



PLANNING COMMISSION MEETING

LOCATION: TOWNSHIP ANNEX, 7527 HIGHLAND ROAD, WHITE LAKE, MICHIGAN, 48383
(FORMER WHITE LAKE LIBRARY)
THURSDAY, MAY 19, 2022 – 7:00 PM

White Lake Township | 7525 Highland Rd | White Lake, MI 48383 | Phone: (248) 698-3300 | www.whitelaketwp.com

AGENDA

1. CALL TO ORDER
2. ROLL CALL
3. PLEDGE OF ALLEGIANCE
4. APPROVAL OF AGENDA
5. APPROVAL OF MINUTES
 - A. Minutes of May 5, 2022
6. CALL TO THE PUBLIC (FOR ITEMS NOT ON THE AGENDA)
7. PUBLIC HEARING
 - A. **1392 S. Williams Lake**
Property described as parcel number 12-36-476-002 (1392 S. Williams Lake Road) located on the west side of Williams Lake Road, north of Cooley Lake Road and contains approximately 386.60 feet of frontage on Williams Lake Road. Consisting of approximately 2.50 acres.
Request: **Applicant requests to rezone the parcel from from AG (Agricultural) to RM-1 (Attached Single-Family).**
Applicant: Justin Jundy
1392 S. Williams Lake Road
White Lake, MI 48386
 - B. **VCA**
Property described as parcel number 12-21-276-023 (7755 Highland Road) located on the north side of Highland Road, west of Elizabeth Lake Road. Consisting of approximately 1.27 acres.
Request: **1) Amended final site plan**
2) Special land use to establish and operate a veterinary clinic
Applicant: VCA Animal Hospitals, Inc
12401 West Olympic Blvd
Los Angeles, CA 90064
8. CONTINUING BUSINESS
 - A. **Comfort Care White Lake**
Property described as parcel number 12-36-176-002, located on the west side of Union Lake Road, between Hutchins Road and Cooley Lake Road, consisting of approximately 8.7 acres.
Request:
i) Rezoning (from (LB) Local Business to Planned Development (PD))
ii) Preliminary site plan approval
Applicant: Comfort Care, LLC
4180 Tittabawassee Road
Saginaw, MI 48604



- 9. NEW BUSINESS
- 10. OTHER BUSINESS
- 11. LIAISON'S REPORT
- 12. DIRECTOR'S REPORT
- 13. COMMUNICATIONS
- 14. NEXT MEETING DATE: June 2, 2022 & June 16, 2022
- 15. ADJOURNMENT

Procedures for accommodations for persons with disabilities: The Township will follow its normal procedures for individuals with disabilities needing accommodations for effective participation in this meeting. **Please contact the Township Clerk's office at (248) 698-3300 X-164 at least two days in advance of the meeting.** An attempt will be made to make reasonable accommodations.

WHITE LAKE TOWNSHIP PLANNING COMMISSION

Township Annex, 7527 Highland Road
White Lake, MI 48383
May 5, 2022 @ 7:00 PM

CALL TO ORDER

Commissioner Seward called the meeting to order at 7:05 PM and led the Pledge of Allegiance. Roll was called.

ROLL CALL

Debby Dehart
Scott Ruggles
Mark Fine
Robert Seeley
T. Joseph Seward

Absent: Steve Anderson
Merrie Carlock
Pete Meagher
Matt Slicker

Also Present: Sean O'Neil, Community Development Director
Mike Leuffgen, DLZ
Lisa Kane, Recording Secretary

Visitors: 3 members of the public were present

APPROVAL OF AGENDA

Commissioner Seeley moved to approve the agenda of the May 5, 2022 Planning Commission Meeting.

Commissioner Fine supported and the **MOTION CARRIED** with a voice vote: 5 yes votes.

APPROVAL OF MINUTES

- a. Regular meeting minutes of April 21, 2022
- b. Commissioner Seward had 2 corrections to the April 21, 2022 minutes.

Commissioner Seeley moved to approve the Minutes of April 21, 2022 with the 2 corrections.
Commissioner Fine supported and the **MOTION CARRIED** with a voice vote: 5 yes votes.

CALL TO THE PUBLIC (FOR ITEMS NOT ON THE AGENDA)

None

PUBLIC HEARING

A. Oakland Harvesters

Location: located on the north side of White Lake Road, west of Old White Lake Road. Identified as parcel 12-01-127-001, consisting of 2 acres. Currently zoned (LM) Light Manufacturing.

Request: **Final site plan approval**

Applicant: Oakland Harvesters
840 Sherbrooke St
Commerce Township, MI 48382

Applicant Present: Ty Nyottilla of Oakland Harvesters at 840 Sherbrooke St., Commerce

Director O'Neil presented the project that was previously approved by the Township board for preliminary site plan and special land use. The plan is significantly deficient on landscaping, the greenbelt landscaping requirement is non-negotiable so perhaps they can plant more trees than required but less shrubs to meet the intent of the ordinance. Other deficiencies of the plans include irrigation of the landscaping, screening of the mechanical units, lighting, stripping of the parking lot, and curbing. A sidewalk deferral agreement would need to be requested.

Mr. Leuffgen presented the engineering report from DLZ dated April 28, 2022. Curbing is a condition of approval and a sidewalk deferral would need to be requested. There was a previous water supply agreement at this site but this site is proposing a well because water is not available. If water becomes available in the future the well should be abandoned and water should be connected. The plans demonstrate engineering feasibility and the detention basin is adequate.

Commissioner Dehart inquired why they have 2 entrances to White Lake Road.

Mr. Nyottilla stated it is for the ease of the large sized equipment to enter and exit the property.

Mr. Nyottilla has no problems with any of the staff comments or engineering comments. Agreeable to increasing the landscaping and the greenbelt landscaping was an oversight that will be corrected.

Commissioner Seward asked the applicant to explain his what his business does.

Commissioner Fine inquired about what the equipment looks like.

Mr. Nyottilla described a weed harvester.

Commissioner Seeley inquired what the exchange of trees to shrubs to meet the requirement of the landscaping ordinance and if the screening of the machinery was covered.

Director O'Neil stated it would be approximately 5 to 1 exchange of trees to shrubs.

Mr. Nyottilla agreed to add landscaping as stated and to meet all other conditions described.

Discussion occurred about the number of trees and shrubs to meet the intent of the ordinance.

