHOTOMETRIC PLANS AND LIGHTING DETAILS AS PROVIDED BY GASSER-BUSH ASSOCIATES FOR PROPOSED PERMANENT LIGHTING.
- SIX (6) OVERHEAD LIGHT POLES ARE PROPOSED WITHIN THE WEST PARKING AREA AND SEVENTEEN (17) LIGHT BOLLARDS ARE PROPOSED WITHIN THE INTERIOR SEWER RESTROOM AREAS AS SHOWN ON THE PLANS.
- ADDITIONAL SITE LIGHTING IS PROPOSED VIA OVERHEAD CANOPY LIGHTS WITHIN THE BREEZEWAY BETWEEN THE TWO BUILDINGS, AND LIGHTING SCENES ON THE AMPHITHEATER WALLS.
- ADDITIONAL TEMPORARY LIGHTING MAY BE UTILIZED BY THE OWNER ON AN "AS-NEEDED" BASIS FOR LARGE EVENTS, WHICH HAS BEEN MODELLED ON THE PHOTOMETRIC PLAN PROVIDED BY GASSER-BUSH ASSOCIATES.



- PR. U.G. DETENTION SYSTEM**
- OPEN-BOTTOM CHAMBER SYSTEM (ADS SC-800 OR APPROVED EQUAL) WITH POROUS STONE BEDDING & BACKFILL & UNDERDRAIN OUTLET TO PROMOTE STORM WATER INFILTRATION.
 - APPROXIMATE TOTAL STORAGE VOLUME PROVIDED = 13,500 C.F.
 - FREEBOARD = 716.50
 - TOP/STONE & STORAGE VOLUME = 715.50
 - TOP/CHAMBER = 714.75
 - BOTTOM/CHAMBER & STORAGE VOLUME = 712.00
 - BOTTOM/STONE = 711.50

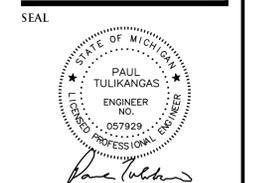
BENCHMARK
 ELEC. MH RIM 717.82
 NAD 83 DATUM

PAVING LEGEND

[Symbol]	PROPOSED CONCRETE WALK & PAVEMENT
[Symbol]	PROPOSED ASPHALT PAVEMENT
[Symbol]	PROPOSED GRAVEL (PER PEDESTRIAN CROSS-SECTION)
[Symbol]	PROPOSED GRAVEL (PER VEHICULAR CROSS-SECTION)
[Symbol]	PROPOSED GRASS PAVERS
[Symbol]	PROPOSED GRASS PARKING AREA

LEGEND

[Symbol]	MANHOLE	[Symbol]	EXISTING SANITARY SEWER
[Symbol]	HYDRANT	[Symbol]	SAN. CLEAN OUT
[Symbol]	MANHOLE CATCH BASIN	[Symbol]	EXISTING WATER MAIN
[Symbol]	UTILITY POLE	[Symbol]	EXISTING STORM SEWER
[Symbol]	QUY POLE	[Symbol]	EX. R. Y. CATCH BASIN
[Symbol]	GUY WIRE	[Symbol]	EXISTING BURIED CABLES
[Symbol]	OVERHEAD LINES	[Symbol]	OVERHEAD LINES
[Symbol]	LIGHT POLE	[Symbol]	SIGN
[Symbol]	SIGN	[Symbol]	EXISTING GAS MAIN
[Symbol]	C.O.	[Symbol]	PR. SANITARY SEWER
[Symbol]	HYDRANT	[Symbol]	PR. WATER MAIN
[Symbol]	G.B.	[Symbol]	PR. STORM SEWER
[Symbol]	MANHOLE	[Symbol]	PR. R. Y. CATCH BASIN
[Symbol]	INLET	[Symbol]	PROPOSED LIGHT POLE



PROJECT
 Frost Music Venue
 2525 State Street
 Ypsilanti, MI 48198

CLIENT
 Michael Ludtke
 Tel. (952) 807-61058
 Email: Ludtke4648@gmail.com

PROJECT LOCATION
 Part of the Northwest 1/4 of Section 13, T.3S, R.7E., Ypsilanti Township, Washtenaw County, Michigan

SHEET
 Stringer Dimension Plan



DATE	ISSUED/REVISED
09-05-23	CONCEPT PLAN
10-17-23	REVISED PER ENBRIDGE/NEXUS
12-15-23	OWNER REVIEW
01-02-24	PRELIMINARY SITE PLAN
05-06-24	REVISED PSP
06-12-24	REVISED PSP
07-22-24	REVISED PSP

DRAWN BY:
 J. Lawrey

DESIGNED BY:
 P. Tulikangas

APPROVED BY:
 P. Tulikangas

DATE:
 August 22, 2023

SCALE: 1" = 30'
 30 15 0 15 30 45

NFE JOB NO. M994 **SHEET NO. C03**

FROST CONSUMPTION LOUNGE

1250 WATSON ST
YPSILANTI, MI 48198

ARCHITECT

STUCKY VITALE ARCHITECTS
27172 WOODWARD AVENUE
ROYAL OAK, MICHIGAN 48067
(248) 546-6700

CIVIL / LANDSCAPE ENGINEER

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVENUE
PONTIAC, MICHIGAN 48342
248.332.7931

MEP ENGINEER

DIN ENGINEERING
33228 W. 12 MILE RD., UNIT 227
FARMINGTON HILLS, MI 48334
(248) 759-5818

PROJECT INFORMATION

PROJECT DESCRIPTION

NEW BUILD CONSUMPTION LOUNGE AND STORAGE BUILDING TO SUPPORT AMPHITHEATER

APPLICABLE CODES

2015 MICHIGAN BUILDING CODE (MBC)
2015 MICHIGAN MECHANICAL CODE (MMC)
2018 MICHIGAN PLUMBING CODE (MPC)
2015 MICHIGAN ENERGY CODE (MEC)
2013 ANSII/ASHRAE/IES 90.1
2011 NATIONAL ELECTRICAL CODE (NEC)
2009 ICC A117.1
2015 NFPA 101 LIFE SAFETY CODE

BARRIER FREE REQUIREMENTS:

2010 ADA STANDARDS FOR ACCESSIBLE DESIGN (DOJ)
MBC 2009, CHAPTER 11
ICC / ANSII 117.1 - 2006, EXCEPT SECTION 611 & 707

CHAPTER 3 - USE AND OCCUPANCY CLASSIFICATION

ASSEMBLY - A-2
STORAGE - S-2
NO SEPARATION REQUIRED - FULLY SUPPRESSED

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS

ALLOWABLE AREA: MOST RESTRICTIVE A-2 - 24,000 SF
ACTUAL AREA: 5,390 SF
ALLOWABLE STORIES (HEIGHT): A-2 (60FT)
ACTUAL STORIES (HEIGHT): 1 (38FT)

CHAPTER 6 - TYPES OF CONSTRUCTION

TYPE: VB - ORDINARY CONSTRUCTION
-STRUCTURAL FRAME: 0 HOUR
-BEARING WALLS: 0 HOUR
-EXTERIOR NON-BEARING WALLS: 0 HOUR
-INTERIOR NON-BEARING WALLS: 0 HOURS
-OPENING PROTECTIVES AT EXTERIOR WALL: 0 HOURS
-FLOOR CONSTRUCTION AND SECONDARY FRAMING: 0 HOUR
-ROOF CONSTRUCTION AND SECONDARY FRAMING: 0 HOUR

CHAPTER 9 - FIRE PROTECTION SYSTEMS

AUTOMATIC SPRINKLER SYSTEMS: FULLY SUPPRESSED
FIRE ALARM AND DETECTION SYSTEMS: NOT REQUIRED

CHAPTER 10 - MEANS OF EGRESS

TABLE 1004.1.2:
TOTAL OCCUPANTS: ASSEMBLY A-2 235 OCCUPANTS
STORAGE S-2 5 OCCUPANTS
TOTAL: 240 OCCUPANTS

SHEET DESIGNATION

DRAWINGS ARE NUMBERED ACCORDING TO THE FOLLOWING CONVENTIONS:

A001

DRAWING SEQUENCE NUMBER

DISCIPLINE DESIGNATOR

DISCIPLINE DESIGNATOR	DRAWING TYPE DESIGNATOR
G GENERAL	0 GENERAL, LEGENDS
LS LIFE SAFETY	1 PLANS
C CIVIL	2 REFLECTED CEILING PLANS
L LANDSCAPE	3 EXTERIOR ELEVATIONS
S STRUCTURAL	4 SECTIONS
AD ARCHITECTURAL	5 VERTICAL CIRCULATION (PLANS & SECTIONS)
DEMOLITION	6 ENLARGED PLANS AND INTERIOR ELEVATIONS
A ARCHITECTURAL	7 INTERIOR AND MILLWORK DETAILS
F FINISH INFORMATION	8 FREE SECTION
AE EQUIPMENT INFORMATION	9 DOOR AND WINDOW SCHEDULES AND DETAILS
FP FIRE PROTECTION	
P PLUMBING	
M MECHANICAL	
E ELECTRICAL	
FA FIRE ALARM	

SHEET INDEX - GENERAL			
DWG #	DRAWING NAME	ISSUED FOR	DATE
G001	COVER SHEET, GENERAL INFORMATION, DRAWING INDEX	PSP REVISIONS	07-22-24
DRAWINGS: 1			

SHEET INDEX - ARCHITECTURAL			
DWG #	DRAWING NAME	ISSUED FOR	DATE
A001	ARCHITECTURAL SITE DETAILS	PSP REVISIONS	07-22-24
A110	FIRST LEVEL CONSTRUCTION PLAN	PSP REVISIONS	07-22-24
A301	EXTERIOR ELEVATIONS	PSP REVISIONS	07-22-24
A311	EXTERIOR RENDERINGS	PSP REVISIONS	07-22-24
A312	EXTERIOR RENDERINGS	PSP REVISIONS	07-22-24
DRAWINGS: 5			

NOTE:

THESE CONSTRUCTION DRAWINGS WERE PREPARED FOR COMPLIANCE WITH THE MICHIGAN CONSTRUCTION CODES IN EFFECT AT THE TIME OF PERMIT SUBMITTAL. ALL ENGINEERS, CONTRACTORS AND SUPPLIERS INVOLVED WITH THIS PROJECT SHALL COMPLY WITH THE SAME CODES, ISSUED AND APPROVED CODE MODIFICATIONS AND/OR CITY CODE AUTHORITY CONSTRUCTION BOARDS OF APPEALS RULINGS AND WHENEVER REQUIRED SHALL PROVIDE SHOP DRAWINGS AND SUBMITTALS CLEARLY DESCRIBING COMPLIANCE TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW AND APPROVAL.

MATERIAL LEGEND

HATCH PATTERNS

	EARTH
	SAND
	GRAVEL FILL
	CONCRETE
	MASONRY
	GROUT
	MORTAR
	STEEL
	STAINLESS STEEL
	RIGID INSULATION
	GYPSUM BOARD
	CEMENT BOARD

TYPICAL DETAIL SYMBOLS

	STEEL MEMBER
	SPRAY ON FIREPROOFING
	HARDWOOD
	PLYWOOD
	CONTINUOUS BLOCKING
	SHIM
	BATT INSULATION
	SEALANT WITH BACKER ROD

PARTITION PLAN DESIGNATIONS

	SMOKE SEPARATION
	1 HOUR FIRE SEPARATION
	2 HOUR FIRE SEPARATION
	3 HOUR FIRE SEPARATION
	METAL STUD PARTITION
	WOOD STUD PARTITION
	CMU PARTITION
	CONCRETE WALL

SYMBOL LEGEND

	ENLARGED CALLOUT TAG
	INTERIOR ELEVATION TAG
	EXTERIOR ELEVATION TAG
	DETAIL NUMBER
	VIEW TITLE
	VIEW SCALE
	SHEET NUMBER
	ROOM NAME
	ROOM TAG
	LEVEL REFERENCE
	DATUM WORKPOINT
	COLUMN GRIDS
	LETTERS DESIGNATE VERTICAL COLUMN LINES
	LETTERS DESIGNATE HORIZONTAL COLUMN LINES
	SQUARE DESIGNATE EXISTING COLUMN GRID
	DOOR TAGS
	NEW DOOR TAG DESIGNATION
	EXISTING DOOR TAG DESIGNATION (ONLY IF EXISTING DOOR TO BE MODIFIED)
	PARTITION TAG
	KEYNOTE TAG
	EQUIPMENT TAG

ABBREVIATION LEGEND

&	AND
@	AT
⊕	CENTERLINE
ACCESS.	ACCESSIBILITY
ACOUS.	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
A.D.	AREA DRAIN
ADJ	ADJUSTABLE
AL	ALUMINUM
ASPH.	ASPHALT
BD.	BOARD
BLDG.	BUILDING
BLK.	BLOCKING
BR	BRICK
CAB.	CABINET
CEM.	CEMENT
CER.	CERAMIC
C.J.	CONTROL JOINT
CLG.	CEILING
CLKG.	CAULKING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONT.	CONTINUOUS
CORR.	CORRIDOR
CPT	CARPET
D.F.	DRINKING FOUNTAIN
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DN.	DOWN
D.O.	DOOR OPENING
DR.	DOOR
DWR.	DRAWER
D.S.	DOWN SPOUT
DSP.	DRY STAND PIPE
DWG.	DRAWING
EA	EACH
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
E.O.S./E.O.S.	EDGE OF SLAB
E.O.D./E.O.D.	EDGE OF DECK
EP	ELECTRICAL PANEL
EPX	EPOXY
EQ.	EQUAL
EQPM	EQUIPMENT
EXIST./EX	EXISTING
EXT.	EXTERIOR
FA	FIRE ALARM
FD	FLOOR DRAIN
FON	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHC	FIRE HOSE CABINET
FIN	FINISH
FL	FLOOR
FFRF	FIREPROOF
FRP	FIBERGLASS REINFORCED PANEL
F.S.	FULL SIZE
FT.	FOOT OR FEET
FTG.	FOOTING
FUR	FURRING
GA	GALVE
GALV.	GALVANIZED
GFRC.	GLASS FIBER REINFORCED CONCRETE
GL.	GLASS
GYP.	GYPSUM
H.B.	HOSE BIBB
H.C.	HOLLOW CORE
HDWE	HARDWARE
HM	HOLLOW METAL
HORIZ.	HORIZONTAL
INSUL	INSULATION
JC	JANITOR'S CLOSET
LT	LIGHT
LVT	LUXURY VINYL TILE
MAX	MAXIMUM
MECH	MECHANICAL
MTL	METAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
O/C	ON CENTER
OPC	OFFICE
OPP	OPPOSITE
PL	PLATE
PLAM	PLASTIC LAMINATE
PNT	PAINT
PLYWD	PLYWOOD
RD	ROOF DRAIN
RCP	REFLECTED CEILING PLAN
RQD	REQUIRED
SC	SOLID CORE
SCHED	SCHEDULE
SIM	SIMILAR
SPEC	SPECIFICATIONS
SQ	SQUARE
S.S.	STAINLESS STEEL
SS	SOLID SURFACE
ST	STONE
STD	STANDARD
STL	STEEL
STOR	STORAGE
SUSP	SUSPENDED
SYM	SYMMETRICAL
TRD	TREAD
T.O.C.	TOP OF CURB
T&G	TONGUE AND GROOVE
THK	THICK
T.O.P.	TOP OF PARAPET
TA	TOILET ACCESSORY
TV	TELEVISION
T.O.W.	TOP OF WALL
TOS/ T.O.S.	TOP OF STEEL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
VERT.	VERTICAL
VEST	VESTIBULE
VF	VINYL FLOORING
W/	WITH
WB	WALL BASE
W.C.	WATER CLOSET
WC	WALLCOVERING
WD	WOOD
W/O	WITHOUT
WSCOT.	WAINSCOT
WT.	WEIGHT



STUCKY VITALE ARCHITECTS
27172 WOODWARD AVENUE
ROYAL OAK, MI 48067-0925
P. 248.546.6700

F. 248.546.8454
WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY:
THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW. ALL RIGHTS RESERVED.

Consultants

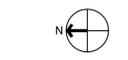
Seal:

Project:

FROST CONSUMPTION LOUNGE

1250 WATSON ST
YPSILANTI, MI 48198

Key Plan:



Issued for

PRELIMINARY SITE 12-22-23
PLAN
PSP REVISIONS 05-01-24
PSP REVISIONS 07-22-24

Drawn by:
SVA

Checked by:
JAV, MJB, AJD

Sheet Title:
COVER SHEET, GENERAL INFORMATION, DRAWING INDEX

Project No.:

2023.150

Sheet No.:

G001



STUCKY VITALE ARCHITECTS
 27172 WOODWARD AVENUE
 ROYAL OAK, MI 48067-0925
 P. 248.546.6700
 F. 248.546.8454
 WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY:
 THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW. ALL RIGHTS RESERVED.

Consultants

Seal:

Project :
 FROST CONSUMPTION LOUNGE

1250 WATSON ST
 YPSILANTI, MI 48198

Key Plan:



Issued for

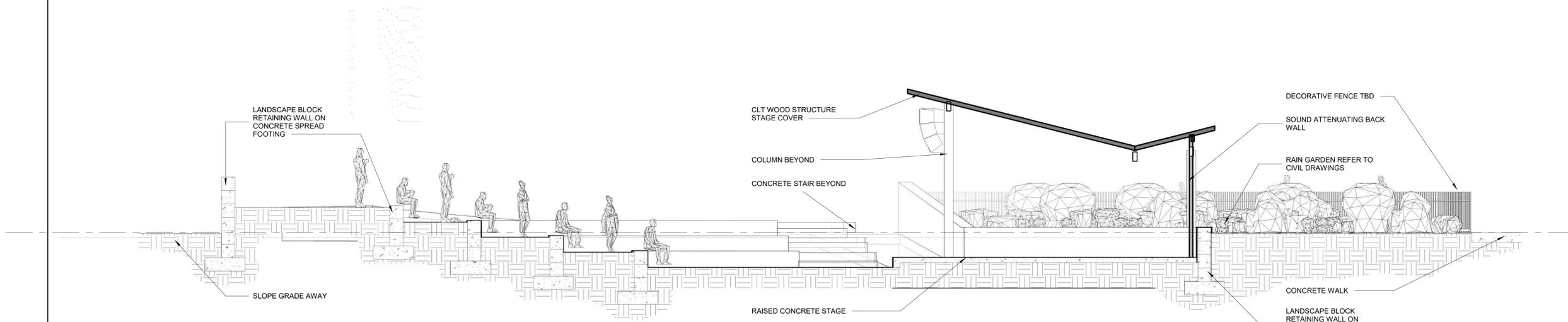
Drawn by :
 Author
 Checked by :
 Checker
 Sheet Title :
 ARCHITECTURAL SITE DETAILS

Project No. :
 2023.150

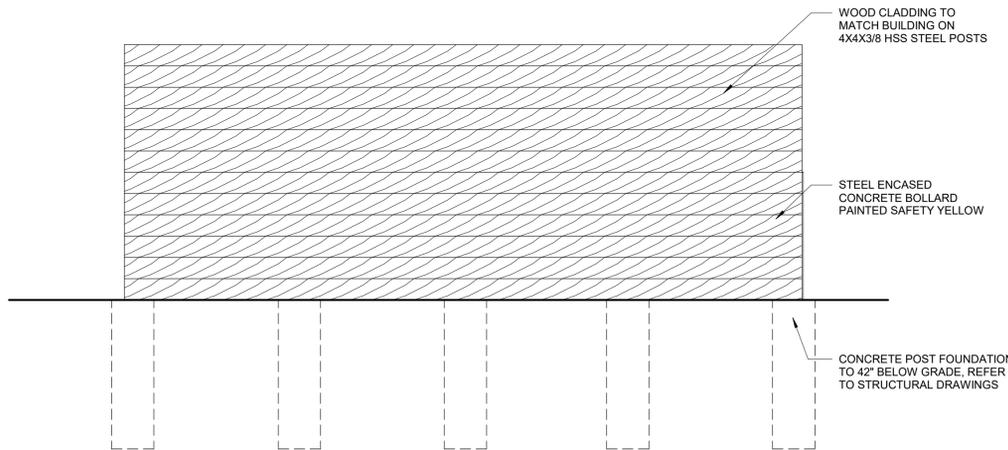
Sheet No. :

A001

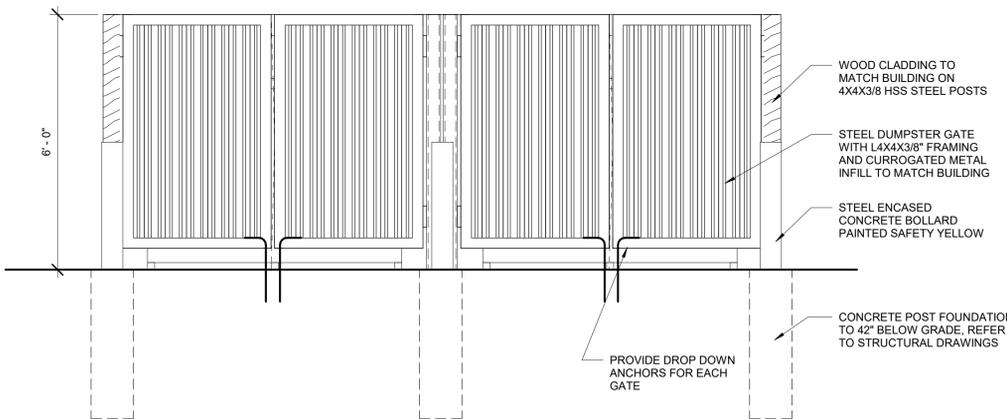
DO NOT SCALE DRAWINGS © 2022 Stucky Vitale Architects



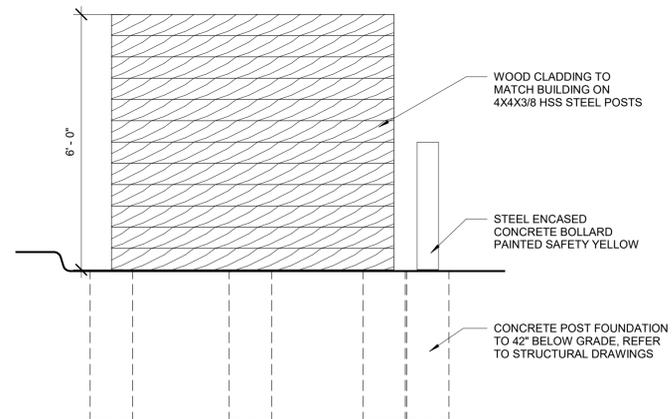
1 Amphitheater Section
 A001 3/16" = 1'-0"



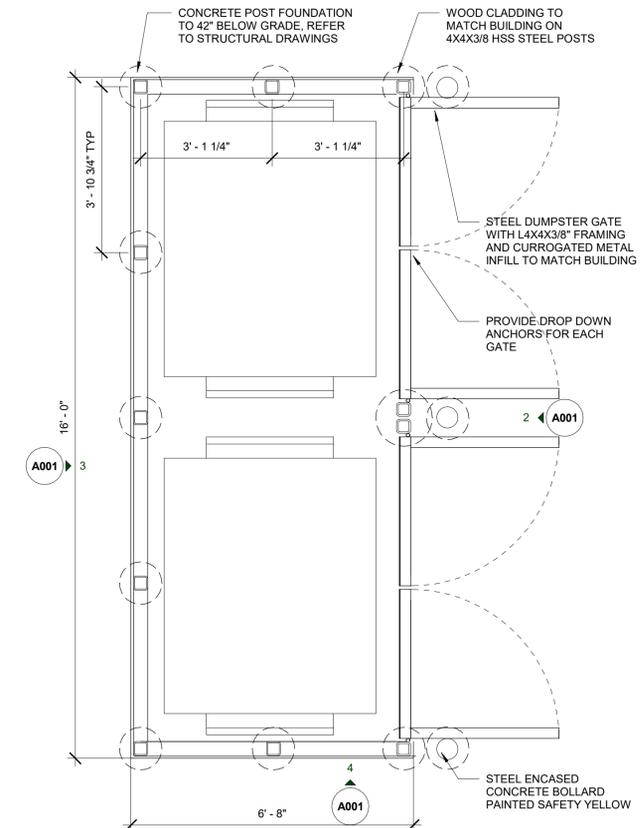
3 Dumpster Rear Elevation
 A001 1/2" = 1'-0"



2 Dumpster Front Elevation
 A001 1/2" = 1'-0"



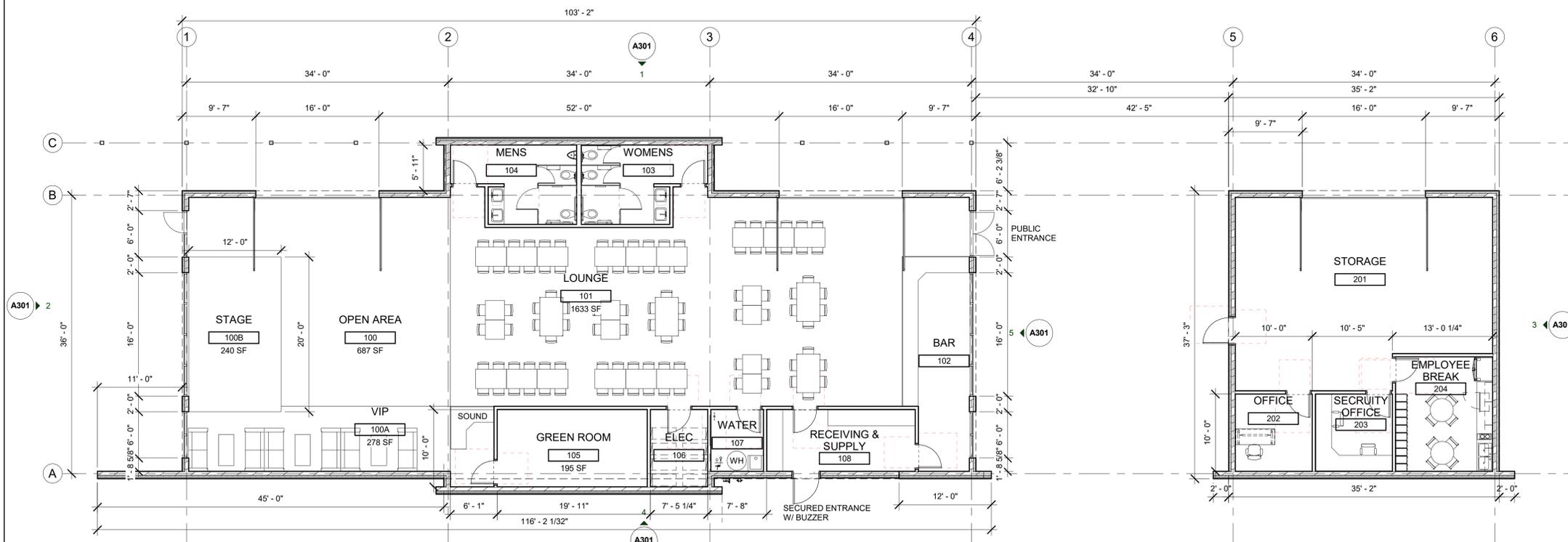
4 Dumpster Side Elevation
 A001 1/2" = 1'-0"



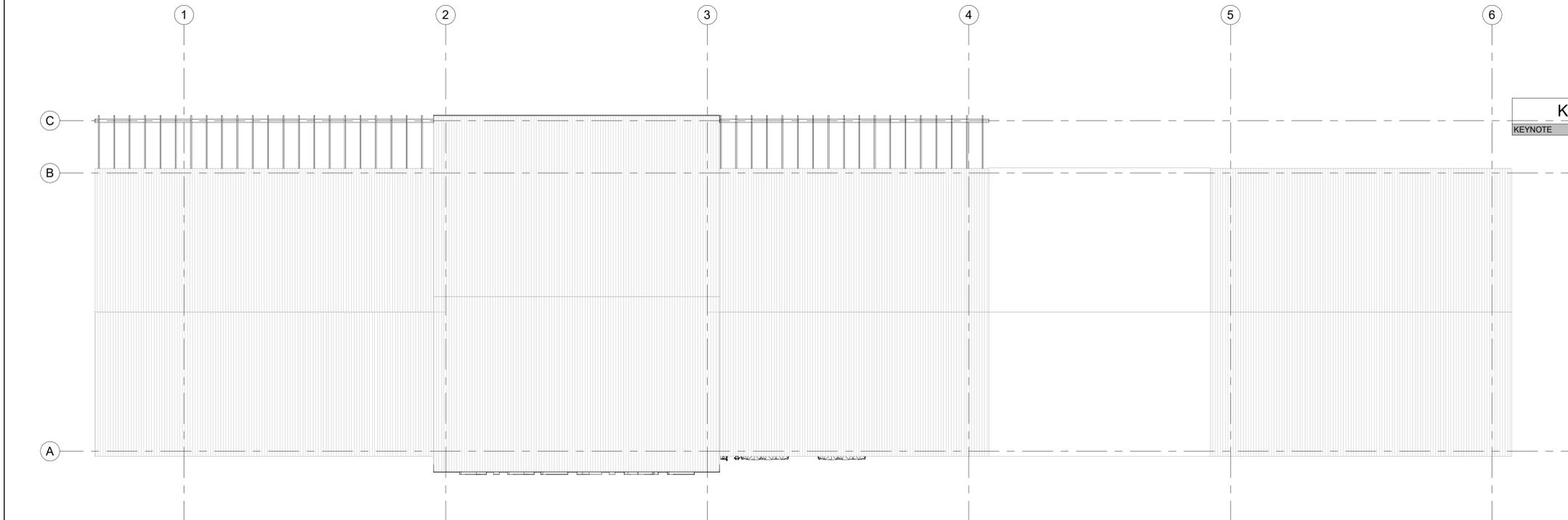
5 Site - Callout 1
 A001 1/2" = 1'-0"

GENERAL FLOOR PLAN NOTES

1. THIS DRAWING IS DIAGRAMMATIC AND SHOULD BE USED TO DETERMINE THE DESIGN INTENT. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE SET OF WORK AS INDICATED AND SHALL FIELD VERIFY ALL WORK. COORDINATE ALL DRAWINGS / NEW WORK AND SHALL NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES IN THE DOCUMENTS BEFORE PROCEEDING. FAILURE TO DO SO WILL RESULT IN THE CONTRACTOR TAKING FULL RESPONSIBILITY AND LIABILITY FOR SAID DISCREPANCIES.
2. ALL DIMENSIONS ARE SHOWN FROM FINISH FACE TO FINISH FACE OF PARTITION UNLESS OTHERWISE NOTED.
3. WALL THICKNESS' ARE NOMINAL NOT ACTUAL DIMENSIONS. SEE WALL SCHEDULE FOR ACTUAL DIMENSIONS.
4. ALL WOOD, INCLUDING BLOCKING, USED ON THE PROJECT SHALL BE FIRE RETARDANT TREATED.
5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL LOCAL, STATE, COUNTY CODE REGULATIONS, O.S.H.A. AND THE AMERICAN WITH DISABILITIES ACT (ADA). REFER TO THE CODE PLAN FOR MORE INFORMATION.
6. PROVIDE POSITIVE SLOPE TO ALL FLOOR DRAINS WHILE KEEPING FLOOR LEVEL AT WALL BASE CONDITION.
7. PROVIDE TRANSITION STRIPS AT EACH CHANGE IN FLOOR FINISH MATERIALS.
8. PAINT, PATCH AND REPAIR THE FOLLOWING TO MATCH EXISTING MATERIALS: FLOOR, WALL, AND CEILING SURFACES AS REQUIRED ADJACENT TO AREAS BEING DEMOLISHED. REFER TO DEMOLITION DRAWINGS FOR MORE INFORMATION.
9. REINFORCE WALL AND PROVIDE BLOCKING AS REQUIRED TO SUPPORT WALL CABINETS AND COUNTERTOPS.
10. THE CONTRACTOR SHALL PROVIDE AND INSTALL WALL REINFORCING FOR INSTALLATION OF ACCESSORIES, COAT RACKS, CHART RACKS, CASEWORK, AND OTHER WALL MOUNTED ITEMS.
11. CLEAN AND REPAIR ALL EXISTING FLOOR FINISHES AS NECESSARY.
12. ALL EXPOSED PIPES, DUCTS, AND CONDUIT TO BE PAINTED TO MATCH EXISTING.
13. PROVIDE CONTROL JOINTS IN GYPSUM BOARD PARTITIONS AT 30'-0" O.C. MAXIMUM AND AS INDICATED IN THE CONTRACT DOCUMENTS.
14. COORDINATE WITH OWNER'S EQUIPMENT SUPPLIER FOR INSTALLATION REQUIREMENTS / LOCATIONS OF FLOOR / WALL / CEILING MOUNTED ITEMS; I.E. CAMERAS, TV'S, SPEAKERS, SENSORS, SECURITY WIRING, VAULTS, ATM'S.
15. CONTRACTOR SHALL CONDUCT A ROUGH ELECTRICAL INSPECTION WITH OWNER, PRIOR TO ENCLOSING WALLS, FOR THE PURPOSE OF CONFIRMING ALL J-BOX LOCATIONS FOR POWER, DATA, VOICE, SWITCH, THERMOSTAT, ETC.
16. CONTRACTOR TO FILL ANY AND ALL EQUIPMENT PENETRATIONS OR DEPRESSIONS INTO OR THROUGH THE EXISTING SLAB THAT WILL NOT BE UTILIZED TO FEED NEW EQUIPMENT (I.E. ABANDONED FLOOR CORES, IMPRESSION FROM PREVIOUS EQUIPMENT FLOOR PLATE REMOVAL). PENETRATIONS SHALL BE FILLED WITH NON-SHRINK GROUT. THE SIDES OF ANY EXISTING OPENINGS SHALL BE MODIFIED/TAPERED SO THAT THEY ARE WIDER AT THE TOP THAN AT THE BOTTOM. FOR LARGE OPENINGS, PROVIDE ONE (1) #5 BAR 2" UP FROM BOTTOM OF HOLE.
17. A TACTILE SIGN STATING 'EXIT' AND COMPLYING WITH ICC-A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN 'AREA OF REFUGE', AN EXTERIOR AREA FOR ASSISTED RESCUE, AN EXIT STAIRWAY, AN EXIT RAMP, AN EXIT PASSAGEWAY, AND THE EXIT DISCHARGE.
18. PROVIDE PERMANENT MIN 3-INCH HIGH CONTRASTING COLOR MARKING AND IDENTIFICATION AT ALL FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS, SMOKE PARTITIONS OR ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS WITHIN 15 FEET AT THE END OF EACH WALL, AND NOT EXCEEDING 30 FEET MAXIMUM HORIZONTAL INTERVALS, MINIMUM 2 LOCATIONS EACH WALL. TYPICAL FOR ACCESSIBLE CONCEALED FLOOR, FLOOR-CEILING, OR ATTIC SPACES PER CODE (MBC 703.7)



1 Level 1
A110 1/8" = 1'-0"



2 Roof
A110 1/8" = 1'-0"

KEYNOTE - NEW CONSTRUCTION LEGEND

KEYNOTE	KEYNOTE DESCRIPTION
[Symbol]	[Description]



STUCKY VITALE ARCHITECTS
27172 WOODWARD AVENUE
ROYAL OAK, MI 48067-0925
P. 248.546.6700
F. 248.546.8454
WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY:
THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW. ALL RIGHTS RESERVED.

Consultants

Seal:

Project :
FROST CONSUMPTION LOUNGE

1250 WATSON ST
YPSILANTI, MI 48198

Key Plan:



Issued for
PRELIMINARY SITE 12-22-23
PLAN
PSP REVISIONS 05-01-24
PSP REVISIONS 07-22-24

Drawn by :
Author
Checked by :
Checker
Sheet Title :
FIRST LEVEL CONSTRUCTION PLAN

Project No. :
2023.150

Sheet No. :
A110

DO NOT SCALE DRAWINGS © 2022 Stucky Vitale Architects



STUCKY VITALE ARCHITECTS
 27172 WOODWARD AVENUE
 ROYAL OAK, MI 48067-0925
 P. 248.546.6700
 F. 248.546.8454
 WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY:
 THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW. ALL RIGHTS RESERVED.

Consultants

Seal:

Project :
 FROST CONSUMPTION LOUNGE

1250 WATSON ST
 YPSILANTI, MI 48198

Key Plan:



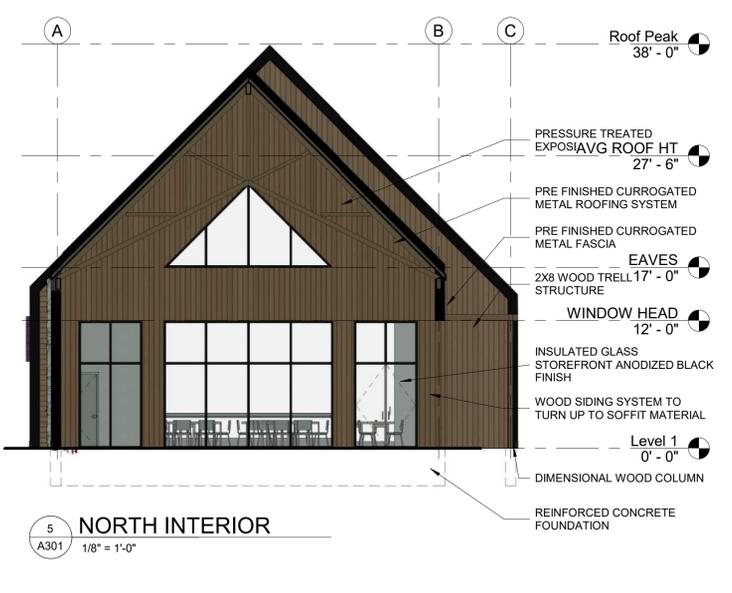
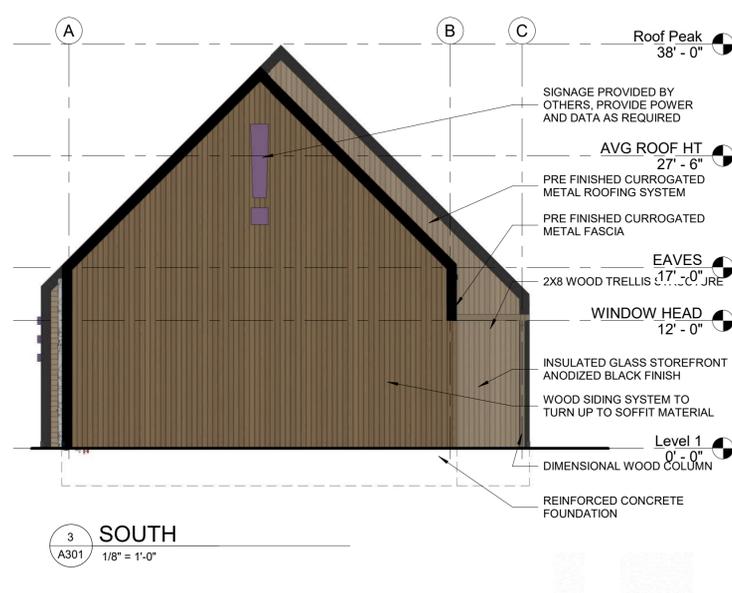
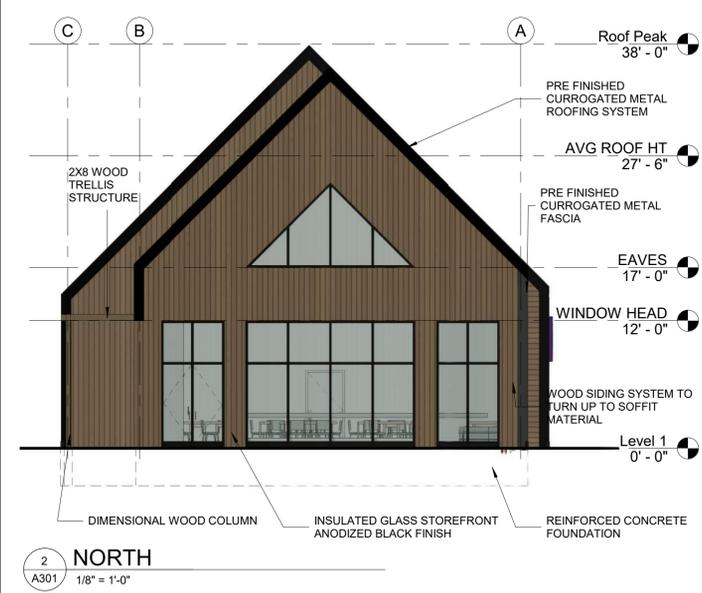
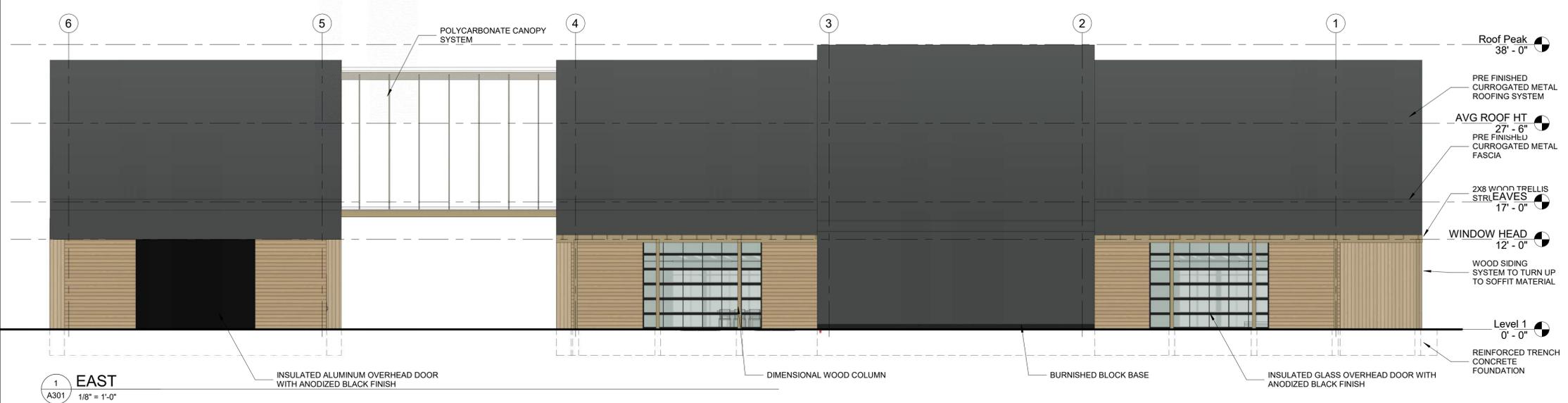
Issued for
 PRELIMINARY SITE 12-22-23
 PLAN
 PSP REVISIONS 05-01-24
 PSP REVISIONS 07-22-24

Drawn by :
 Author
 Checked by :
 Checker
 Sheet Title :
 EXTERIOR ELEVATIONS

Project No. :
 2023.150

Sheet No. :
A301

DO NOT SCALE DRAWINGS © 2022 Stucky Vitale Architects



EXTERIOR FINISH SCHEDULE	
WIND.	SF-1 STOREFRONT MFG: KAWNEER OR SIMILAR COLOR: BLACK ANODIZED ALUMINUM SIZE: 2" X 4 1/2"
	DR-1 ALUMINUM ENTRANCE DOOR SYSTEM MFG: KAWNEER OR APPROVED EQUAL STYLE: 2" X 4 1/2" COLOR: TO MATCH WINDOW FRAME WITH CLEAR GLASS
DOORS	DR-2 HOLLOW METAL DOOR MFG: STYLE: 2" X 4 1/2" COLOR: PAINT TO MATCH ADJACENT
	OH-1 INSULATED GLASS OVERHEAD DOOR MFG: CLOPLAY OR APPROVED EQUAL COLOR: TO MATCH WINDOW FRAME WITH CLEAR GLASS
GLASS	GL-1 ALL GLASS TO BE: 1", LOW-E, INSULATED GLASS MFR: VIRACON OR APPROVED EQUAL COLOR/STYLE: CLEAR
	TR-1 TRIM & COPING: PREFINISHED ALUMINUM COLOR: BLACK
MISC.	WD-1 WOOD PANEL SIDING MFG: TBD OR APPROVED EQUAL COLOR: NATURAL CEDAR SIZE: 1X8
	MTL-1 CORRUGATED METAL PANEL SYSTEM MFG: ALUCOBOND OR APPROVED EQUAL COLOR: BLACK
	MTL-2 METAL PARAPET MFG: ALUCOBOND OR APPROVED EQUAL COLOR: BLACK



STUCKY VITALE ARCHITECTS
 27172 WOODWARD AVENUE
 ROYAL OAK, MI 48067-0925
 P. 248.546.6700
 F. 248.546.8454
 WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY:
 THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW. ALL RIGHTS RESERVED.

Consultants

Seal: _____

Project :
FROST CONSUMPTION LOUNGE

1250 WATSON ST
 YPSILANTI, MI 48198

Key Plan: _____



Issued for
 PRELIMINARY SITE PLAN 12-22-23
 PSP REVISIONS 05-01-24
 PSP REVISIONS 07-22-24

Drawn by :
 Author
 Checked by :
 Checker
 Sheet Title :
 EXTERIOR RENDERINGS

Project No. :
 2023.150

Sheet No. :
A311

DO NOT SCALE DRAWINGS © 2022 Stucky Vitale Architects



STUCKY VITALE ARCHITECTS
 27172 WOODWARD AVENUE
 ROYAL OAK, MI 48067-0925
 P. 248.546.6700
 F. 248.546.8454
 WWW.STUCKYVITALE.COM

STATEMENT OF INTELLECTUAL PROPERTY:
 THE IDEAS, CONCEPTS, DRAWINGS AND THOUGHTS CONVEYED HEREIN ARE THE INTELLECTUAL PROPERTY OF STUCKY VITALE ARCHITECTS. THIS SET OF DRAWINGS, IN WHOLE OR IN PART, MAY NOT BE REPRODUCED, WITHOUT THE WRITTEN CONSENT OF STUCKY VITALE ARCHITECTS. THIS INFORMATION IS PROTECTED UNDER U.S. COPYRIGHT LAW. ALL RIGHTS RESERVED.

Consultants

Seal: _____

Project :
FROST CONSUMPTION LOUNGE

1250 WATSON ST
 YPSILANTI, MI 48198

Key Plan: _____



Issued for
 PRELIMINARY SITE PLAN 12-22-23
 PSP REVISIONS 05-01-24
 PSP REVISIONS 07-22-24

Drawn by :
 Author
 Checked by :
 Checker
 Sheet Title :
 EXTERIOR RENDERINGS

Project No. :
 2023.150
 Sheet No. :
A312

DO NOT SCALE DRAWINGS
 © 2022 Stucky Vitale Architects

Owner / Developer

FROST CANNABIS
CONTACT: Michael Ludtke
Tel. (952) 807-6105
Email: Ludtke4648@gmail.com

General Contractor

BLOOM GENERAL CONTRACTING
25601 W. Eight Mile Road
Redford, MI 48240
Tel. (313) 532-8860

CONTACT: Josh Jankowiak, Project Manager

Architect

STUCKY VITALE ARCHITECTS
27172 Woodward Avenue
Royal Oak, MI 48067-0925
Tel. (248) 546-6700
Fax. (248) 546-8454

CONTACT: Steve Bloink, AIA, LEED AP

Civil Engineer

NOWAK & FRAUS ENGINEERS
46777 Woodward Ave.
Pontiac, MI 48342-5032
Tel. (248) 332-7931
Fax. (248) 332-8257

CONTACT: Paul Tulikangas, P.E.
Brett Buchholz, P.E.

Landscape Architect

NOWAK & FRAUS ENGINEERS
46777 Woodward Ave.
Pontiac, MI 48342-5032
Tel. (248) 332-7931
Fax. (248) 332-8257

CONTACT: George Ostrowski, RLA

Township of Ypsilanti, Washtenaw County, Michigan SITE PLAN DOCUMENTS

Prepared For Michael Ludtke

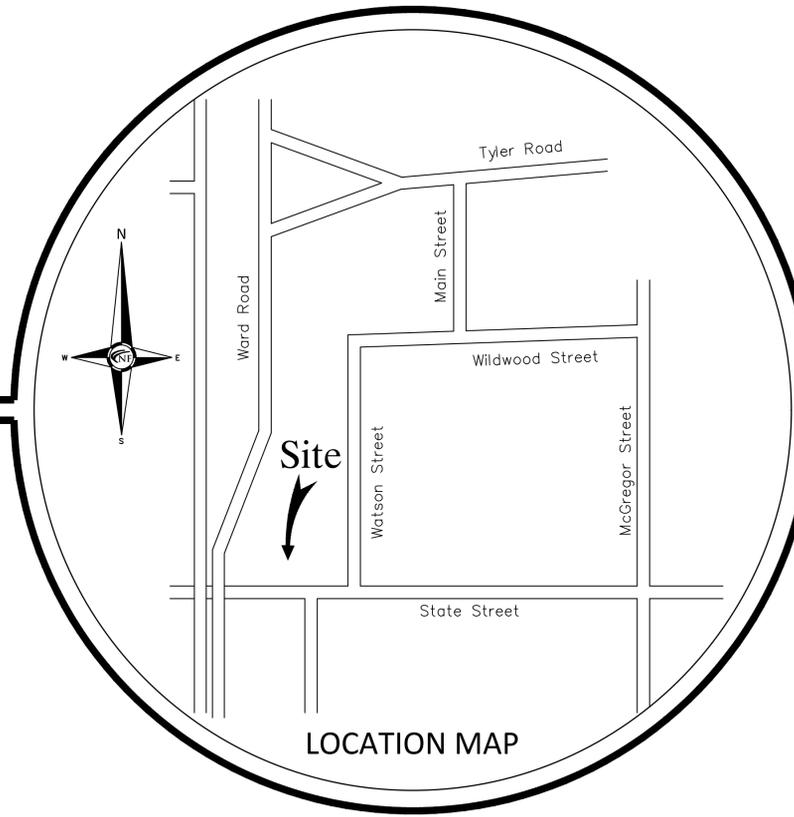
PART OF THE NW 1/4 OF SECTION 13, T.3S., R.7E.,
TOWNSHIP OF YPSILANTI,
WASHTENAW COUNTY, MICHIGAN

**CIVIL AND LANDSCAPE SHEET INDEX
(YPSILANTI TWP. PRELIMINARY SITE PLAN SUBMITTAL)**

- C00 Cover Sheet
- C01 Boundary-Topographic-Tree Survey
- C02 Demolition Plan
- C03 Stringer Dimension Plan
- C04 Fire Protection Site Plan
- C05 Paving-Grading Plan
- C06 Stormwater Conveyance & Management Plan
- C07 Stormwater Calculations & Details
- C08 Water Main & Sanitary Sewer Plan
- C09 Soil Erosion & Drainage Areas Plan
- C10 General Notes & Details

- L1 Tree Preservation Plan
- L2 Landscape Plan
- L3 Landscape Notes & Details

Photometric Plan (Gasser-Bush Associates)



LEGAL DESCRIPTION - PARCEL K-11-13-355-004

ALL OF LOTS 173 THROUGH 186, ALL OF LOTS 416 THROUGH 433, PART OF LOTS 434 THROUGH 437, ALL OF VACATED 20 FOOT WIDE ALLEY AND PART OF THE EAST 1/2 OF VACATED BEVERLY AVENUE (60 FEET WIDE), ALL INCLUSIVE, WATSONIA PARK SUBDIVISION BEING A PART OF THE NORTHWEST 1/4 OF SECTION 13, TOWN 3 SOUTH, RANGE 7 EAST AS RECORDED IN LIBER 6 OF PLATS, ON PAGE 33, WASHTENAW COUNTY RECORDS ALL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 186; THENCE SOUTH 88 DEGREES 34 MINUTES 22 SECONDS WEST ALONG THE NORTH LINE OF STATE STREET (86 FEET WIDE), 320.01 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE CENTERLINE OF SAID VACATED BEVERLY AVENUE, 684.24 FEET; THENCE SOUTH 33 DEGREES 17 MINUTES 58 SECONDS EAST ALONG THE EASTERLY LINE OF A TEMPORARY WORK SPACE EASEMENT RECORDED IN LIBER 5473, PAGE 802, WASHTENAW COUNTY RECORDS, 232.18 FEET; THENCE NORTH 88 DEGREES 34 MINUTES 22 SECONDS EAST ALONG THE NORTH LINE OF SAID LOTS 416 AND 433, 192.50 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE WEST LINE OF WATSON STREET (60 FEET WIDE), 487.01 FEET TO THE POINT OF BEGINNING.

CONTAINING 168,369.03 SQUARE FEET OR 3.87 ACRES OF LAND.

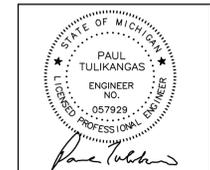
REVISIONS:
09-05-23 CONCEPT PLAN
10-17-23 REVISED PER ENBRIDGE/NEXUS
12-15-23 OWNER REVIEW
01-02-24 PRELIMINARY SITE PLAN
05-06-24 REVISED PSP
06-12-24 REVISED PSP
07-22-24 REVISED PSP

Project Name

Frost Music Venue 2525 State Street

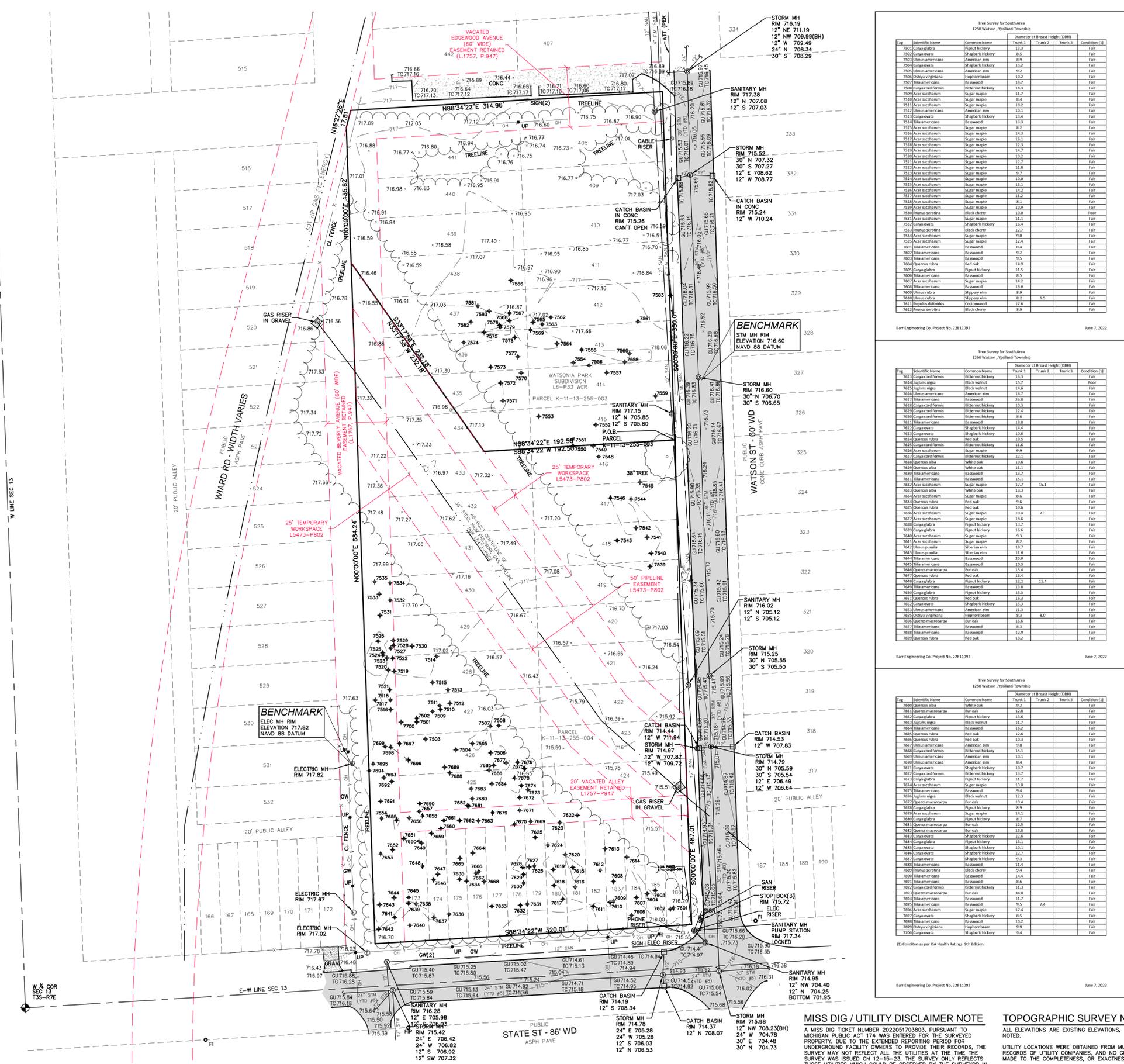
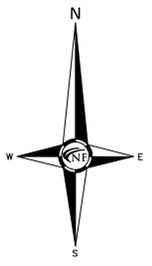


N & F JOB #M994-01



CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NFE-ENGR.COM



Tree Survey for South Area
1250 Watson, Ypsilanti Township

Tag	Scientific Name	Common Name	Trunk 1	Trunk 2	Trunk 3	Condition (1)
7501	Carpa glabra	Pignut Hickory	13.3			Fair
7502	Carpa glabra	Pignut Hickory	8.5			Fair
7503	Ulmus americana	American elm	10.0			Fair
7504	Carpa glabra	Pignut Hickory	13.2			Fair
7505	Ulmus americana	American elm	9.2			Fair
7506	Ostrya virginiana	Hopshornbeam	10.3			Fair
7507	Filix americana	Basewood	14.7			Fair
7508	Carpa glabra	Pignut Hickory	14.3			Fair
7509	Carpa glabra	Pignut Hickory	11.7			Fair
7510	Carpa glabra	Pignut Hickory	8.4			Fair
7511	Carpa glabra	Pignut Hickory	10.1			Fair
7512	Ulmus americana	American elm	10.1			Fair
7513	Carpa glabra	Pignut Hickory	13.4			Fair
7514	Filix americana	Basewood	11.3			Fair
7515	Carpa glabra	Pignut Hickory	8.7			Fair
7516	Carpa glabra	Pignut Hickory	14.8			Fair
7517	Carpa glabra	Pignut Hickory	15.1			Fair
7518	Carpa glabra	Pignut Hickory	12.3			Fair
7519	Carpa glabra	Pignut Hickory	12.9			Fair
7520	Carpa glabra	Pignut Hickory	10.2			Fair
7521	Carpa glabra	Pignut Hickory	11.8			Fair
7522	Carpa glabra	Pignut Hickory	9.7			Fair
7523	Carpa glabra	Pignut Hickory	10.0			Fair
7524	Carpa glabra	Pignut Hickory	13.1			Fair
7525	Carpa glabra	Pignut Hickory	14.2			Fair
7526	Carpa glabra	Pignut Hickory	14.7			Fair
7527	Carpa glabra	Pignut Hickory	11.2			Fair
7528	Carpa glabra	Pignut Hickory	8.1			Fair
7529	Carpa glabra	Pignut Hickory	10.9			Fair
7530	Prunus serotina	Black cherry	10.0			Poor
7531	Carpa glabra	Pignut Hickory	11.1			Fair
7532	Carpa glabra	Pignut Hickory	14.4			Fair
7533	Prunus serotina	Black cherry	12.7			Fair
7534	Carpa glabra	Pignut Hickory	9.0			Fair
7535	Carpa glabra	Pignut Hickory	12.4			Fair
7536	Carpa glabra	Pignut Hickory	12.4			Fair
7537	Filix americana	Basewood	8.4			Fair
7538	Filix americana	Basewood	9.2			Fair
7539	Filix americana	Basewood	9.5			Fair
7540	Quercus rubra	Red oak	14.9			Fair
7541	Carpa glabra	Pignut Hickory	11.5			Fair
7542	Carpa glabra	Pignut Hickory	8.5			Fair
7543	Prunus serotina	Black cherry	14.2			Fair
7544	Prunus serotina	Black cherry	10.8			Fair
7545	Prunus serotina	Black cherry	12.8			Fair
7546	Prunus serotina	Black cherry	9.2			Fair
7547	Prunus serotina	Black cherry	8.1			Fair
7548	Prunus serotina	Black cherry	11.4			Fair
7549	Prunus serotina	Black cherry	8.4			Fair
7550	Carpa glabra	Pignut Hickory	14.9			Fair
7551	Prunus serotina	Black cherry	9.6			Fair
7552	Prunus serotina	Black cherry	11.0			Poor
7553	Prunus serotina	Black cherry	12.6			Fair
7554	Prunus serotina	Black cherry	13.8			Fair
7555	Prunus serotina	Black cherry	12.6			Fair
7556	Prunus serotina	Black cherry	9.3			Fair
7557	Prunus serotina	Black cherry	11.0			Fair
7558	Prunus serotina	Black cherry	10.6			Fair
7559	Ulmus americana	American elm	12.0			Fair
7560	Prunus serotina	Black cherry	8.7			Fair
7561	Prunus serotina	Black cherry	8.3			Fair
7562	Prunus serotina	Black cherry	9.8			Fair
7563	Prunus serotina	Black cherry	8.0			Fair
7564	Prunus serotina	Black cherry	8.0			Fair
7565	Ulmus americana	American elm	10.5			Fair
7566	Ulmus americana	American elm	8.0			Fair
7567	Prunus serotina	Black cherry	13.4			Fair
7568	Prunus serotina	Black cherry	10.6			Fair
7569	Ulmus americana	American elm	12.0			Fair
7570	Prunus serotina	Black cherry	14.9			Fair
7571	Prunus serotina	Black cherry	9.6			Fair
7572	Prunus serotina	Black cherry	11.0			Fair
7573	Prunus serotina	Black cherry	12.6			Fair
7574	Prunus serotina	Black cherry	12.6			Fair
7575	Prunus serotina	Black cherry	9.3			Fair
7576	Prunus serotina	Black cherry	11.0			Fair
7577	Prunus serotina	Black cherry	10.6			Fair
7578	Ulmus americana	American elm	12.0			Fair
7579	Prunus serotina	Black cherry	14.9			Fair
7580	Prunus serotina	Black cherry	9.6			Fair
7581	Prunus serotina	Black cherry	11.0			Fair
7582	Prunus serotina	Black cherry	12.6			Fair
7583	Prunus serotina	Black cherry	12.6			Fair
7584	Prunus serotina	Black cherry	9.3			Fair
7585	Prunus serotina	Black cherry	11.0			Fair
7586	Prunus serotina	Black cherry	10.6			Fair
7587	Ulmus americana	American elm	12.0			Fair
7588	Ulmus americana	American elm	8.0			Fair
7589	Ulmus americana	American elm	8.0			Fair
7590	Ulmus americana	American elm	8.0			Fair

Tree Survey for South Area
1250 Watson, Ypsilanti Township

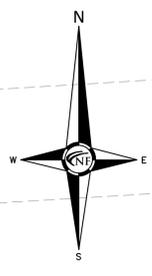
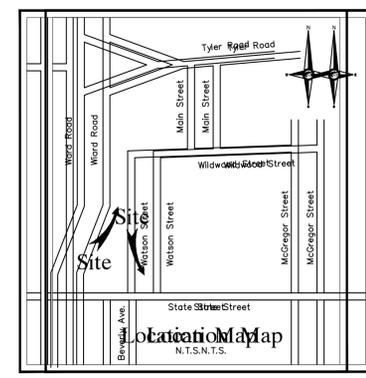
Tag	Scientific Name	Common Name	Trunk 1	Trunk 2	Trunk 3	Condition (1)
7511	Shagbark hickory	Shagbark hickory	15.3			Fair
7512	Black walnut	Black walnut	15.7			Poor
7513	Black walnut	Black walnut	14.6			Fair
7514	Ulmus americana	American elm	14.4			Fair
7515	Filix americana	Basewood	28.8			Fair
7516	Carpa glabra	Pignut Hickory	10.3			Fair
7517	Carpa glabra	Pignut Hickory	12.4			Fair
7518	Carpa glabra	Pignut Hickory	12.4			Fair
7519	Carpa glabra	Pignut Hickory	18.8			Fair
7520	Carpa glabra	Pignut Hickory	14.4			Fair
7521	Carpa glabra	Pignut Hickory	10.6			Fair
7522	Quercus rubra	Red oak	17.5			Fair
7523	Carpa glabra	Pignut Hickory	11.6			Fair
7524	Carpa glabra	Pignut Hickory	18.9			Fair
7525	Carpa glabra	Pignut Hickory	12.1			Fair
7526	Quercus alba	White oak	10.6			Fair
7527	Quercus alba	White oak	11.1			Fair
7528	Filix americana	Basewood	13.7			Fair
7529	Filix americana	Basewood	13.7			Fair
7530	Carpa glabra	Pignut Hickory	17.7	15.1		Fair
7531	Quercus rubra	Red oak	18.3			Fair
7532	Carpa glabra	Pignut Hickory	9.6			Fair
7533	Carpa glabra	Pignut Hickory	10.6	7.3		Fair
7534	Carpa glabra	Pignut Hickory	18.6			Fair
7535	Carpa glabra	Pignut Hickory	13.2			Fair
7536	Carpa glabra	Pignut Hickory	16.6			Fair
7537	Carpa glabra	Pignut Hickory	9.5			Fair
7538	Carpa glabra	Pignut Hickory	8.2			Fair
7539	Ulmus americana	American elm	19.7			Fair
7540	Ulmus americana	American elm	11.6			Fair
7541	Ulmus americana	American elm	11.6			Fair
7542	Ulmus americana	American elm	13.4			Fair
7543	Ulmus americana	American elm	13.4			Fair
7544	Filix americana	Basewood	20.9			Fair
7545	Filix americana	Basewood	10.3			Fair
7546	Quercus macrocarpa	Bar oak	13.4			Fair
7547	Carpa glabra	Pignut Hickory	13.4	13.4		Fair
7548	Filix americana	Basewood	11.8			Fair
7549	Filix americana	Basewood	13.3			Fair
7550	Carpa glabra	Pignut Hickory	13.3			Fair
7551	Quercus rubra	Red oak	18.3			Fair
7552	Carpa glabra	Pignut Hickory	15.3			Fair
7553	Carpa glabra	Pignut Hickory	11.8			Fair
7554	Ostrya virginiana	Hopshornbeam	8.3	8.0		Fair
7555	Quercus macrocarpa	Bar oak	16.6			Fair
7556	Carpa glabra	Pignut Hickory	8.9			Fair
7557	Filix americana	Basewood	12.9			Fair
7558	Filix americana	Basewood	12.9			Fair
7559	Quercus rubra	Red oak	18.2			Fair

Tree Survey for South Area
1250 Watson, Ypsilanti Township

Tag	Scientific Name	Common Name	Trunk 1	Trunk 2	Trunk 3	Condition (1)
7560	Quercus alba	White oak	9.2			Fair
7561	Quercus macrocarpa	Bar oak	12.8			Fair
7562	Carpa glabra	Pignut Hickory	13.6			Fair
7563	Shagbark hickory	Shagbark hickory	11.7			Fair
7564	Filix americana	Basewood	15.2			Fair
7565	Quercus rubra	Red oak	12.6			Fair
7566	Quercus rubra	Red oak	10.8			Fair
7567	Ulmus americana	American elm	9.8			Fair
7568	Carpa glabra	Pignut Hickory	15.3			Fair
7569	Ulmus americana	American elm	10.1			Fair
7570	Ulmus americana	American elm	8.8			Fair
7571	Carpa glabra	Pignut Hickory	13.7			Fair
7572	Carpa glabra	Pignut Hickory	13.0			Fair
7573	Filix americana	Basewood	9.8			Fair
7574	Quercus macrocarpa	Bar oak	10.4			Fair
7575	Carpa glabra	Pignut Hickory	8.9			Fair
7576	Carpa glabra	Pignut Hickory	14.3			Fair
7577	Carpa glabra	Pignut Hickory	8.7			Fair
7578	Quercus macrocarpa	Bar oak	13.5			Fair
7579	Quercus macrocarpa	Bar oak	13.8			Fair
7580	Carpa glabra	Pignut Hickory	11.3			Fair
7581	Carpa glabra	Pignut Hickory	11.4			Fair
7582	Carpa glabra	Pignut Hickory	14.4			Fair
7583	Carpa glabra	Pignut Hickory	12.7			Fair
7584	Carpa glabra	Pignut Hickory	9.3			Fair
7585	Filix americana	Basewood	11.4			Fair
7586	Filix americana	Basewood	11.4			Fair
7587	Filix americana	Basewood	14.4			Fair
7588	Carpa glabra	Pignut Hickory	11.1			Fair
7589	Ulmus americana	American elm	8.6			Fair
7590	Ulmus americana	American elm	11.3			Fair
7591	Filix americana	Basewood	11.8			Fair
7592	Quercus macrocarpa	Bar oak	24.8			Fair
7593	Filix americana	Basewood	11.7			Fair
7594	Filix americana	Basewood	9.5	7.4		Fair
7595	Filix americana	Basewood	17.7			Fair
7596	Carpa glabra	Pignut Hickory	17.4			Fair
7597	Carpa glabra	Pignut Hickory	10.2			Fair
7598	Filix americana	Basewood	11.9			Fair
7599	Carpa glabra	Pignut Hickory	9.4			Fair
7600	Carpa glabra	Pignut Hickory	9.4			Fair

Tree Survey for North Area
1250 Watson, Ypsilanti Township

Tag	Scientific Name	Common Name	Trunk 1	Trunk 2	Trunk 3	Condition (1)
7597	Populus deltoides	Cottonwood	14.8			Fair
7598	Populus deltoides	Cottonwood	20.2	13.7		Fair
7599	Populus deltoides	Cottonwood	22.1			Fair
7600	Prunus serotina	Black cherry	10.2			Fair
7601	Robinia pseudoacacia	Black locust	9.4			Fair
7602	Carpa glabra	Pignut Hickory	10.9			Fair
7603	Carpa glabra	Pignut Hickory	8.7			Fair
7604	Prunus serotina	Black cherry	8.0			Fair
7605	Prunus serotina	Black cherry	10.3			Fair
7606	Prunus serotina	Black cherry	12.8			Fair
7607	Prunus serotina	Black cherry	9.2			Fair
7608	Prunus serotina	Black cherry	8.1			Fair
7609	Prunus serotina	Black cherry	11.4			Fair
7610	Prunus serotina	Black cherry	8.4			Fair
7611	Carpa glabra	Pignut Hickory	14.9			Fair
7612	Prunus serotina	Black cherry	9.6			Fair
7613	Prunus serotina	Black cherry	11.0			Fair
7614	Prunus serotina	Black cherry	12.6			Fair
7615	Prunus serotina	Black cherry	12.6			Fair
7616	Prunus serotina	Black cherry	9.3			Fair
7617	Prunus serotina	Black cherry	11.0			Fair
7618	Prunus serotina	Black cherry	10.6			Fair
7619	Ulmus americana	American elm	12.0			Fair
7620	Prunus serotina	Black cherry	8.7			Fair
7621	Prunus serotina	Black cherry	8.3			Fair
7622	Prunus serotina	Black cherry	9.8			Fair
7623	Prunus serotina	Black cherry	12.3			Fair
7624	Prunus serotina	Black cherry	9.0			Fair
7625	Prunus serotina	Black cherry	10.3			Fair
7626	Prunus serotina	Black cherry	8.3			Fair
7627	Prunus serotina	Black cherry	11.1			Fair
7628	Prunus serotina	Black cherry	9.7			Fair
7629</						



DEMOLITION NOTES

DEMOLITION OF SITE IMPROVEMENTS SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE PUBLIC AGENCY HAVING JURISDICTION OVER SAID DEMOLITION.

FOR ANY DEMOLITION WITHIN PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR, AND SECURE, ALL NECESSARY PERMITS AND LICENSES FOR ALL SITE INSPECTIONS.

THE CONTRACTOR SHALL COORDINATE TRUCK ROUTES WITH THE MUNICIPALITY PRIOR TO COMMENCEMENT OF SITE DEMOLITION. ALL TRUCKS SHALL BE TAPPED OR PROPERLY SECURED TO CONTAIN DEMOLITION DEBRIS PRIOR TO LEAVING SITE.

EXISTING ON-SITE UNDERGROUND UTILITIES AND BUILDING SERVICES HAVE BEEN INDICATED BASED UPON THE BEST AVAILABLE UTILITY RECORDS AND/OR ON-SITE INSPECTION. NO GUARANTEE IS MADE BY THE DESIGN ENGINEER AS TO THE COMPLETENESS OR ACCURACY OF UTILITY DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF UTILITY INFORMATION (THE DESIGN ENGINEER MAKES NO GUARANTEE NOR ASSUMES ANY LIABILITY AS TO THE COMPLETENESS AND/OR ACCURACY OF UTILITY DATA).

PRIOR TO THE REMOVAL OR ABANDONMENT OF ANY EXISTING UNDERGROUND UTILITY OR BUILDING SERVICE LINES, CALLED FOR IN THE PLANS OR DISCOVERED DURING EXCAVATION, THE CONTRACTOR MUST DETERMINE IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE. IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE/ACTIVE THE CONTRACTOR MUST TAKE ALL THE NECESSARY STEPS TO GUARANTEE THAT THE UTILITY LINE OR BUILDING SERVICE IS RECONNECTED WITHOUT AN INTERRUPTION IN SERVICE. THE RECONNECTION OF THE UTILITY LINE OR BUILDING SERVICE MUST BE IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE APPROPRIATE GOVERNMENTAL AGENCY OR PRIVATE UTILITY COMPANY.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO SITE DEMOLITION.

* THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF THE SITE DEMOLITION.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH UTILITY COMPANY. REMOVAL OF THE UTILITY COMPANIES ELECTRICAL SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF THE UTILITY COMPANY.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH UTILITY COMPANY. REMOVAL OF THE UTILITY COMPANY GAS SERVICES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE UTILITY COMPANY.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH THE APPROPRIATE CABLE MEDIA COMPANY. REMOVAL OF CABLE SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF THE CABLE COMPANY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF PRIVATE UTILITY COMPANIES AND COORDINATE UTILITY SERVICE SHUT OFF/DISCONNECT, PRIOR TO DEMOLITION OF EXISTING STRUCTURES OR PROPERTIES.

ALL UTILITY METERS SHALL BE REMOVED BY THE APPROPRIATE UTILITY COMPANY.

ANY ON-SITE STORM SEWER FACILITIES LOCATED DURING DEMOLITION SHALL BE REMOVED AND BULK HEADED AT THE PROPERTY LINE IF INDICATED FOR REMOVAL ON THE PLANS.

PRIOR TO BUILDING DEMOLITION, ALL HAZARDOUS MATERIAL SHALL BE REMOVED BY OTHERS. THE DEMOLITION CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD ANY SUSPICIOUS MATERIAL BE FOUND.

WATER SERVICES AND/OR STOP-BOX SHALL BE PRESERVED AND BULK HEADED AT THE PROPERTY LINE OR AS DIRECTED BY THE OWNER'S REPRESENTATION.

WHERE EXISTING BUILDINGS PLANNED FOR DEMOLITION FALL WITHIN PROPOSED BUILDING FOOTPRINTS, BASEMENT FLOOR SLABS, FOUNDATION WALLS AND FOOTINGS SHALL BE COMPLETELY REMOVED AND BACK FILLED WITH MOTT CLASS II GRANULAR MATERIAL AND BE MACHINE COMPACTED TO A MINIMUM OF 98% OF MATERIALS MAXIMUM DENSITY.

TOPOGRAPHIC SURVEY NOTES

ALL ELEVATIONS ARE EXISTING ELEVATIONS, UNLESS OTHERWISE NOTED.

UTILITY LOCATIONS WERE OBTAINED FROM MUNICIPAL OFFICIALS AND RECORDS OF UTILITY COMPANIES, AND NO GUARANTEE CAN BE MADE TO THE COMPLETENESS, OR EXACTNESS OF LOCATION.

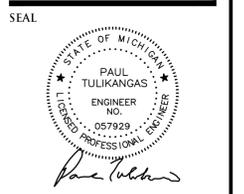
THIS SURVEY MAY NOT SHOW ALL EASEMENTS OF RECORD UNLESS AN UPDATED TITLE POLICY IS FURNISHED TO THE SURVEYOR BY THE OWNER.

LEGEND

	EXISTING SANITARY SEWER
	EXISTING SAN. CLEAN OUT
	EXISTING WATER MAIN
	EXISTING STORM SEWER
	EX. R. Y. CATCH BASIN
	EXISTING BURIED CABLES
	OVERHEAD LINES
	LIGHT POLE
	SIGN
	EXISTING GAS MAIN
	EXISTING UTILITY TO BE REMOVED
	EXISTING UTILITY TO BE ABANDONED
	INDICATES EXISTING TREE TO BE REMOVED
	INDICATES AREAS OF PAVEMENT, BUILDINGS, ETC. TO BE REMOVED

NF ENGINEERS
 CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS

NOWAK & FRAUS ENGINEERS
 46777 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
 FAX. (248) 332-8257
 WWW.NOWAKFRAUS.COM



PROJECT
 Frost Music Venue
 2525 State Street
 Ypsilanti, MI 48198

CLIENT
 Michael Ludtke
 Tel. (952) 807-61058
 Email: Ludtke4648@gmail.com

PROJECT LOCATION
 Part of the Northwest 1/4 of Section 13
 T.3S., R.7E.,
 Ypsilanti Township,
 Washtenaw County,
 Michigan

SHEET
 Demolition Plan



DATE	ISSUED/REVISED
09-05-23	CONCEPT PLAN
10-17-23	REVISED PER ENBRIDGE/NEXUS
12-15-23	OWNER REVIEW
01-02-24	PRELIMINARY SITE PLAN
05-06-24	REVISED PSP
06-12-24	REVISED PSP
07-22-24	REVISED PSP

DRAWN BY:
 J. Lawrey

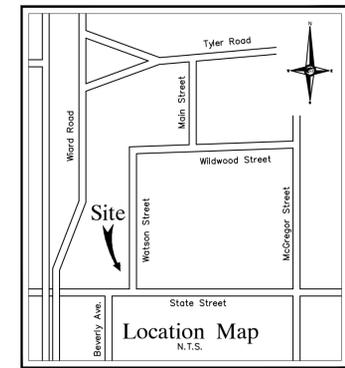
DESIGNED BY:
 P. Tulikangas

APPROVED BY:
 P. Tulikangas

DATE:
 August 22, 2023

SCALE: 1" = 30'

NFE JOB NO. **M994** SHEET NO. **C02**



SITE DATA

SITE AREA: 168,369.03 SQ. FT. OR 3.87 ACRES
 PROPOSED PARCEL (GROSS/NET): 168,369.03 SQ. FT. OR 3.87 ACRES

ZONING: I-C (INDUSTRIAL COMMERCIAL)
 EXISTING PARCEL: I-C (INDUSTRIAL COMMERCIAL)
 ADJUTING PARCELS: I-C (INDUSTRIAL COMMERCIAL)

PARKING REQUIRED:
 CONSUMPTION LOUNGE:
 1 SPACE / 70 SF USABLE FLOOR AREA
 USABLE FLOOR AREA (PER ARCHITECT) = 2,838 SF
 TOTAL SPACES REQ. = 41 SPACES
 AMPHITHEATER:
 1 SPACE / 3 SEATS GSF = 648 SEATS/3 = 216 SPACES REQUIRED
 PLUS:
 1 SPACE FOR 216 SPACES REQUIRED
 TOTAL SPACES REQ. = 224 SPACES
 TOTAL BIKE SPACES REQ. = 2 SPACES

PROVIDED:
 NOTE: PER OPERATIONAL REPORT, THE CONSUMPTION LOUNGE AND AMPHITHEATER WILL NOT CONCURRENTLY BE IN OPERATION, AND THEREFORE THE FOLLOWING PROVIDED PARKING CALCULATIONS ARE INTENDING TO MEET THE MAXIMUM USE DURING AMPHITHEATER EVENTS.
 222 TOTAL PARKING SPACE PROVIDED, INCLUDING:
 • 187 TOTAL ON-SITE VEHICLE SPACES, INCLUDING 7 BARRIER-FREE SPACES, 7 BIKE SPACES PROVIDED.
 • OF THE 187 TOTAL PROVIDED SPACES ON-SITE, 61 SPACES (INCLUDING 54 PAVED AND 7 GRASS SPACES) WILL BE EXTERIOR OF THE PROPOSED FENCING, AND THEREFORE ALLOCATED TO HANDS MEETING THE "STAND-ALONE" CONSUMPTION LOUNGE COMPONENT OF PARKING REQUIREMENT.
 • A TOTAL OF 37 OFF-SITE SPACES FROM ADJACENT LOT K-11-13-255-003 (THE PROPOSED FROST CANNABIS RETAIL FACILITY, ADDRESS: 1250 WATSON STREET) WILL BE UTILIZED TO ACCOMMODATE LARGE EVENTS.
 • SEE OPERATIONAL REPORT PROVIDED BY OWNER FOR COMPLETE DETAILS ON PARKING OPERATIONS.

SITE AREA	168,369 SFT.	100.0%
BUILDING FOOTPRINT	5,421 SFT.	3.2%
PARKING & DRIVES (PAVED)	15,548 SFT.	9.2%
OPEN SPACE	X SFT.	87.6%
SETRACK REQUIREMENTS	REQUIRED	PROVIDED
FRONT	20' (E.C.S)	66' (172.7')
SIDE	40' (N.S)	235.1'
REAR	10' (N.S)	103.0'

ENVIRONMENTAL IMPACT ANALYSIS
 THE FOLLOWING ARE KEY CONSIDERATIONS REGARDING ENVIRONMENTAL IMPACTS FOR THE PROPOSED DEVELOPMENT.
 1. ENTIRE PARCEL IS SURROUNDED BY THE SAME ZONING (I-C) ON ALL SIDES.
 2. THERE ARE NO REGULATED FLOODWAYS, FLOODPLAINS, WOODLANDS, WETLANDS, STEEP SLOPES, OR OTHER PROTECTED ENVIRONMENTAL FEATURES KNOWN FOR EXIST ON THE PARENT PARCEL.