Mary Early of 5925 Pine Ridge Court is concerned about the number of bathrooms on the plan.

Mr. Nyottilla stated that cost constrains limited the ability to add a second bathroom.

Director O'Neil noted that this is a building code requirement so it would not be something that the Planning Commission would remark on. He suggested considering a different layout that would accommodate a second bathroom.

Commissioner Seeley moved to approve the final site plan subject to all staff and consultants' review comments being addressed with the understanding that they will work with Staff to add the Greenbelt landscaping, appropriate interior landscaping of 5 to 1 trees to shrubs, mechanical units are adequately screened, outdoor lighting is appropriately shielded, the parking lot has double stripping, a sidewalk deferral will be filed with the Township and that the bathroom is redesigned for unisex use as agreed upon by the applicant after receiving public comment, for the property described as parcel number 12-01-127-001, consisting of 2 acres. Currently zoned (LM) Light Manufacturing
Commissioner Dehart supported, and the MOTION CARRIED with a roll call vote (5 yes votes): (Dehart/yes, Fine/yes, Seeley/yes, Seward/yes, Ruggles/yes)

CONTINUING BUSINESS

None

NEW BUSINESS

None

OTHER BUSINESS

None

LIAISON'S REPORT

None

DIRECTOR'S REPORT

None

COMMUNICATIONS

NEXT MEETING DATES: May 19, 2022
June 2, 2022

ADJOURNMENT

Commissioner Seeley moved to adjourn the meeting at 7:40 PM
Commissioner Fine supported and the MOTION CARRIED with a voice vote: 5 yes votes

Director's Report

Project Name: 1392 S Williams Lake
 Description: Rezoning
 Date on Agenda this packet pertains to: May 19th , 2022

- Public Hearing
- Initial Submittal
- Revised Plans
- Preliminary Approval
- Final Approval
- Special Land Use
- Rezoning
- Other: _____

Contact	Consultants & Departments	Approval	Denial	Approved w/Conditions	Other	Comments
Sean O'Neil	Community Development Director	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Based on comments from the Staff Planner
Justin Quagliata	Staff Planner	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 4/14/2022

WHITE LAKE TOWNSHIP PLANNING COMMISSION

REPORT OF THE COMMUNITY DEVELOPMENT DEPARTMENT

TO: Planning Commission

FROM: Sean O'Neil, AICP, Community Development Director
Justin Quagliata, Staff Planner

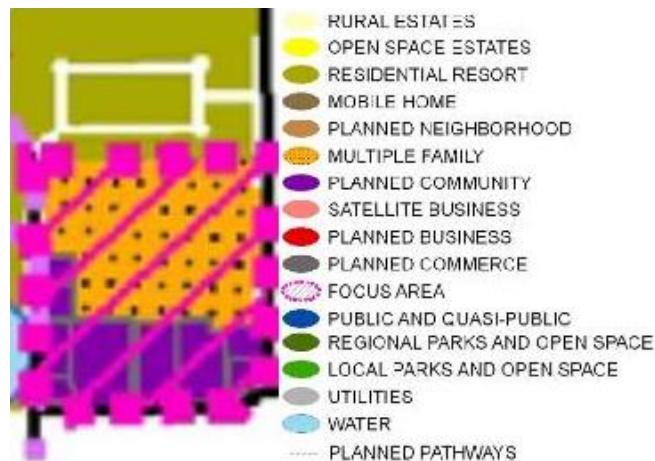
DATE: April 14, 2021

RE: 1392 S. Williams Lake Road (Parcel Number 12-36-476-002)
Rezoning – Review #1

Justin Jundy has requested the rezoning of approximately 2.50 acres located at 1392 S. Williams Lake Road from AG (Agricultural) to RM-1 (Attached Single-Family). The site is located on the west side of Williams Lake Road, north of Cooley Lake Road and contains approximately 386.60 feet of frontage on Williams Lake Road.

The Future Land Use Map from the Master Plan designates the subject site in the Multiple Family category. This category may be characterized by owner-occupied duplexes, townhomes, stacked ranches, and flats, as well as traditional multi-family rental apartments. Densities are expected to range between 6.0 and 10.0 units per acre, based upon the product type, zoning classification, and approved development plan.

FUTURE LAND USE MAP



Zoning

The subject site is currently zoned AG, which requires a minimum of 300 feet of lot width and five (5) acres of lot area. The requested RM-1 zoning district requires a minimum of 100 feet of lot width, 10,000 square feet of lot area for the first unit with each additional unit requiring additional lot area (as promulgated by Article 3, Section 1.8.E of the zoning ordinance). With approximately 386.60 feet of lot width on Williams Lake Road and 2.50 acres of lot area, the site does not comply with the lot area requirement of the AG district. However, the site meets the minimum standards for both lot area and lot width of the proposed RM-1 zoning district. The following table illustrates the lot width and lot area standards for the existing AG and proposed RM-1 zoning districts:

ZONING DISTRICT	LOT WIDTH	LOT AREA
AG	300 feet	5 acres
RM-1	100 feet	10,000 square feet, plus additional area based on the number of units

ZONING MAP



Physical Features

A single-family house occupies the center portion of the parcel, and topography of the site is generally level. The Michigan Department of Environment, Great Lakes, and Energy (EGLE) Wetland Map and the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map indicate neither wetlands nor floodplain are present on or near the site.

Access

The site fronts on Williams Lake Road, which along the subject property is a three-lane (center turn lane) public road with curb and gutter designated a principal arterial by the National Functional Classification System (NFCS) utilized by the Road Commission for Oakland County (RCOC). The most recent (2016) traffic count information from the Southeast Michigan Council of Governments (SEMCOG) Regional Traffic Count Database for Williams Lake Road, from Cooley Lake Road to Elizabeth Lake Road, showed a total of 16,400 vehicles in a 24-hour period.

Utilities

Municipal water and sanitary sewer are available to serve the site. The location and capacity of utilities for any proposed development will be reviewed in detail by the Township Engineering Consultant at the time of a development submittal.