DIMENSIONING NOTE
 LINEAR DIMENSIONS ARE FROM FACE OF CURB TO FACE OF CURB, FACE OF WALK OR CENTER OF STRIPING UNLESS OTHERWISE NOTED (TYP). RADIAL DIMENSIONS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED (TYP).

LOADING/UNLOADING NOTE
 LOADING/UNLOADING FOR THE FACILITY WILL OCCUR WITHIN DESIGNATED AREA ON THE WEST OF THE BUILDINGS.

LEGAL DESCRIPTION - PARCEL K-11-13-355-004
 ALL OF LOTS 173 THROUGH 186, ALL OF LOTS 416 THROUGH 433, PART OF LOTS 434 THROUGH 437, ALL OF VACATED 20 FOOT WIDE ALLEY AND PART OF THE EAST 1/2 OF VACATED BEVERLY AVENUE (60 FEET WIDE), ALL LOCATED, WATSONIA PARK SUBDIVISION BEING A PART OF THE NORTHWEST 1/4 OF SECTION 13, TOWN 3 SOUTH, RANGE 7 EAST AS RECORDED IN LIBER 6 OF PLATS 35, WASHINGTON COUNTY RECORDS ALL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 186; THENCE SOUTH 08 DEGREES 34 MINUTES 52 SECONDS WEST ALONG THE NORTH LINE OF STATE STREET (66 FEET WIDE) 320.01 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE CENTERLINE OF SAID VACATED BEVERLY AVENUE, 694.24 FEET; THENCE SOUTH 33 DEGREES 17 MINUTES 48 SECONDS EAST ALONG THE EASTERLY LINE OF A TEMPORARY WORK SPACE EASEMENT RECORDED IN LIBER 5473, PAGE 802, WASHINGTON COUNTY RECORDS, 232.18 FEET; THENCE NORTH 08 DEGREES 34 MINUTES 52 SECONDS EAST ALONG THE NORTH LINE OF SAID LOTS 416 AND 433, 192.50 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE WEST LINE OF WATSON STREET (60 FEET WIDE), 487.01 FEET TO THE POINT OF BEGINNING.
 CONTAINING 168,369.03 SQUARE FEET OR 3.87 ACRES OF LAND.

UTILITY CROSSING SCHEDULE

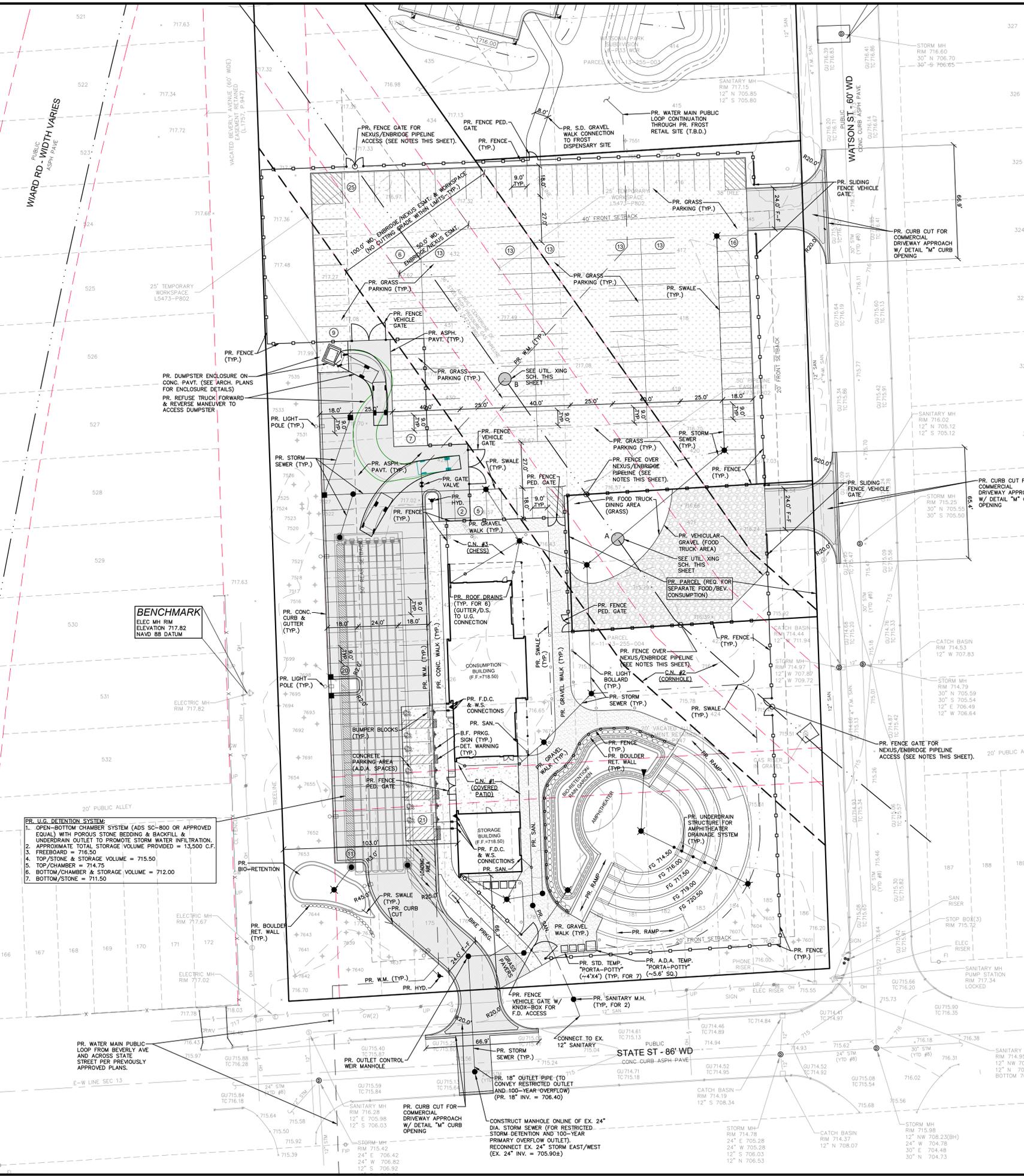
- A**
 PR. STORM SEWER CROSSING W/ EXISTING ENBRIDGE/NEXUS 36" H.P. PIPELINE:
 1. STORM SEWER TO BE INSTALLED VIA OPEN-CUT TRENCHING (PER INFILTRATION & RETENTION CROSS-SECTION DETAIL).
 2. EXISTING GROUND ELEVATION = 716.50A (FIELD VERIFY).
 3. PR. 12" STM 8/P 712.60
 EX. 36" H.P. GAS LINE IS ANTICIPATED TO HAVE AN APPROXIMATE DEPTH BETWEEN 15.0 AND 15.5 FEET FROM EXISTING GROUND TO THE TOP OF PIPE BASED ON INITIAL INFORMATION PROVIDED BY NEXUS/ENBRIDGE. THIS RESULTS IN A TOP OF PIPE ELEVATION BETWEEN 701.50 AND 701.00, PROVIDING APPROXIMATELY 11.1 TO 11.6 FEET OF CLEARANCE WITH THE PROPOSED SEWER PIPE CROSSING. THE TRENCH FOR THE PROPOSED SEWER CROSSING SHALL BE PROBED AND EXCAVATED BY HAND TO FIELD VERIFY & CONFIRM THERE ARE NO CONFLICTS WITH THE EXISTING PIPELINE.
- B**
 PR. WATER MAIN CROSSING W/ EXISTING ENBRIDGE/NEXUS 36" H.P. PIPELINE:
 1. WATER MAIN TO BE INSTALLED VIA OPEN-CUT TRENCHING (PER Y.U.C.A. STANDARD WATER MAIN DETAILS).
 2. EXISTING GROUND ELEVATION = 717.15A (FIELD VERIFY).
 3. PR. 4" W.M. 8/P 715.75
 EX. 36" H.P. GAS LINE IS ANTICIPATED TO HAVE AN APPROXIMATE DEPTH BETWEEN 12.5 AND 13.0 FEET FROM EXISTING GROUND TO THE TOP OF PIPE BASED ON INITIAL INFORMATION PROVIDED BY NEXUS/ENBRIDGE. THIS RESULTS IN A TOP OF PIPE ELEVATION BETWEEN 704.65 AND 704.15, PROVIDING APPROXIMATELY 6.1 TO 6.6 FEET OF CLEARANCE WITH THE PROPOSED WATER MAIN CROSSING. THE TRENCH FOR THE PROPOSED WATER MAIN CROSSING SHALL BE PROBED AND EXCAVATED BY HAND TO FIELD VERIFY & CONFIRM THERE ARE NO CONFLICTS WITH THE EXISTING PIPELINE.

FENCE & GATE NOTES OVER NEXUS/ENBRIDGE PIPELINE

- THE TWO FENCE GATES SHOWN AT N.W. AND S.E. PARTS OF SITE SHALL BE MINIMUM 10' WIDE AND PROVIDE EXCLUSIVE USE FOR NEXUS/ENBRIDGE MAINTENANCE ACCESS. NEXUS/ENBRIDGE WILL INSTALL PADLOCKS TO PREVENT UNAUTHORIZED ACCESS THROUGH THESE GATES.
- ALL FENCING POSTS INSTALLED WITHIN THE 50' WIDE PIPELINE EASEMENT SHALL BE HAND DUG FOR POST AND FOOTING INSTALLATION.
- ALL FENCING POSTS INSTALLED WITHIN 5 FEET OF EITHER SIDE OF THE CENTERLINE OF THE 36" DIAMETER PIPELINE SHALL BE INSTALLED WITHOUT A FOOTING.

SITE LIGHTING NOTES:

- SEE COMPLETE PHOTOGRAPHIC PLANS AND LIGHTING DETAILS AS PROVIDED BY GASSER-BUSH ASSOCIATES FOR PROPOSED PERMANENT LIGHTING.
- SIX (6) OVERHEAD LIGHT POLES ARE PROPOSED WITHIN THE WEST PARKING AREA AND SEVENTEEN (17) LIGHT BOLLARDS ARE PROPOSED WITHIN THE INTERIOR SEWER RESTROOM AREAS AS SHOWN ON THE PLANS.
- ADDITIONAL SITE LIGHTING IS PROPOSED VIA OVERHEAD CANOPY LIGHTS WITHIN THE GREENWAY BETWEEN THE TWO BUILDINGS, AND LIGHTING SCENES ON THE AMPHITHEATER WALLS.
- ADDITIONAL TEMPORARY LIGHTING MAY BE UTILIZED BY THE OWNER ON AN "AS-NEEDED" BASIS FOR LARGE EVENTS, WHICH HAS BEEN MODELED ON THE PHOTOGRAPHIC PLAN PROVIDED BY GASSER-BUSH ASSOCIATES.



BENCHMARK
 ELEC MH RIM 717.82
 NAD 88 DATUM

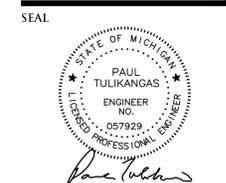
- PR. U.G. DETENTION SYSTEM**
- OPEN-BOTTOM CHAMBER SYSTEM (ADS SC-800 OR APPROVED EQUAL) WITH POROUS STONE BEDDING & BACKFILL & UNDERDRAIN OUTLET TO PROMOTE STORM WATER INFILTRATION.
 - APPROXIMATE TOTAL STORAGE VOLUME PROVIDED = 13,500 C.F.
 - FREEBOARD = 716.50
 - TOP/STONE & STORAGE VOLUME = 715.50
 - TOP/CHAMBER = 714.75
 - BOTTOM/CHAMBER & STORAGE VOLUME = 712.00
 - BOTTOM/STONE = 711.50

PAVING LEGEND

	PROPOSED CONCRETE WALK & PAVEMENT
	PROPOSED ASPHALT PAVEMENT
	PROPOSED GRAVEL (PER PEDESTRIAN CROSS-SECTION)
	PROPOSED GRAVEL (PER VEHICULAR CROSS-SECTION)
	PROPOSED GRASS PAVERS
	PROPOSED GRASS PARKING AREA

LEGEND

	MANHOLE		EXISTING SANITARY SEWER
	HYDRANT		SAN. CLEAN OUT
	MANHOLE CATCH BASIN		EXISTING WATER MAIN
	UTILITY POLE		EXISTING STORM SEWER
	GUY WIRE		EX. R. Y. CATCH BASIN
	OVERHEAD LINES		EXISTING BURIED CABLES
	LIGHT POLE		OVERHEAD LINES
	SIGN		EXISTING GAS MAIN
	C.O.		PR. SANITARY SEWER
	MANHOLE		PR. STORM MAIN
	HYDRANT		PR. WATER MAIN
	INLET		PR. R. Y. CATCH BASIN
	MANHOLE		PROPOSED LIGHT POLE



PROJECT
 Frost Music Venue
 2525 State Street
 Ypsilanti, MI 48198

CLIENT
 Michael Ludtke
 Tel. (952) 807-61058
 Email: Ludtke4648@gmail.com

PROJECT LOCATION
 Part of the Northwest 1/4 of Section 13, T.3S., R.7E., Ypsilanti Township, Washtenaw County, Michigan

SHEET
 Stringer Dimension Plan



DATE	ISSUED/REVISED
09-05-23	CONCEPT PLAN
10-17-23	REVISED PER ENBRIDGE/NEXUS
12-15-23	OWNER REVIEW
01-02-24	PRELIMINARY SITE PLAN
05-06-24	REVISED PSP
06-12-24	REVISED PSP
07-22-24	REVISED PSP

DRAWN BY:
 J. Lawrey

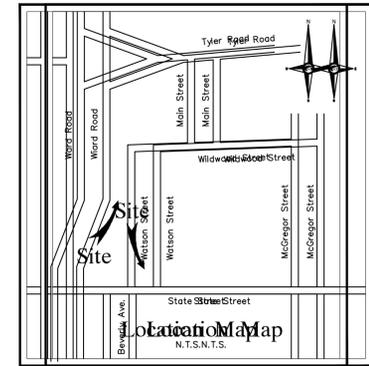
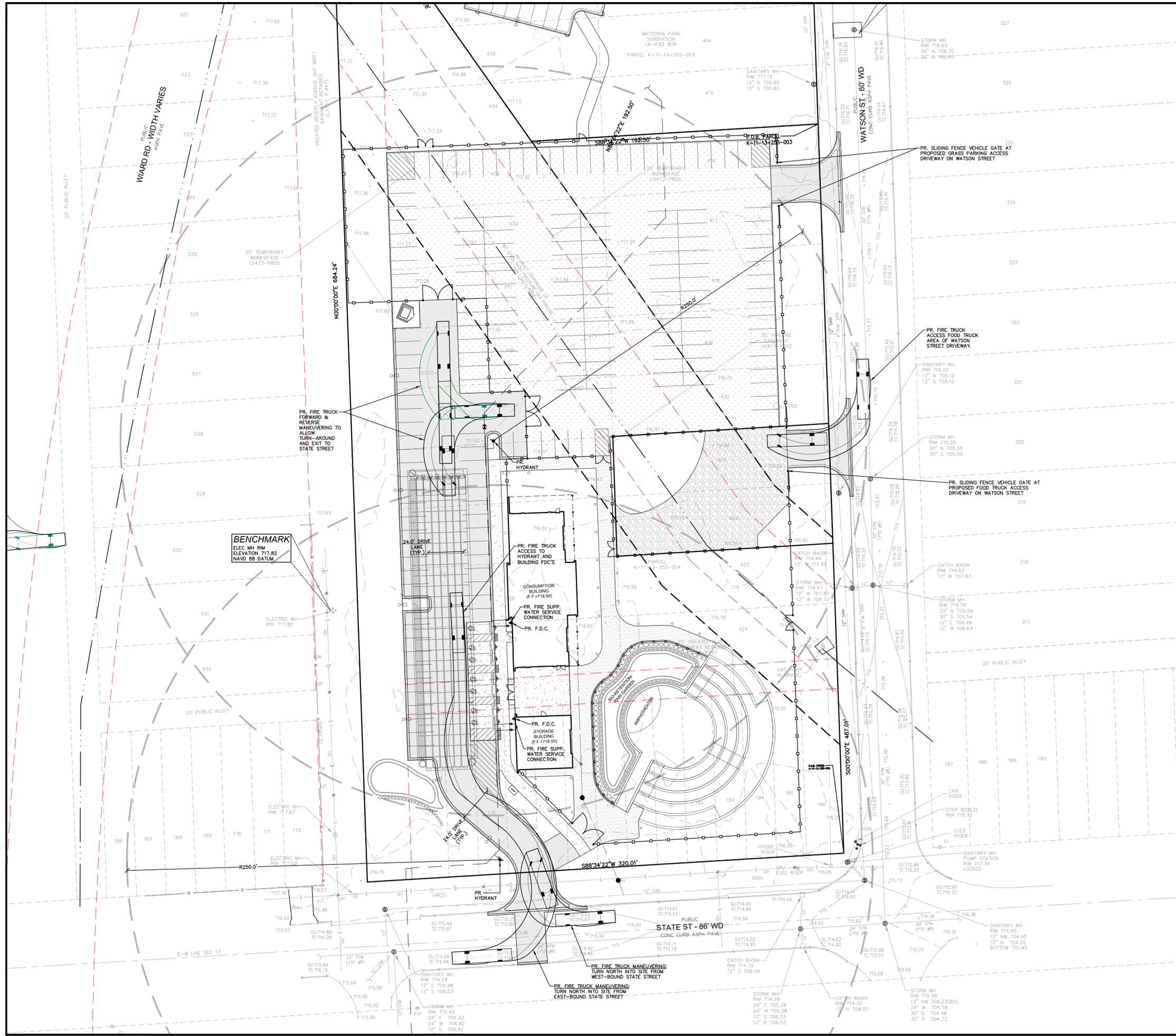
DESIGNED BY:
 P. Tulikangas

APPROVED BY:
 P. Tulikangas

DATE:
 August 22, 2023

SCALE: 1" = 30'

NFE JOB NO. M994 **SHEET NO. C03**



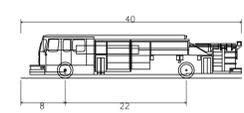
FIRE DEPARTMENT NOTES

THE ENTIRE PROJECT SHALL CONFORM TO THE AUTHORITY HAVING JURISDICTION YPSILANTI TOWNSHIPS ADOPTED FIRE CODE, ORDINANCES, AND THE MICHIGAN BUILDING CODE.

FIRE DEPARTMENT ACCESS ROADS SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT.

FIRE LANES SHALL BE POSTED WITH APPROVED "FIRE LANE" SIGNS. THE TOWNSHIP SHALL HAVE FINAL DETERMINATION FOR THE LOCATIONS AND STYLE OF SIGNS.

ALL APPROPRIATE BUILDING PERMITS AND FIRE PROTECTION SYSTEMS SHALL BE OBTAINED THROUGH THE YPSILANTI'S BUILDING DEPARTMENT. DEFERRED SUBMITTAL IS REQUIRED. A THIRD PARTY REVIEW OF THE FIRE SUPPRESSION AND FIRE ALARM PLANS IS RECOMMENDED.



Pumper Fire Truck
 Overall Length 40.00ft
 Overall Width 8.167ft
 Overall Body Height 7.745ft
 Min Body Ground Clearance 0.656ft
 Track Width 8.167ft
 Lock-to-lock time 5.00s
 Max Wheel Angle 45.00°

PAVING LEGEND

	PROPOSED CONCRETE PAVEMENT
	PROPOSED ASPHALT PAVEMENT

LEGEND

	MANHOLE		EXISTING SANITARY SEWER
	HYDRANT		SAN. CLEAN OUT
	MANHOLE CATCH BASIN		EXISTING WATERMAIN
	UTILITY POLE		EXISTING STORM SEWER
	GUY POLE		EX. R. Y. CATCH BASIN
	GUY WIRE		EXISTING BURIED CABLES
	C.O.		OVERHEAD LINES
	MANHOLE		LIGHT POLE
	HYDRANT		SIGN
	INLET		EXISTING GAS MAIN
	G.C.B.		PR. SANITARY SEWER
	MANHOLE		PR. WATER MAIN
	HYDRANT		PR. STORM SEWER
	INLET		PR. R. Y. CATCH BASIN
	PROPOSED LIGHT POLE		

NF ENGINEERS
 CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS

NOWAK & FRAUS ENGINEERS
 46777 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
 FAX. (248) 332-8257
 WWW.NOWAKFRAUS.COM



PROJECT
 Frost Music Venue
 2525 State Street
 Ypsilanti, MI 48198

CLIENT
 Michael Ludtke
 Tel. (952) 807-61058
 Email:
 Ludtke4648@gmail.com

PROJECT LOCATION
 Part of the Northwest 1/4 of Section 13
 T.3S., R.7E.,
 Ypsilanti Township,
 Washtenaw County,
 Michigan

SHEET
 Fire Protection Site Plan



DATE ISSUED/REVISED

09-05-23	CONCEPT PLAN
10-17-23	REVISED PER ENBRIDGE/NEXUS
12-15-23	OWNER REVIEW
01-02-24	PRELIMINARY SITE PLAN
05-06-24	REVISED PSP
06-12-24	REVISED PSP
07-22-24	REVISED PSP

DRAWN BY:
 J. Lawrey

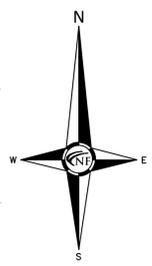
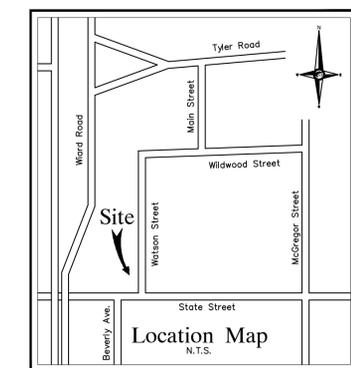
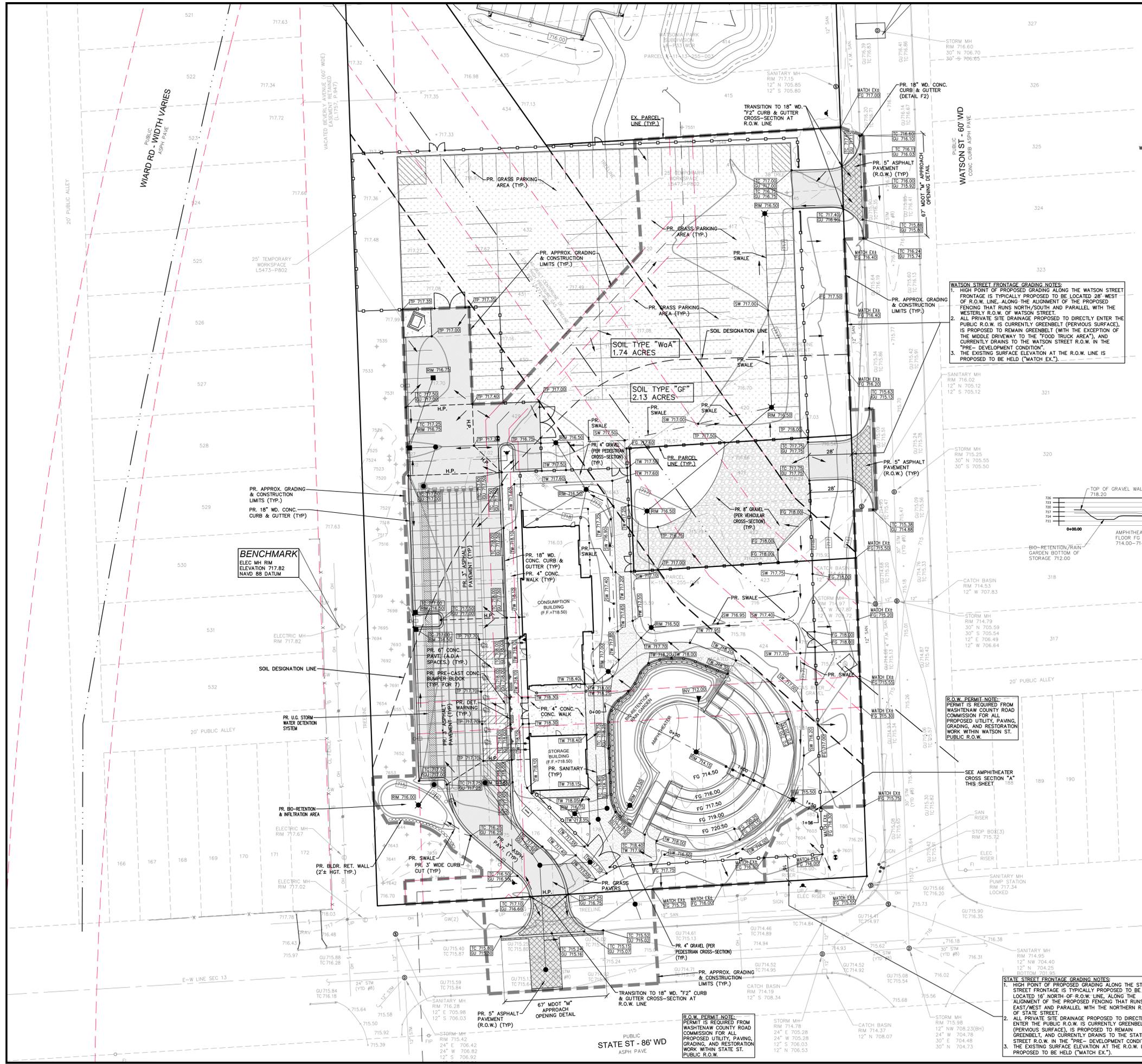
DESIGNED BY:
 P. Tulikangas

APPROVED BY:
 P. Tulikangas

DATE:
 August 22, 2023

SCALE: 1" = 30'

NFE JOB NO. M994 SHEET NO. C04



GENERAL PAVING NOTES

PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS SECTION AS INDICATED ON THE PLANS AND AS FOLLOWS:

CONCRETE: PORTLAND CEMENT TYPE IA (AIR-ENTRAINED) WITH A MINIMUM CEMENT CONTENT OF SIX SACKS PER CUBIC YARD, MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,500 PSI AND A SLUMP OF 1 1/2 TO 3 INCHES.

ASPHALT: BASE COURSE - MDOT BITUMINOUS MIXTURE HMA 4E ML SURFACE COURSE - MDOT BITUMINOUS MIXTURE HMA 5E ML ASPHALT CEMENT PENETRATION PG 64-22 - MDOT SS-1H EMULSION AT 0.10 GALLON PER SQUARE YARD

PAVEMENT BASE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT. EXISTING SUB-BASE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER TO DETERMINE STABILITY.

ALL CONCRETE PAVEMENT, DRIVEWAYS, CURB & GUTTER, ETC., SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY FOLLOWING FINISHING OPERATION.

ALL CONCRETE PAVEMENT JOINTS SHALL BE FILLED WITH HOT POURED RUBBERIZED ASPHALT JOINT SEALING COMPOUND IMMEDIATELY AFTER SMOOTH OPERATION. FEDERAL SPECIFICATION SS-5164.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY AND THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION.

ALL TOP OF CURB ELEVATIONS, AS SHOWN ON THE PLANS, ARE CALCULATED FOR A 6" CONCRETE CURB UNLESS OTHERWISE NOTED.

ALL SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1993, SHALL BE INSTALLED AS INDICATED ON THE PLANS.

CONSTRUCTION OF A NEW OR RECONSTRUCTED DRIVE APPROACH CONNECTING TO AN EXISTING STATE OR COUNTY ROADWAY SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE AGENCY HAVING JURISDICTION OVER SAID ROADWAY.

FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LICENSES ARRANGE FOR ALL INSPECTION.

EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS.

EXPANSION JOINTS SHOULD BE INSTALLED AT THE END OF ALL INTERSECTION RADII.

SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1973, SHALL BE INSTALLED AS SHOWN AT ALL STREET INTERSECTIONS AND AT ALL BARRIER FREE PARKING AREAS AS INDICATED ON THE PLANS.

ALL PAVEMENT AREAS SHALL BE PROOF-ROLLED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF BASE MATERIALS AND PAVING MATERIALS.

FILL AREAS SHALL BE MACHINE COMPACTED IN UNIFORM LIFTS NOT EXCEEDING 9 INCHES THICK TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.

WATSON STREET FRONTAGE GRADING NOTES

1. HIGH POINT OF PROPOSED GRADING ALONG THE WATSON STREET FRONTAGE IS TYPICALLY PROPOSED TO BE LOCATED 28' WEST OF R.O.W. LINE, ALONG THE ALIGNMENT OF THE PROPOSED FENCING THAT RUNS NORTH/SOUTH AND PARALLEL WITH THE WESTERLY R.O.W. OF WATSON STREET.

2. ALL PRIVATE SITE DRAINAGE PROPOSED TO DIRECTLY ENTER THE PUBLIC R.O.W. IS CURRENTLY GREENBELT (PERVIOUS SURFACE), IS PROPOSED TO REMAIN GREENBELT (WITH THE EXCEPTION OF THE MIDDLE DRIVEWAY TO THE "FOOD TRUCK AREA"), AND CURRENTLY DRAINS TO THE WATSON STREET R.O.W. IN THE "PRE-DEVELOPMENT CONDITION".

3. THE EXISTING SURFACE ELEVATION AT THE R.O.W. LINE IS PROPOSED TO BE HELD ("MATCH EX.").

R.O.W. PERMIT NOTE:

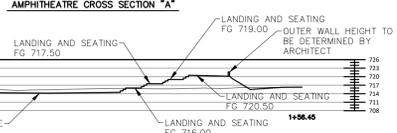
PERMIT IS REQUIRED FROM WASHTENAW COUNTY ROAD COMMISSION FOR ALL PROPOSED UTILITY, PAVING, GRADING, AND RESTORATION WORK WITHIN WATSON ST. PUBLIC R.O.W.

STATE STREET FRONTAGE GRADING NOTES

1. HIGH POINT OF PROPOSED GRADING ALONG THE STATE STREET FRONTAGE IS TYPICALLY PROPOSED TO BE LOCATED 16' NORTH OF CURB LINE, ALONG THE ALIGNMENT OF THE PROPOSED FENCING THAT RUNS EAST/WEST AND PARALLEL WITH THE NORTHERN R.O.W. OF STATE STREET.

2. ALL PRIVATE SITE DRAINAGE PROPOSED TO DIRECTLY ENTER THE PUBLIC R.O.W. IS CURRENTLY GREENBELT (PERVIOUS SURFACE), IS PROPOSED TO REMAIN GREENBELT, AND CURRENTLY DRAINS TO THE STATE STREET R.O.W. IN THE "PRE-DEVELOPMENT CONDITION".

3. THE EXISTING SURFACE ELEVATION AT THE R.O.W. LINE IS PROPOSED TO BE HELD ("MATCH EX.").



A.D.A. BARRIER-FREE PARKING AND ACCESSIBLE ROUTE NOTES

1. ALL SURFACES WITHIN CONSTRUCTED PARKING AREAS AND ACCESSIBLE AREAS SHALL BE LESS THAN 2% SLOPE (ALL DIRECTIONS).

2. ACCESSIBLE ROUTE CROSS-SLOPE SHALL NOT EXCEED 2% SLOPE.

3. RUNNING LONGITUDINAL SLOPE SHALL NOT EXCEED 5% (8.3% FOR RAMPS).

4. RAMP LANDINGS AND TURNING SPACES FOR ACCESSIBLE ROUTES SHALL NOT EXCEED 2% IN ANY DIRECTION.

PAVING LEGEND

	PROPOSED 4" CONCRETE WALK & 6" CONCRETE PAVEMENT (AS NOTED)
	PROPOSED 5" ASPHALT PAVEMENT (PER DETAIL - W.C.R.C. PUBLIC R.O.W.)
	PROPOSED 3" ASPHALT PAVEMENT (PER DETAIL - PRIVATE SITE)
	PROPOSED GRAVEL (PER PEDESTRIAN CROSS-SECTION)
	PROPOSED GRAVEL (PER VEHICULAR CROSS-SECTION)
	PROPOSED GRASS PAVERS
	PROPOSED GRASS PARKING AREA

LEGEND

	MANHOLE		EXISTING SANITARY SEWER
	HYDRANT		SAN. CLEAN OUT
	MANHOLE CATCH BASIN		EXISTING WATERMAIN
	UTILITY POLE		EXISTING STORM SEWER
	GUY POLE		EX. R. Y. CATCH BASIN
	MANHOLE		EXISTING BURIED CABLES
	HYDRANT		OVERHEAD LINES
	INLET		LIGHT POLE
	MANHOLE		SIGN
	HYDRANT		EXISTING GAS MAIN
	INLET		PR. SANITARY SEWER
	MANHOLE		PR. WATER MAIN
	HYDRANT		PR. STORM SEWER
	INLET		PR. R. Y. CATCH BASIN
	MANHOLE		PROPOSED LIGHT POLE
	HYDRANT		PR. TOP OF CURB ELEVATION
	INLET		PR. GUTTER ELEVATION
	MANHOLE		PR. TOP OF WALK ELEVATION
	HYDRANT		PR. TOP OF PVM. ELEVATION
	INLET		FINISH GRADE ELEVATION

NF ENGINEERS
 CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS

NOWAK & FRAUS ENGINEERS
 46777 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
 FAX. (248) 332-8257
 WWW.NOWAKFRAUS.COM

PAUL TULIKANGAS
 ENGINEER
 NO. 057929
 PROFESSIONAL REGISTRATION BOARD

PROJECT
 Frost Music Venue
 2525 State Street
 Ypsilanti, MI 48198

CLIENT
 Michael Ludtke
 Tel. (952) 807-61058
 Email:
 Ludtke4648@gmail.com

PROJECT LOCATION
 Part of the Northwest 1/4 of Section 13
 T.3S., R.7E.,
 Ypsilanti Township,
 Washtenaw County,
 Michigan

SHEET
 Paving-Grading Plan

811
 Know what's below
 Call before you dig.

DATE ISSUED/REVISED

09-05-23	CONCEPT PLAN
10-17-23	REVISED PER ENBRIDGE/NEXUS
12-15-23	OWNER REVIEW
01-02-24	PRELIMINARY SITE PLAN
05-06-24	REVISED PSP
06-12-24	REVISED PSP
07-22-24	REVISED PSP

DRAWN BY:
 J. Lawrey

DESIGNED BY:
 P. Tulikangas

APPROVED BY:
 P. Tulikangas

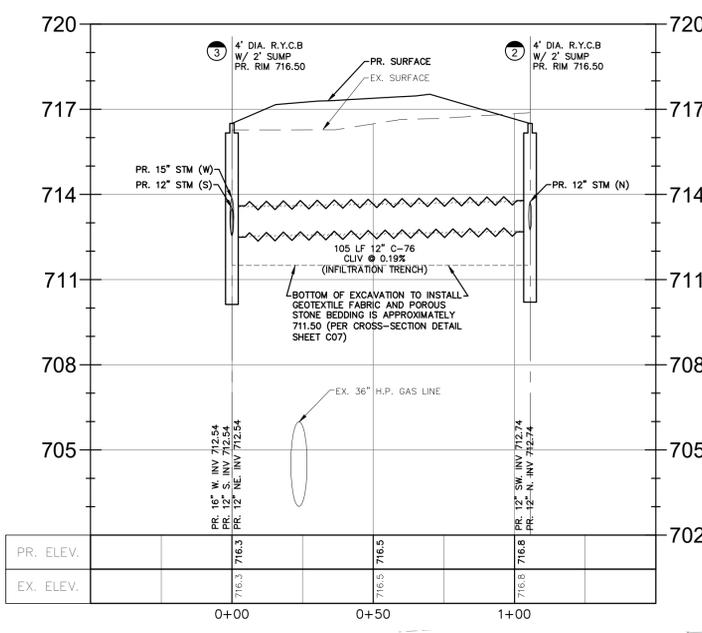
DATE:
 August 22, 2023

SCALE: 1" = 30'

NFE JOB NO. M994 SHEET NO. C05

UTILITY CROSSING SCHEDULE

- A. PRE-EXISTING CROSSING W/ EXISTING UNDERPASS 36" H.P. PIPELINE**
- STORM SEWER TO BE INSTALLED VIA OPEN-CUT TRENCHING PER INFILTRATION & DETENTION CROSS-SECTION DETAIL.
 - EXISTING GROUND ELEVATION = 716.50 (FIELD VERIFY).
 - PR. 12" STM (N) R/W.
 - EX. 36" H.P. GAS LINE IS ANTICIPATED TO HAVE AN APPROXIMATE DEPTH BETWEEN 15.0 AND 15.5 FEET FROM EXISTING GROUND TO THE TOP OF PIPE BASED ON INITIAL INFORMATION PROVIDED BY NEXUS/ENRIDGE. THIS RESULTS IN A TOP OF PIPE ELEVATION BETWEEN 705.00 AND 705.05. PROVIDING APPROXIMATELY 11.1 TO 11.6 FEET OF CLEARANCE WITH THE PROPOSED SEWER PIPE CROSSING. THE TRENCH FOR THE PROPOSED SEWER CROSSING SHALL BE PROBED AND EXCAVATED BY HAND TO FIELD VERIFY & CONFIRM THERE ARE NO CONFLICTS WITH THE EXISTING PIPELINE.
- B. PRE-EXISTING CROSSING W/ EXISTING UNDERPASS 36" H.P. PIPELINE**
- WATER MAIN TO BE INSTALLED VIA OPEN-CUT TRENCHING PER YLLCA STANDARD WATER MAIN INSTALLATION.
 - EXISTING GROUND ELEVATION = 717.15 (FIELD VERIFY).
 - PR. 8" W.M. (P) R/W.
 - EX. 36" H.P. GAS LINE IS ANTICIPATED TO HAVE AN APPROXIMATE DEPTH BETWEEN 12.5 AND 13.0 FEET FROM EXISTING GROUND TO THE TOP OF PIPE BASED ON INITIAL INFORMATION PROVIDED BY NEXUS/ENRIDGE. THIS RESULTS IN A TOP OF PIPE ELEVATION BETWEEN 704.45 AND 704.55. PROVIDING APPROXIMATELY 6.1 TO 6.6 FEET OF CLEARANCE WITH THE PROPOSED SEWER PIPE CROSSING. THE TRENCH FOR THE PROPOSED SEWER CROSSING SHALL BE PROBED AND EXCAVATED BY HAND TO FIELD VERIFY & CONFIRM THERE ARE NO CONFLICTS WITH THE EXISTING PIPELINE.



STORM WATER MANAGEMENT SYSTEM NARRATIVE

1. PRE-VERSUS-POST DEVELOPMENT CONDITIONS

The existing parcel (3.87 acres) is comprised of mostly undeveloped land, which contains soils conforming to hydrologic groups B and D. An existing easement for a 36" diameter high pressure gas line runs diagonally through the parcel and encompasses 100-foot total width along its length (50' WD. EASEMENT PLUS 25' WD. WORKING SPACE ON BOTH SIDES). THE SEASONAL HIGH WATER TABLE ELEVATION OF 709.00 IS ESTIMATING BASED ON SOIL BORING AND TEST PIT INFILTRATION TESTING INFORMATION OBTAINED BY G2 CONSULTING GROUP IN NOVEMBER OF 2023.

THE PROPOSED SITE WILL INCLUDE TWO ONE-STORY BUILDINGS FOR CANNABIS CONSUMPTION AND STORAGE WITH ASSOCIATED PAVED PARKING AREAS, DRIVE LINES, AND SIDEWALKS. AN OUTSIDE AMPHIHEATER STRUCTURE IS ALSO PROPOSED, WITH GRAVEL WALKING AREAS TO PROVIDE CONNECTIVITY TO OUTDOOR OPEN-SPACE RECREATION AREAS, AS WELL AS A GRAVEL FOOD TRUCK COURT (TO BE LOCATED ON A SEPARATE PARCEL TO MEET LICENSING REQUIREMENTS). A LARGE PORTION OF THE SITE WILL BE USED AS A GRASS PARKING AREA DURING LARGE EVENTS. THE OVERALL SITE HAS A NET RESULTING RUN-OFF COEFFICIENT OF 0.502. BASED ON THE WQRC DETENTION CALCULATIONS, THE REQUIRED DETENTION VOLUME IS 35,645 C.F., AND THE ON-SITE INFILTRATION VOLUME REQUIREMENT IS 7,050 C.F.