Staff Analysis

In considering any petition for an amendment to the zoning map, the Planning Commission and Township Board must consider the following criteria from Article 7, Section 13 of the zoning ordinance in making its findings, recommendations, and decision:

- A. *Consistency with the goals, policies and future land use map of the White Lake Township Master Plan, including any subarea or corridor studies. If conditions have changed since the Master Plan was adopted, the consistency with recent development trends in the area. The Future Land Use Map from the Master Plan designates the subject site in the Multiple Family category, which aligns with the proposed RM-1 zoning district.*
- B. *Compatibility of the site's physical, geological, hydrological and other environmental features with the host of uses permitted in the proposed zoning district. If the property is rezoned to RM-1, it would not directly or indirectly have a substantial adverse impact on the natural resources of the Township.*
- C. *Evidence the applicant cannot receive a reasonable return on investment through developing the property with one (1) of the uses permitted under the current zoning. No such evidence has been submitted.*
- D. *The compatibility of all the potential uses allowed in the proposed zoning district with surrounding uses and zoning in terms of land suitability, impacts on the environment, density, nature of use, traffic impacts, aesthetics, infrastructure and potential influence on property values. The majority of the permitted and special land uses in the RM-1 district are compatible with the surrounding uses and the nature of the uses anticipated in the Township Master Plan. Only the Township Assessor may provide comment on property values.*

- E. *The capacity of Township utilities and services sufficient to accommodate the uses permitted in the requested district without compromising the "health, safety and welfare" of the Township. The site is in an area intended to be serviced by public water and sanitary sewer. The Community Development Department defers to the Director of Public Services and Township Engineering Consultant on this matter.*
- F. *The capability of the street system to safely and efficiently accommodate the expected traffic generated by uses permitted in the requested zoning district. **A revised rezoning traffic study shall be prepared as described in Article 6, Section 3 of the zoning ordinance.***
- G. *The apparent demand for the types of uses permitted in the requested zoning district in relation to the amount of land in the township currently zoned and available to accommodate the demand. Evidence of the demand in the Township for additional multiple-family rental units has not been submitted. However, the location is appropriate for owner-occupied attached single-family, given the traffic, residential units, and general density in the area.*
- H. *The boundaries of the requested rezoning district are reasonable in relationship to its surroundings, and construction on the site will be able to meet the dimensional regulations for the zoning district listed in the Schedule of Regulations. The subject property is adjacent to RM-1 zoned property on all sides. The applicant provided a concept plan showing one, 16-unit building (two bedrooms per unit) on the east side of the site. Parking is shown on the west side of the building, with two driveways accessing Williams Lake Road at the north and south ends of the site. The applicant did not volunteer conditions on the rezoning related to the concept plan. Site plan review and approval would be required from the Planning Commission and Township Board to construct the building. The concept plan is not under consideration by the Township, and it was not reviewed for compliance with applicable zoning ordinance requirements. Other factors that may impact future development of the site, such as, but not limited to, soils, topography, site layout, stormwater/drainage, and utilities would be considered at the time of a development proposal.*
- I. *The requested zoning district is considered to be more appropriate from the township's perspective than another zoning district. The uses allowed in the RM-1 district are appropriate for the site.*
- J. *If the request is for a specific use, is rezoning the land more appropriate than amending the list of permitted or special land uses in the current zoning district to allow the use? Rezoning would be the most appropriate way to allow for the proposed use. Amending the AG zoning district to allow attached single-family would not be advised.*
- K. *The requested rezoning will not create an isolated and unplanned spot zone. The site is entirely surrounded by RM-1 zoning.*

- L. The request has not previously been submitted within the past one (1) year, unless conditions have changed or new information has been provided. This request is a new application. The applicant previously proposed rezoning the subject property to RM-2 (Multiple Family). After consultation with staff and consultants, the applicant amended their application to request RM-1 zoning.*
- M. An offer of conditions submitted as part of a conditional rezoning request shall bear a reasonable and rational relationship to the property for which rezoning is requested. This standard is not applicable.*
- N. Other factors deemed appropriate by the Planning Commission and Township Board. The Planning Commission and Township Board could also consider other factors which may be relevant to the rezoning request.*

Rezoning the property from AG to RM-1 will render the current single-family use of the property nonconforming, as detached single-family dwellings are not permitted in the RM-1 district. Nonconforming uses of land and nonconforming structures cannot be altered, enlarged/increased, or extended. If a nonconforming structure or portion of a structure containing a nonconforming use becomes physically unsafe or unlawful due to lack of repairs and maintenance, and is declared by the Building Official to be unsafe or unlawful by reason of physical condition, it may be structurally altered as permitted by the Building Official to restore it to a safe condition provided the cost of such work does not exceed 50 percent of the State Equalized Valuation of such building or structure at the time such work is done.

Planning Commission Options

The Planning Commission may recommend approval or denial of the rezoning request, or it may recommend a different zoning designation than proposed by the applicant to the Township Board. **Staff recommends approval of the rezoning from AG to RM-1. Prior to scheduling a public hearing on the request, a revised rezoning traffic study shall be prepared as described in Article 6, Section 3 of the zoning ordinance.**

CHARTER TOWNSHIP OF WHITE LAKE
COMMUNITY DEVELOPMENT DEPARTMENT
7525 Highland Road, White Lake, Michigan 48383-2900
248-698-3300, Ext. 163

APPLICATION TO REZONE PROPERTY

Date: 03-08-2022

Applicant: Justin Judy

Address: 1392 S Williams Lake Rd

Phone No.: 248-417-8050 Fax No.: _____

E-mail: Justin@ApexBuildCo.com

Applicant's Interest in Property: 16 unit apartment

Property Owner: PICO HYSA

Owner's Address: 1392 S Williams Lake Rd

Phone No.: 248-417-8050 Fax No.: _____

Location of Property: 1392 S. Williams Lake Road

Sidwell No(s): 1236476002

Total area of change: 2.5 acres

I, the undersigned (owner, attorney, or option holder) hereby request that this property now classified as AG Agricultural District, be reclassified as RM-1 Attached Single Family District.

Applicant's Signature: 
(If owner does not sign application, attach letter signed by owner, requesting zoning change.)

Please Print Name: Justin Judy

Required Attachments:

- _____ 1. Legal description of the property proposed to be rezoned.
- _____ 2. Location map
- _____ 3. Rezoning sign location map
- _____ 4. Statement indicating why change is requested
- _____ 5. Review fee (check payable to the Charter Township of White Lake)

3-25-22

To whom it may concern,

I Piro Hysa, give Justin Jundy permission to act on my behalf and apply for a rezoning application for the property located at 1392 S Williams Lake Rd White Lake Michigan, and any other applications needed by the city for this property.