2. SITE TOPOGRAPHY AND GRADING DESIGN:

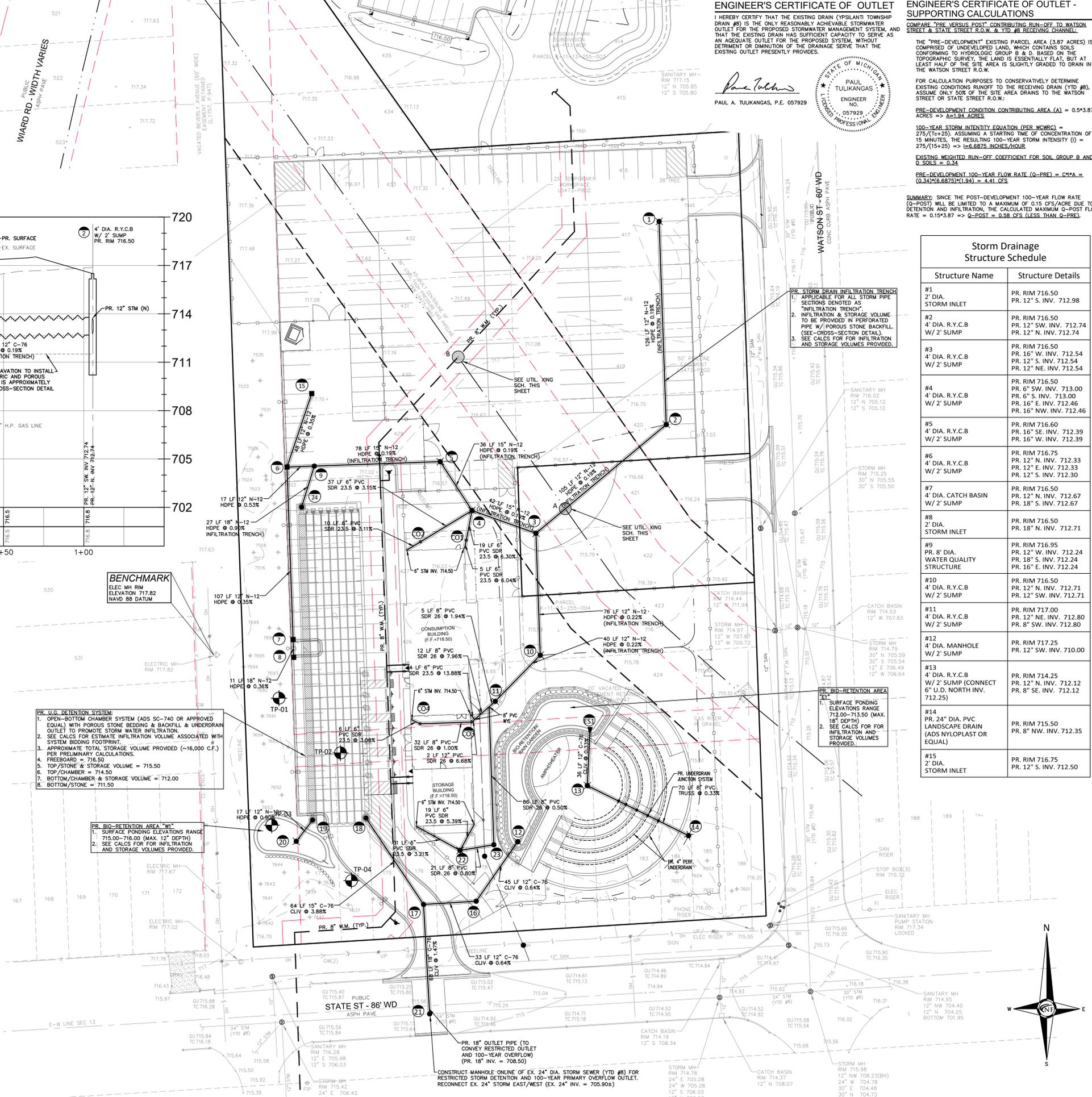
THE EXISTING SITE TOPOGRAPHY IS FLAT. PROPOSED EARTHWORK OPERATIONS WILL GENERALLY CONSIST OF EXCAVATING MATERIAL AS REQUIRED FOR THE PROPOSED UNDERGROUND DETENTION SYSTEM (BIO-RETENTION, MECHANICAL TREATMENT STRUCTURE, AND INFILTRATION TRENCHES), AND FILLING FOR THE PROPOSED BUILDING PAD, PAVED PARKING LOT AND GRAVEL PARKMENT AREAS LOCATED THROUGHOUT THE SITE. PER THE HIGH-PRESSURE GAS LINE OWNER (ENRIDGE/NEXUS), CUTTING OF THE EXISTING GRADE WITHIN THE 100-FOOT WIDE EASEMENT IS NOT ALLOWABLE. DRAINAGE FOR MOST OF THE SITE IS ROUTED THROUGH A SERIES OF SWALES, CATCH BASINS AND STORM DRAIN INFILTRATION TRENCHES, WHICH PROVIDE BOTH INFILTRATION AND STORAGE VOLUME. THIS SYSTEM IS EVENTUALLY ROUTED TO THE UNDERGROUND TREATMENT AND DETENTION SYSTEM (BIO-RETENTION, MECHANICAL TREATMENT STRUCTURE, AND INFILTRATION TRENCHES) TO MEET INFILTRATION AND STORAGE VOLUME REQUIREMENTS. THE OVERALL DRAINAGE AREA SURROUNDING THE AMPHIHEATER WILL DRAIN THROUGH A SEPARATE BIO-RETENTION SYSTEM & OUTLET SINCE THIS AREA REQUIRES A LOWER OUTLET THAN OTHER PORTIONS OF THE SITE.

3. WATER QUALITY (PRE-TREATMENT) AND INFILTRATION:

STORMWATER QUALITY REQUIREMENTS ARE PROPOSED TO BE MOSTLY MET THROUGH USE OF APPLICABLE BMP'S (BIO-RETENTION AREAS, STORM DRAIN INFILTRATION TRENCHES, AND PERFORATED U.G. DETENTION SYSTEM W/ OPEN-BOTTOM) & MECHANICAL TREATMENT STRUCTURE IS ALSO LOCATED JUST UPSTREAM OF THE U.G. DETENTION SYSTEM TO PROVIDE ADDITIONAL TREATMENT FOR IMPERVIOUS AREAS PROPOSED WITHIN THE SITE. INFILTRATION IS BEING USED AS A PRIMARY BMP FOR THIS SITE TO PROVIDE TREATMENT OFF-SET REQUIRED DETENTION VOLUME AND PROVIDE GROUND-WATER RE-CHARGE. THE TYPICAL INFILTRATION ELEVATION UTILIZED IN THE DESIGN RANGES FROM 712.00 TO 713.00 (RANGING BETWEEN APPROXIMATELY 3'-4' FEET ABOVE THE OBSERVED GROUND WATER ELEVATION).

4. DETENTION BASIN, RESTRICTED OUTLET, AND OVERFLOW DESIGN:

THE UNDERGROUND DETENTION SYSTEM IS LOCATED AT THE SOUTHWEST PART OF THE SITE AND WILL ACCEPT FLOW FROM MOST OF THE UPSTREAM DRAINAGE AREAS. BASED ON PRELIMINARY CALCULATIONS, A MINIMUM STORAGE CAPACITY FOR THE SYSTEM IS 16,000 C.F., WHICH SLIGHTLY EXCEEDS THE NET REQUIRED VOLUME AFTER CONSIDERATION OF RUN-OFF VOLUME CREDITS ASSOCIATED WITH OTHER PROPOSED BMP'S. THE BOTTOM OF THE DETENTION SYSTEM AND STORAGE IS DESIGNED AT 712.00 (3 FEET ABOVE OBSERVED GROUND WATER ELEVATION). THE TOP OF DETENTION STORAGE ELEVATION IS 716.50, AND THE FLOOD-BOARD ELEVATION IS 716.50. THE OVERALL OUTLET FOR THE SITE WILL CONNECT TO THE EXISTING 24" STORM PIPE LOCATED IN STATE STREET VIA CONSTRUCTION OF A PROPOSED MANHOLE ONLINE OF THE 24" STORM DRAIN TO ACCEPT THE PROPOSED 18" DIAMETER OUTLET PIPE. THE OUTLET FLOW WILL BE RESTRICTED TO MEET APPLICABLE WORKING GUIDELINES, INCLUDING A MAXIMUM ALLOWABLE OUTLET RATE OF 0.15 CFS/ACRE, BY TWO SEPARATE OUTLET CONTROL STRUCTURES TO ACCOMMODATE POTENTIAL OVERFLOW EVENTS. THE OUTLET PIPE IS SIZED TO ACCOMMODATE THE 100-YEAR CONVEYANCE FLOW FOR THE OVERALL SITE.



ENGINEER'S CERTIFICATE OF OUTLET

I HEREBY CERTIFY THAT THE EXISTING DRAIN (YPSILANTI TOWNSHIP DRAIN #8) IS THE ONLY REASONABLY ACHIEVABLE STORMWATER OUTLET FOR THE PROPOSED STORMWATER MANAGEMENT SYSTEM, AND THAT THE EXISTING DRAIN HAS SUFFICIENT CAPACITY TO SERVE AS AN ADEQUATE OUTLET FOR THE PROPOSED SYSTEM, WITHOUT DETRIMENT OR DIMINUTION OF THE DRAINAGE SERVICE THAT THE EXISTING OUTLET PRESENTLY PROVIDES.

Paul A. Tul kangas
PAUL A. TULKANGAS, P.E. 057929

ENGINEER'S CERTIFICATE OF OUTLET - SUPPORTING CALCULATIONS

COMPARE "PRE-VERSUS-POST" CONTRIBUTING RUN-OFF TO WATSON STREET & STATE STREET R.O.W. & YTD #8 RECEIVING CHANNEL.

THE "PRE-DEVELOPMENT" EXISTING PARCEL AREA (3.87 ACRES) IS COMPRISED OF UNDEVELOPED LAND WHICH CONTAINS SOILS CONFORMING TO HYDROLOGIC GROUP B & D. BASED ON THE TOPOGRAPHIC SURVEY, THE LAND IS ESSENTIALLY FLAT, BUT AT LEAST HALF OF THE SITE AREA IS SLIGHTLY GRADED TO DRAIN INTO THE WATSON STREET R.O.W.

FOR CALCULATION PURPOSES TO CONSERVATIVELY DETERMINE EXISTING CONDITIONS RUNOFF TO THE RECEIVING DRAIN (YTD #8), ASSUME ONLY SOLE OF THE SITE AREA DRAINS TO THE WATSON STREET OR STATE STREET R.O.W.:

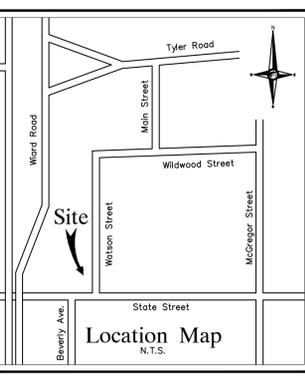
PRE-DEVELOPMENT CONDITION CONTRIBUTING AREA (A) = 0.54*3.87 ACRES => A=2.11 ACRES

100-YEAR STORM INTENSITY EQUATION (PER WQRC) = $275/(T+25)$, ASSUMING A STARTING TIME OF CONCENTRATION OF 15 MINUTES, THE RESULTING 100-YEAR STORM INTENSITY (I) = $275/(15+25) => I=6.8875$ INCHES/HOUR

EXISTING WEIGHTED RUN-OFF COEFFICIENT FOR SOIL GROUP B AND D, SOILS = 0.34

PRE-DEVELOPMENT 100-YEAR FLOW RATE (Q-PRE) = $CMA = (0.34)(6.8875)(1.94) = 4.41$ CFS

SUMMARY: SINCE THE POST-DEVELOPMENT 100-YEAR FLOW RATE (Q-POST) WILL BE LIMITED TO A MAXIMUM OF 0.15 CFS/ACRE DUE TO DETENTION AND INFILTRATION, THE CALCULATED MAXIMUM Q-POST FLOW RATE = $0.15*3.87 => Q-POST = 0.58$ CFS (LESS THAN Q-PRE).



Storm Drainage Structure Schedule

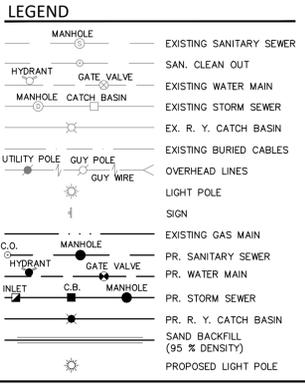
Structure Name	Structure Details
#1 2' DIA. STORM INLET	PR. RIM 716.50 PR. 12" S. INV. 712.98
#2 4' DIA. R.Y.C.B. W/ 2' SUMP	PR. RIM 716.50 PR. 12" SW. INV. 712.74 PR. 12" N. INV. 712.74
#3 4' DIA. R.Y.C.B. W/ 2' SUMP	PR. RIM 716.50 PR. 16" W. INV. 712.54 PR. 12" S. INV. 712.54 PR. 12" NE. INV. 712.54
#4 4' DIA. R.Y.C.B. W/ 2' SUMP	PR. RIM 716.50 PR. 6" SW. INV. 713.00 PR. 16" E. INV. 712.46 PR. 16" NW. INV. 712.46
#5 4' DIA. R.Y.C.B. W/ 2' SUMP	PR. RIM 716.60 PR. 16" SE. INV. 712.39 PR. 16" W. INV. 712.39
#6 4' DIA. R.Y.C.B. W/ 2' SUMP	PR. RIM 716.75 PR. 12" N. INV. 712.33 PR. 12" S. INV. 712.30
#7 4' DIA. CATCH BASIN W/ 2' SUMP	PR. RIM 716.50 PR. 12" N. INV. 712.67 PR. 18" S. INV. 712.67
#8 2' DIA. STORM INLET	PR. RIM 716.50 PR. 18" N. INV. 712.71
#9 PR. 8' DIA. WATER QUALITY STRUCTURE	PR. RIM 716.95 PR. 12" W. INV. 712.24 PR. 18" S. INV. 712.24 PR. 16" E. INV. 712.24
#10 4' DIA. R.Y.C.B. W/ 2' SUMP	PR. RIM 716.50 PR. 12" N. INV. 712.71 PR. 12" SW. INV. 712.71
#11 4' DIA. R.Y.C.B. W/ 2' SUMP	PR. RIM 717.00 PR. 12" NE. INV. 712.80 PR. 8" SW. INV. 712.80
#12 4' DIA. MANHOLE W/ 2' SUMP	PR. RIM 717.25 PR. 12" SW. INV. 710.00
#13 4' DIA. R.Y.C.B. W/ 2' SUMP (CONNECT 6" U.D. NORTH INV. 712.25)	PR. RIM 714.25 PR. 12" N. INV. 712.12 PR. 8" SE. INV. 712.12
#14 PR. 24" DIA. PVC LANDSCAPE DRAIN (EALS NYLOPLAST OR EQUIV)	PR. RIM 715.50 PR. 8" NW. INV. 712.35
#15 2' DIA. STORM INLET	PR. RIM 716.75 PR. 12" S. INV. 712.50

Storm Drainage Structure Schedule

Structure Name	Structure Details
#16 PR. 5' DIA. OUTLET CONTROL MANHOLE W/ PVC RISER	PR. RIM 717.51 PR. 12" NE. INV. 709.71 PR. 12" W. INV. 709.71
#17 PR. 4' DIA. STORM MANHOLE	PR. RIM 716.50 PR. 15" NW. INV. 709.50 PR. 12" E. INV. 709.50 PR. 18" S. INV. 709.50
#18 PR. 6' DIA. OUTLET CONTROL MANHOLE W/ WEIR	PR. RIM 716.65 PR. 15" SE. INV. 712.00
#19 PR. 4' DIA. MH AT UG DET. INLET	PR. RIM 717.25 PR. 12" SW. INV. 712.00
#20 4' DIA. R.Y.C.B. W/ 2' SUMP	PR. RIM 716.00 PR. 12" NE. INV. 712.15
#21 CONSTRUCT PR. 5' DIA. STORM MH ONLINE OF EX. 24" PIPE FOR STORM OUTLET (E/W INV. = 705.90, V.I.F.)	PR. RIM 710.40 PR. 18" N. INV. 708.50
#22 4' DIA. R.Y.C.B. W/ 2' SUMP	PR. RIM 716.75 PR. 6" NW. INV. 713.50 PR. 8" E. INV. 713.50 PR. 6" NE. INV. 713.50
#23 4' DIA. STORM MANHOLE	PR. RIM 717.80 PR. 8" N. INV. 713.33 PR. 8" W. INV. 713.33
#24 PR. FLOW DIVERSION MANHOLE AT INLET TO U.G. DETENTION	PR. RIM 717.15 PR. 18" N. INV. 712.00
#25 8" PVC WYE	PR. RIM 714.37 PR. 8" NE. INV. 712.90 PR. 8" SW. INV. 712.90 PR. 8" S. INV. 712.90
#C01 6" DIA. STORM PVC WYE W/ CLEANOUT	PR. RIM 714.73 PR. 6" N. INV. 714.19 PR. 6" N. INV. 714.18
#C02 6" DIA. STORM PVC WYE W/ CLEANOUT	PR. RIM 714.72 PR. 6" SW. INV. 714.18 PR. 6" NE. INV. 714.18
#C03 6" DIA. STORM PVC WYE W/ CLEANOUT	PR. RIM 715.23 PR. 8" NW. INV. 714.00 PR. 8" W. INV. 714.00
#C04 6" DIA. STORM PVC WYE W/ CLEANOUT	PR. RIM 715.05 PR. 6" NW. INV. 714.32 PR. 8" E. INV. 714.32
#E51 PR. 12" RCP END SECTION W/ BAR SCREEN	PR. RIM 712.80 PR. 12" S. INV. 712.00

SOIL BORING & TEST PIT LEGEND

INDICATES SOIL BORING & TEST PIT LOCATIONS. REFER TO GEOTECHNICAL REPORT AND INFILTRATION EVALUATION PERFORMED BY G2 CONSULTING GROUP DATED 11/15/22.



NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

PAUL TULKANGAS
ENGINEER
NO. 057929
LICENSED PROFESSIONAL ENGINEER

PROJECT
Frost Music Venue
2525 State Street
Ypsilanti, MI 48198

CLIENT
Michael Ludtke
Tel. (952) 807-61058
Email: Ludtke4648@gmail.com

PROJECT LOCATION
Part of the Northwest 1/4 of Section 13, T.3S., R.7E., Ypsilanti Township, Washtenaw County, Michigan

SHEET
Stormwater Conveyance & Management Plan

811
Know what's below
Call before you dig.

DATE	ISSUED/REVISED
09-05-23	CONCEPT PLAN
10-17-23	REVISED PER ENRIDGE/NEXUS
12-15-23	OWNER REVIEW
01-02-24	PRELIMINARY SITE PLAN
05-06-24	REVISED PSP
06-12-24	REVISED PSP
07-22-24	REVISED PSP

DRAWN BY:
J. Lawrey

DESIGNED BY:
P. Tul kangas

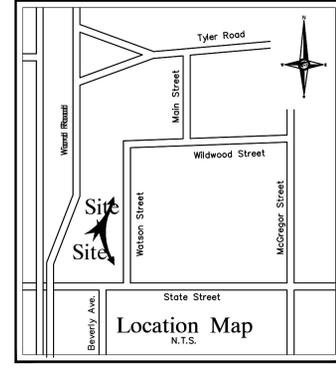
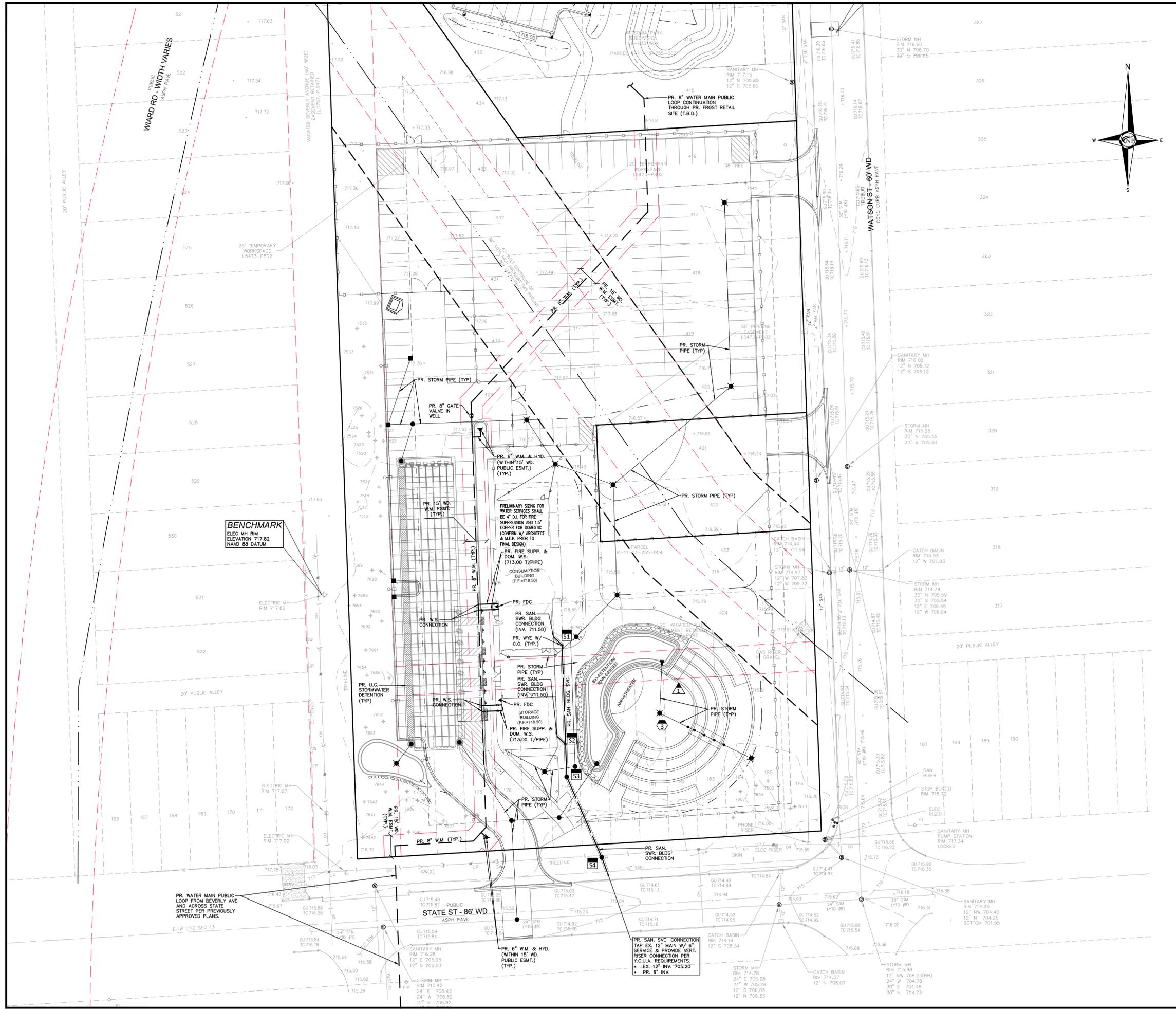
APPROVED BY:
P. Tul kangas

DATE:
August 22, 2023

SCALE: 1" = 30'

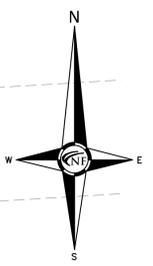
30 15 0 15 30 45

NFE JOB NO. M994 SHEET NO. C06



**CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS**

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM



Sanitary Structure Schedule	
Structure Name	Structure Details
#51 6" DIA. SAN. PVC WYE W/ CLEANOUT	PR. RIM 718.31 PR. 6" NW. INV. 711.37 PR. 6" S. INV. 711.37
#52 6" DIA. SAN. PVC WYE W/ CLEANOUT	PR. RIM 718.27 PR. 6" N. INV. 710.34 PR. 6" S. INV. 710.34 PR. 6" NW. INV. 711.50
#53 PR. 4" DIA. SAN. M.H.	PR. RIM 717.33 PR. 6" N. INV. 710.00 PR. 6" SE. INV. 708.50
#54 PR. 4" DIA. SAN. M.H.	PR. RIM 715.66 PR. 6" NW. INV. 707.50 PR. 6" S. INV. 706.50



PROJECT
Frost Music Venue
2525 State Street
Ypsilanti, MI 48198

CLIENT
Michael Ludtke
Tel. (952) 807-61058
Email:
Ludtke4648@gmail.com

PROJECT LOCATION
Part of the Northwest 1/4 of
Section 13
T.3S., R.7E.,
Ypsilanti Township,
Washtenaw County,
Michigan

SHEET
Water Main & Sanitary
Sewer Plan



DATE	ISSUED/REVISED
09-05-23	CONCEPT PLAN
10-17-23	REVISED PER ENBRIDGE/NEXUS
12-15-23	OWNER REVIEW
01-02-24	PRELIMINARY SITE PLAN
05-06-24	REVISED PSP
06-12-24	REVISED PSP
07-22-24	REVISED PSP

DRAWN BY:
J. Lawrey
DESIGNED BY:
P. Tulikangas
APPROVED BY:
P. Tulikangas

DATE:
August 22, 2023

SCALE: 1" = 30'

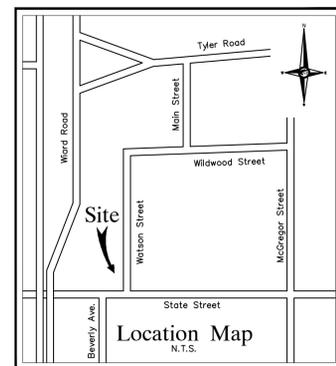
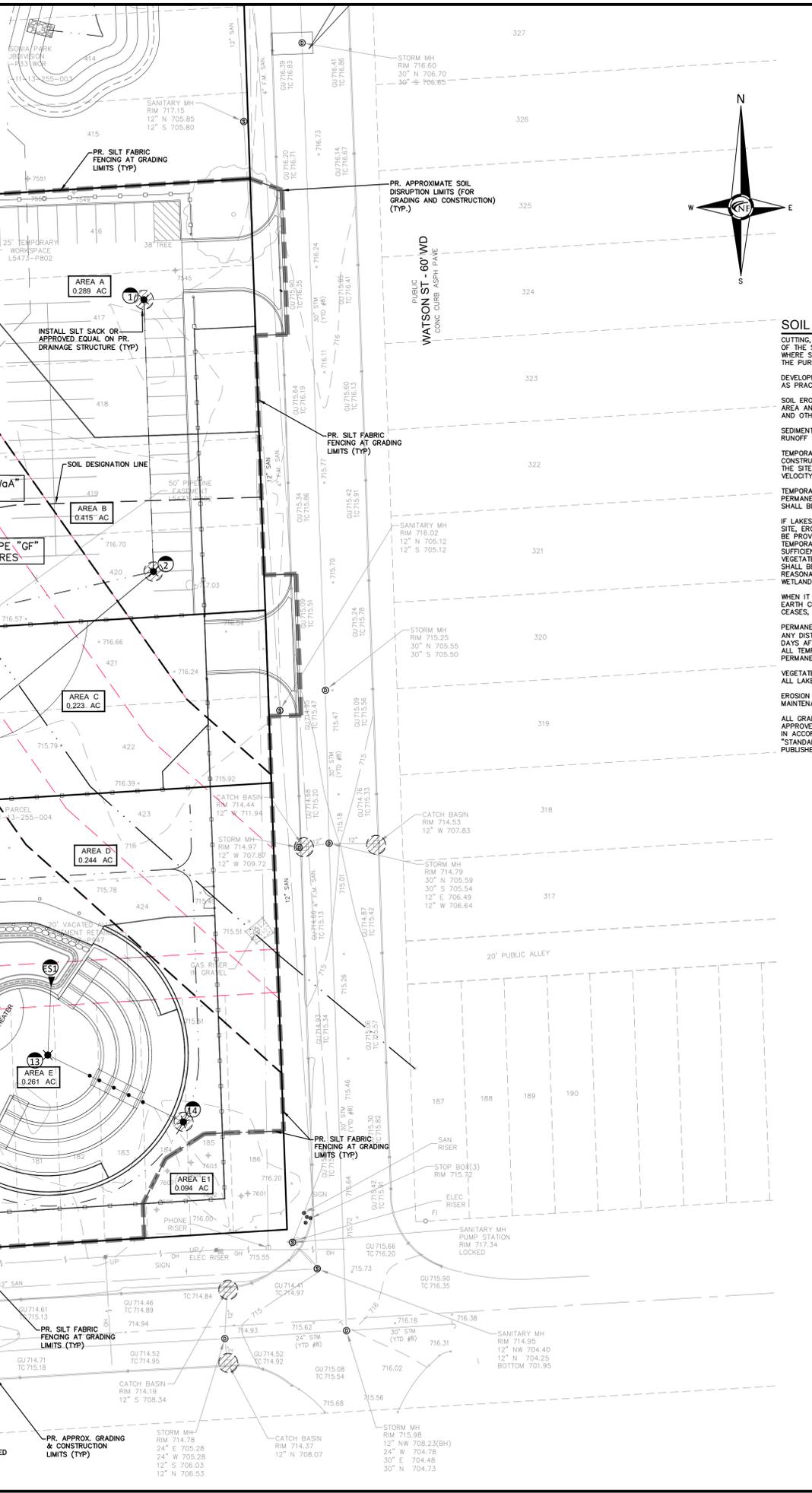
NFE JOB NO. M994 **SHEET NO.** C08

LEGEND	
	EXISTING SANITARY SEWER
	SAN. CLEAN OUT
	EXISTING WATER MAIN
	EXISTING STORM SEWER
	EX. R. Y. CATCH BASIN
	EXISTING BURIED CABLES
	OVERHEAD LINES
	LIGHT POLE
	SIGN
	EXISTING GAS MAIN
	PR. SANITARY SEWER
	PR. WATER MAIN
	PR. STORM SEWER
	PR. R. Y. CATCH BASIN
	SAND BACKFILL (95% DENSITY)
	PROPOSED LIGHT POLE

CONSTRUCTION SEQUENCE / TIMING SCHEDULE		
1. INSTALL PERIMETER FILTER FABRIC FENCING AND STONE FILTER WHERE REQUIRED.	AUGUST 2024	
2. MASS GRADE SITE.	AUGUST 2024	
3. COMMENCE UNDERGROUND UTILITY WORK.	SEPTEMBER 2024	
4. INSTALL INLET FILTERS ON PROPOSED DRAINAGE STRUCTURES.	OCTOBER 2024	
5. FILL IN SEDIMENTATION TRAPS AND PAVE SITE.	APRIL 2025	
6. COMPLETE ALL BUILDINGS AND LANDSCAPE ACTIVITY.	JUNE 2025	
7. JET VAC NEW STORM SEWER SYSTEM AS REQUIRED.	JULY 2025	
8. REMOVE ALL TEMPORARY SOIL EROSION MEASURES.	AUGUST 2025	

TASKS	COMPONENTS						SCHEDULE
	Storm Sewer System	Catch Basin Inlet Filters	Silt Fence	Outflow Control Structures	Rip-Rap	Detention / Rain Garden / Infiltration Basins	
Inspect for Floatables, Sediment and Debris	X	X	X	X	X	X	Weekly / Within 24 Hours After a Rain Event
Removal of Sediment, Floatables and Debris	X	X	X	X	X	X	As Needed*
Inspection for Erosion				X	X	X	Weekly / Within 24 Hours After a Rain Event
Re-establish permanent vegetation on eroded slopes				X	X	X	As Needed*
Replacement of Stone				X	X		At Turnover

*Note: "As Needed" refers to when sediment has accumulated to a maximum of one foot depth and/or visually apparent debris exists.



SOIL EROSION CONTROL

CUTTING, FILLING AND GRADING SHALL BE MINIMIZED AND THE NATURAL TOPOGRAPHY OF THE SITE SHALL BE PRESERVED TO THE MAXIMUM POSSIBLE EXTENT, EXCEPT WHERE SPECIFIC FINDINGS DEMONSTRATE THAT MAJOR ALTERATIONS WILL STILL MEET THE PURPOSES AND REQUIREMENTS OF THIS ORDINANCE.

DEVELOPMENT SHALL BE STAGED TO KEEP THE EXPOSED AREAS OF SOIL AS SMALL AS PRACTICABLE.

SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED BETWEEN THE DISTURBED AREA AND ANY WATERCOURSES, INCLUDING RIVERS, STREAMS, CREEKS, LAKES, PONDS AND OTHER WATERCOURSES, WETLANDS, OR ROADWAYS ON OR NEAR THE SITE.

SEDIMENT RESULTING FROM ACCELERATED SOIL EROSION SHALL BE REMOVED FROM RUNOFF WATER BEFORE THAT WATER LEAVES THE SITE.

TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF WATER AROUND, THROUGH, OR AWAY FROM THE SITE SHALL BE DESIGNED TO LIMIT THE WATER FLOW TO A NON-EROSIVE VELOCITY.

TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE REMOVED AFTER PERMANENT SOIL EROSION CONTROL MEASURES HAVE BEEN IMPLEMENTED. ALL SITES SHALL BE STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES.

IF LAKES, PONDS, CREEKS, STREAMS, OR WETLANDS ARE LOCATED ON OR NEAR THE SITE, EROSION CONTROL MEASURES WHICH DIVERT RUNOFF AND TRAP SEDIMENT MUST BE PROVIDED AT STRATEGIC LOCATIONS. STRAW BALE BERMS MAY BE USED AS TEMPORARY STORMWATER DIVERSION STRUCTURES, BUT WILL NOT BE CONSIDERED SUFFICIENT FOR TRAPPING SEDIMENT. THE USE OF SEDIMENT BASINS, FILTER FABRIC, VEGETATED BUFFER STRIPS, AND ROCK FILTERS IN LIEU OF STRAW BALE BERMS SHALL BE STRONGLY ENCOURAGED. OTHER MEASURES MAY BE REQUIRED IF REASONABLY DETERMINED TO BE NECESSARY TO PROTECT A WATERCOURSE OR WETLAND.

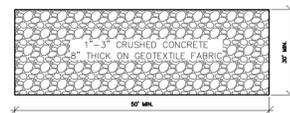
WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHEN SIGNIFICANT EARTH CHANGE ACTIVITY OCCURS, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED.

PERMANENT EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 15 (FIFTEEN) CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.

VEGETATED BUFFER STRIPS SHALL BE CREATED OR RETAINED ALONG THE EDGES OF ALL LAKES, PONDS, CREEKS, STREAMS, OTHER WATERCOURSES, OR WETLANDS.

EROSION AND SEDIMENTATION CONTROL MEASURES SHALL RECEIVE REGULAR MAINTENANCE TO ASSURE PROPER FUNCTIONING.

ALL GRADING PLANS AND SPECIFICATIONS, INCLUDING EXTENSIONS OF PREVIOUSLY APPROVED PLANS, SHALL INCLUDE PROVISIONS FOR EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH, BUT NOT LIMITED TO, THE STANDARDS CONTAINED IN THE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PUBLISHED BY THE OAKLAND SOIL CONSERVATION DISTRICT.



TEMPORARY CRUSHED CONCRETE CONSTRUCTION ACCESS ROAD

NOTES

REFER TO THE YPSILANTI TOWNSHIP SOIL EROSION AND SEDIMENTATION CONTROL DETAIL SHEET FOR ALL ADDITIONAL NOTES & DETAILS (TYP)

A DISTANCE OF 3,500 FEET TO THE NEAREST BODY OF WATER HURON RIVER.

THE TOTAL AREA OF EARTH DISRUPTION IS APPROXIMATELY 2.75 ACRES.

THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY THE CONTRACTOR (CONTACT: JOSH JANKOWAK, BLOOM CONSTRUCTION (248)-941-9314)

A SOIL EROSION PERMIT IS REQUIRED FROM YPSILANTI TOWNSHIP.

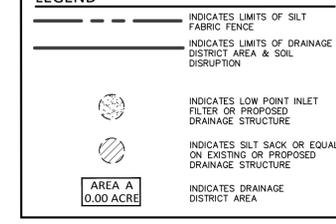
SOIL DATA

THIS SITE CONSISTS OF GILFORD SANDY LOAM, TILL PLAIN, 0 TO 2 PERCENT SLOPES, AND WASHEN SANDY LOAM, 0 TO 4 PERCENT SLOPES BASED ON DATA PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE.

ESTIMATED QUANTITIES

DESCRIPTION	QUANTITY	UNITS
SILT FABRIC FENCING	1,550	L.F.
SILT SACK OR EQUAL	19	EA.

LEGEND



LEGAL DESCRIPTION - PARCEL K-11-13-355-004
 ALL OF LOTS 173 THROUGH 186, ALL OF LOTS 416 THROUGH 433, PART OF LOTS 434 THROUGH 437, ALL OF VACATED 20 FOOT WIDE ALLEY AND PART OF THE EAST 1/2 OF VACATED BEVERLY AVENUE (60 FEET WIDE), ALL INCLUSIVE, WATSONIA PARK SUBDIVISION BEING A PART OF THE NORTHWEST 1/4 OF SECTION 13, TOWN 3 SOUTH, RANGE 7 EAST AS RECORDED IN LIBER 8 OF PLATS, ON PAGE 33, WASHENAW COUNTY RECORDS ALL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 186; THENCE SOUTH 88 DEGREES 34 MINUTES 22 SECONDS WEST ALONG THE NORTH LINE OF STATE STREET (86 FEET WIDE), 320.01 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE CENTERLINE OF SAID VACATED BEVERLY AVENUE, 684.24 FEET; THENCE SOUTH 33 DEGREES 17 MINUTES 58 SECONDS EAST ALONG THE EASTERLY LINE OF A TEMPORARY WORK SPACE EASEMENT RECORDED IN LIBER 5473, PAGE 802, WASHENAW COUNTY RECORDS, 232.18 FEET; THENCE NORTH 88 DEGREES 34 MINUTES 22 SECONDS EAST ALONG THE NORTH LINE OF SAID LOTS 416 AND 433, 192.90 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE WEST LINE OF WATSON STREET (60 FEET WIDE), 487.01 FEET TO THE POINT OF BEGINNING. CONTAINING 168,369.03 SQUARE FEET OR 3.87 ACRES OF LAND.