Piro Hysa

X Piro Hysa

STATE OF Michigan
COUNTY OF Oakland

This instrument was acknowledged before me this 25 day of March, 2022, by Piro Hysa

[Signature] Notary Public's Signature Steven Dzierwa Jr Notary Name
My Commission Expires 03/16/2028

STEVEN DZIERWA JR
Notary Public, State of Michigan
County of Livingston
My Commission Expires 03-16-2028
Acting in the County of Oakland





Item A.
J&A ARCHITECTURAL ENGINEERING
3250 w. Big Beaver Road
Suite 510
Troy, MI 48084
248-282-6475
eafegley.arch@gmail.com

March 8, 2022

To: City of White Lake
Planning Department
c/o Justin Quagliata
7525 Highland Road
White Lake, MI 48383

**RE: 1392 4S. Williams Lake Road
White Lake, MI 48386**

Dear Justin Quagliata,

We are applying to rezone the above property from AG (Agricultural) to RM-1 (Attached Single Family). The property is surrounded by RM-1 zoning at the North, South, and West. The development will consist of a single building with (16) 2-Bedroom dwelling units. The majority of the site will remain open green space for the residences to use. The return on investment for the property to remain as an Agricultural zoning is relatively low. This project will bring additional high quality rental units to the City of White Lake. S. Williams Lake Road will be able to handle the increased traffic generated by the additional residences for the site. The development will meet all City requirements in terms of Utility and Services for the Site.

Thank you,

E. Ashley Fegley, RA

eafegley.arch@gmail.com
313.600.1373

1392 S WILLIAMS LAKE RD WHITE LAKE, MI 48386

DESIGNER OF RECORD:

J & A ARCHITECTURAL ENGINEERING
3250 W. Big Beaver
Suite 510
Troy, MI 48084
248.282.6475



J & A ARCHITECTURAL
ENGINEERING
3250 W. BIG BEAVER RD.
SUITE 510
TROY, MI 48084
P. 248.282.6475
F. 248.590.0257
azhematly@gmail.com

PROJECT
1392 S WILLIAMS LAKE RD
WHITE LAKE, MI 48386

ISSUED FOR	DATE
RE-ZONING	03-08-2022

NOTES:
1.

Statement of Intellectual Property
The ideas, concepts, drawings and thoughts conveyed herein are the intellectual property of J & A ARCHITECTURAL ENGINEERING
3250 W. Big Beaver Road
Troy, MI 48064
This set of drawings, in whole or in part, may not be reproduced, without the written consent of J & A ARCHITECTURAL ENGINEERING.
This information is protected under U.S. Copyright Law, all rights reserved.
©Copyright 2021

DESIGN PROFESSIONAL IN CHARGE:

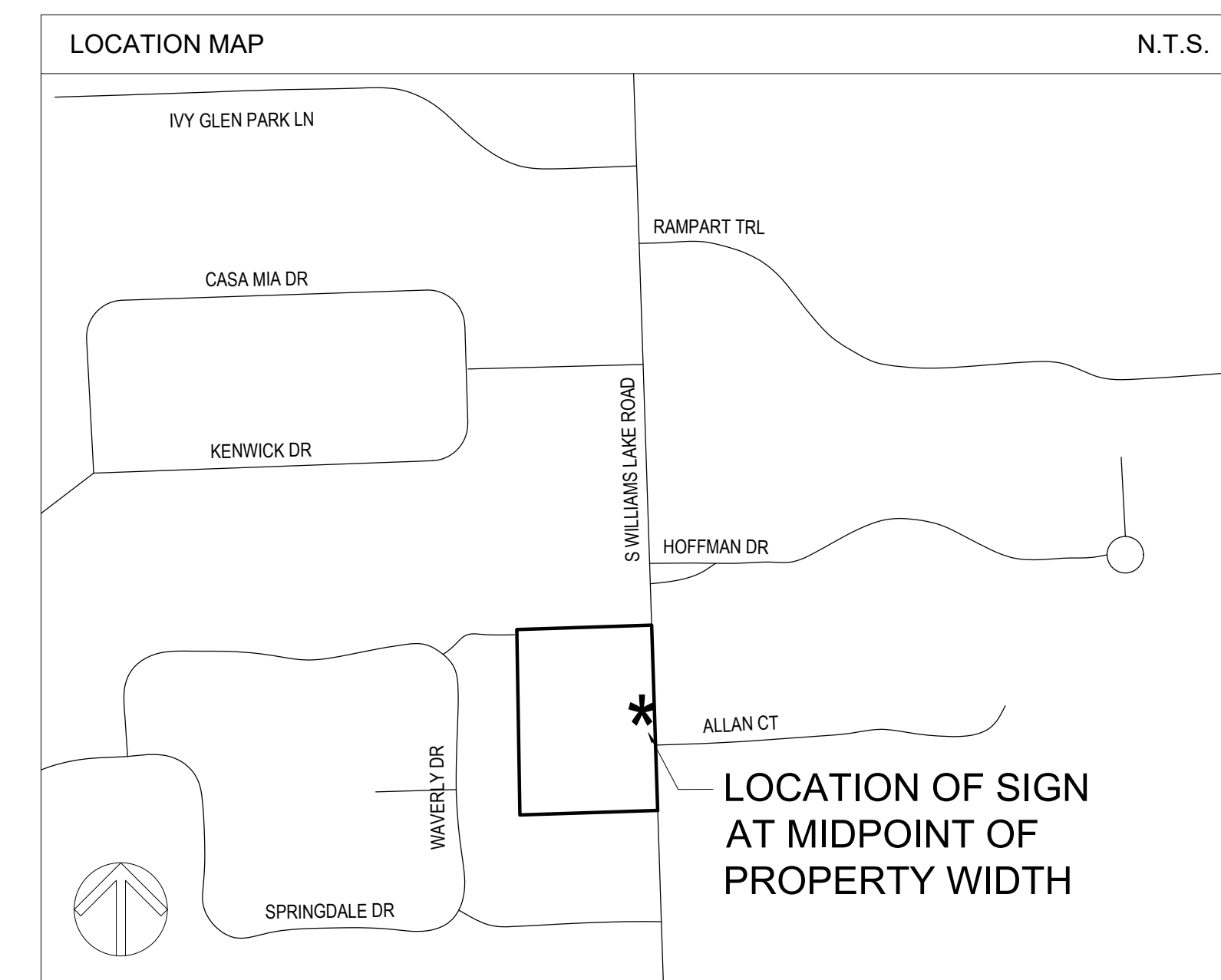
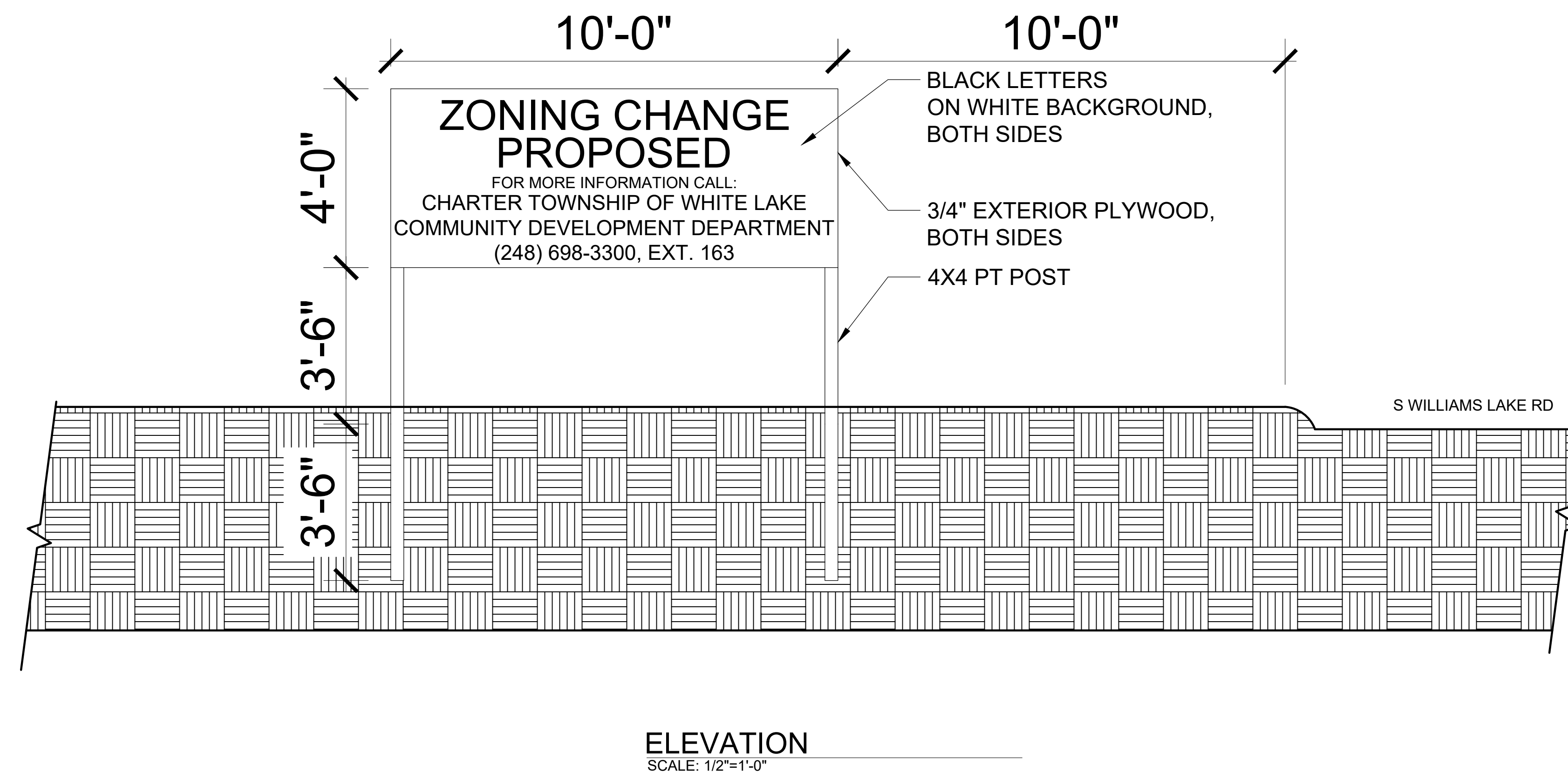


SHEET NAME:
REZONING
SIGNAGE

DATE :	11-1-2021
DRAWN BY :	CBB
CHECKED BY :	AM
JOB NO :	21-171
SHEET:	

RS

SCALE: AS SHOWN



SIGN SPECIFICATIONS:

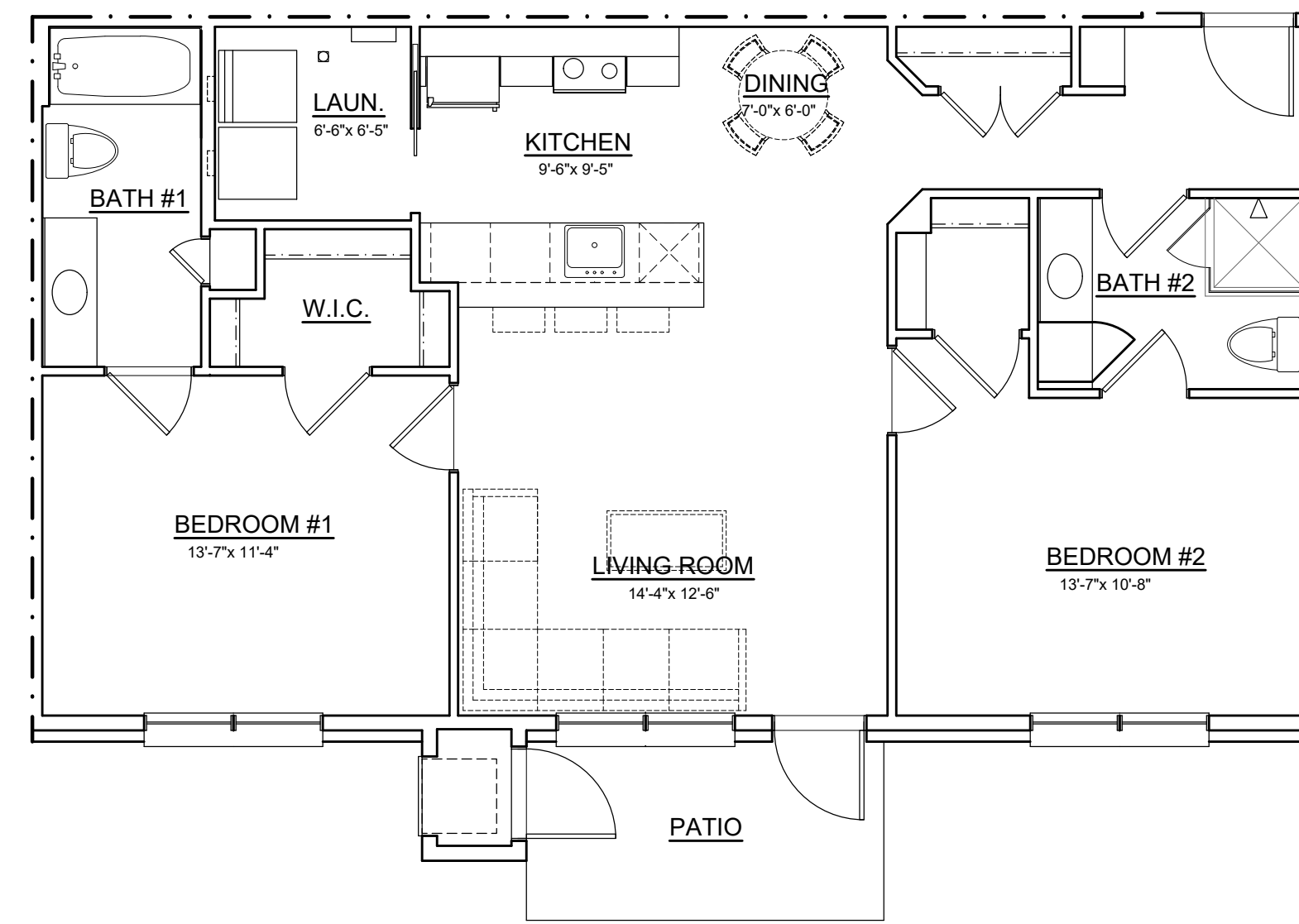
- Black letters on a white background
- Size of sign - 4 ft. (vertical) by 10 ft. (horizontal)
- Sign face shall be exterior plywood
- Wording shall be as follows:

ZONING CHANGE PROPOSED	(8" high letters)
FOR MORE INFORMATION CALL:	(3" high letters)
CHARTER TOWNSHIP OF WHITE LAKE	(4" high letters)
COMMUNITY DEVELOPMENT DEPARTMENT	(4" high letters)
(248) 698-3300, EXT. 163	

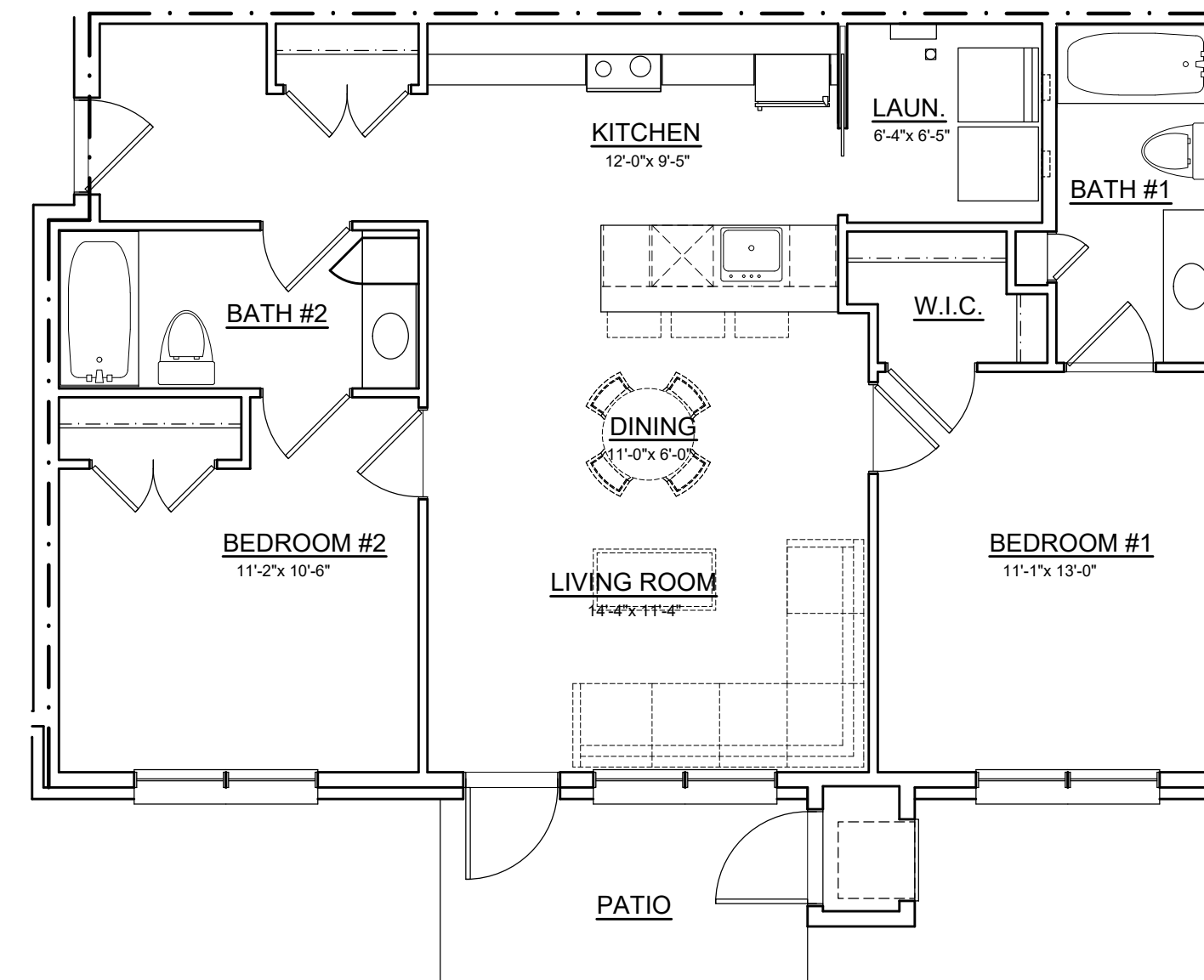
- Sign shall be installed 42" above the ground