NF ENGINEERS
 CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS

NOWAK & FRAUS ENGINEERS
 46777 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
 FAX. (248) 332-8257
 WWW.NOWAKFRAUS.COM



PROJECT
 Frost Music Venue
 2525 State Street
 Ypsilanti, MI 48198

CLIENT
 Michael Ludtke
 Tel. (952) 807-61058
 Email: Ludtke4648@gmail.com

PROJECT LOCATION
 Part of the Northwest 1/4 of Section 13
 T.3S., R.7E.,
 Ypsilanti Township,
 Washtenaw County,
 Michigan

SHEET
 Soil Erosion & Drainage
 Areas Plan



DATE	ISSUED/REVISED
09-05-23	CONCEPT PLAN
10-17-23	REVISED PER ENBRIDGE/NEXUS
12-15-23	OWNER REVIEW
01-02-24	PRELIMINARY SITE PLAN
05-06-24	REVISED PSP
06-12-24	REVISED PSP
07-22-24	REVISED PSP

DRAWN BY:
 J. Lawrey

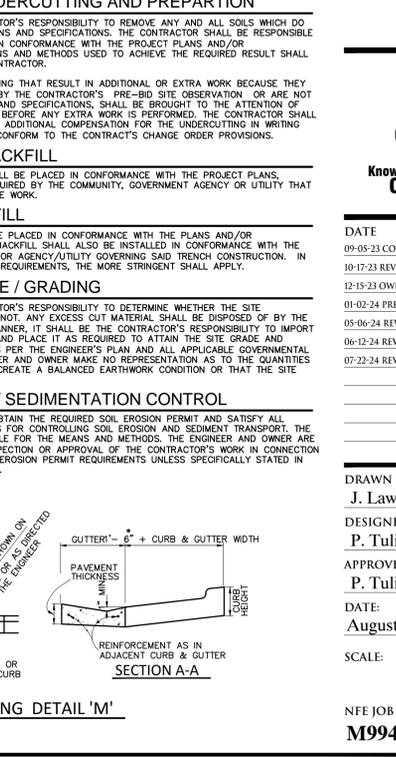
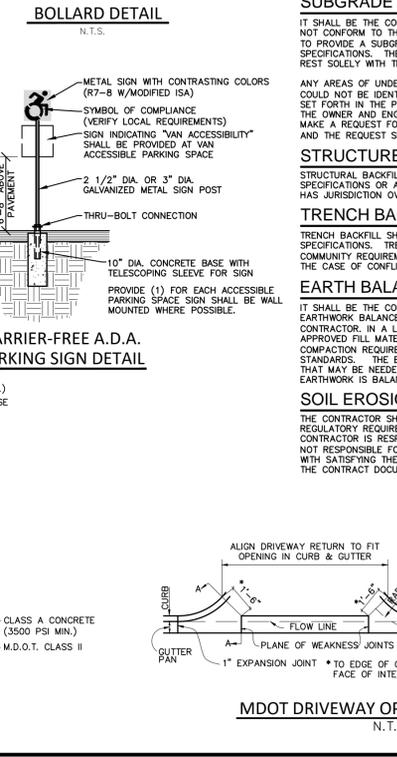
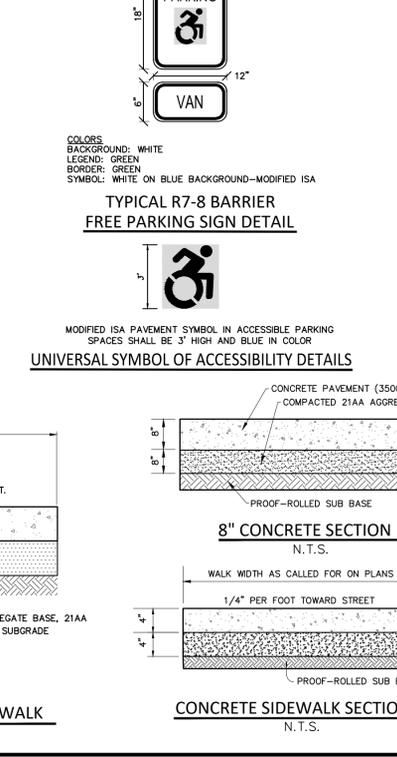
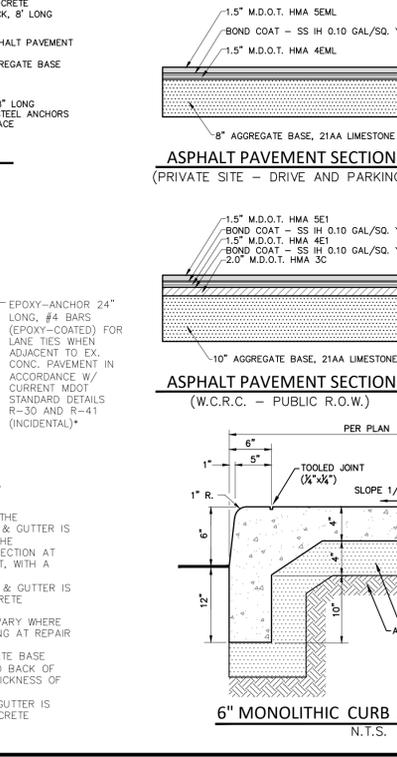
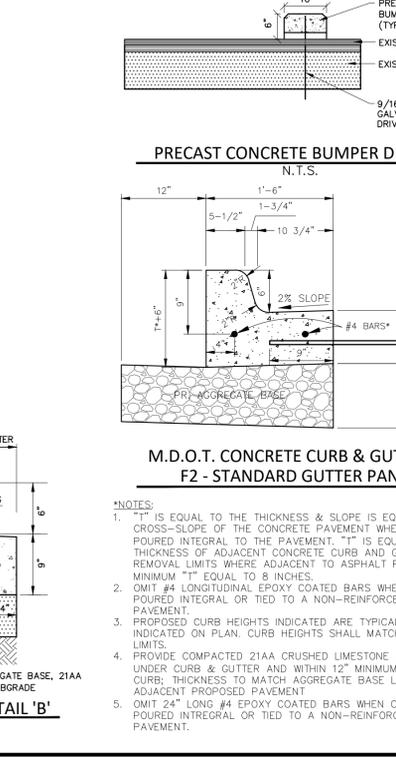
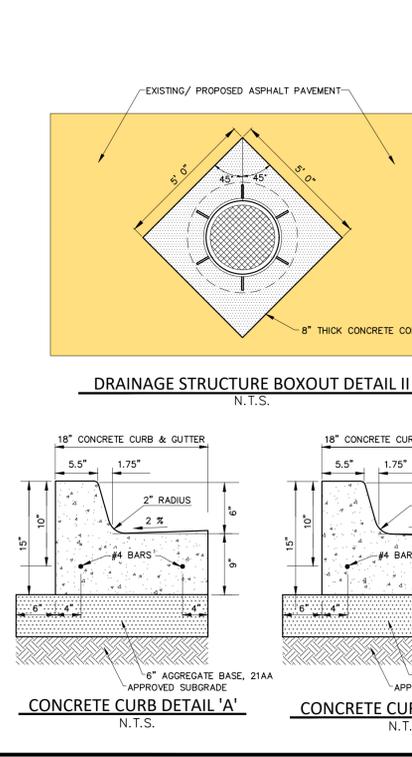
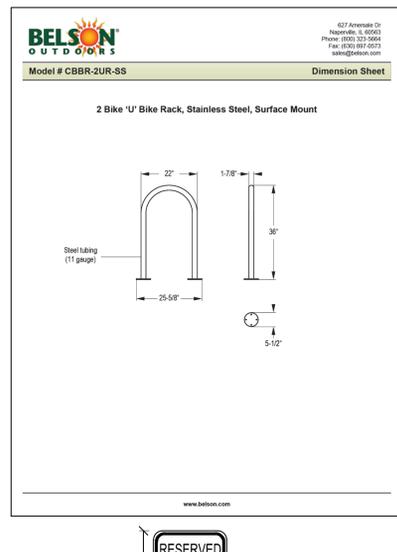
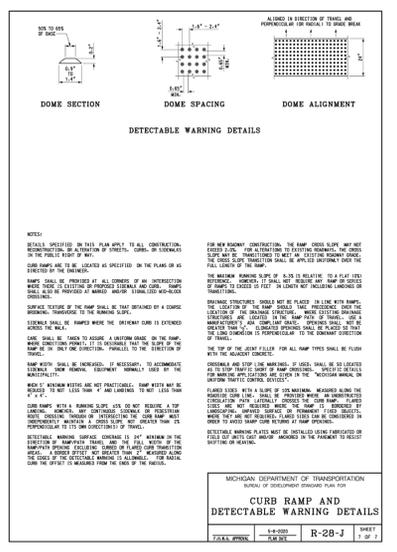
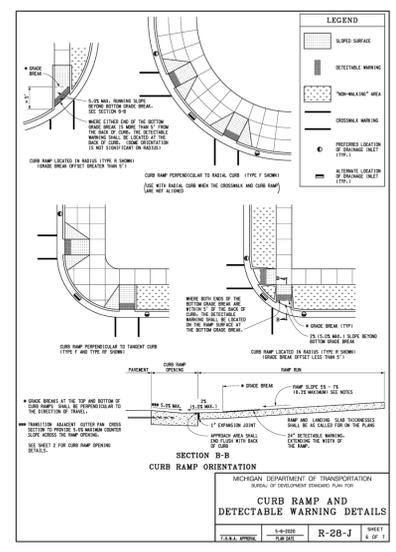
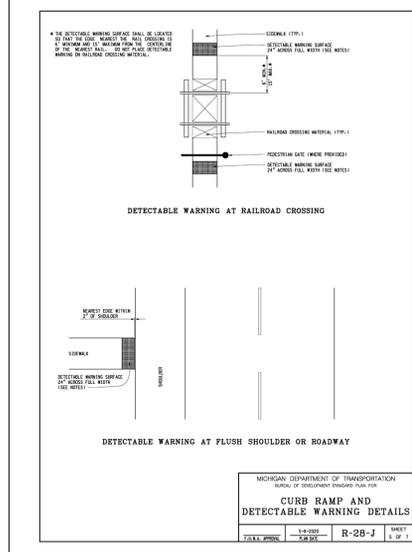
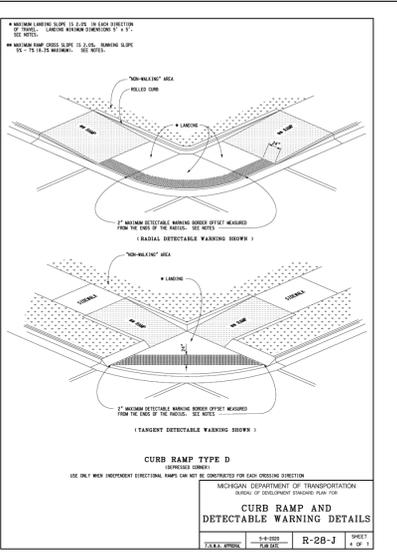
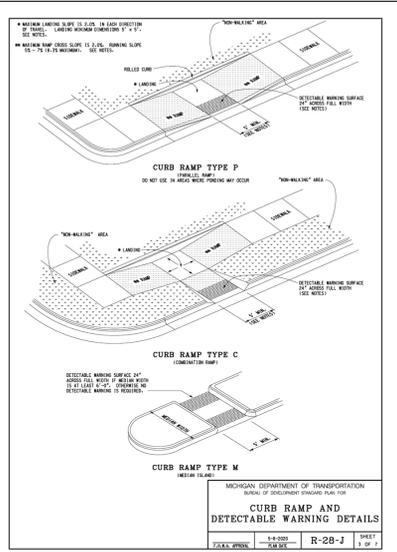
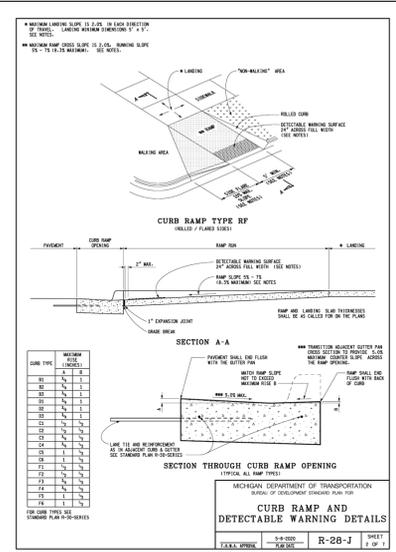
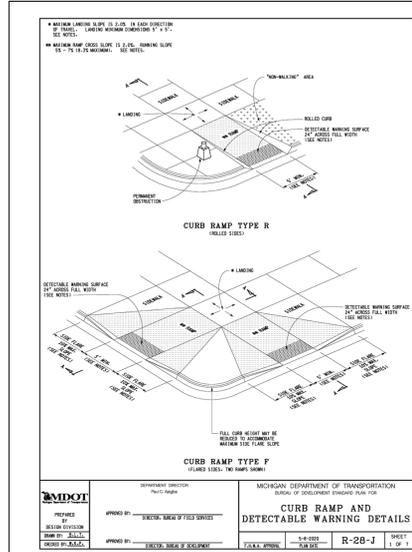
DESIGNED BY:
 P. Tulikangas

APPROVED BY:
 P. Tulikangas

DATE:
 August 22, 2023

SCALE: 1" = 30'

NFE JOB NO. M994 SHEET NO. C09



UTILITIES
 AT LEAST 72 HOURS (3 WORKING DAYS) PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY MISS DOW AND THE LOCAL COMMUNITY (WHERE APPLICABLE) TO STAKE LOCATIONS OF EXISTING UTILITIES.

THE CONTRACTOR SHALL EXPOSE AND VERIFY EXISTING UTILITIES FOR LOCATION, SIZE, DEPTH, MATERIAL AND CONFIGURATION PRIOR TO CONSTRUCTION. COSTS FOR EXPLORATORY EXCAVATION IS AN INCIDENTAL COST AND SHALL NOT BE CONSIDERED AN EXTRA TO THE CONTRACT.

IF NOT SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION DESIGN DOCUMENTS, THE DESIGN QUALITATIVE ANALYSIS OF GROUND WATER DEWATERING SYSTEMS IS BEYOND THE SCOPE OF DESIGN FOR THESE DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING AND PROVIDING APPROPRIATE EXCAVATION DEWATERING SYSTEMS FOR USE DURING CONSTRUCTION.

THE DEWATERING METHOD SELECTED BY THE CONTRACTOR WILL NOT ADVERSELY AFFECT ADJACENT PAVEMENTS OR STRUCTURES PRIOR TO BEGINNING DEWATERING CONDITIONS. MEANS AND METHODS OF DEWATERING ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF DEWATERING WILL BE CONSIDERED INCLUDED IN THE WORK OF CONSTRUCTING THE UNDERGROUND UTILITIES UNLESS SPECIFICALLY INDICATED OTHERWISE.

BY-PASS PUMPING
 FROM TIME TO TIME IT MAY BE NECESSARY FOR THE CONTRACTOR TO BY-PASS PUMP TO COMPLETE THE WORK SHOWN ON THE PLANS. THE COST OF BY-PASS PUMPING, THE METHODS, EQUIPMENT AND MEANS OF PROVIDING THAT WORK ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE CONSIDERED PART OF THE WORK WHETHER SPECIFICALLY CALLED OUT ON THE PLANS OR NOT.

MEANS AND METHODS FOR PIPE CONSTRUCTION
 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MEANS AND METHODS FOR CONSTRUCTING THE UNDERGROUND PIPE SYSTEMS PROPOSED ON THE PLANS, INCLUDING BUT NOT LIMITED TO THE NEED FOR SHORING/BRACING OF TRENCHES, DEWATERING OF TRENCHES, SCHEDULING THE WORK AT OFF PEAK HOURS, AND/OR MAINTAINING EXISTING FLOWS THAT MAY BE ENCOUNTERED VIA PUMPING, BY-PASS PUMPING OR OTHER MEANS. THE CONTRACTOR SHALL NOT BE PAID ANY ADDITIONAL COMPENSATION TO IMPLEMENT ANY MEANS AND METHODS TO SATISFACTORILY COMPLETE THE CONSTRUCTION.

PAVEMENT REMOVAL
 THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE THICKNESS OF THE PAVEMENT REMOVAL. PAVEMENT CORE SAMPLES ARE FOR INFORMATIONAL PURPOSES ONLY AS TO THE THICKNESS OF THE PAVEMENT AT THE LOCATION OF THE SAME. THE OWNER AND ENGINEER MAKE NO REPRESENTATION, WARRANTY OR GUARANTY THAT THE SAMPLES ACCURATELY REFLECT THE PAVEMENT THICKNESS ON THE PROJECT.

MAINTENANCE OF TRAFFIC
 DURING THE PROGRESS OF THE WORK THE CONTRACTOR SHALL ACCOMMODATE BOTH VEHICULAR AND PEDESTRIAN TRAFFIC IN THE ROAD RIGHTS OF WAY. THE CONTRACTOR'S EQUIPMENT AND OPERATIONS ON PUBLIC STREETS SHALL BE GOVERNED BY ALL APPLICABLE LOCAL, COUNTY AND STATE ORDINANCES, REGULATIONS AND LAWS. THE CONTRACTOR SHALL OBTAIN AND SATISFY ANY AND ALL PERMIT REQUIREMENTS BY THE LOCAL, COUNTY AND STATE GOVERNMENTAL AGENCIES.

IN ADDITION, WHERE THE WORK REQUIRES THE CLOSURE OF ONE OR MORE LANES OR IS WITHIN THE INFLUENCE OF THE ROAD OR PEDESTRIAN RIGHT OF WAY, THE CONTRACTOR SHALL PROVIDE ALL SIGNS, BARRICADES, FLAG PERSONS AND OTHER TRAFFIC CONTROL MEASURES AS REQUIRED BY THE LOCAL, COUNTY OR STATE GOVERNMENTAL AGENCIES.

COMPENSATION FOR TRAFFIC CONTROL SHALL BE CONSIDERED INCLUDED IN THE CONTRACT PRICE(S) UNLESS SPECIFIC TRAFFIC CONTROL ITEMS ARE INCLUDED IN THE ACCEPTED BID PROPOSAL.

IRRIGATION
 THE CONTRACTOR SHALL MAINTAIN OR REPAIR ANY EXISTING IRRIGATION SYSTEMS WITHIN THE PROJECT AREA UNLESS THE DRAWINGS CALL FOR THE IRRIGATION SYSTEM TO BE REMOVED. THE OWNER AND NFE MAKE NO REPRESENTATIONS, WARRANTY OR GUARANTY AS TO THE LOCATION OF THE IRRIGATION SYSTEM. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT EXISTING IRRIGATION SYSTEMS DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING OR REPAIRING EXISTING IRRIGATION SYSTEMS SHALL BE CONSIDERED INCLUDED IN THE CONTRACT PRICE(S) UNLESS SPECIFIC IRRIGATION SYSTEM REPAIR ITEMS ARE INCLUDED IN THE ACCEPTED BID PROPOSAL.

SUB-SOIL CONDITIONS
 ANY SOIL BORING PROVIDED BY THE OWNER AND/OR ENGINEER IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THIS INFORMATION IS NOT OFFERED AS EVIDENCE OF GROUND CONDITIONS THROUGHOUT THE PROJECT AND ONLY REFLECT THE GROUND CONDITIONS AT THE LOCATION OF THE BORING ON THE DATE THEY WERE TAKEN.

THE ACCURACY AND RELIABILITY OF THE SOIL LOGS AND REPORT ARE NOT WARRANTED OR GUARANTEED IN ANY WAY BY THE OWNER OR ENGINEER AS TO THE SUB-SOIL CONDITIONS FOUND ON THE SITE. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION AND SUB-SOIL INVESTIGATION AND SECURE OTHER SUCH INFORMATION AS THE CONTRACTOR CONSIDERS NECESSARY TO DO THE WORK PROPOSED AND IN PREPARATION OF THEIR BID.

SUBGRADE UNDERCUTTING AND PREPARATION
 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY AND ALL SOILS WHICH DO NOT CONFORM TO THE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A SUBGRADE IN CONFORMANCE WITH THE PROJECT PLANS AND/OR SPECIFICATIONS. THE MEANS AND METHODS USED TO ACHIEVE THE REQUIRED RESULT SHALL REST SOLELY WITH THE CONTRACTOR.

ANY AREAS OF UNDERCUTTING THAT RESULT IN ADDITIONAL OR EXTRA WORK BECAUSE THEY COULD NOT BE IDENTIFIED BY THE CONTRACTOR'S PRE-BID SITE OBSERVATION OR ARE NOT SET FORTH IN THE PLANS AND SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE ANY EXTRA WORK IS PERFORMED. THE CONTRACTOR SHALL MAKE A REQUEST FOR ANY ADDITIONAL COMPENSATION FOR THE UNDERCUTTING IN WRITING AND THE REQUEST SHALL CONFORM TO THE CONTRACT'S CHANGE ORDER PROVISIONS.

STRUCTURE BACKFILL
 STRUCTURAL BACKFILL SHALL BE PLACED IN CONFORMANCE WITH THE PROJECT PLANS, SPECIFICATIONS OR AS REQUIRED BY THE COMMUNITY, GOVERNMENT AGENCY OR UTILITY THAT HAS JURISDICTION OVER THE WORK.

TRENCH BACKFILL
 TRENCH BACKFILL SHALL BE PLACED IN CONFORMANCE WITH THE PLANS AND/OR SPECIFICATIONS. TRENCH BACKFILL SHALL ALSO BE INSTALLED IN CONFORMANCE WITH THE COMMUNITY REQUIREMENTS OR AGENCY/UTILITY GOVERNING SAID TRENCH CONSTRUCTION. IN THE CASE OF CONFLICTING REQUIREMENTS, THE MORE STRINGENT SHALL APPLY.

EARTH BALANCE / GRADING
 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHETHER THE SITE EARTHWORK IS BALANCED OR NOT. ANY EXCESS CUT MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LIKE MANNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO IMPORT APPROVED FILL MATERIAL AND PLACE IT AS REQUIRED TO ATTAIN THE SITE GRADE AND COMPACTATION REQUIREMENTS PER THE ENGINEER'S PLAN AND ALL APPLICABLE GOVERNMENTAL STANDARDS. THE ENGINEER AND OWNER MAKE NO REPRESENTATION AS TO THE QUANTITIES THAT MAY BE NEEDED TO CREATE A BALANCED EARTHWORK CONDITION OR THAT THE SITE EARTHWORK IS BALANCED.

SOIL EROSION / SEDIMENTATION CONTROL
 THE CONTRACTOR SHALL OBTAIN THE REQUIRED SOIL EROSION PERMIT AND SATISFY ALL REGULATORY REQUIREMENTS FOR CONTROLLING SOIL EROSION AND SEDIMENT TRANSPORT. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR INSPECTION OR APPROVAL OF THE CONTRACTOR'S WORK IN CONNECTION WITH SATISFYING THE SOIL EROSION PERMIT REQUIREMENTS UNLESS SPECIFICALLY STATED IN THE CONTRACT DOCUMENTS.

NF ENGINEERS
 CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS

NOWAK & FRAUS ENGINEERS
 46777 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
 FAX. (248) 332-8257
 WWW.NOWAKFRAUS.COM

SEAL
 STATE OF MICHIGAN
 PAUL TULIKANGAS
 ENGINEER
 NO. 057929
 EXPIRES 12/31/2025

PROJECT
 Frost Music Venue
 2525 State Street
 Ypsilanti, MI 48198

CLIENT
 Michael Ludtke
 Tel. (952) 807-61058
 Email:
 Ludtke4648@gmail.com

PROJECT LOCATION
 Part of the Northwest 1/4 of
 Section 13,
 T.3S., R.7E.,
 Ypsilanti Township,
 Washtenaw County,
 Michigan

SHEET
 General Notes & Details

811
 Know what's below
 Call before you dig.

DATE ISSUED/REVISED
 09-05-23 CONCEPT PLAN
 10-17-23 REVISED PER ENBRIDGE/NEXUS
 12-15-23 OWNER REVIEW
 01-02-24 PRELIMINARY SITE PLAN
 05-06-24 REVISED P5P
 06-12-24 REVISED P5P
 07-22-24 REVISED P5P

DRAWN BY:
 J. Lawrey

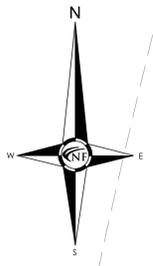
DESIGNED BY:
 P. Tulikangas

APPROVED BY:
 P. Tulikangas

DATE:
 August 22, 2023

SCALE: N.T.S.

NFE JOB NO. SHEET NO.
M994 C10



WARD ROAD
(WIDTH VARIES)

DRY PRAIRIE WILDFLOWER MIX

*CONTAINS AT LEAST 14 WILDFLOWERS AND 3 GRASSES

WILDFLOWERS	GRASSES
BUTTERFLY WEED	BIG BLUESTEM
NEW ENGLAND ASTER	LITTLE BLUESTEM
FALSE WHITE INDIGO	INDIAN GRASS
TALL COREOPSIS	SWITCH GRASS
SHOWY TICK TREFOLI	
FLOWERING SPURGE	
ROUNDHEAD BUSHCLOVER	
ROUGH BLAZINGSTAR	
LUPINE	
BERGAMOT (BEE BALM)	
BLACK EYED SUSAN	
PRAIRIE DOCK	
YELLOW CONEFLOWER	
TALL GOLDENROD	
LANCE-LEAVED GOLDENROD	
STIFF GOLDENROD	
SHAWY GOLDENROD	
HOARY VERNAIN	

RECOMMENDED SEEDING RATES: 10-12 LBS/ACRE

SEED MIX AVAILABLE:
NATIVESCAPE, LLC
PO BOX 122
MANCHESTER, MI 48158
1/517.456.7425

RAIN GARDEN SEED MIX

*CONTAINS 30% WILDFLOWERS, 10% NATIVE GRASSES AND 60% TEMPORARY GRASSES

WILDFLOWERS	GRASSES
NEW ENGLAND ASTER	BIG BLUESTEM
HEATH ASTER	CANADA WILD RYE
OX EYE SUNFLOWER	DARK GREEN BULKRUSH
DENSE BLAZINGSTAR	INDIAN GRASS
GREY BLUE COBELIA	WETLAND SEDGES
CARDINAL FLOWER	FOWL MANNA GRASS
BERGAMOT (BEE BALM)	PRAIRIE CORD GRASS
SMOOTH PENSTEMON	DEER TONGUE
MOUNTAIN MINT	
YELLOW CONEFLOWER	TEMPORARY GRASSES
BLACK EYED SUSAN	SEED OATS
PRAIRIE DOCK	ANNUAL RYE
LANCE-LEAVED GOLDENROD	WINTER WHEAT
OHIO GOLDENROD	AMERICAN SLOUGH GRASS
GOLDEN ALEXANDERS	

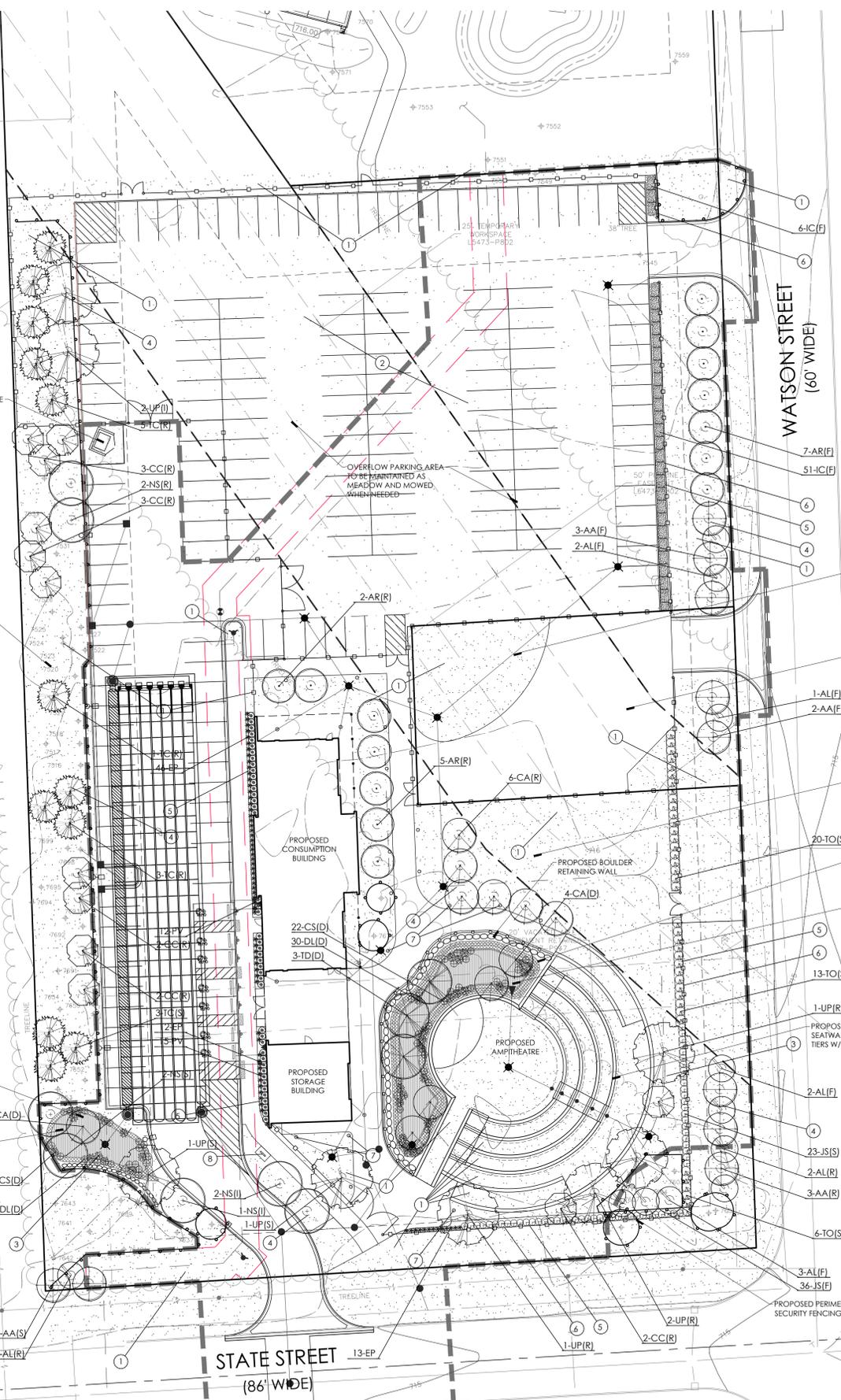
RECOMMENDED SEEDING RATE: 50-55 LBS/ACRE

SEED MIX AVAILABLE:
NATIVESCAPE, LLC
PO BOX 122
MANCHESTER, MI 48158
1/517.456.7425

EDGE ZONE PLANTINGS
PLANTED BETWEEN ELEVATION 715.5-716.5
APPROXIMATELY 259.94 S.F.
CONSISTING OF: RAIN GARDEN SEED MIX
TO WITHSTAND PERIODIC INUNDATION

BIOSWALE BOTTOM TO BE PLANTED IN DRIFTS AT
0" ± ABOVE ELEVATION 715
APPROXIMATELY 699 S.F.
CONSISTING OF:
44 PONTEDERIA CORDATA (PICKEREL WEED), 1 7/8" PLUG, 18" OC
44 SAGGATARIA LATIFOLIA (BROAD LEAF ARROWHEAD), 1 7/8" PLUG, 18" OC
44 SCIRPUS AMERICANUS (THREESQUARE), 1 7/8" PLUG, 18" OC
44 SCIRPUS VALIDUS (SOFT-STEMMED BULKRUSH), 1 7/8" PLUG, 18" OC
44 CIBLIA CARONIALIS (CARDINAL FLOWER), 1 7/8" PLUG, 18" OC
44 IRIS VIRGINICA (BLUE FLAG IRIS), 1 7/8" PLUG, 18" OC
44 CAREX VULPINOIDEA (BROWN FOX SEDGE), 1 7/8" PLUG, 18" OC
44 ASCLEPIAS INCARNATA (SWAMP MILKWEED), 1 7/8" PLUG, 18" OC

IRRIGATION NOTE:
ALL LANDSCAPE AREAS, INCLUDING THOSE WITHIN THE ROW, SHALL
BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.
THE SYSTEM SHALL OPERATE IN COMPLIANCE WITH LOCAL STANDARDS
AND SEASONAL RESTRICTIONS. SEPARATE ZONES SHALL BE PROVIDED FOR
LAWN AREAS AND PLANTING BEDS. IRRIGATION SHALL BE DESIGNED IN THE
THE MOST EFFICIENT MANNER NECESSARY TO FULLY IRRIGATE ALL PLANTING AREAS.



PLANT SCHEDULE

KEY	QTY	BOTANICAL/COMMON NAME	SIZE	SPACING	ROOT	COMMENT
TREES						
AA	10	Acer rubrum 'Armstrong'	2.5' CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
AR	14	Acer rubrum 'Bowling'	2.5' CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
AL	11	American Red Maple	6-8 HT	SEE PLAN	B&B	CLUMP FORM, 3 CANES
CA	11	Campanula medium	2.2.5' CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
CC	12	Cercis canadensis	2' CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
NS	7	Nyssa sylvatica 'Red Rover'	2.5' CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
TD	3	Taxodium distichum 'Shawnee Brave'	2.5' CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
TC	12	Tilia cordata	8' HT	SEE PLAN	B&B	FULL TO GROUND
UP	8	Ulmus 'Prospector'	2.5' CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
SHRUBS						
CS	33	Cornus sericea 'Arctic Fire'	30" HT	4' OC	B&B	
DL	50	Diervilla lonicera 'Michigan Sunset'	24" HT	3' OC	B&B	
IC	57	Illex glabra 'Shanrock'	30" HT	30" OC	B&B	
JS	59	Jasione ciliolata 'Spartan'	5' HT	3' OC	B&B	
TO	32	Thuja occidentalis 'Nigra'	5' HT	5' OC	B&B	
GROUNDCOVERS/PERENNIALS						
EP	71	Eriogonum purpureum 'Cheyenne Spirit'	2 GAL	24" OC	CONT	
PV	44	Panicum virginicum 'Northwind'	3 GAL	36" OC	CONT	
BIOSWALE PLUGS						
AI	115	Asclepias incarnata	1-7/8"	18" OC	PLUG	
CV	115	Carex vulpinoidea	1-7/8"	18" OC	PLUG	
IV	115	Isotria medeolae	1-7/8"	18" OC	PLUG	
LC	115	Lobelia cardinalis	1-7/8"	18" OC	PLUG	
PC	115	Pickeringia ciliolata	1-7/8"	18" OC	PLUG	
SL	115	Scirpus americanus	1-7/8"	18" OC	PLUG	
SA	115	Scirpus americanus	1-7/8"	18" OC	PLUG	
SV	115	Scirpus validus	1-7/8"	18" OC	PLUG	

KEY LEGEND

- TYPICAL LOW GROW SEED LAWN AREAS, SOWN ON 3" TOPSOIL
- DRY PRAIRIE WILDFLOWER SEED MIX, SOWN AT A RATE OF 12 LBS/AC
- RAIN GARDEN SEED MIX, SOWN AT A RATE OF 50 LBS/AC
- 4" DIA SPADE CUT EDGE W/ 3" SHREDDED BARK MULCH
- 3" DEPTH DOUBLE SHREDDED HARDWOOD BARK MULCH
- 3/16" X 4" METAL EDGING STAKED PER MANUFACTURER
- LIGHTED BOLLARDS, SEE PHOTOMETRIC PLAN
- BIKE RACK, EXACT STYLE TBD

GENERAL LANDSCAPE NOTES

- LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND LIST, THE PLAN SHALL GOVERN QUANTITIES. CONTACT THE LANDSCAPE ARCHITECT WITH ANY CONCERNS.
- THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON EITHER PHASE OF WORK. ANY DAMAGE OR INTERUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES, AND SHALL REPORT ANY UNACCEPTABLE SITE CONDITIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT.
- PLANTS SHALL BE FULL, WELL BRANCHED, AND IN HEALTHY VIGOROUS GROWING CONDITION.
- PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.
- ALL TREES MUST BE STAKED, FERTILIZED AND MULCHED AND SHALL BE GUARANTEED TO EXHIBIT A NORMAL GROWTH CYCLE FOR AT LEAST ONE (1) YEAR FOLLOWING PLANTING.
- ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE "AMERICAN STANDARDS FOR NURSERY STOCK".
- CONTRACTOR WILL SUPPLY FINISHED GRADE AND EXCAVATE AS NECESSARY TO SUPPLY PLANT MIX DEPTH IN ALL PLANTING BEDS AS INDICATED IN PLANT DETAILS AND A DEPTH OF 2" IN ALL LAWN AREAS.
- PROVIDE CLEAN BACKFILL SOIL USING MATERIAL STOCKPILED ON-SITE. SOIL SHALL BE SCREENED AND FREE OF DEBRIS, FOREIGN MATERIAL, AND STONE.
- SOIL RELEASE FERTILIZER SHALL BE ADDED TO THE PLANT BEDS BEFORE BEING BACKFILLED. APPLICATION SHALL BE AT THE MANUFACTURER'S RECOMMENDED RATES.
- AMENDED PLANT MIX (PREPARED TOPSOIL) SHALL CONSIST OF 1/3 SCREENED TOPSOIL, 1/3 SAND, AND 1/3 "DAIRY DOG" COMPOST, MIXED WELL AND SPREAD TO A DEPTH AS INDICATED IN PLANTING DETAILS.
- ALL PLANTINGS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK. SPREAD TO A DEPTH OF 3" FOR TREES AND SHRUBS, AND 2" ON ANNUALS, PERENNIALS, AND GROUNDCOVER PLANTINGS. MULCH SHALL BE FREE FROM DEBRIS AND FOREIGN MATERIAL, AND PRECES ON INCONSISTENT SIZE.
- NO SUBSTITUTIONS OR CHANGES OF LOCATION, OR PLANT TYPE SHALL BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS PRIOR TO INSTALLATION.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A VERTICAL CONDITION THROUGHOUT THE GUARANTEED PERIOD.
- THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE SHALL HAVE THE RIGHT TO RECTIFY ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS AND/OR SPECIFICATIONS.
- THE LANDSCAPE CONTRACTOR SHALL SEED AND MULCH OR SOIL AS INDICATED ON PLANS. FURTHER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING AREAS DISTURBED DURING CONSTRUCTION, NOT IN THE CONTRACT LIMITS, TO EQUAL OR GREATER CONDITION.
- ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESSIVE WATER FROM PONDING ON LAWN AREAS OR AROUND TREES AND SHRUBS.
- ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.

LANDSCAPE REQUIREMENTS

EXISTING SITE ZONING: I-C, INDUSTRIAL AND COMMERCIAL DISTRICT
EXISTING SITE AREA: 267,726.89 S.F. OR 6.15 ACRES

STREET/yard LANDSCAPE BUFFER (F)

1 TREE PER 40 L.F., 1 ORNAMENTAL TREE PER 100 L.F.
1 SHRUB PER 10 L.F. OF FRONTAGE
WATSON STREET: 487 L.F.
REQUIRED: 487 L.F. OF FRONTAGE / 40 L.F. = 12 TREES, 5 ORNAMENTAL, 49 SHRUBS
PROVIDED: 12 TREES, 5 ORNAMENTAL TREES, AND 57 SHRUBS
STATE STREET: 320 L.F.
REQUIRED: 320 L.F. OF FRONTAGE / 40 L.F. = 8 TREES, 3 ORNAMENTAL, AND 52 SHRUBS
PROVIDED: 8 EXISTING TREES, 3 ORNAMENTAL TREES, AND 35 SHRUBS

PARKING LOT LANDSCAPE (I)

1 TREE PER 2,000 S.F. OF PAVING
14,450.89 S.F. / 2,000 S.F. = 7.23 OR 7 TREES REQUIRED
PROVIDED: 2 EXISTING, 5 PROPOSED TREES

PARKING PERIMETER LANDSCAPE (P)

1 TREE PER 40 L.F.
W. 406 L.F. / 40 L.F. = 10.15 OR 10 TREES REQUIRED
PROVIDED: 10 EXISTING TREES

GENERAL SITE LANDSCAPE (S)

1 TREE PER 1,000 S.F. AND 1 SHRUB PER 500 S.F. OF AREA NOT OTHERWISE DEDICATED AS A PART OF ANOTHER REQUIREMENT
REQUIRED: 27,694.13 S.F.
27,694.13 S.F. / 1,000 = 27.69 OR 28 TREES
27,694.13 S.F. / 500 S.F. = 55.39 OR 55 SHRUBS
PROVIDED: 16 EXISTING TREES, 27 PROPOSED TREES, 63 SHRUBS

DETENTION LANDSCAPE (D)

1 TREE AND 10 SHRUB PER 50 L.F. OF POND PERIMETER
COMBINED PERIMETER LENGTH: 385.99 L.F.
415.45 L.F. / 50 L.F. = 8.3 OR 8 TREES
415.45 L.F. / 50 X 10 = 83.09 OR 83 SHRUBS
PROVIDED: 8 TREES AND 83 SHRUBS

TREE REPLACEMENT REQUIREMENTS (R)

1 TREE REPLACEMENT
TREE REPLACEMENTS REQUIRED: 101 TREES
TREE REPLACEMENTS PROVIDED: 49 TREES MONIES TO BE PAID FOR 52 TREES INTO CITY TREE FUND

CHEMICAL NOTE:
NO CHEMICALS ARE ALLOWED IN STORMWATER FEATURES OR BUFFER AREAS WITH THE FOLLOWING EXCEPTION: INVASIVE SPECIES MAY BE TREATED WITH CHEMICALS BY A CERTIFIED APPLICATOR.

GENERAL SEED NOTE:

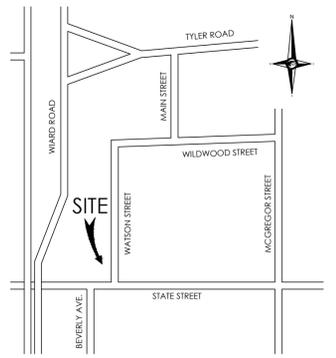
ALL LAWN AREAS DESIGNATED TO BE SEED, SHALL BE HYDRO-SEEDED WITH SPECIFIED BLENDS, AND STABILIZED WITH WOOD CELLULOSE FIBER MULCH (2,000 LBS PER ACRE); IN AREAS SUBJECT TO EROSION, SEEDED LAWN SHALL BE FURTHER STABILIZED WHERE NECESSARY WITH BIODEGRADABLE EROSION BLANKET AND STAKED UNTIL ESTABLISHED. ALL SEED SHALL BE APPLIED OVER A MINIMUM 3" PREPARED TOPSOIL, AND SHALL BE KEPT MOIST AND WATERED DAILY UNTIL ESTABLISHED.
SEEDING INSTALLATION SHALL OCCUR ONLY:
SPRING: APRIL 1 TO JUNE 1
FALL: AUGUST 15 TO OCTOBER 15

LOW-GROW LAWN MIX:

ALL LAWN AREAS DESIGNATED TO BE SEED, SHALL BE HYDROSEEDED WITH LOW-GROW LAWN SEED MIX, AT A RATE OF 5 LBS/1,000 S.F.
SEED AVAILABLE FROM:
NATIVESCAPES, LLC
(T) 1-517-456-7245
* MIX IS COMPRISED OF:
22.8% PENN LAWN RED FESCUE
22.5% CREEPING RED FESCUE
21.7% CHEWINGS FESCUE
11.8% VICTORY 8 CHEWINGS FESCUE
9.8% SPARTAN HEAD FESCUE
9.9% AZAY SHEEPS FESCUE

CONTRACTOR NOTE:

A WRWR LANDSCAPE REVIEWER MUST BE PRESENT WHEN RAIN GARDEN SEED MIX AND SEDGE BARK SEED MIXES AND LIVE PLUGS FOR BIOSWALE ARE DELIVERED ON-SITE. CONTACT CAIE WYTCHAK AT WYTCHAK@WASHTENAW.ORG OR 1-734-222-4613 TO COORDINATE



LOCATION MAP
N.T.S.



CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOVAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257



PROJECT
Frost Music Venue
2525 State Street
Ypsilanti, MI 48198

CLIENT
Michael Ludtke
Tel. (952) 807-61058
Email:
Ludtke4648@gmail.com

PROJECT LOCATION
Part of the Northwest 1/4 of
Section 13
T.3S., R.7E.,
Ypsilanti Township,
Washtenaw County,
Michigan

SHEET
Landscape Plan



REVISIONS

09-05-23	CONCEPT PLAN
10-17-23	REVISED PER ENBRIDGE/NEXUS
12-15-23	OWNER REVIEW
01-02-24	PRELIMINARY SITE PLAN REVIEW
06-12-24	REVISED PSP
07-19-24	REVISED PSP

DRAWN BY:
G. Ostrowski
DESIGNED BY:
G. Ostrowski
APPROVED BY:
G. Ostrowski
DATE:
12-12-2023

SCALE: 1" = 30'
30 15 0 15 30 45
NFE JOB NO. SHEET NO.
M994 L2

DEMOLITION NOTES:

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING SURVEY INFORMATION INCLUDING THE UTILITY SYSTEMS BEFORE ANY DEMOLITION OR CONSTRUCTION WORK OCCURS. ANY DISCREPANCIES WITH THE SURVEY INFORMATION SHALL BE REPORTED TO THE ARCHITECT AND OWNER'S REPRESENTATIVE IMMEDIATELY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR COST INCURRED DUE TO DAMAGE AND REPLACEMENT OF SAID UTILITIES.
- ALL EXISTING IMPROVEMENTS, MATERIALS AND PLANT MATERIAL TO REMAIN WITHIN THE NEW CONSTRUCTION AREA SHALL BE PROPERLY AND ADEQUATELY PROTECTED FROM DAMAGE DURING THE DEMOLITION OPERATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE TO THE ORIGINAL CONDITION ANY OF THESE EXISTING ITEMS THAT ARE DAMAGED OR DISTURBED IN ANY WAY.
- ALL MATERIALS TO BE REUSED OR SALVAGED SHALL BE STORED IN AN AREA DESIGNATED BY THE CITY ENGINEER FOR THAT PURPOSE. ALL SALVAGED MATERIALS SHALL REMAIN THE PROPERTY OF THE CITY ENGINEER.
- STREETS, SIDEWALKS AND ADJACENT PROPERTIES SHALL BE PROTECTED THROUGHOUT THE WORK AS REQUIRED BY LOCAL CODES AND REGULATIONS AND APPROVED BY THE OWNER.
- ALL MATERIAL SPECIFIED TO BE REMOVED SHALL BE DISPOSED OF OFF-SITE PER LOCAL CODES AND REGULATIONS. CONTRACTOR SHALL COORDINATE METHOD OF DISPOSAL WITH CITY ENGINEER PRIOR TO COMMENCEMENT OF WORK.
- MATERIALS TO BE REUSED OR SALVAGED SHALL BE STORED IN AN AREA DESIGNATED BY THE OWNER'S REPRESENTATIVE FOR THAT PURPOSE. ALL SALVAGED MATERIALS SHALL REMAIN THE PROPERTY OF THE OWNER.
- DURING DEMOLITION OPERATIONS EVERY EFFORT SHALL BE MADE TO CONTROL DUST, PER CITY REQUIREMENTS.
- TREES AND SHRUBS TO BE REMOVED WITHIN THE LIMITS OF WORK SHALL BE CLEARLY IDENTIFIED WITH BRIGHTLY COLORED RIBBON.
- GRUBBING SHALL INCLUDE ALL WEEDS, SHRUBS, STUMPS AND ROOT SYSTEMS OF REMOVED PLANT MATERIAL, IRRIGATION PIPING AND ANY OTHER IRRIGATION MATERIALS WITHIN THE LIMITS OF DEMOLITION. GRUBBING SHALL BE TO THE DEPTHS BELOW PROPOSED IMPROVEMENTS INDICATED AS FOLLOWS: CONCRETE PAVING AND WALKWAYS-TOTAL DEPTH OF PAVING AND SUB-BASE: ASPHALT PAVING-TOTAL DEPTH OF PAVING AND SUB-BASE: LAWN AND OTHER PLANTINGS AREAS-REMOVE DEPTH REQUIRED OF STUMPS AND ROOTS OVER TWO (2) INCHES IN DIAMETER AND TURF.
- PROTECT EXISTING TREES TO REMAIN PER TYPICAL TREE PROTECTION DETAIL.
- STOCKPILED TOPSOIL SHALL BE STORED ON SITE AND REMAIN PROTECTED FROM CONTAMINATION PRIOR TO REDISTRIBUTION.
- SAWCUT AND REMOVE EXISTING ASPHALT AS REQUIRED TO INSTALL NEW SITE IMPROVEMENTS AND ADJUST GRADES WITHIN CITY STREETS. ALL WORK WITHIN CITY RIGHT OF WAY SHALL MEET CITY STANDARDS AND SPECIFICATIONS.
- ARRANGE FOR APPLICABLE UTILITY COMPANY TO RELOCATE EXISTING CABLES, WIRES, PHONE LINES, ETC. ALONG WITH EDISON POWER LINES AS REQUIRED.
- CONTRACTOR SHALL SECURE AND PAY FOR ALL APPLICABLE PERMITS AND FEES NECESSARY FOR THE COMPLETE CONSTRUCTION OF THE PROJECT.

GRADING NOTES:

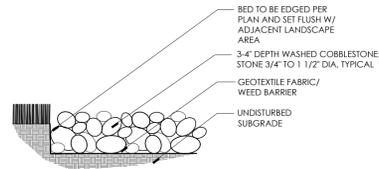
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING SURVEY INFORMATION INCLUDING THE UTILITY SYSTEMS BEFORE ANY DEMOLITION OR CONSTRUCTION WORK OCCURS. ANY DISCREPANCIES WITH THE SURVEY INFORMATION SHALL BE REPORTED TO THE ARCHITECT AND OWNER'S REPRESENTATIVE IMMEDIATELY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR COST INCURRED DUE TO DAMAGE AND REPLACEMENT OF SAID UTILITIES.
- CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND / OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING THE DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CITY ENGINEER. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO LACK OF SUCH NOTIFICATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH OPERATIONS.
- CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ANY EXISTING MATERIALS THAT ARE DAMAGED DURING CONSTRUCTION.
- NO CHANGE IN CONTRACT PRICE WILL BE ALLOWED FOR ACTUAL OR CLAIMED BETWEEN EXISTING GRADE AND THOSE SHOWN ON PLANS AFTER CONTRACTOR HAS ACCEPTED EXISTING GRADES AND MOVED ON TO THE SITE.
- ALL PROPOSED GRADES ARE TO MEET AND BLEND IN WITH THE EXISTING GRADE AT PROJECT LIMITS. PRECISE ELEVATIONS INDICATED ON THE PLANS TO BE VERIFIED IN FIELD TO AS-BUILT CONDITION.
- ALL GRADING AND PLACEMENT OF DRAINAGE STRUCTURES TO BE SUPERVISED IN THE FIELD BY THE OWNER'S REPRESENTATIVE.
- INSTALL 3" DEPTH TOPSOIL OVER ALL DISTURBED LAWN AREAS.
- SEED ALL PROPOSED OR DISTURBED LAWN AREAS.

PLANTING NOTES:

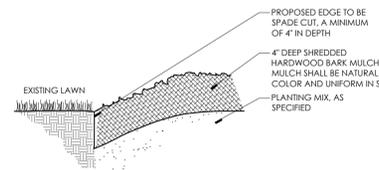
- THE CONTRACTOR SHALL VERIFY ALL RIGHTS OF WAY, EASEMENTS, PROPERTY LINES AND LIMITS OF WORK, ETC. PRIOR TO COMMENCING WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL PERTINENT UTILITY COMPANIES 72 HOURS IN ADVANCE OF ANY DIGGING TO MAKE HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. THE CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF SAID UTILITIES.
- THE CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- ANY DISCREPANCIES BETWEEN DIMENSIONED LAYOUT AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT. FAILURE TO MAKE SUCH DISCREPANCIES KNOWN WILL RESULT IN CONTRACTOR'S RESPONSIBILITY AND LIABILITY FOR ANY CHANGES AND ASSOCIATED COST.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH CONSTRUCTION INSTALLATION OPERATIONS.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN POSITIVE SURFACE DRAINAGE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, AND OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EXISTING MATERIALS THAT ARE DAMAGED DURING CONSTRUCTION.
- SEE SPECIFICATIONS, PLANT LIST AND PLANTING DETAILS FOR PLANTING REQUIREMENTS, MATERIALS AND EXECUTION.
- ALL TREES TO HAVE CLAY LOAM OR CLAY BALLS - TREES WITH SAND BALLS SHALL NOT BE ACCEPTED.
- ALL TREES TO BE APPROVED BY OWNER'S REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT PRIOR TO DELIVERY TO THE SITE. ANY TREES DELIVERED TO THE SITE NOT PREVIOUSLY APPROVED MAY BE REJECTED AND ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR TO VERIFY PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION OF PLANT MATERIAL.
- THE CONTRACTOR SHALL PLACE 3" DEPTH OF SHREDDED BARK MULCH IN ALL PLANTING BEDS, UNLESS OTHERWISE INDICATED.

CONSTRUCTION NOTES:

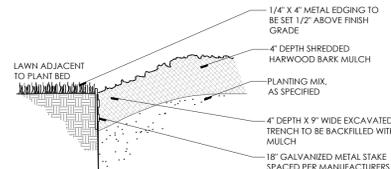
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING SURVEY INFORMATION INCLUDING THE UTILITY SYSTEMS BEFORE ANY DEMOLITION OR CONSTRUCTION WORK OCCURS. ANY DISCREPANCIES WITH THE SURVEY INFORMATION SHALL BE REPORTED TO THE ARCHITECT AND OWNER'S REPRESENTATIVE IMMEDIATELY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR COST INCURRED DUE TO DAMAGE AND REPLACEMENT OF SAID UTILITIES.
- CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND / OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING THE DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CITY ENGINEER. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO LACK OF SUCH NOTIFICATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH OPERATIONS.
- CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ANY EXISTING MATERIALS THAT ARE DAMAGED DURING CONSTRUCTION.
- SEE SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS, MATERIALS, AND EXECUTION.
- ALL PROPERTY LINES AND LOT LINES SHALL BE VERIFIED PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL SUBMIT ALL SAMPLES PER SPECIFICATIONS. ALL SAMPLES SHALL BE APPROVED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
- DIMENSIONAL FLEXIBILITY SHALL BE WITHIN PLANT BEDS ONLY.
- CONTRACTOR SHALL COORDINATE ALL SITE LAYOUT WITH THE LANDSCAPE ARCHITECT AND REPORT ANY DIMENSIONAL DISCREPANCIES PRIOR TO CONSTRUCTION.
- HANDICAPPED RAMPS SHALL MEET ALL CURRENT BARRIER FREE DESIGN CODES.



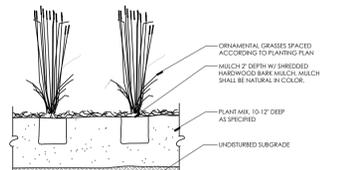
COBBLESTONE MULCH DETAIL NTS



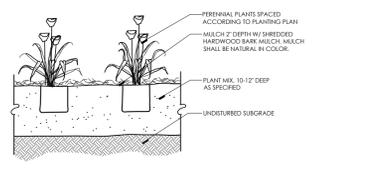
SPADE CUT EDGE DETAIL NTS



METAL EDGING DETAIL NTS



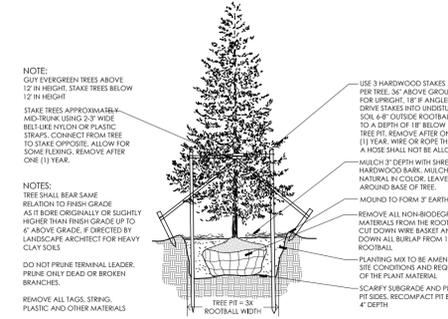
ORNAMENTAL GRASS PLANTING DETAIL NTS



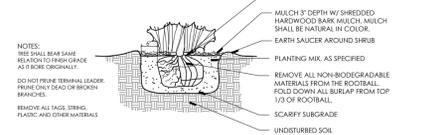
PERENNIAL PLANTING DETAIL NTS



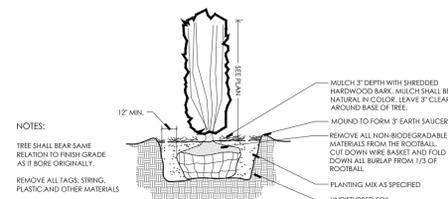
DECIDUOUS TREE PLANTING DETAIL NTS



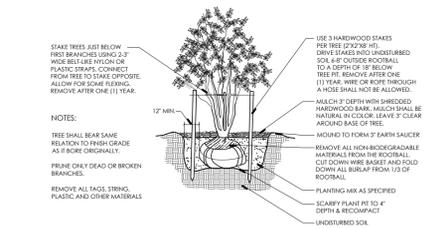
EVERGREEN TREE PLANTING DETAIL NTS



HEDGE PLANTING DETAIL NTS



UPRIGHT EVERGREEN SHRUB PLANTING DETAIL NTS



MULTI-STEM TREE PLANTING DETAIL NTS



LOCATION MAP N.T.S.



NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257

SEAL



PROJECT

Frost Music Venue
2525 State Street
Ypsilanti, MI 48198

CLIENT

Michael Ludtke
Tel. (952) 807-61058
Email:
Ludtke4648@gmail.com

PROJECT LOCATION

Part of the Northwest 1/4 of
Section 13
T.3S., R.7E.,
Ypsilanti Township,
Washtenaw County,
Michigan

SHEET

Landscape Notes
and Details



REVISIONS

09-05-23	CONCEPT PLAN
10-17-23	REVISED PER ENBRIDGE/NEXUS
12-15-23	OWNER REVIEW
01-02-24	PRELIMINARY SITE PLAN REVIEW
06-12-24	REVISED PSP
07-19-24	REVISED PSP

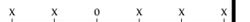
DRAWN BY:
G. Ostrowski

DESIGNED BY:
G. Ostrowski

APPROVED BY:
G. Ostrowski

DATE:
12-12-2023

SCALE: VARIES



NFE JOB NO.
M994

SHEET NO.
L3



FROST CONSUMPTION & AMPHITHEATER
 EXTERIOR PHOTOMETRIC PLAN
 GASSER BUSH ASSOCIATES
 WWW.GASSERBUSH.COM

Designer
 BK
 Date
 04/29/2024
 Scale
 Not to Scale
 Drawing No.
 #23-23855 V3

Symbol	Label	QTY	Manufacturer	Catalog	Description	Lamp Output	LLF	Input Power	Mounting Height
	P1	6	Lithonia Lighting	DSX0 LED P7 35K 80CRI BLC4	D-Series Size 0 Area Luminaire P7 Performance Package 3500K CCT 80 CRI Type 4 Extreme Backlight Control	13732	0.9	170.81	20'-0"
	E1	8	BEGA Converted by LUMCat V 04.04.2017 / H.R.		24 507 K3	4107	0.9	40	12'-0"
	W2	34	BEGA Converted by LUMCat V 11.08.2015 / H.R.		33059K3	1485	0.9	20	3'-3-1/4"
	B1	17	BEGA Converted by LUMCat V 10.01.2017 / H.R.		99 856K35	1838	0.9	19.8	3'-3-1/4"
	A	10	GENERAC		PLT240	35594	0.9	533.64	16'-0"

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Food Trucks Area		17.8 fc	98.9 fc	0.6 fc	164.8:1	29.7:1
Grass Parking		9.1 fc	90.5 fc	0.1 fc	905.0:1	91.0:1
Landscape Base		0.4 fc	2.6 fc	0.0 fc	N/A	N/A
Landscape Stair 1		1.1 fc	6.2 fc	0.1 fc	62.0:1	11.0:1
Landscape Stair 2		3.6 fc	16.7 fc	0.1 fc	167.0:1	36.0:1
Landscape Stair 3		2.3 fc	15.9 fc	0.1 fc	159.0:1	23.0:1
Landscape Stair 4		2.7 fc	11.1 fc	0.0 fc	N/A	N/A
Overall/Grade		4.7 fc	98.9 fc	0.0 fc	N/A	N/A
Parking Lot		3.5 fc	17.0 fc	0.3 fc	56.7:1	11.7:1
Ped. Walkway		2.7 fc	21.6 fc	0.1 fc	216.0:1	27.0:1
Property Line		0.1 fc	1.0 fc	0.0 fc	N/A	N/A
Covered Patio		14.7 fc	16.5 fc	12.8 fc	1.3:1	1.1:1

General Note
 1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
 2. SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.
 3. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: GRADE

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

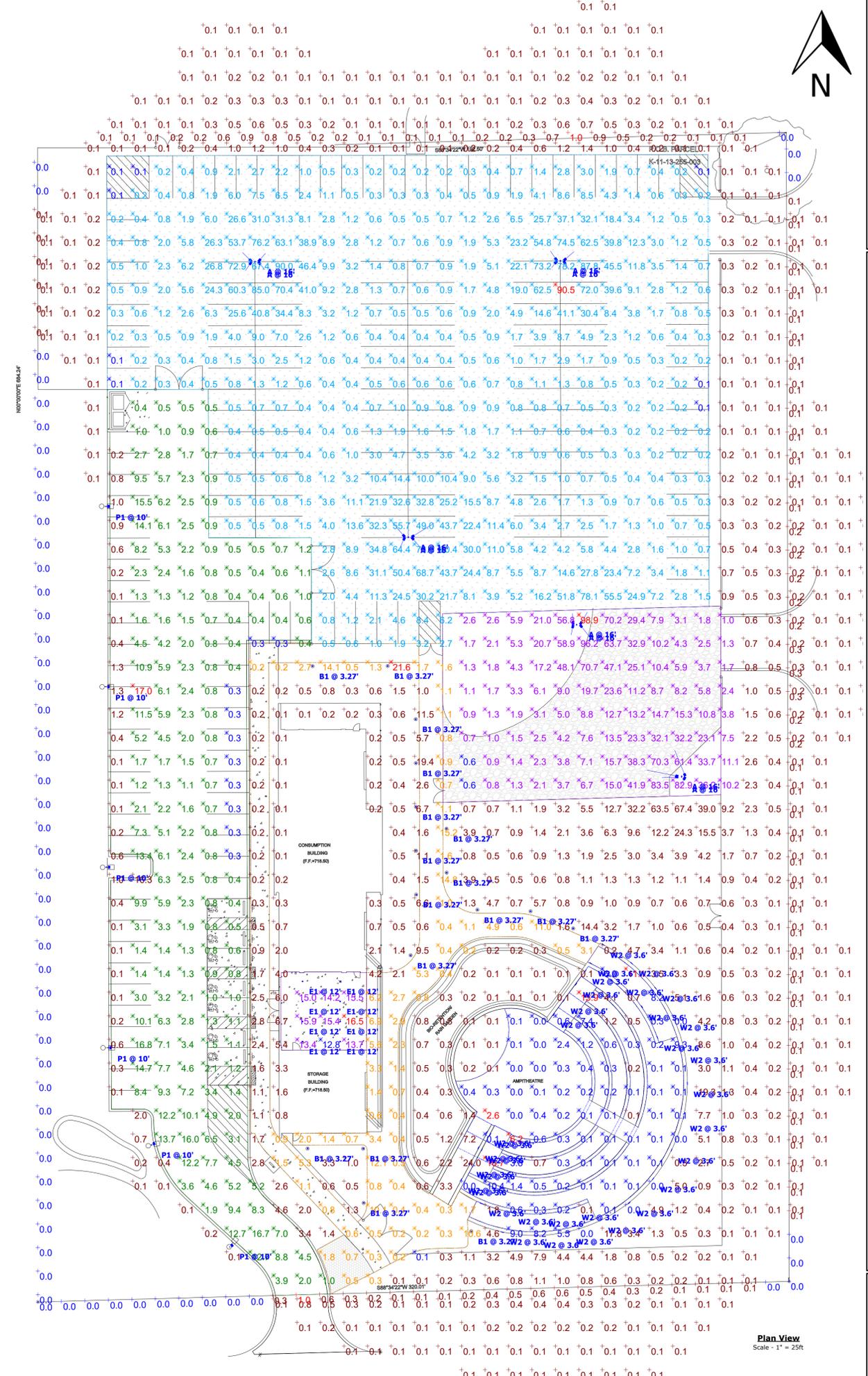
UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIREMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASG@GASSERBUSH.COM OR 734-266-6705.

Alternates Note
 THE USE OF FIXTURE ALTERNATES MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.

Ordering Note
 FOR INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.

Drawing Note
 THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

Mounting Height Note
 MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.



Plan View
 Scale - 1" = 25ft

Pipeline Operating Plan

Pipeline will be an entertainment site catering to music, live performances, and private events with cannabis consumption allowed on-site. The site will consist of two venues that operate as a single entity and do not compete for bookings or parking: an indoor venue designed for year-round events and an outdoor amphitheater for summer events as well as daily outdoor consumption.

Physical Structure

The indoor building is equipped with sliding glass garage doors that face the amphitheater. Weather permitting, these doors will be open, allowing patrons to enjoy the music while inside or outside. The perimeter of the area that encompasses the grass area, indoor consumption building, and amphitheater will be enclosed with an 8-foot no-visibility fence. Per Michigan law, cannabis consumption is permitted in this area.

Cannabis Products

Patrons will be carded at the main gate to verify everyone is 21+ to comply with local/state laws. Patrons may then order cannabis for delivery from the Frost Cannabis dispensary or walk next door to Frost Cannabis and purchase in person. Consumption is not permitted on Frost Cannabis property due to State Law, so consumption must take place at Pipeline. Cannabis products purchased offsite are prohibited - Frost Cannabis products purchased next door may be consumed at Pipeline.

Food and Beverage

Pre-packaged snacks and drinks will be available for purchase within the indoor venue. Freshly prepared food will be available in the food truck area. Patrons can purchase food and consume it anywhere on-site.

Food trucks will operate 5 days per week from 12pm-9pm (subject to change depending on season and event) and will not remain overnight. Each food truck will provide their own power, water, and trash removal. Food trucks will adhere to all local ordinance and are subject to approval by the township. The sale of fresh food takes place in the food truck area to comply with state law. This parcel will be separated from the other properties with no-visibility fencing to adhere to state law. Patrons are permitted to possess cannabis while inside the food truck area but cannot consume cannabis until they return to Pipeline.

Operating Hours

Pipeline will be open Monday-Sunday, 12:00 pm-10:00 pm or 5:00 pm-10:00 pm depending on the day. Last call for delivery from Frost Cannabis is 8:45pm. State law prohibits sale of adult-use cannabis after 9pm.

3 days per week, 12:00 pm to 10:00 pm will be devoted to "open-to-the-public" entertainment. Anyone 21+ can access Pipeline for a \$25 entry fee (free with a \$50 purchase at Frost Cannabis). During the winter, there will be light entertainment - background music, acoustic

musicians, games, and movie showings. During the summer, patrons will also be able to consume within the fenced-in area outside. Capacity will be 215 and parking is limited to the permanent parking.

One day per week will be devoted to private events. These events may include corporate activities, weddings, birthday parties, etc. Doors will not be open to the public during private events and a prepared guest list is required. Capacity will be 215 and parking is limited to the permanent parking lot. Private event guests will have access to the indoor venue and food truck area. During warm months they will also have access to the amphitheater and grass area.

The remaining 3 days per week will be used for concerts with pre-booked entertainment. Tickets will be available for pre-sale online and at the door with prices ranging from \$25-\$50. Capacity will be 215 and parking is limited to the permanent parking lot. Concert days will be 5:00 pm -10:00 pm. Patrons will be able to enter/exit only from the southern drive.

Amphitheater Events

During the warmer months, a few larger events will be scheduled on specific weekends. During these events, the outdoor grass consumption area will convert into temporary parking. Traffic/parking will be supervised in the grass area (formerly the grass consumption area) and parking spots will be visibly marked. Traffic will flow in from the southern gate and exit out of the northeastern gate. The northeastern gate will only be used for traffic exit during large events and will not be open during regular operation.

Towable light towers will be brought into the grass parking area to provide lighting for parking. Eight portable toilets will be provided for the outdoor area as well. In addition, during large events Frost Cannabis will close to the public and will only be open for sales to P!peline. The Frost Cannabis parking lot will be used for overflow parking for P!peline. Patrons can park in the Frost cannabis parking lot and walk south through the gates shown in the diagram. During these events, Patrons will be checked at the driveway entrance to Frost Cannabis for event tickets. Only those attending will be allowed to park there. The combined temporary parking spots from the grass consumption area and Frost Cannabis will increase total capacity to 649 for the special, outdoor events.

Venue Capacity and Parking Breakdown

Operations	Capacity	Southern Parking Lot	Central Grass Temp Parking	Dispensary Parking Lot	Total Parking	Estimated Days per year
Normal	215 people	54 paved, 7 unpaved spots	0 spots	0 spots	62 spots	345-350 days
Amphitheater Events	649 people	54 paved, 7 unpaved spots	126 spots	37 spots	225 spots	8-12 days

Normal Operations:



*Please note, the central area will be used for outdoor consumption during regular business operations, NOT parking. The only parking available for Patrons is the southwestern paved lot.

Amphitheater Events:



*Please note, during Amphitheater events only, the Frost Cannabis parking lot and central grass consumption area will be used for parking in addition to the main lot.

Sound Control

The outdoor venue, the amphitheater, is specifically positioned to project sound away from the nearest residential area. According to the sound study conducted by K&S Engineering, angling the Amphitheater towards the Southeast and changing the stage into a “bandshell” will moderate all decibel levels properly and allow P!peline to obey all local noise ordinances. Outdoor events will cease at 10:00 pm in compliance with local noise ordinances in the surrounding communities.

Security

All areas of P!peline (except bathrooms) will be under Video surveillance, monitored from a secure non-smoking room located inside the venue. Police will have access to the running 60-days of footage per state law.

Third-party security will be provided by Koda Group Inc for every scheduled event as well as Frost Cannabis next door. Koda Group Inc runs security for Pine Knob and many cannabis-related businesses and are well suited to provide security for the first cannabis music venue in Michigan. Normal operations will include 1-2 security personnel. Larger events that utilize the grass for parking will require up to 8 security personnel (Koda Group recommends 1-2 security per 200 people). There will be a security check at the Frost Parking Lot Entrance to ensure only Event ticket holders have access to the parking area.



2024-004
April 12, 2024

Mr. Steve Bloink, AIA, LEED AP
Senior Architect & Project Manager
Stucky Vitale Architects
4270 Morse Road
Columbus, OH 43230

Subject: **Outdoor Amphitheater Community Impact Study**
re: Frost Consumption Lounge and Amphitheater
Ypsilanti Charter Township, MI

Dear Mr. Bloink:

At your request and authorization, K & S Engineers, LLC (K&SE) has conducted an investigation to provide a community noise impact study for the proposed amphitheater. This investigation explores the sound levels of music expected from the proposed music venue and determines the potential impact that may be heard in the community. This study includes measurements of local ambient sound level from which to compare what is expected from the amphitheater in addition to the local ordinance noise limits. Details of our study are provided below.

Proposed Amphitheater Site

The location of the proposed consumption lounge and amphitheater are in the western side of Ypsilanti Charter Township in an industrial zoned sector. The specific property is located on the northwest corner of State Street and Watson Avenue. All property directly surrounding the proposed site is industrial. Approximately 550-feet west of the proposed amphitheater location are residential properties. These residential properties are to the west of Wiard Road and McCartney Avenue. **EXHIBIT 1** provides an aerial view of the proposed site with the surrounding community.

Sound level predictions were based on the location of property lines, building structures, topography, and sound levels of representative music production. The following documents were utilized for the predictions:

- Stucky Vitale Architects Drawings; Frost Consumption Lounge – 1250 Watson St., Ypsilanti MI 48198 - dated 12/22/2023.
- Nowark Fraus Engineers Drawings; Frost Music Venue 2525 State Street Site Plan Documents – dated 1/2/2024

Understanding Sound and How it is Measured

In order to have a good understanding of the results of this investigation it is best to start with some discussion of the basics of sound and sound measurement. Sound is a rapid fluctuation of air pressure that occurs in a range that is detectable by human hearing. Sound pressure can be measured in units of Pascals (Pa), though would range from 2×10^{-5} to over 10 million! In order to compress this tremendous scale to manageable numbers, as well to create a scale that reflects human perception of sound, the decibel sound scale was developed. The decibel sound scale is a unit of measure based on a logarithmic equation with specific reference to the human threshold of hearing. Because of the logarithmic nature, sound levels in decibels do not add, or subtract by simple arithmetic. Similarly, human response to sound is logarithmic rather than linear in nature.

The decibel sound scale generally ranges from 0 dB to 180 dB, where 0 dB is the threshold where we begin to hear and 180 dB is an approximate maximum audible level, though pain associated with hearing starts at 120-140 dB. Relative to human perception of sound, a 3-dB increase (or decrease) in level is the threshold at which people begin to notice a change. A change less than a 3 dB is generally undetectable to the normal populace. Additionally, a 3-dB increase is an actual doubling of sound energy, though it takes a 10 dB increase for humans to perceive a doubling of loudness. For reference, a quiet library typically has an ambient sound level of 20-30 dB. Normal speech at a 3-foot distance is approximately 60 to 65 dB.

Appendix A provides a chart of sound levels for some typical sound sources encountered in daily living.

Charter Township of Ypsilanti Noise Code

The Charter Township of Ypsilanti, MI provides objective noise criteria in their Zoning Ordinance – *Article XIV – Environmental Performance Standards, Section 1400 – Performance Standards*. The performance standards for noise limits follow in *Subsection 6 – Noise*:

- A. *General Requirements. No use, operation or activity shall be carried on that causes or creates measurable noise levels that are unreasonably loud or that unreasonably interfere with the peace and comfort of others, or that exceed the maximum noise level limits prescribed in the Table of Maximum Noise Levels in subsection C below, as measured at any point on the adjacent or in close proximity to the lot, parcel or other property on which the operational activity is located.*
- B. *Methods and Units of Measurement...*
- C. *Table of Maximum Noise Levels. Except as otherwise provided in this section, noise levels shall not exceed the limits set forth in the following table:*

Maximum Noise Level Standards Table

Use	Time	Maximum Sound Level (A-Weighted) Decibels – Db(A)
Residential	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
Commercial, Business, Office, and Mixed Uses	7:00 a.m. to 7:00 p.m.	65
	7:00 p.m. to 7:00 a.m.	50
Industrial Office and Research Office	Anytime	65

D. Background Noise. Where existing background noise exceeds the maximum permitted levels specified in the Table of Maximum Noise Levels in subsection C above, the noise caused or created by a specific operation or activity may exceed the levels specified in the Table, provided that the sound level on property adjacent or in close proximity to the lot or parcel on which the operation or activity is located does not exceed the background noise level. ...

Based on this section of the Zoning Ordinance, the Frost Amphitheater music sounds at adjacent properties in the industrial zones will be limited to a sound level of 65 dB(A). In the nearby residential zones to the west, music will be limited to sound levels of 60, 55, and 50 dB(A) for daytime, evening, and nighttime periods. Though, these limits may be relaxed somewhat by the existing ambient sound levels.

Measured Ambient Sound Levels

We measured ambient sound level in close proximity to the residential properties east of the proposed Frost Consumption Lounge and Amphitheater. The measurements were conducted at a location 390-feet north of State Street, and 50-feet west of McCartney Avenue. **EXHIBIT 1** provides an aerial image of the measurement location relative to the proposed Frost Consumption Lounge and Amphitheater.

Measurements were conducted for a continuous 24-hour period using a calibrated¹ real-time environmental noise analyzer, with a precision microphone and a preamplifier assembly².

¹ Calibration traceable to the U.S. National Institute for Standards & Technology (NIST).

² Measurements employed a Brüel & Kjær Type 2270 noise analyzer, Larson Davis 2541 microphone, and 2100K preamplifier, providing Type 1 (precision) performance according to American National Standard S1.4.

Calibration was performed prior to and after the measurements using a Brüel and Kjær type 4231 Acoustic Calibrator.

The results of our measurements are provided as a sound level versus time plot provided in **EXHIBIT 2**. The results of these measurements show that average sound levels were 66 dB(A) during daytime hours, 65 dB(A) during evening hours, and 62 dB(A) during nighttime hours. These sound level values are higher than the noise limits in the ordinance.

Advanced Computer Modeling Noise Prediction

Sound is a physical phenomenon that can be readily projected and predicted with reasonable accuracy. To help evaluate the music created from the proposed amphitheater and determine what noise impact may occur at the adjacent properties, we developed an advanced three-dimensional, outdoor acoustical model. This model allows accurate projection and prediction of sound levels created by quantified sound sources, such as music venues. The computer program we use for this modeling relies on international standards (such as ISO 9613) to properly calculate and predict sound levels. The computer program relies on user inputs of terrain, structures, foliage, obstacles, sound reflective and absorptive surfaces, receiver positions, as well as the type of sound source, including point sources (small individual devices, such as small fans), line sources (numerous sources in a line, such as road traffic), and area sources (sources with large surface areas, such as transformers). By using this predictive tool, we have constructed virtual acoustic models of the proposed amphitheater and have developed sound level predictions for it.

EXHIBIT 3 provides the acoustic model site plan of the proposed Frost Amphitheater and the surrounding community.

Sound Level Predictions of Amphitheater Music

By design, the proposed amphitheater was positioned with the stage facing toward the east-southeast to direct music toward the east. In this way, the levels of sound produced by the music will be lower toward the residential properties to the west. The level and spectrum of music used in our modeling predictions is consistent with a live band playing at moderate sound levels and varying genres. The levels of music employed are deliberate and indicative of the desire to not negatively impact the surrounding community. To this end, two primary modeling scenarios are presented in this report. The first incorporates an open stage design as originally envisioned by the design team. The second has an option for a stage with a bandshell to further reduce music sound levels projected toward the west.

Model 1 – Open Stage Amphitheater

The proposed open stage amphitheater has low walls and a roof structure. In this scenario, sound can project in all directions from instruments and stage monitors, though the main loudspeaker elements will be directed toward the east-southeast. The modeling results for an open stage amphitheater are presented as a sound level contour plot over an aerial image of the proposed Frost Amphitheater and the surrounding community in **EXHIBIT 4**. The results of this model show that music levels are most prominent toward the east-southeast.

Music sound levels at the residents to the west are expected to be 50 dB(A), which is 5 dB below the evening noise ordinance limits, and at the threshold of the nighttime limits for residential properties. While the average ambient sound levels are over 60 dB(A) in this location, the music sound levels are likely to be audible when there are lulls in traffic and have some potential to create undesired impact.

Music sound levels at the surrounding industrial properties is expected to be around the 65 dB(A) threshold. However, at these locations the music is not expected to create undesired impact as concert events are expected to occur outside normal business hours.

Model 2 – Amphitheater with Bandshell

As an option, we propose using a bandshell type construction around the stage to further shield residents to the west. This additional element will provide additional buffer that will reduce the level of music toward the west. In essence, the low walls round the back of the stage area would be raised to meet and be sealed to the roof. To be effective, the construction of the bandshell (walls and roof) should be from reasonably massive materials. A minimum mass of 5 lbs./sq.ft. is recommended, though even heavier materials could be use. Additionally, in amplified arrangements, it may be desired to have sound absorbing materials on portions of the walls and ceiling of the stage area for the comfort of the musicians, and not create a space where sound is overly concentrated.

The results of this the model with the optional bandshell are provided in **EXHIBIT 5**. With the addition of the bandshell, sound levels at the residents to the west is expected to be less than 40 dB(A). This lower level will provide additional buffer to the residents and provide a wider tolerance range for the varying music sound levels relative to the ordinance noise limits.

Conclusions

The industrial zoned property at the northwest corner of State Street and Watson Avenue is a favorable location for a small-scale amphitheater with plans to have music performances of moderate to moderate-loud sound levels. With the aid of a bandshell, the proposed Frost Amphitheater will have most of the music sound it produces directed away from residents to the west.

In addition, ambient sound levels are somewhat elevated due to local traffic and the nearby interstate expressway. These ambient levels will help to mask the sound produced by the amphitheater.

Even still, care will need to be taken to not overdrive musical bass, as these frequencies of sound tend to be more omni-directional element of music and are less attenuated by barrier elements such as the bandshell. Musical bass tends to be a concerning element for residential communities around music venues.

Mr. Bloink, we hope this report of our investigation is informative and helpful. Should you need additional information regarding this work or additional assistance, don't hesitate to ask.