ZONING

CURRENT ZONING:	AG	AGRICULTURAL
PROPOSED ZONING:	RM-1	ATTACHED SINGLE FAMILY RESIDENTIAL



3 UNIT 202 1,061 S.F.
A2.0 SCALE: 1/4" = 1'-0"



2 UNIT 201 996 S.F.
A2.0 SCALE: 1/4" = 1'-0"

CODE SUMMARY

GOVERNING CODES
 2015 MICHIGAN BUILDING CODE (MBC)
 2015 MICHIGAN MECHANICAL CODE (MMC)
 2015 MICHIGAN PLUMBING CODE (MPC)
 2015 MICHIGAN UNIFORM ENERGY CODE (MUEC)
 2017 NATIONAL ELECTRICAL CODE (NEC)

ACCESSIBILITY
 MICHIGAN BARRIER FREE DESIGN LAW
 P.A. 1966 AS AMENDED
 2009 ICC / ANSI A117.1 STANDARD AS REFERENCED FROM
 CHAPTER 11 OF THE MICHIGAN BUILDING CODE

PROPOSED USE: APARTMENTS

OCCUPANCY GROUP : R-2
 TYPE OF CONSTRUCTION : VB
 FIRE SUPPRESSION: NFPA 13R

ALLOWABLE BUILDING HEIGHT : 60'-0"
 ACTUAL BUILDING HEIGHT : 50'-0"

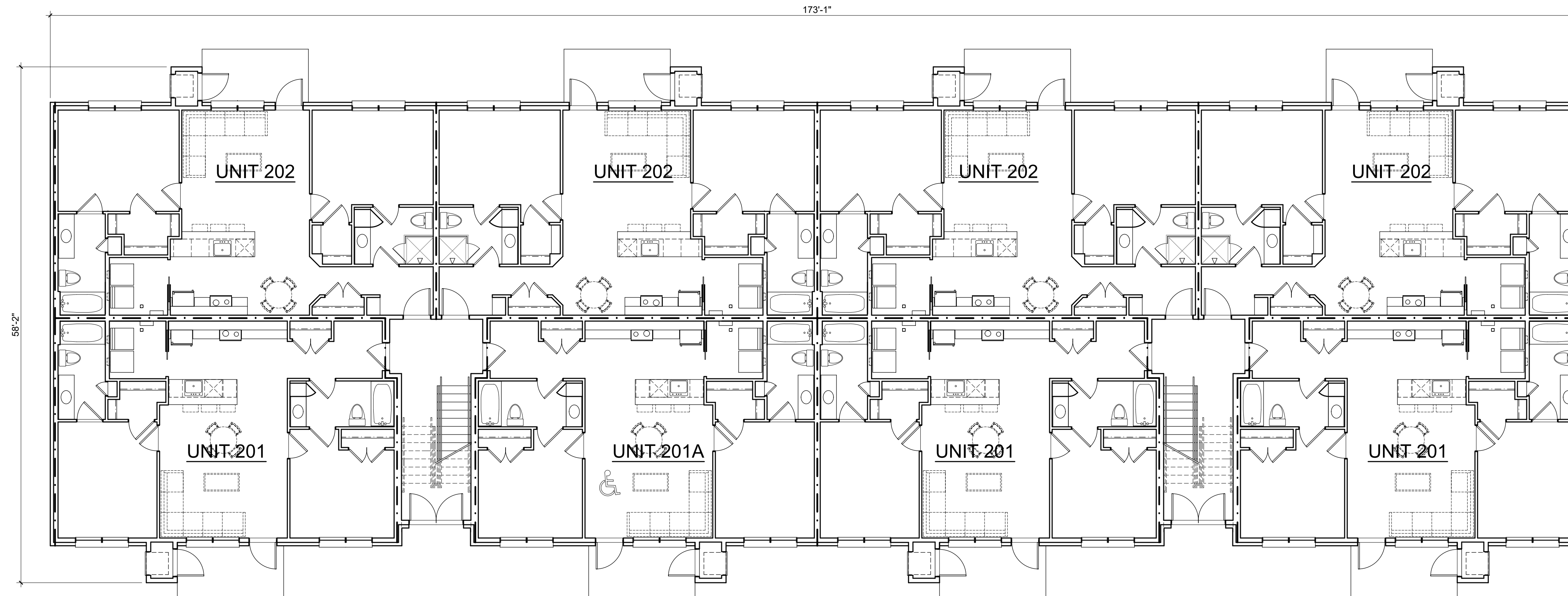
ALLOWABLE NUMBER OF STORIES: 3
 ACTUAL NUMBER OF STORIES : 2

ALLOWABLE AREA : 7,000 S.F.

TYPE 'B' DWELLING UNITS: ALL FIRST FLOOR UNITS EXCLUDING
 TYPE 'A'
 TYPE 'A' DWELLING UNITS: 2% OF 24 UNITS = 1 UNIT
 (1) 2 BEDROOM UNIT

PROPOSED No. OF UNITS: 16 UNITS

(16) 2 BEDROOM UNITS
 ACTUAL HEIGHT & AREA = 2 STORIES/8,728 S.F.
 AREA INCREASE REQUIRED



1 OVERALL FIRST FLOOR BUILDING PLAN
A2.0 SCALE: 1/8" = 1'-0"

SECOND FLOOR SIM.



J & A ARCHITECTURAL
 ENGINEERING
 3250 W. BIG BEAVER RD.
 SUITE 510
 TROY, MI 48064
 P. 248.282.6475
 F. 248.590.0257
 azhematty@gmail.com

PROJECT
 1392 S WILLIAMS LAKE RD
 WHITE LAKE, MI 48386

ISSUED FOR	DATE
RE-ZONING	03-08-2022

NOTES:
1.

Statement of Intellectual Property
 The ideas, concepts, drawings and thoughts conveyed
 herein are the intellectual property of
 J & A ARCHITECTURAL ENGINEERING
 3250 W. Big Beaver Road
 Troy, MI 48064
 This set of drawings, in whole or in part, may not be
 reproduced, without the written consent of
 J & A ARCHITECTURAL ENGINEERING.
 This information is protected under U.S. Copyright Law, all
 rights reserved.
 ©Copyright 2021

DESIGN PROFESSIONAL IN
 CHARGE:



SHEET NAME:
 UNIT PLANS &
 OVERALL BUILDING
 PLANS

DATE :	11-1-2021
DRAWN BY :	CBB
CHECKED BY :	AM
JOB NO. :	21-171
SHEET:	

A2.0

SCALE: SEE SCALE

**WHITE LAKE TOWNSHIP
NOTICE OF PUBLIC HEARING**

Notice is hereby given of a public hearing by the White Lake Township Planning Commission on **Thursday, May 19, 2022 at 7:00 P.M.** at the Township Annex, 7527 Highland Road, White Lake, Michigan 48383, to consider the following changes to the zoning map:

Property described as 1392 S. Williams Lake Road, identified as parcel number 12-36-476-002, located on the west side of Williams Lake Road, north of Cooley Lake Road, consisting of approximately 2.50 acres.