Sincerely,
K & S ENGINEERS, LLC



Darren Brown, P.E.
INCE Board Certified
Principal Consultant

EXHIBIT 1

AERIAL PLAN DETAILING THE COMMUNITY SOUND LEVEL MEASUREMENT LOCATION WEST OF
THE PROPOSED FROST AMPHITHEATER DEVELOPMENT



EXHIBIT 2

Ambient Sound Levels Near Residents West of the Proposed Frost Amphitheater

Measured at a Position 390-ft North of State Street, and 50-ft West of McCarthy Avenue

Study Conducted For: Frost Properties One / Stucky Vitale Architects

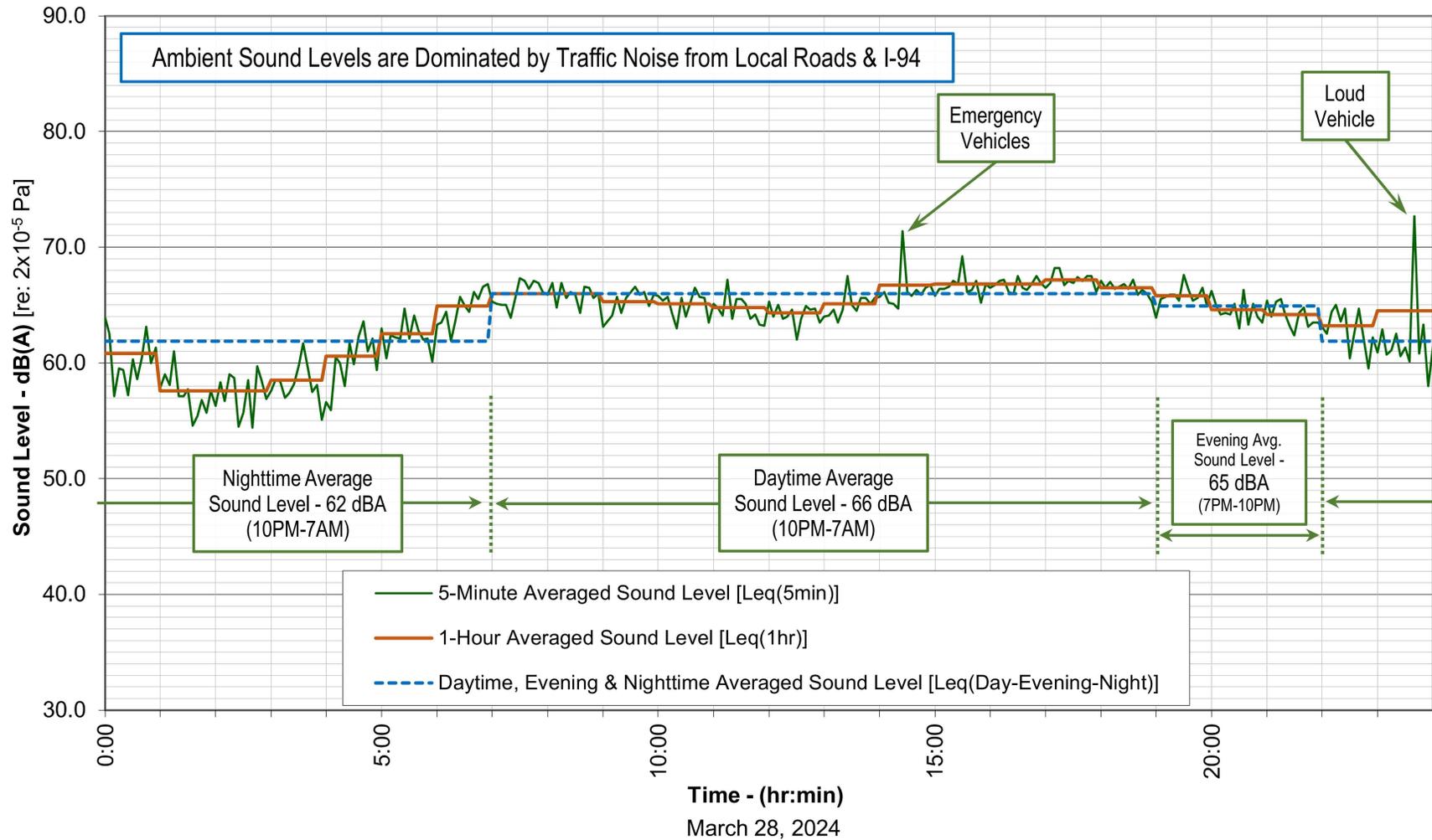
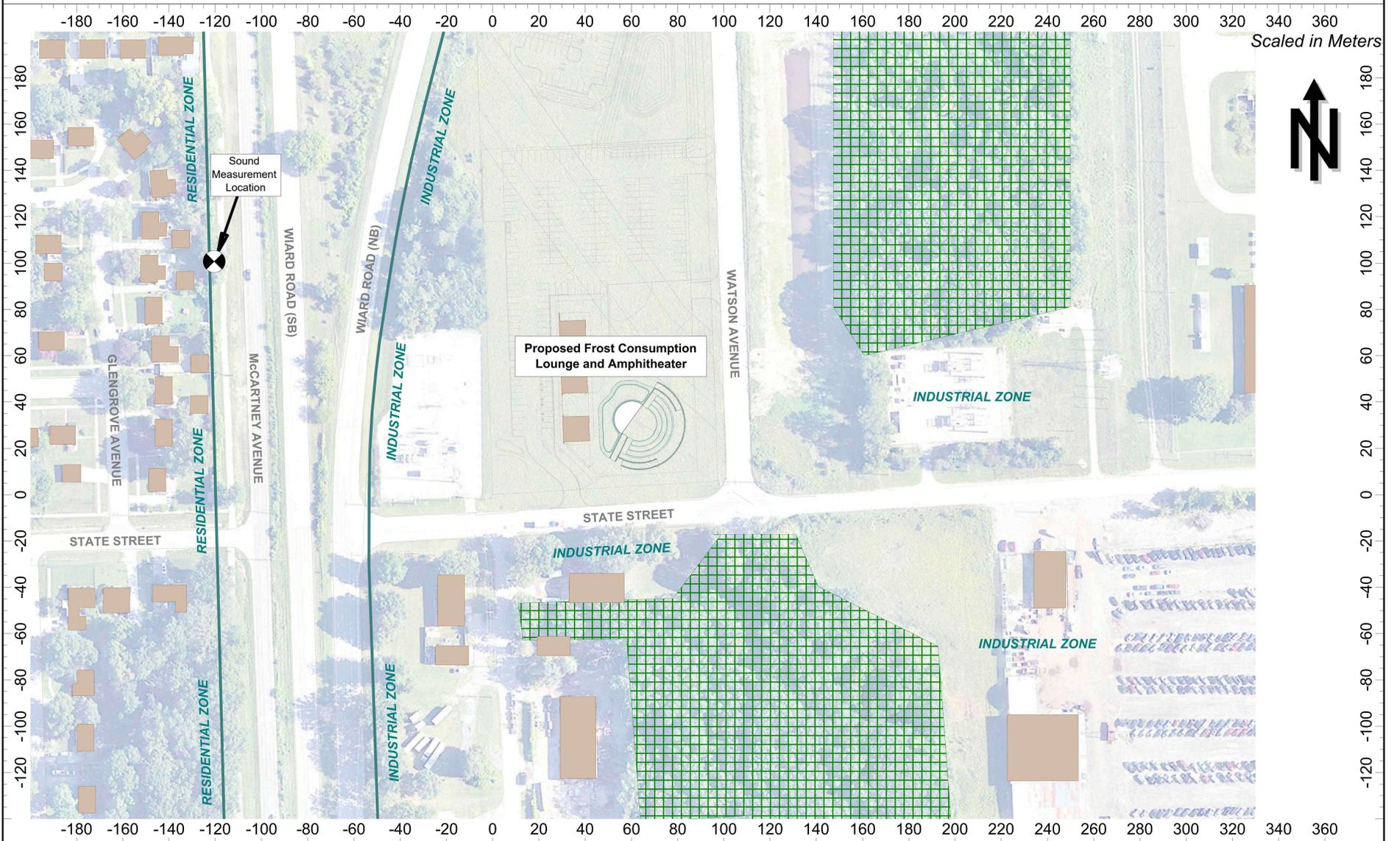


EXHIBIT 3

SITE PLAN FOR THE ACOUSTIC MODEL OF THE PROPOSED FROST AMPHITHEATER DETAILING THE ADJACENT COMMUNITY AND PROPERTY ZONING



K & S Engineers, LLC

Wixom, MI 48393

248-674-4100 www.kandse.com

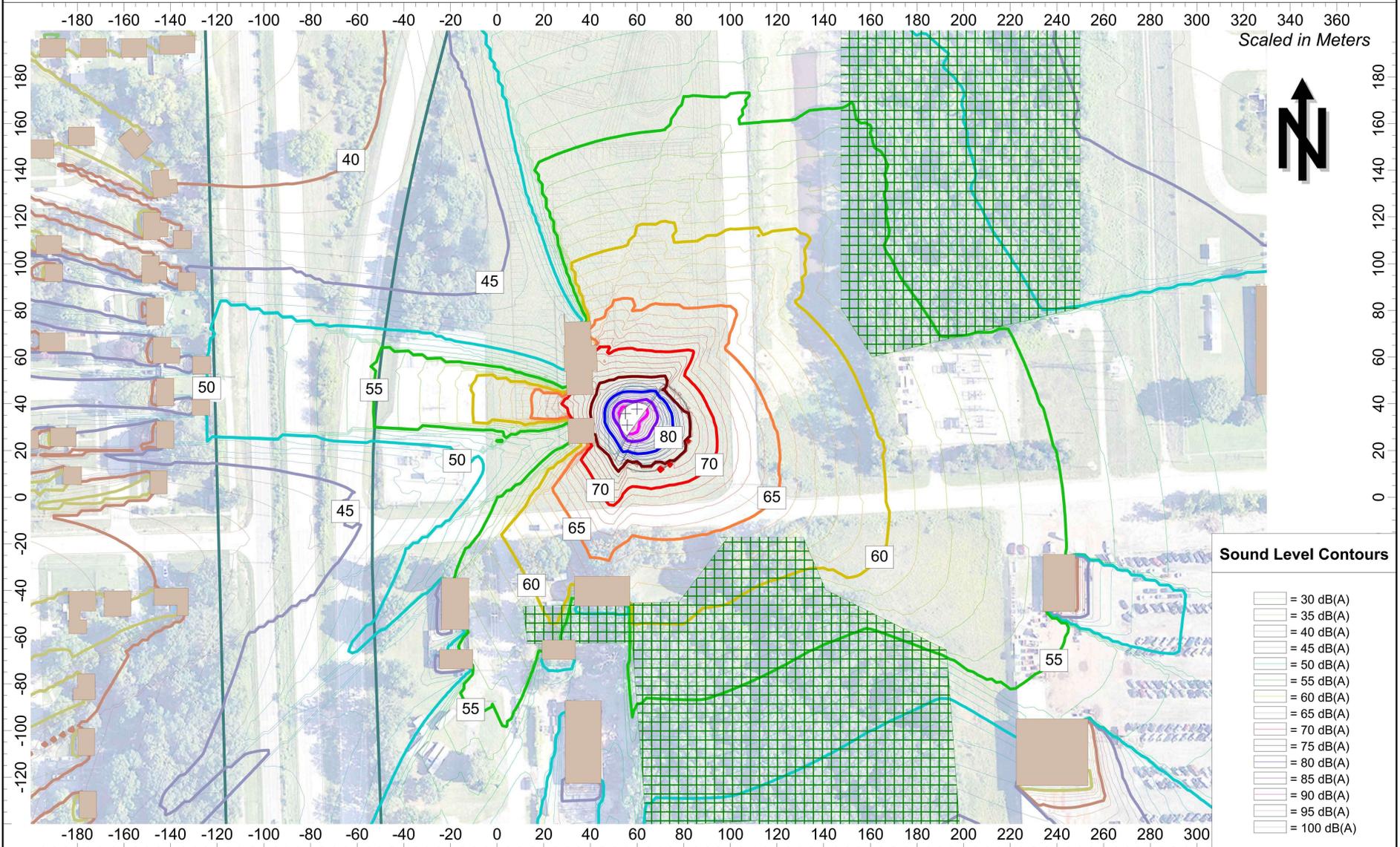
Project Name: **FROST AMPHITHEATER - YPSILANT**

Study Conducted for: Frost Properties One / Stucky Vitale Architects

Project No. : 2024-008

Analysis Date (day.mo.yr): 12.04.24

EXHIBIT 4
SOUND LEVEL CONTOUR PLOT OF MUSIC FROM THE PROPOSED FROST AMPHITHEATER WITH
OPEN STAGE FACING TOWARD THE EAST-SOUTHEAST



K & S Engineers, LLC

Wixom, MI 48393

248-674-4100 www.kandse.com

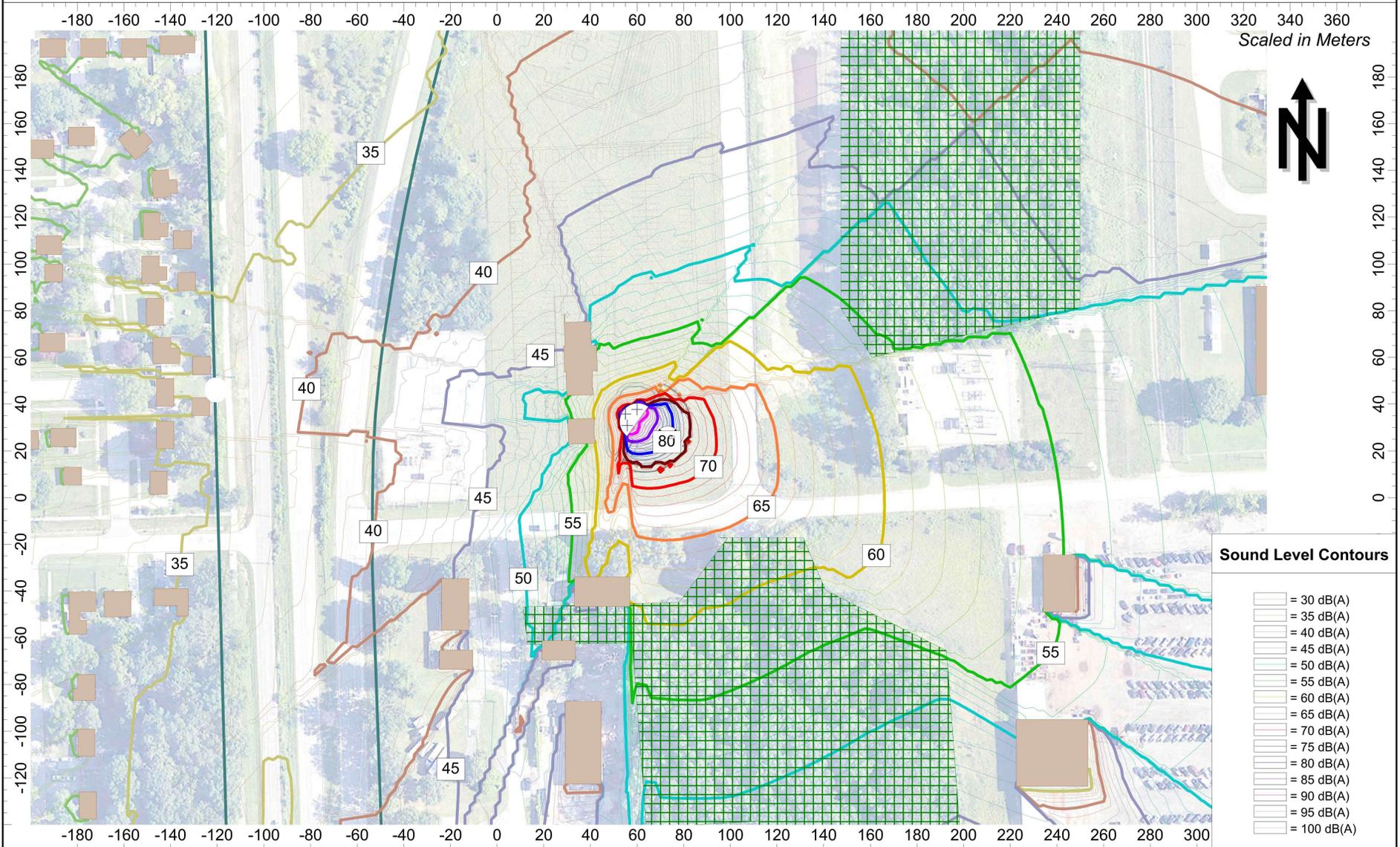
Project Name: **FROST AMPHITHEATER - YPSILANT**

Study Conducted for: Frost Properties One / Stucky Vitale Architects

Project No. : 2024-008

Analysis Date (day.mo.yr): 10.04.24

EXHIBIT 5 SOUND LEVEL CONTOUR PLOT OF MUSIC FROM THE PROPOSED FROST AMPHITHEATER WITH BAND SHELL DIRECTED TOWARD THE EAST-SOUTHEAST



K & S Engineers, LLC

Wixom, MI 48393
248-674-4100 www.kandse.com

Project Name: **FROST AMPHITHEATER - YPSILANT**

Study Conducted for: Frost Properties One / Stucky Vitale Architects

Project No. : 2024-008

Analysis Date (day.mo.yr): 10.04.24

APPENDIX A

Sound Level of Typical Sources			
Sound Level dB(A)	Subjective Impression	Outdoor	Indoor
180		Rocket Launch, Artillery Fire	
160	Extremely Loud	Rifle Shot at Shooters Ear	
130	Pain	Fire Cracker at 30 Feet	
120	Uncomfortable	Jet Plane Taking Off at 200 Feet	
110		Jet Flyover at 1000 Feet	Rock Concert, Dance Club
100	Very Loud	Motorcycle pass-by at 25 Feet	
90		Two Cycle Lawn Mower at 5 Feet	Food Blender at 3ft.
80	Moderately Loud	Diesel Truck Pass-by (50mph) at 50 Feet	Vacuum Cleaner at 4ft.
70		Car pass-by (50mph) at 50 Feet	
60		Residential Air Cond. Condenser at 15 Feet	Normal Conversation at 5ft.
50	Quiet	Large transformer at 100 Feet	
40		Bird Calls at 100 Feet	Open office with low activity
30	Very Quiet		Soft Whisper at 5ft.
20		Tree Leaves Rustling In Wind	Quiet Bedroom
10	Just Audible		Normal Breathing
0	Hearing Threshold		

It should be noted that sound level is a function of sound power and distance from the source. The examples given are approximate and show the general range where they are normally heard.



Report on Geotechnical Investigation

**Proposed Frost Music
Venue
2525 State Street
Ypsilanti Charter
Township, Michigan
48198**

Latitude 42.225341 ° N
Longitude -83.561139 ° W

Prepared for:

Michael Ludtke
62 Sylvan Court
Pontiac, Michigan 48341

G2 Project No. 233814
January 18, 2024



CONSULTING
GROUP

January 18, 2024

Mr. Michael Ludtke
62 Sylvan Court
Pontiac, Michigan 48341

Re: Report on Geotechnical Investigation
Proposed Frost Music Venue
2525 State Street
Ypsilanti Charter Township, Michigan 48198
G2 Project No. 233814

Dear Mr. Ludtke:

We have completed the geotechnical investigation for construction of the proposed Frost Music Venue development to be located at 2525 State Street in Ypsilanti Charter Township, Michigan. This report presents the results of our observations, analyses, and our recommendations for earthwork, subgrade preparation, foundation construction, and structural BMP construction, as well as related construction considerations.

We appreciate the opportunity to be of service to you and look forward to discussing the recommendations presented herein. In the meantime, if you have any questions regarding the report or any other matter pertaining to the project, please call us.

Sincerely,

G2 Consulting Group, LLC

Tyler S. Hesse, P.E.
Project Engineer

Jason B. Stoops, P.E.
Associate / Project Manager

TSH/JBS/jbs

Enclosures



EXECUTIVE SUMMARY

We understand that the project consists of constructing the proposed Frost Music Venue development to be located at 2525 State Street in Ypsilanti Charter Township, Michigan. Based on the provided drawings, the proposed development will consist of single-story, slab-on-grade consumption and storage buildings, and an amphitheater. Furthermore, we understand that associated utilities, structural best management practices (BMPs), and gravel parking areas and walking paths will be constructed in conjunction with this project.

Approximately 8 to 12 inches of sand, clayey sand, and sandy clay topsoil are present at the ground surface within the test pit and soil boring locations. Native very stiff silty clay underlies the topsoil within soil boring B-03 extending to a depth of 3-1/2 feet. Native loose to medium compact granular soils consisting of sand and clayey sand underlie the native silty clay within B-06 and the topsoil within the remaining test pit and soil boring locations extending to depths ranging from 7-1/2 to 14 feet. Stiff to very stiff silty clay underlies the native granular soils within the soil boring locations extending to the explored depths ranging from 15 to 20 feet. Groundwater observations were made during and upon completion of excavation/drilling operations. During excavation/drilling operations groundwater was encountered at depths ranging from 7 to 8 feet (elevation 708-3/4 feet to 709-3/4 feet) below existing grade. Upon completion of excavation/drilling operations, groundwater was measured at depth ranging from 7 to 8 feet (elevation 708-1/2 to 709-3/4 feet) below existing grade.

Based on the provided topographical survey, existing grades within the footprint of the proposed buildings and amphitheater range from 716 to 716-3/4 feet. Furthermore, based on the provided grading plan, the proposed buildings will have a FFE of 718.50 feet and the upper portion of the amphitheater will have an elevation of 719-1/2 feet. As such, we anticipate grades will be raised by as much as 2 to 3 feet. Based on the provided drawings, the bottom stage of the proposed amphitheater will have an elevation of 714.50 feet. As such, we anticipate grades will be lowered in certain portions of the proposed amphitheater. We anticipate that soils generated from lowering grades within the lower eastern portion of the theater may be used as engineered fill to raise grades within the upper western portion of the theater and within the proposed building pads.

We anticipate the proposed buildings and amphitheater will be supported on conventional shallow spread and/or strip footings designed to bear at a conventional depth of 3-1/2 feet below finished grades. Based on the provided drawings, the proposed building and amphitheater will have a FFE of 718.50 feet and 714.50 feet, respectively, and as such, will have foundations bearing at elevations of 715 feet and 711 feet, respectively. Based on the encountered soil conditions, we anticipate foundations bearing at the aforementioned elevations will be supported by native loose to medium compact granular soils and/or native very stiff silty clay. Foundations bearing within the aforementioned soils may be designed based on a net allowable bearing capacity of 2,000 psf.

Based on the provided drawings, structural BMPs, consisting of an underground stormwater detention system and bioswale, will be constructed within the southwestern quadrant of the proposed development. Based on the provided drawing, the proposed underground detention system will have an invert elevation of 708-1/4 feet. Based on the field observations, native granular soils are present within the vicinity of the proposed BMPs extending as deep as 12 feet. Furthermore, groundwater was encountered at depths ranging from 7 to 8 feet (708-1/2 feet to 709-1/2 feet) below existing grade within these areas. Based on local ordinances, the invert elevation of the proposed BMP must be a minimum of two (2) feet above the seasonally high groundwater table. It should be noted that groundwater during the winter months is expected to be at a low elevation, and as such, we anticipate that groundwater will be at a higher elevation in the later spring months. Due to the high groundwater table, we anticipate the proposed invert elevation of the proposed BMP will need to be raised to a higher elevation.

We anticipate caving and/or sloughing of the surficial granular soils to occur during excavation operations, and as such, the foundation contractor should come prepared to over-excavate and form foundations. We recommend foundation excavation and concrete placement operations be conducted on the same day to minimize potential for cave-ins or stormwater run-off into the open excavations.

We anticipate significant accumulations of groundwater for construction excavations extending beyond a depth of 7 feet below existing grade. We anticipate that groundwater can be lowered by 1 to 2 feet with a properly constructed system of sumps and pumps.

Do not consider this summary separate from the entire text of this report, with all the conclusions and qualifications mentioned herein. Details of our analysis and recommendations are discussed in the following sections and in the Appendix of this report.



PROJECT DESCRIPTION

We understand that the project consists of constructing the proposed Frost Music Venue development at 2525 State Street in Ypsilanti Charter Township, Michigan. Based on the provided drawings, the proposed development will consist of single-story, slab-on-grade consumption and storage buildings, and an amphitheater. Furthermore, we understand that associated utilities, structural best management practices (BMPs), and gravel parking areas and walking paths will be constructed in conjunction with this project.

Based on the provided topographical survey, existing grades within the footprint of the proposed development range from elevation 715-1/2 to 718 feet. Based on the provided grading plan, the proposed consumption and storage buildings will have a finished floor elevation (FFE) of 718.50 feet. Furthermore, finished grades within the upper portion of the proposed amphitheater will be as high as 719.50 feet. As such, we anticipate grades will be raised as much as 2 feet and 3 feet within the vicinity of the proposed buildings and amphitheater, respectively.

Information related to structural loading conditions for the proposed consumption and storage buildings was unavailable at the time of this report. However, for evaluation purposes, it will be assumed that the proposed structures will have single column loads ranging from 20 to 40 kips, and wall loads ranging from 1 to 2 kips per lineal foot.

If information related to existing and final site grades, finished floor elevation, or structural loading conditions becomes available or changes, G2 should be notified in order to re-evaluate the recommendations provided herein. The purpose of our exploration is to determine and evaluate the general subsurface conditions at the site and to develop recommendations for earthwork, subgrade preparation, foundation construction, and structural BMP construction, as well as construction considerations as they relate to the geotechnical conditions on site.

SCOPE OF SERVICES

The field operations, laboratory testing, and engineering report preparation were performed under direction and supervision of a licensed professional engineer. Our services were performed according to generally accepted standards and procedures in the practice of geotechnical engineering in this area. Our scope of services for this project is as follows:

1. We performed a total of four (4) test pit excavations, TP-01 through TP-04, within the influence of the proposed structural BMPs, extending to depths ranging from 7-1/2 to 8-1/2 feet. Associated infiltration testing was performed within each of the test pit excavations.
2. We performed a total of six (6) soil borings throughout the proposed development. Soil borings B-01 through B-04 were performed within the influence of the proposed consumption and storage buildings extending to a depth of 20 feet each. Soil borings B-05 and B-06 were performed within the vicinity of the proposed amphitheater and underground stormwater management system, respectively, extending to a depth of 15 feet each.
3. We performed laboratory testing on representative samples obtained from the soil borings. Laboratory testing included visual engineering classification, natural moisture content, and unconfined compressive strength determinations.
4. We prepared this engineering report. The report includes recommendations regarding earthwork and subgrade preparation, recommended soil bearing capacity, estimated settlement, and construction considerations related to foundation and structural BMP construction.

FIELD OPERATIONS

Michael Ludtke, in conjunction with G2, selected the number, depth, and location of the soil borings.



The test pit and soil boring locations were determined in the field by a G2 representative using GPS assisted mobile technology and conventional taping methods by measuring from known surface features prior to the soil boring operations. The approximate test pit and soil boring locations are shown on the Soil Boring Location Plan, Plate No. 1. Existing ground surface elevations at the test pit and soil boring locations were estimated using the spot elevations and interpolating between the contour lines on the provided topographical survey. The resulting elevations are presented on the Test Pit and Soil Boring Logs, Figure Nos. 1 through 10.

We directed the excavation of four (4) test pits to depths ranging from 7-1/2 to 8-1/2 feet below existing grade. The test pits were excavated by Maulbetsch Excavating using a backhoe equipped with a 30-inch bucket. During test pit excavations operations, soil samples were collected at intervals of 2-1/2 feet, and at changes in soil stratigraphy. Within each test pit, G2 maintained logs of the encountered subsurface conditions including changes in stratigraphy and observed groundwater levels. The test pit logs are based on the results of the field and laboratory soil classification and testing.

We performed infiltration testing in each of the four test pits. Field testing included the encased falling head permeability test as described within Section V, Part D of the WCWRC "Rules and Guidelines - Procedures & Design Criteria for Stormwater Management Systems" revised October 17, 2016. The test consists of embedding a 6-inch diameter casing into the ground a minimum of 6 inches. After the initial pre-soak of the tested soil plug, a head of approximately 12 inches is poured into the casing and the drop in the head of water is recorded over time. Several trials are conducted during infiltration testing until a consistent rate-of-drop has been established.

We observed the backfilling operations which were performed in an uncontrolled manner. We anticipate the test pit backfill will settle over time; therefore, we recommend the vertical and lateral extent of the test pit excavations be documented by others so that the excavation soils may be removed, replaced, and improved during construction, if necessary. The failure to improve the excavated soils could result in the settlement of test pit backfill over time and could result in the premature failure of infrastructure if constructed over the test pit backfill.

The soil borings were drilled using an all-terrain vehicle (ATV) mounted drilling rig. Continuous flight 2-1/4 inch inside diameter hollow-stem augers were used to advance the borehole to the explored depths. Soil samples were obtained at intervals of 2-1/2 feet within the upper 10 feet and at intervals of 5 feet thereafter. The samples were obtained by the Standard Penetration Test method (ASTM D 1586), which involves driving a 2-inch diameter split-spoon sampler into the soil with a 140-pound weight falling 30 inches. The sampler is generally driven three successive 6-inch increments with the number of blows for each increment recorded. The number of blows required to advance the sampler the last 12 inches is termed the Standard Penetration Resistance (N). The blow counts for each 6-inch increment and the resulting N-value are presented on the soil boring logs.

The soil samples were placed in sealed containers and brought to our laboratory for testing and classification. During field operations, the driller maintained logs of the subsurface conditions, including changes in stratigraphy and observed groundwater levels. The final boring logs are based on the field boring logs supplemented by laboratory soil classification and test results. The boreholes were backfilled with auger cuttings upon completion of drilling operations.

LABORATORY TESTING

Representative soil samples were subjected to laboratory testing to determine soil parameters pertinent to site preparation and foundation design. An experienced geotechnical engineer classified the samples in general conformance with the Unified Soil Classification System (USCS). Laboratory testing was conducted in conformance with the following ASTM Test Methods:

- "Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass" (ASTM D2216).



The unconfined compressive strengths were determined using a spring-loaded hand penetrometer. The hand penetrometer estimates the unconfined compressive strength to a maximum of 4-1/2 tons per square foot (tsf) by measuring the resistance of the soil sample to the penetration of a calibrated spring-loaded cylinder.

The results of the moisture contents and unconfined compressive strengths are indicated on the Test Pit and Soil Boring Logs, Figure Nos. 1 through 10, at the depths the samples were obtained. We will hold the soil samples for 60 days from the date of this report, after which time they will be discarded. If you would like the samples, please let us know.

SITE DESCRIPTION

The proposed development is to be constructed at 2525 State Street in Ypsilanti Charter Township, Michigan. The proposed development is bounded by a wooded area and commercial development to the north, by Watson Avenue to the east, by State Street to the south, and by a power substation and Ward Road to the west.

The proposed development footprint lies within a heavily wooded area with numerous mature trees and vegetation. Based on the provided topographical survey, existing site grades range from elevation 715-1/2 feet to 718 feet.

SOIL CONDITIONS

Approximately 8 to 12 inches of sand, clayey sand, and sandy clay topsoil is present at the ground surface within the test pit and soil boring locations. Native silty clay underlies the topsoil within soil boring B-03 extending to a depth of 3-1/2 feet. Native granular soils consisting of sand and clayey sand underlie the native silty clay within B-06 and the topsoil within the remaining test pit and soil boring locations extending to depths ranging from 7-1/2 to 14 feet. Silty clay underlies the native granular soils within the soil boring locations extending to the explored depths ranging from 15 to 20 feet.

The native granular soils are loose to medium compact in relative density, with Standard Penetration Test (SPT) N-values ranging from 7 to 24 blows per foot (bpf). The native silty clay soils are stiff to very stiff in consistency, with natural moisture contents ranging from 12 to 27 percent, and unconfined compressive strengths ranging from 3,000 psf to 7,000 psf.

The stratification depths shown on the test pit and soil boring logs represent the soil conditions at the specified locations. Variations may occur between and away from the test pit and soil boring locations. Additionally, the stratigraphic lines represent the approximate boundaries between soil types. The transition may be more gradual than indicated. We have prepared the soil boring logs on the basis of the field logs of the soil conditions encountered supplemented by laboratory classification and testing.

The Test Pit and Soil Boring Location Plan, Plate No. 1, Test Pit Logs, Figure Nos. 1 through 4, and Soil Boring Logs, Figure Nos. 6 through 10, are presented in the Appendix. The soil profiles described above are generalized descriptions of the conditions encountered at the test pit and soil boring locations. General Notes Terminology defining the nomenclature used on the soil boring logs and elsewhere in this report are presented on Figure No. 11.

GROUNDWATER CONDITIONS

Groundwater observations were made during and upon completion of excavation/drilling operations. During excavation/drilling operations groundwater was encountered at depths ranging from 7 to 8 feet (elevation 708-3/4 feet to 709-3/4 feet) below existing grade. Upon completion of excavation/drilling operations, groundwater was measured at depth ranging from 7 to 8 feet (elevation 708-1/2 to 709-3/4 feet) below existing grade. Fluctuations in perched and long-term groundwater levels should be anticipated due to seasonal variations and following periods of prolonged precipitation.



SITE PREPARATION

We anticipate earthwork operations will consist of complete removal of topsoil, trees, and vegetation within the footprint of the proposed development, proof-rolling/proof-compacting the exposed subgrade, placing engineered fill to raise grades, excavating for utilities, foundations, and structural BMPs, and preparing subgrade for floor slab support. We recommend all earthwork operations be performed in accordance with comprehensive specifications and be properly monitored in the field by qualified personnel under the direction of a licensed professional engineer.

At the start of earthwork operations, any existing topsoil, trees, or vegetation should be removed in their entirety within the footprint of the proposed development. Any existing utilities and associated backfill within the footprint of proposed structures should be completely removed and backfilled with engineered fill. Where utilities lie outside the proposed structure zone of influence, utilities to be abandoned can be completely filled with grout and left in place.

After site stripping, the exposed subgrade is expected to consist of native silty clay and/or granular soils. Where silty clay soils are encountered, soils should be proof-rolled with a fully loaded tandem-axle dump truck and be evaluated for stability. Unsuitable soils exhibiting excessive instability, such as severe rutting, should be improved with additional compaction or undercut to expose stable soils. Where granular soils are encountered, soils should be proof-compacted with a heavy smooth-drum vibratory roller and should be visually evaluated for instability and/or unsuitable soil conditions by a qualified geotechnical engineer or technician. We recommend 10 passes in two perpendicular directions during the proof-compaction operations. Any resulting undercut excavations should be backfilled with engineered fill. We recommend the vibratory setting be turned off within 25 feet of any existing structures.

Based on the provided topographical survey, existing grades within the footprint of the proposed buildings and amphitheater range from 716 to 716-3/4 feet. Furthermore, based on the provided grading plan, the proposed buildings will have a FFE of 718.50 feet and the upper portion of the amphitheater will have an elevation of 719-1/2 feet. As such, we anticipate grades will be raised by as much as 2 to 3 feet. Based on the provided drawings, the bottom stage of the proposed amphitheater will have an elevation of 714.50 feet. As such, we anticipate grades will be lowered in certain portions of the proposed amphitheater.

We anticipate that soils generated from lowering grades within the lower eastern portion of the theater and soils generated from structural BMP excavations may be used as engineered fill to raise grades within the upper western portion of the theater and within the proposed building pads. Engineered fill should be free of organic matter, frozen soil, clods, or other harmful material. The fill should be placed in uniform horizontal layers that are not more than 9 inches in loose thickness. The engineered fill should be compacted to achieve a density of at least 95 percent of the maximum dry density as determined by the Modified Proctor compaction test (ASTM D 1557). All engineered fill material should be placed and compacted at approximately the optimum moisture content. Frozen material should not be used as fill, nor should fill be placed on a frozen subgrade. In order to economically conduct earthwork operations at the site, imported fill, adhering to the aforementioned requirements, should consist of low plasticity clays or well-graded aggregates. Low plasticity clays, having a plasticity index less than 20 percent, should be placed within +3 or -1 percent of the optimum moisture content as determined by the Modified Proctor Test (ASTM D1557). For well-graded aggregates, such as MDOT Class II Sand, we recommend the engineered fill be placed at ± 2 percent of the optimum moisture content as determined by ASTM D1557.

We recommend the use of free-draining granular soils, such as MDOT Class II sand, within utility trenches. We recommend the use of engineered fill with a sufficient amount of fines (material passing the No. 200 sieve) in order to facilitate trenching and excavation techniques for strip and spread footing foundations.

FOUNDATION RECOMMENDATIONS

Information related to structural loading conditions for the proposed consumption and storage buildings was unavailable at the time of this report. However, for evaluation purposes, it will be assumed that the proposed structures will have single column loads ranging from 20 to 40 kips, and wall loads ranging from 1 to 2 kips per lineal foot.

We anticipate the proposed buildings and amphitheater will be supported on conventional shallow spread and/or strip footings designed to bear at a conventional depth of 3-1/2 feet below finished grades. Based on the provided drawings, the proposed buildings and amphitheater will have a FFE of 718.50 feet and 714.50 feet, respectively, and as such, will have foundations bearing at elevations of 715 feet and 711 feet, respectively. Based on the encountered soil conditions, we anticipate foundations bearing at the aforementioned elevations will be supported by native loose to medium compact granular soils and/or native very stiff silty clay. Foundations bearing within the aforementioned soils may be designed based on a net allowable bearing capacity of 2,000 psf.

Continuous wall or strip footings should be at least 18 inches in width and isolated spread footings should be at least 36 inches in their least dimension. Exterior foundations must bear at a minimum depth of 3-1/2 feet below finished grade for protection against frost heave. Interior footings may bear at shallower depths provided suitable bearing materials are available for support and the foundations soils are continuously protected from frost penetration during construction. We recommend G2 be on site during construction to observe the foundations excavations and verify the adequacy of the bearing soils.

If the recommendations outlined in this report are adhered to, total and differential settlements for the completed structure should be within 1 inch and 1/2 inch, respectively. We expect settlements of these magnitudes are within tolerable limits for the type of structures proposed. We recommend all foundations be suitably reinforced to minimize the effects of differential settlements associated with local variations in subsoil conditions.

FLOOR SLAB RECOMMENDATIONS

We anticipate the proposed consumption and storage building floor slab(s) will be supported by native loose to medium compact granular soils, native very stiff silty clay soils and/or engineered fill soils. Following satisfactory completion of the subgrade preparation recommendations as described within the *SITE PREPARATION RECOMMENDATIONS* section of this report, a subgrade modulus (k) of 125 pounds per cubic inch (pci) may be used for design of floor slabs supported by the aforementioned soils.

We recommend at least 4 inches of clean crushed gravel be placed between the subgrade and the bottom of the floor slab for use as a capillary break to reduce moisture transmission through the concrete floors and to reduce the potential for concrete curling. If moisture sensitive floor coverings are planned or if greater protection against vapor transmission is desired, a vapor barrier consisting of 10-mil plastic sheeting, or equivalent, may be placed on the sand layer beneath floor slabs. However, additional floor slab curing techniques will be required especially if floor slab placement occurs in the winter months to prevent floor slab curling. The floor slab should be isolated from the foundation system to allow for independent movement.

STRUCTURAL BMP RECOMMENDATIONS

Based on the provided drawings, structural BMPs, consisting of an underground stormwater detention system and bioswale, will be constructed within the southwestern quadrant of the proposed development. Based on the provided drawing, the proposed underground detention system will have an invert elevation of 708-1/4 feet.

During our field investigation, soil boring B-06, and test pit excavations, TP-01 through TP-04, were performed within the footprint of the proposed BMPs. Based on the field observations, native granular



soils are present within the vicinity of the proposed BMPs extending as deep as 12 feet. Furthermore, groundwater was encountered at depths ranging from 7 to 8 feet (708-1/2 feet to 709-1/2 feet) below existing grade within these areas.

During test pit operations, associated in-situ infiltration testing was performed at a minimum depth of 2 feet above the encountered groundwater. The following table provides the results of our observations during test pit operations:

Test Pit ID	Ground Surface Elevation (Feet) ¹	Groundwater Elevation (Feet) ²	Test Elevation (Feet)	Soil Type (USCS ³)	Observed Infiltration Rate (iph) ⁴
TP-01	716-3/4	709.75	712.25	SP	1.8
TP-02	716-1/2	709.5	712	SP	6.6
TP-03	716-3/4	708.75	712.25	SP	5.1
TP-04	717	709	711.5	SP	7.8

- Notes:
1. Estimated based on Google Earth technology
 2. Estimated at completion of excavation operations
 3. Description in general accordance with Visual-Manual Unified Classification System
 4. Represents infiltration rate for duration of final trial

Please note, the observed infiltration rates presented in the above table have not been reduced using a factor-of-safety. The stormwater system engineer-of-record should use an appropriate factor of safety based on their experience with the design, construction, and performance of similar systems. We understand the WCWRC recommends observed infiltration rates be reduced by a factor of safety equal to 2.0 for use in design.

Based on the results of our infiltration evaluation, we recommend the proposed stormwater management structures be designed to infiltrate collected water into the encountered native sand within TP-01 through TP-04.

We recommend that a qualified geotechnical engineer or technician be present on-site during the excavation of the proposed BMPs to verify that soils at the base of the proposed structures are consistent with soil conditions identified within this report.

Based on local ordinances, the invert elevation of the proposed BMP must be a minimum of two (2) feet above the seasonally high groundwater table. It should be noted that groundwater during the winter months is expected to be at a low elevation, and as such, we anticipate that groundwater will be at a higher elevation in the later spring months. Due to the high groundwater table, we anticipate the proposed invert elevation of the proposed BMP will need to be raised to a higher elevation.

CONSTRUCTION CONSIDERATIONS

At the time of this report, information related to proposed utility inverts was not available; however, it will be assumed that approximate utility inverts will range from 5 to 6 feet below existing grades. As described in this report, we anticipate foundation excavations will extend approximately 3-1/2 feet below existing grades.

We anticipate caving and/or sloughing of the surficial granular soils to occur during excavation operations, and as such, the foundation contractor should come prepared to over-excavate and form foundations. We recommend foundation excavation and concrete placement operations be conducted on the same day to minimize potential for cave-ins or stormwater run-off into the open excavations.

We anticipate significant accumulations of groundwater for construction excavations extending beyond a depth of 7 feet below existing grade. We anticipate that groundwater can be lowered by 1 to 2 feet with



a properly constructed system of sumps and pumps.

We recommend maximum slope inclinations of 2 horizontal unit to 1 vertical unit (2H:1V) within the loose granular soils, 1-1/2H:1V within the medium compact granular soils, 1H:1V within the stiff silty clay, and 3/4H:1V within the native very stiff silty clay soils for excavations extending below a depth of 5 feet. Where seepage from excavation cuts is observed, the slopes will need to be flattened sufficiently to achieve stability, but in no case left steeper than 3H:1V at and below the seepage level.

All excavations should be safely sheeted, shored, sloped, or braced in accordance with MI-OSHA requirements. If material is stored or equipment is operated near an excavation, lower angle slopes or stronger shoring must be used to resist the extra pressure due to the superimposed loads.

GENERAL COMMENTS

We have formulated the evaluations and recommendations presented in this report relative to site preparation and foundations on the basis of data provided to us relating to the project location, type of structure, and surface grade for the proposed site. Any significant change in this data should be brought to our attention for review and evaluation with respect to prevailing subsurface conditions. Furthermore, if changes occur in the design, location, or concept of the project, conclusions and recommendations contained in this report are not valid unless G2 Consulting Group, LLC reviews the changes. G2 Consulting Group, LLC will then confirm the recommendations presented herein or make changes in writing.

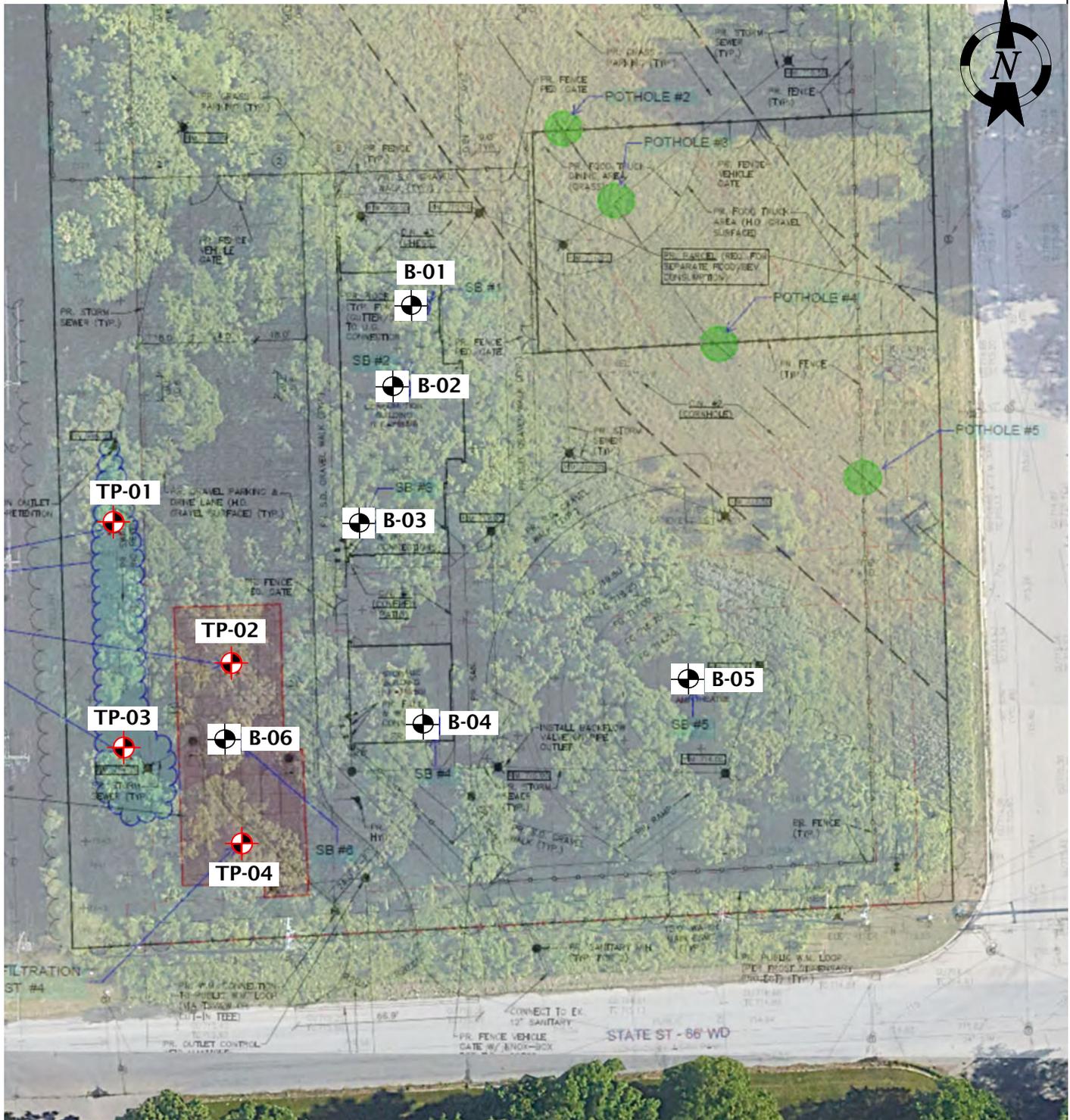
The scope of the present investigation was limited to evaluation of subsurface conditions for the support of proposed building addition and other related aspects of the development. No chemical, environmental, or hydrogeological testing or analyses were included in the scope of this investigation.

We base the analyses and recommendations submitted in this report upon the data from the test pits and soil borings performed at the approximate location shown on the Soil Boring Location Plan, Plate No. 1. This report does not reflect variations that may occur between and away from the actual test pit and boring locations and the actual structure location. The nature and extent of any such variations may not become clear until the time of construction. If significant variations then become evident, it may be necessary for us to re-evaluate our report recommendations.

We recommend G2 Consulting Group, LLC observe all geotechnical related work, including foundation construction, subgrade preparation, and engineered fill placement. G2 Consulting Group, LLC will perform the appropriate testing to confirm the geotechnical conditions given in the report are found during construction.

APPENDIX

Soil Boring Location Plan	Plate No. 1
Test Pit Logs	Figure Nos. 1 through 4
Soil Boring Logs	Figure Nos. 6 through 10
General Notes Terminology	Figure No. 11
Infiltration Test Results	Figure Nos. 12 through 15



Legend

-  Soil borings performed by Strata Drilling, Inc. on November 29, 2023
-  Test pits performed by Maulbetsch Excavating on November 9, 2023

Notes

1. Soil borings B-01 through B-06 drilled to depths ranging from 15 to 20 feet.

Soil Boring and Test Pit Location Plan

Proposed Frost Music Venue
 2525 State Street
 Ypsilanti Charter Township, Michigan 48198



Project No. 233814	
Drawn by: TSH	
Date: 12/11/23	Plate No. 1
Scale: NTS	

Project Name: Proposed Frost Music Venue
 Project Location: 2525 State Street
 Ypsilanti Charter Township, Michigan

Test Pit No. TP-01



G2 Project No. 233814
 Latitude: 42.225151° Longitude: -83.561555°

SUBSURFACE PROFILE				SOIL SAMPLE DATA				
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 716.8 ft ±	DEPTH (ft)	SAMPLE TYPE/NO.	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	PERCENT COMPACTION	UNCOF. COMP. ST. (PSF)
		Topsoil: Dark Brown Sandy Clay (12 inches)	1.0					
		Brown Clayey Sand	4.5	BS-01				
711.8		(Observed Infiltration Rate = 1.8 iph)	5	BS-02				
		Brown to Gray Sand with trace gravel and clay	7.5	BS-03				
706.8		End of Test Pit @ 7.5 ft	10					

Total Depth: 7.5 ft
 Excavation Date: November 9, 2023
 Inspector: P. Guisinger
 Contractor: Maulbetsch Excavating & Tree
 Operator: P. Maulbetsch

Excavation Equipment:
 Excavator equipped with 30-inch bucket

Water Level Observation:
 7 feet during excavation and upon completion

Notes:
 Water level established during initial excavation, infiltration test pit was then excavated 1 to 2 feet offset of original pit, at a depth of greater than 2 feet from water level

Excavation Backfilling Procedure:
 Excavation backfilled with generated spoils

Figure No. 1

TEST PIT - 233814.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 12/14/23

Project Name: Proposed Frost Music Venue
 Project Location: 2525 State Street
 Ypsilanti Charter Township, Michigan

Test Pit No. TP-02



G2 Project No. 233814
 Latitude: 42.224981° Longitude: -83.561392°

SUBSURFACE PROFILE				SOIL SAMPLE DATA				
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 716.5 ft ±	DEPTH (ft)	SAMPLE TYPE/NO.	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	PERCENT COMPACTION	UNCOF. COMP. ST. (PSF)
		Topsoil: Dark Brown Sandy Clay (12 inches)	1.0					
		Brownish Gray Clayey Sand	4.5	BS-01				
711.5		(Observed Infiltration Rate = 6.6 iph)	5	BS-02				
		Brown to Gray Sand with trace gravel and clay	7.5	BS-03				
706.5		End of Test Pit @ 7.5 ft	10					

Total Depth: 7.5 ft
 Excavation Date: November 9, 2023
 Inspector: P. Guisinger
 Contractor: Maulbetsch Excavating & Tree
 Operator: P. Maulbetsch

Excavation Equipment:
 Excavator equipped with 30-inch bucket

Water Level Observation:
 7 feet during excavation and upon completion

Notes:
 Water level established during initial excavation, infiltration test pit was then excavated 1 to 2 feet offset of original pit, at a depth of greater than 2 feet from water level

Excavation Backfilling Procedure:
 Excavation backfilled with generated spoils

Figure No. 2

TEST PIT - 233814.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 12/14/23

Project Name: Proposed Frost Music Venue
 Project Location: 2525 State Street
 Ypsilanti Charter Township, Michigan

Test Pit No. TP-03



G2 Project No. 233814
 Latitude: 42.224896° Longitude: -83.561537°

SUBSURFACE PROFILE				SOIL SAMPLE DATA				
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 716.8 ft ±	DEPTH (ft)	SAMPLE TYPE/NO.	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	PERCENT COMPACTION	UNCOF. COMP. ST. (PSF)
		Topsoil: Dark Brown Sandy Clay (12 inches)	1.0					
		Brownish Gray Clayey Sand	4.5	BS-01				
711.8		(Observed Infiltration Rate = 5.1 iph)	5	BS-02				
		Gray Sand with trace gravel and clay	8.5	BS-03				
		End of Test Pit @ 8.5 ft	8.5					
706.8			10					

Total Depth: 8.5 ft
 Excavation Date: November 9, 2023
 Inspector: P. Guisinger
 Contractor: Maulbetsch Excavating & Tree
 Operator: P. Maulbetsch

Excavation Equipment:
 Excavator equipped with 30-inch bucket

Water Level Observation:
 8 feet during excavation and upon completion

Notes:
 Water level established during initial excavation, infiltration test pit was then excavated 1 to 2 feet offset of original pit, at a depth of greater than 2 feet from water level

Excavation Backfilling Procedure:
 Excavation backfilled with generated spoils

Figure No. 3

TEST PIT - 233814.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 12/14/23

Project Name: Proposed Frost Music Venue
 Project Location: 2525 State Street
 Ypsilanti Charter Township, Michigan

Test Pit No. TP-04



G2 Project No. 233814
 Latitude: 42.224801° Longitude: -83.561384°

SUBSURFACE PROFILE				SOIL SAMPLE DATA				
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 717.0 ft ±	DEPTH (ft)	SAMPLE TYPE/NO.	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	PERCENT COMPACTION	UNCOF. COMP. ST. (PSF)
		Topsoil: Dark Brown Sandy Clay (12 inches)	1.0					
		Brownish Gray Clayey Sand		BS-01				
712.0			5.0	5	BS-02			
		(Observed Infiltration Rate = 7.8 iph) Gray Sand with trace gravel and clay		BS-03				
			8.5					
		End of Test Pit @ 8.5 ft						
707.0			10					

Total Depth: 8.5 ft
 Excavation Date: November 9, 2023
 Inspector: P. Guisinger
 Contractor: Maulbetsch Excavating & Tree
 Operator: P. Maulbetsch

Excavation Equipment:
 Excavator equipped with 30-inch bucket

Water Level Observation:
 8 feet during excavation and upon completion

Notes:
 Water level established during initial excavation, infiltration test pit was then excavated 1 to 2 feet offset of original pit, at a depth of greater than 2 feet from water level

Excavation Backfilling Procedure:
 Excavation backfilled with generated spoils

Figure No. 4

TEST PIT - 233814.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 12/14/23

Project Name: Proposed Frost Music Venue
 Project Location: 2525 State Street
 Ypsilanti Charter Township, Michigan



Soil Boring No. B-01

CONSULTING GROUP

G2 Project No. 233814
 Latitude: 42.225341° Longitude: -83.561139°

SUBSURFACE PROFILE

SOIL SAMPLE DATA

ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 716.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Clayey Sand (8 inches)	0.7						
		Loose Dark Brown and Brown Clayey Sand with trace gravel	3.0	S-01	4 4 6	10			
711.0		Medium Compact Light Brown and Gray Sand with trace gravel	5	S-02	4 7 11	18			
		Gray Gravelly Sand	6.0						
			7.0	S-03	3 6 8	14			
706.0		Medium Compact Gray Sand with trace gravel	10	S-04	5 9 12	21			
			13.5						
701.0		Very Stiff Gray Silty Clay with trace sand and gravel; frequent silt seams	15	S-05	5 5 6	11	25.6		4000*
			20.0	S-06	3 4 6	10	18.7		5000*
696.0		End of Boring @ 20 ft	20						
691.0			25						

SOIL / PAVEMENT BORING 233814.CPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 12/14/23

Total Depth: 20 ft
 Drilling Date: November 29, 2023
 Inspector:
 Contractor: Strata Drilling, Inc.
 Driller: D. Watkins

Water Level Observation:
 7 feet during and upon completion of drilling operations

Notes:
 Borehole collapsed at 7 ft after auger removal
 * Calibrated Hand Penetrometer

Drilling Method:
 2-1/4-inch inside-diameter hollow-stem auger

Excavation Backfilling Procedure:
 Borehole backfilled with auger cuttings

Figure No. 5

Project Name: Proposed Frost Music Venue
 Project Location: 2525 State Street
 Ypsilanti Charter Township, Michigan
 G2 Project No. 233814
 Latitude: 42.225260° Longitude: -83.561167°



Soil Boring No. B-02

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 716.3 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Clayey Sand (12 inches)	1.0						
		Dark Brown and Brown Clayey Sand with trace gravel	2.0		4 6 6	12			
711.3		Medium Compact Brown and Gray Sand with trace gravel	5	S-01	5 8 11	19			
		Gray Gravelly Sand	6.0		6 12 11	23			
706.3		Medium Compact Gray Sand with trace silt and gravel	10	S-02	6 9 7	16			
		Very Stiff Gray Silty Clay with trace sand and gravel; frequent silt seams	12.0		3 6 7	13			
701.3			15	S-03	4 7 9	16	17.8		4000*
696.3			20.0	S-04					6000*
		End of Boring @ 20 ft	20	S-05					
691.3			25	S-06					

SOIL / PAVEMENT BORING 233814.CPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 12/14/23

Total Depth: 20 ft
 Drilling Date: November 29, 2023
 Inspector:
 Contractor: Strata Drilling, Inc.
 Driller: D. Watkins
 Drilling Method:
 2-1/4-inch inside-diameter hollow-stem auger

Water Level Observation:
 7 feet during and upon completion of drilling operations
 Notes:
 Borehole collapsed at 7 ft after auger removal
 * Calibrated Hand Penetrometer
 Excavation Backfilling Procedure:
 Borehole backfilled with auger cuttings

Figure No. 6

Project Name: Proposed Frost Music Venue
 Project Location: 2525 State Street
 Ypsilanti Charter Township, Michigan
 G2 Project No. 233814
 Latitude: 42.225123° Longitude: -83.561216°



Soil Boring No. B-03
CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 716.5 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Clay (12 inches)	1.0						
		Very Stiff Mottled Brown and Gray Silty Clay with trace sand and gravel	3.5	S-01	3 4 5	9	12.1		7000*
711.5		Medium Compact Brown and Gray Sand with trace gravel	5	S-02	3 4 7	11			
		Medium Comact Gray Gravelly Sand	7.0		5 9	20			
			7.5	S-03	11				
706.5		Medium Compact Gray Sand with trace gravel	10	S-04	5 10 11	21			
			12.0						
701.5		Very Stiff Gray Silty Clay with trace sand and gravel; frequent silt seams	15	S-05	3 5 7	12	14.4		4000*
			20.0						
696.5		End of Boring @ 20 ft	20	S-06	4 6 9	15	14.6		4000*
691.5			25						

SOIL / PAVEMENT BORING 233814.CPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 12/14/23

Total Depth: 20 ft
 Drilling Date: November 29, 2023
 Inspector:
 Contractor: Strata Drilling, Inc.
 Driller: D. Watkins

Water Level Observation:
 7 feet during drilling operations; 7-1/2 feet upon completion

Notes:
 Borehole collapsed at 7-1/2 ft after auger removal
 * Calibrated Hand Penetrometer

Drilling Method:
 2-1/4-inch inside-diameter hollow-stem auger

Excavation Backfilling Procedure:
 Borehole backfilled with auger cuttings

Project Name: Proposed Frost Music Venue
 Project Location: 2525 State Street
 Ypsilanti Charter Township, Michigan
 G2 Project No. 233814
 Latitude: 42.224925° Longitude: -83.561125°



Soil Boring No. B-04
CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 716.8 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Clayey Sand (11 inches)	0.9						
		Medium Compact Brown and Gray Clayey Sand with trace gravel; occasional cobbles		S-01	4 7 8	15			
711.8			5.0	S-02	5 6 6	12			
		Medium Compact Gray Sand with trace gravel		S-03	4 7 9	16			
706.8			10	S-04	7 10 12	22			
		Stiff to Very Stiff Gray Silty Clay with trace sand and gravel		S-05	3 5 7	12	27.3		3000*
701.8			14.0	15	S-06	4 6 8	14	13.6	4000*
696.8		End of Boring @ 20 ft	20.0						
691.8			25						

SOIL / PAVEMENT BORING 233814.CPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 12/14/23

Total Depth: 20 ft
 Drilling Date: November 29, 2023
 Inspector:
 Contractor: Strata Drilling, Inc.
 Driller: D. Watkins

Water Level Observation:
 7-1/2 feet during and upon completion of drilling operations

Notes:
 Borehole collapsed at 7-1/2 ft after auger removal
 * Calibrated Hand Penetrometer

Drilling Method:
 2-1/4-inch inside-diameter hollow-stem auger

Excavation Backfilling Procedure:
 Borehole backfilled with auger cuttings

Figure No. 8

Project Name: Proposed Frost Music Venue
 Project Location: 2525 State Street
 Ypsilanti Charter Township, Michigan
 G2 Project No. 233814
 Latitude: 42.224968° Longitude: -83.560778°



Soil Boring No. B-05
CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 716.5 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Sand (11 inches)	0.9						
		Medium Compact Brown Gravelly Sand	3.5	S-01	5 7	14			
711.5		Medium Compact Brown and Gray Sand with trace gravel	5	S-02	6 11	22			
		Gray Silty Sand	7.5	S-03	6 8	17			
706.5		Medium Compact Gray Sand with trace silt and gravel	10	S-04	7 10	21			
		Very Stiff Gray Silty Clay with trace sand and gravel	12.0						
701.5		End of Boring @ 15 ft	15.0	S-05	4 5	10	25.7		4000*
696.5			20						
691.5			25						

SOIL / PAVEMENT BORING 233814.CPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 12/14/23

Total Depth: 15 ft
 Drilling Date: November 29, 2023
 Inspector:
 Contractor: Strata Drilling, Inc.
 Driller: D. Watkins
 Drilling Method:
 2-1/4-inch inside-diameter hollow-stem auger

Water Level Observation:
 7-1/2 feet during drilling operations; 8 feet upon completion
 Notes:
 Borehole collapsed at 8 ft after auger removal
 * Calibrated Hand Penetrometer
 Excavation Backfilling Procedure:
 Borehole backfilled with auger cuttings

Figure No. 9

Project Name: Proposed Frost Music Venue
 Project Location: 2525 State Street
 Ypsilanti Charter Township, Michigan
 G2 Project No. 233814
 Latitude: 42.224906° Longitude: -83.561391°



Soil Boring No. B-06
CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 716.5 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Sand (12 inches)	1.0						
		Loose Brown and Dark Brown Sand with trace gravel		S-01	4 4 4	8			
711.5			5.0	5	S-02	2 3 4	7		
		Medium Compact Brown and Gray Sand with trace gravel		S-03	5 10 14	24			
706.5			7.5			8 9 11	20		
		Medium Compact Gray Sand with trace gravel		S-04					
701.5			12.0	10					
		Stiff Gray Silty Clay with trace sand and gravel; frequent silt seams		S-05	2 4 5	9	25.6		3000*
701.5			15.0	15					
		End of Boring @ 15 ft							
696.5			20						
691.5			25						

SOIL / PAVEMENT BORING 233814.CPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 12/14/23

Total Depth: 15 ft
 Drilling Date: November 29, 2023
 Inspector:
 Contractor: Strata Drilling, Inc.
 Driller: D. Watkins
 Drilling Method:
 2-1/4-inch inside-diameter hollow-stem auger

Water Level Observation:
 7-1/2 feet during and upon completion of drilling operations
 Notes:
 Borehole collapsed at 7-1/2 ft after auger removal
 * Calibrated Hand Penetrometer
 Excavation Backfilling Procedure:
 Borehole backfilled with auger cuttings

Figure No. 10

GENERAL NOTES TERMINOLOGY

Unless otherwise noted, all terms herein refer to the Standard Definitions presented in ASTM 653.

PARTICLE SIZE

Boulders	- greater than 12 inches
Cobbles	- 3 inches to 12 inches
Gravel	- Coarse- 3/4 inches to 3 inches
	- Fine - No. 4 to 3/4 inches
Sand	- Coarse- No. 10 to No. 4
	- Medium - No. 40 to No. 10
	- Fine - No. 200 to No. 40
Silt	- 0.005mm to 0.074mm
Clay	- Less than 0.005mm

CLASSIFICATION

The major soil constituent is the principal noun, i.e. clay, silt, sand, gravel. The second major soil constituent and other minor constituents are reported as follows:

Second Major Constituent (percent by weight)	Minor Constituent (percent by weight)
Trace - 1 to 12%	Trace - 1 to 12%
Adjective - 12 to 35%	Little - 12 to 23%
And - over 35%	Some - 23 to 33%

COHESIVE SOILS

If clay content is sufficient so that clay dominates soil properties, clay becomes the principal noun with the other major soil constituent as modifier, i.e. sandy clay. Other minor soil constituents may be included in accordance with the classification breakdown for cohesionless soils, i.e. silty clay, trace sand, little gravel.

Consistency	Unconfined Compressive Strength (psf)	Approximate Range of (N)
Very Soft	Below 500	0 - 2
Soft	500 - 1,000	3 - 4
Medium	1,000 - 2,000	5 - 8
Stiff	2,000 - 4,000	9 - 15
Very Stiff	4,000 - 8,000	16 - 30
Hard	8,000 - 16,000	31 - 50
Very Hard	Over 16,000	Over 50

Consistency of cohesive soils is based upon an evaluation of the observed resistance to deformation under load and not upon the Standard Penetration Resistance (N).

Density Classification	COHESIONLESS SOILS Relative Density %	Approximate Range of (N)
Very Loose	0 - 15	0 - 4
Loose	16 - 35	5 - 10
Medium Compact	36 - 65	11 - 30
Compact	66 - 85	31 - 50
Very Compact	86 - 100	Over 50

Relative Density of cohesionless soils is based upon the evaluation of the Standard Penetration Resistance (N), modified as required for depth effects, sampling effects, etc.

SAMPLE DESIGNATIONS

- AS - Auger Sample - Cuttings directly from auger flight
- BS - Bottle or Bag Samples
- S - Split Spoon Sample - ASTM D 1586
- LS - Liner Sample with liner insert 3 inches in length
- ST - Shelby Tube sample - 3 inch diameter unless otherwise noted
- PS - Piston Sample - 3 inch diameter unless otherwise noted
- RC - Rock Core - NX core unless otherwise noted

STANDARD PENETRATION TEST (ASTM D 1586) - A 2.0 inch outside-diameter, 1-3/8 inch inside-diameter split barrel sampler is driven into undisturbed soil by means of a 140-pound weight falling freely through a vertical distance of 30 inches. The sampler is normally driven three successive 6-inch increments. The total number of blows required for the final 12 inches of penetration is the Standard Penetration Resistance (N).

G2 Consulting Group, LLC

Encased Falling Head Infiltration Test (WCWRC 2016)



Project: Frost Music Venue Job No.: 233814
 Location of Project: Ypsilanti, MI Test Pit No. TP-01 Depth (in) 54
 Description of Soil: Sand with trace Clay Depth of Test (in): 54
 Tested By: Patrick Guisinger Date of Testing: 11/9/2023
 Casing Diameter (in): 6 Casing Embedment (in): 6
 Initial Head of Water (in): 12 Pre-Soak Time (min): 90

Reading No.	Trial 1		Trial 2		Trial 3	
	Elapsed Time (min)	Depth Reading (in)	Elapsed Time (min)	Depth Reading (in)	Elapsed Time (min)	Depth Reading (in)
1	0	6	0	6	0	6 4/16 ←
2	10	6 4/16	10	6 4/16	10	6 10/16
3	20	6 10/16	20	6 8/16	20	7
4	30	7	30	7	30	7 4/16
5	40	7 4/16	40	7 6/16	40	7 8/16
6	50	7 6/16	50	7 12/16	50	7 12/16
7	60	7 12/16	60	8	60	8 ←
8						
9						
10						
11						
12						
13						

Reading No.	Trial 1	Trial 2	Trial 3
	Infiltration Rate (in/hr)	Infiltration Rate (in/hr)	Infiltration Rate (in/hr)
1	---	---	---
2	1.50	1.50	2.25
3	2.25	0.75	2.25
4	2.25	3.00	1.50
5	1.50	2.25	1.50
6	0.75	2.25	1.50
7	2.25	1.50	1.50
8	---	---	---
9	---	---	---
10	---	---	---
11	---	---	---
12	---	---	---
13	---	---	---

Elapsed Time (min)	Head Drop (in)	Observed Infiltration Rate (iph)	Design Infiltration Rate (iph)
60	1 12/16	1.75	0.88

- Notes:
1. Refer to "Rules and Guidelines - Procedures & Design Criteria for Stormwater Management Systems", WCWRC, Rev. Oct. 2016.
 2. ← = Used in Calculating Infiltration Rate
 3. Design Infiltration Rate includes FOS = 2.

G2 Consulting Group, LLC

Encased Falling Head Infiltration Test (WCWRC 2016)



Project: Frost Music Venue Job No.: 233814
 Location of Project: Ypsilanti, MI Test Pit No. TP-02 Depth (in) 54
 Description of Soil: Sand with trace Clay Depth of Test (in): 54
 Tested By: Patrick Guisinger Date of Testing: 11/9/2023
 Casing Diameter (in): 6 Casing Embedment (in): 6
 Initial Head of Water (in): 12 Pre-Soak Time (min): 90

Reading No.	Trial 1		Trial 2		Trial 3	
	Elapsed Time (min)	Depth Reading (in)	Elapsed Time (min)	Depth Reading (in)	Elapsed Time (min)	Depth Reading (in)
1	0	3 8/16	0	5 12/16	0	6 ←
2	10	5	10	7	10	7 5/16 ←
3	20	6 8/16	20	8 2/16	20	8 10/16
4	30	7 10/16	30	9 4/16	30	9 14/16
5	40	8 10/16	40	10 2/16	40	10 12/16
6	50	9 8/16	50	11 4/16	50	11 12/16
7	60	10 8/16	60	12 2/16	60	12 10/16 ←
8						
9						
10						
11						
12						
13						

Reading No.	Trial 1	Trial 2	Trial 3
	Infiltration Rate (in/hr)	Infiltration Rate (in/hr)	Infiltration Rate (in/hr)
1	---	---	---
2	9.00	7.50	7.95
3	9.00	6.75	7.80
4	6.75	6.75	7.50
5	6.00	5.25	5.25
6	5.25	6.75	6.00
7	6.00	5.25	5.25
8	---	---	---
9	---	---	---
10	---	---	---
11	---	---	---
12	---	---	---
13	---	---	---

Elapsed Time (min)	Head Drop (in)	Observed Infiltration Rate (iph)	Design Infiltration Rate (iph)
60	6 10/16	6.63	3.31

- Notes:
1. Refer to "Rules and Guidelines - Procedures & Design Criteria for Stormwater Management Systems", WCWRC, Rev. Oct. 2016.
 2. ← = Used in Calculating Infiltration Rate
 3. Design Infiltration Rate includes FOS = 2.

G2 Consulting Group, LLC

Encased Falling Head Infiltration Test (WCWRC 2016)



Project: Frost Music Venue Job No.: 233814
 Location of Project: Ypsilanti, MI Test Pit No. TP-03 Depth (in) 54
 Description of Soil: Sand with trace Clay Depth of Test (in): 54
 Tested By: Patrick Guisinger Date of Testing: 11/9/2023
 Casing Diameter (in): 6 Casing Embedment (in): 6
 Initial Head of Water (in): 12 Pre-Soak Time (min): 90

Reading No.	Trial 1		Trial 2		Trial 3	
	Elapsed Time (min)	Depth Reading (in)	Elapsed Time (min)	Depth Reading (in)	Elapsed Time (min)	Depth Reading (in)
1	0	6	0	6	0	6 2/16 ←
2	10	7	10	7	10	7 2/16 ←
3	20	8	20	7 14/16	20	8
4	30	9 2/16	30	8 12/16	30	8 14/16
5	40	9 14/16	40	9 10/16	40	9 10/16
6	50	10 10/16	50	10 8/16	50	10 8/16
7	60	11 8/16	60	11 4/16	60	11 4/16 ←
8						
9						
10						
11						
12						
13						

Reading No.	Trial 1	Trial 2	Trial 3
	Infiltration Rate (in/hr)	Infiltration Rate (in/hr)	Infiltration Rate (in/hr)
1	---	---	---
2	6.00	6.00	6.00
3	6.00	5.25	5.25
4	6.75	5.25	5.25
5	4.50	5.25	4.50
6	4.50	5.25	5.25
7	5.25	4.50	4.50
8	---	---	---
9	---	---	---
10	---	---	---
11	---	---	---
12	---	---	---
13	---	---	---

Elapsed Time (min)	Head Drop (in)	Observed Infiltration Rate (iph)	Design Infiltration Rate (iph)
60	5 2/16	5.13	2.56

- Notes:
1. Refer to "Rules and Guidelines - Procedures & Design Criteria for Stormwater Management Systems", WCWRC, Rev. Oct. 2016.
 2. ← = Used in Calculating Infiltration Rate
 3. Design Infiltration Rate includes FOS = 2.

G2 Consulting Group, LLC

Encased Falling Head Infiltration Test (WCWRC 2016)



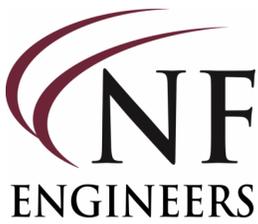
Project: Frost Music Venue Job No.: 233814
 Location of Project: Ypsilanti, MI Test Pit No. TP-04 Depth (in) 66
 Description of Soil: Sand with trace Clay Depth of Test (in): 66
 Tested By: Patrick Guisinger Date of Testing: 11/9/2023
 Casing Diameter (in): 6 Casing Embedment (in): 6
 Initial Head of Water (in): 12 Pre-Soak Time (min): 90

Reading No.	Trial 1		Trial 2		Trial 3	
	Elapsed Time (min)	Depth Reading (in)	Elapsed Time (min)	Depth Reading (in)	Elapsed Time (min)	Depth Reading (in)
1	0	5 4/16	0	6	0	5 14/16 ←
2	10	7 6/16	10	8	10	7 8/16
3	20	9 6/16	20	9 10/16	20	9 4/16
4	30	10 14/16	30	11	30	10 10/16
5	40	11 4/16	40	12 8/16	40	11 8/16
6	50	13 8/16	50	13 14/16	50	12 10/16
7	60	14 8/16	60	14 12/16	60	13 10/16 ←
8						
9						
10						
11						
12						
13						

Reading No.	Trial 1	Trial 2	Trial 3
	Infiltration Rate (in/hr)	Infiltration Rate (in/hr)	Infiltration Rate (in/hr)
1	---	---	---
2	12.75	12.00	9.75
3	12.00	9.75	10.50
4	9.00	8.25	8.25
5	2.25	9.00	5.25
6	13.50	8.25	6.75
7	6.00	5.25	6.00
8	---	---	---
9	---	---	---
10	---	---	---
11	---	---	---
12	---	---	---
13	---	---	---

Elapsed Time (min)	Head Drop (in)	Observed Infiltration Rate (iph)	Design Infiltration Rate (iph)
60	7 12/16	7.75	3.88

- Notes:
1. Refer to "Rules and Guidelines - Procedures & Design Criteria for Stormwater Management Systems", WCWRC, Rev. Oct. 2016.
 2. ← = Used in Calculating Infiltration Rate
 3. Design Infiltration Rate includes FOS = 2.



CIVIL ENGINEERS

LAND SURVEYORS

LAND PLANNERS

June 12, 2024

Mr. Fletcher Reyher
Staff Planner
Ypsilanti Township
7200 S. Huron River Drive
Ypsilanti Township, MI 48197
(734) 544-4000

Re: Frost Music Venue – Revised Preliminary Site Plan Submittal
2525 State Street, Ypsilanti Township, MI 48198
WCWRC Project No. 10491
WCRC Application No. 20224
NFE Job #M994-01

Mr. Reyher,

This letter accompanies the revised preliminary site plan submittal and provides responses to previous agency and department review comments received for the Preliminary Site Plan Review that was completed earlier this year by Ypsilanti Township. The revised preliminary site plan drawings dated 05/06/24 are being transmitted electronically, along with other requested documents. Please review the below responses in conjunction with the revised drawings and advise if anything further is required for this project to proceed with the site plan approval process.

Carlisle Wortman Associates (Planning Review) (Dated 01/29/24)

1. **Operational Details:** A detailed operational report has been provided by the Owner/Developer, a copy of which is enclosed in this submittal package for review.
2. **Marihuana Supplemental Regulations:** Details on how the various regulations will be met is included in the provided operational report.
3. **Parking & Loading:** Parking calculations provided on sheet C03 have been revised. Additional parking spaces have been allocated to the consumption lounge operational parking requirements, and additional spaces from the adjacent Frost retail site will be used to meet total parking requirements during larger events. Please review detailed parking information provided in the enclosed operational report.
4. **Site Access, Circulation, and Traffic.**
 - a. Please see enclosed operational report for full details.
 - b. During large events, the grass area will be utilized for additional parking. Visible markings will be provided to organize parking spaces, and temporary lighting will be installed on an as-needed basis. Traffic flow will enter from the south driveway on State Street, and exit from the northeastern driveway (on Watson Street). Parking operations will be supervised and directed by staff, and if needed, temporary signage will be utilized.
5. **Screening & Landscaping:**
 - a. The revised landscape plans include perimeter landscaping calculations associated with the bioretention areas.
 - b. A dumpster enclosure has been added north of the proposed buildings, with paved access.
6. **Lighting:** Temporary lighting, which is planned to be used during large events that require use of the grass parking lot, have been modeled on the revised photometric plan included with the drawings.

NOWAK & FRAUS ENGINEERS

46777 WOODWARD AVENUE
PONTIAC, MI 48342-5032

WWW.NOWAKFRAUS.COM

VOICE: 248.332.7931
FAX: 248.332.8257

7. **Noise and Vibration:** The orientation of the proposed amphitheater structure has been adjusted, and a detailed noise impact study has been completed to address the noted concerns with noise levels. Please see enclosed noise impact study report and other information included in the operational report.
8. **Elevations & Floorplans**
 - a. A cross-section showing the proposed grading within the amphitheater has been added to sheet C05.
 - b. **(Response Comments provided by Architect):**
 - i. Added multiuse restrooms to add capacity.
 - ii. There is an 8' opaque fence surrounding the food truck area, which is a licensing requirement.
 - iii. We pushed the building out towards the west side in order to break up the elevation. This added additional SF and allowed a break in materiality, adding the wood on the sides. This also helps break up the massing form that was a concern for the preliminary review.
 - iv. Capacity information for proposed amphitheater: We came up with our calculations using linear fit on the arc length of the seats. We figured 2 rows per tier. Total linear feet was 899' / 18" per person (standard bench seating) = 599. Add 50 seats on the ground level and we are at 649.

OHM Advisors (Engineering Review) (Dated 01/22/24)

1. Site Plan Comments:

1. The fire suppression and domestic water service connections have been revised as requested. The overall alignment for the proposed water main through the site has been adjusted to address comments from YCUA and.
2. A note has been added to the water main and sanitary sewer plan (sheet C08) regarding tree placement. The landscape plans and demolition plans have been revised to remove the existing tree (#7996 per the tree survey), which will be required to install the proposed underground detention system as shown.
3. Preliminary sizing has been added for the proposed water services, with a note to confirm final sizing with M.E.P. plans.
4. The curve numbers for WCWRC worksheets W5 and W7 have been revised to reflect comments received from WCWRC. The revised calculations are provided on sheet C07.
5. A copy of the geotechnical report from G2 Consulting Group is enclosed for reference. Please note that this project has received preliminary approval from WCWRC per letter dated 05/21/24 (see enclosed).
6. See the enclosed approval letter from Nexus/Enbridge for proposed work within the easement.
7. The paved parking area and drive-lanes has been extended further north of the previous location, which will provide access to the added dumpster enclosure and will also allow a turn-around maneuver to be completed by a fire truck. See revised sheet 04 "Fire Protection Site Plan" for details. A fire truck turning template has been added. Per the Fire Department Notes on sheet C04, the location and style of the fire lane signs shall be determined by Ypsilanti Township.
8. As noted in above item #7, a dumpster enclosure has been added, and a garbage truck turning maneuver is provided on sheet C03.

Charter Township of Ypsilanti Fire Department Review (Dated 01/29/24):

1. The proposed site design has been modified to address previous concerns noted in the initial fire department review letter and during subsequent follow-up discussions with the fire Marshall:
 1. The paved parking area and drive-lanes has been extended further north of the previous location, which will provide access to the added dumpster enclosure and will also allow a turn-around maneuver to be completed by a fire truck. See revised sheet 04 "Fire Protection Site Plan" for details.
 2. An additional driveway was added along the Watson Street frontage, which will allow direct access to the food truck area.
 3. Water main alignment and hydrant locations have been revised per discussions with YCUA.

YCUA Review (Dated 03/28/23):

1. Discussions are currently on-going regarding the cost sharing agreement associated with the proposed water main public loop that was designed as part of the northerly “retail” site and construction plan approvals.
2. The “public loop” watermain alignment has been adjusted per recent discussions between the developer and YCUA. The previous loop connection parallel with Watson Street is now being replaced with a public water main through the subject parcel, with final details to be worked out during the detailed design development. This alignment is subject to final permitting approval from Nexus/Enbridge regarding the revised crossing location with the existing 36” diameter high-pressure gas main.
3. Two proposed on-site hydrants are incorporated into the updated water main design.
4. The proposed domestic and fire suppression water services have been separated on the revised drawings for both the storage and consumption buildings as requested.
5. Based on the revised water main alignment and 15’ wide easement, the service valves are shown outside of the easement to locate them behind the proposed sidewalk. The shut-off valve locations can be revised if needed based on YCUA requirements.

WCWRC Review (Dated 01/22/24):

1. We plan to submit a formal permit application for the drain tap upon notification of final engineering approval.
2. Callouts have been added to the survey drawing background to indicate the existing 30” diameter storm drain in Watson Street and 24” & 30” diameter storm drains in State Street as “YTD #8”. This is also noted in the Stormwater Management Plan (sheet C06).
3.
 - a. See the enclosed approval letter from Nexus/Enbridge for development work within the easement.
 - b. A utility crossing profile between proposed storm structures #2 and #3 has been added to sheet C06.
4. The Certificate of Outlet and supporting calculations are included on Sheet C06.
5. A storage volume chart will be included for the bio-retention areas and underground detention areas during completion of the final design drawings for permit approvals.
6. Due to the existing shallow ground-water elevations and soil characteristics prevalent at this site, the proposed storm conveyance system is generally also acting as a storage and infiltration system to promote ground-water infiltration and help this site meet various stormwater management requirements. As such, the minimal slope and resulting velocities for the conveyance pipes is necessary to meet these goals, and we also note that all proposed pipe section capacities meet or exceed the runoff values.
7. As noted in item #7 above, the proposed conveyance system cannot feasibly meet typical cover/depth standards due to observed ground-water elevations and the need to promote infiltration with the various BMP’s proposed in the stormwater management design.
8. We have mapped the two prevalent soil types (WaA and Gf) for this site into the preliminary paving/grading plan (sheet C05) and the SESC plan (sheet C09). Based on our discussions with your office, and review of both the USDA Web Soil Survey and the Washtenaw County GIS maps, we have updated the stormwater calculations to reflect undrained classifications for each soil type, which correspond to “B” for WaA soils, and “D” for Gf soils (which are listed as “A/D”).
9. The calculations have been updated to reflect consistent curve numbers throughout.
10. The proposed gravel areas have been included in the revised calculations. For worksheets W5 and W7.
11. We have updated the cross-section detail for the proposed infiltration tranches to address this concern. The intent is to remove the entire layer of “clayey-sand” within the infiltration BMP’s, and backfill with porous stone to promote infiltration to the lower “brown sand” layer, which was tested for infiltration.
12. As noted in item #11 above, the infiltration trench detail has been revised to address this concern.
13. Loading calculations for the E1 and W1 bio-retention areas have been added to sheet C07.

Mr. Fletcher T. Reyher

RE: Frost Music Venue – Revised Preliminary Site Plan Submittal

Page - 4 - of 4

14. A permanent stormwater maintenance plan and budget has been added to sheet C07.
15. Recommended inspection frequencies for all BMP's is included in the maintenance plan shown on sheet C07.
16. The note regarding chemical applications has been included in the maintenance plan shown on sheet C07.
17. This note has been added to applicable landscape plan sheets.

Please review the above responses to the various Preliminary Site Plan comments, in conjunction with review of the submitted final site plan drawings, and feel free to contact myself or Brett Buchholz at our office if you have any questions, comments, or if any further documentation is required.

Sincerely,



Paul Tulikangas, P.E.,
Associate / Engineering Manager



Brett Buchholz, P.E.
Principal

Cc:

Mike Ludtke, Frost Cannabis
Josh Jankowiak, Bloom GC
Vic Habersmith, Bloom GC
Stacey Monte, OHM Advisors
Scott Westover, PE, YCUA
Theresa Marsik, PE, WCWRC

Enclosures for FSP Submittal (electronically submitted):

Revised Civil/Landscape drawings dated 05-06-24 for "Revised PSP"
Revised Architectural drawings dated 05-01-24 for "PSP Revisions" (Sheets G001, A110, A301, A311, A312)
"P!peline Operating Plan" (Operations report provided by Owner)
Noise Impact Study from K&S Engineers, LLC.
Approval letter from Nexus/Enbridge
Copy of Geotechnical Investigation Report from G2 Consulting Group (dated 01/18/24)
Preliminary Approval letter from WCWRC (Dated 05/21/24)