Applicant requests to rezone the property from **(AG) Agricultural to (RM-1) Attached Single-Family** or any other appropriate zoning district.

Persons interested are requested to be present. Pertinent information relative to this rezoning request is on file at the Community Development Department and may be examined at any time during regular business hours of 8:00 a.m. to 5:00 p.m. Persons interested may visit the Community Development Department, contact the Community Development Department by telephone at 248-698-3300, ext. 5, or attend the Public Hearing on the date specified. Written comments are also welcome at 7525 Highland Road, White Lake, MI 48383. Individuals with disabilities requiring auxiliary aids or services should contact the Clerk's Office at least 5 days before the hearing.

Sean O'Neil, AICP
Community Development Director

TRAFFIC STUDY
FOR PROPOSED MULTIFAMILY RESIDENTIAL
DEVELOPMENT LOCATED AT 1392 S
WILLIAMS LAKE RD
WHITE LAKE TOWNSHIP, MICHIGAN 48386

Prepared for
WHITE LAKE TOWNSHIP
PLANNING DEPARTMENT

By
Ahmad M Fawaz, P.E.
Revised April 2022

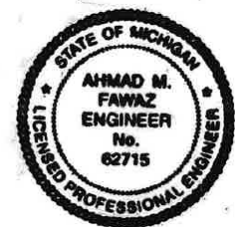


TABLE OF CONTENTS

INTRODUCTION.....	1
SITE DESCRIPTION AND ACCESS.....	1
ROAD NETWORK.....	3
EXISTING TRAFFIC VOLUME.....	4
VEHICLE TRIP GENERATION.....	4
ADJUSTMENTS TO TRIP GENERATION RATES.....	6
TRIP GENERATION DISTRIBUTION AND ASSIGNMENT.....	6
WARRANT STUDY FOR TURN LANES.....	11
COMPARISON OF TRIP GENERATION BETWEEN EXISTING AND PROPOSED DEVELOPMENTS.....	11
DEVELOPMENT IMPACTS.....	13
CONCLUSION.....	13
APPENDICES.....	14

INTRODUCTION

This study examines the potential traffic impacts on the adjacent streets of a proposed multifamily residential development located at 1392 S Williams Lake Rd between Elizabeth Lake Rd and Cooley Lake Rd in White Lake Township, Michigan. The development includes four multifamily residential buildings. The intent of this report is to present traffic volumes likely generated by the proposed development and consider potential impacts to the adjacent roadway network. In addition to this introductory paragraph, the report includes the following sections:

- A Site Description and Access
- Road Network
- Existing Traffic Volume
- Vehicle Trip Generation
- Adjustments To Trip Generation Rates
- Trip Generation Distribution And Assignment
- Development Impacts
- Conclusion

SITE DESCRIPTION AND ACCESS

Land for the development has currently one ranch house which will be demolished to construct the four buildings. The site of proposed development is approximately 2.47 acres, and it is surrounded by residential subdivisions. It will include eighty-one parking spaces while the required are seventy-seven parking spaces. The residential development consists of 56 dwelling units distributed on four buildings:

Building 'A' is two stories and has an area of 7,996 square feet per each floor. It consists of eight (1) bedroom units and eight (2) bedroom units.

Building 'B' is two stories and has an area of 4,605 square feet per each floor. It consists of eight (2) bedroom units.



Figure 1: General site plan and access location point

Building 'C' is two stories and has an area of 6,802 square feet per each floor. It consists of sixteen (1) bedroom units.

Building 'D' is two stories and has an area of 8,000 square feet per each floor. It consists of eight (1) bedroom units and eight (2) bedroom units.

Development site traffic is accommodated by two full movement access points from S Williams Lake Rd. The proposed driveways are 24 ft wide, and they operate as stop-controlled intersections. The adjacent driveways are access roads for residential subdivisions and single houses.

ROAD NETWORK

According to SEMCOG database, all the streets leading to the development are under Oakland County jurisdiction. S Williams Lake Rd is classified as a principal arterial. It is a three lanes road, one travel lane in each direction and a center left turn lane. It has a posted speed limit of 50 mph and an annual average daily traffic (AADT) of 16,180 vpd as per traffic volume data collected in 2016. Cooley Lake Rd is classified as a principal arterial located around 1000 feet south of the development. It is a three lanes road, one travel lane in each direction and a center left turn lane. It has a posted speed limit of 40 mph and an annual average daily traffic (AADT) of 20,321 vpd as per traffic volume data collected in 2021. Elizabeth Lake Rd is classified as a minor arterial located around 1.82 mile north of the development. It is a two lanes road, one travel lane in each direction. It has a posted speed limit of 45 mph and an annual average daily traffic (AADT) of 7,310 vpd as per traffic volume data collected in 2015.

The intersection of S Williams Lake Rd and Cooley Lake Rd is controlled by box span-wire traffic signal with a protected left turn phase for eastbound direction. The intersection between S Williams Lake Rd and Elizabeth Lake Rd is controlled by two diagonal span wire traffic signals.

EXISTING TRAFFIC VOLUME

The source of the traffic volumes used in this report is from SEMCOG database and it is adjusted in this report by applying the recommended SEMCOG annual growth rate.

The most up to date traffic counts reported on SEMCOG traffic count database system were for data collected on December 8 and 9, 2021 by Oakland County Sydney Coordinated Adaptive Traffic System (SCATS) and they are presented in table 1. The southbound traffic volume was obtained from SCATS system at the intersection between Cooley Lake Rd and S Williams Lake Rd and the northbound traffic volume was obtained from SCATS system at the intersection between Elizabeth Lake Rd and S Williams Lake Rd. The data was compared to traffic volume collected by tube traffic volume counter on July 08, 2021. It was found that there is no major difference in the results. There was no need to apply an annual growth rate to the collected traffic volume data because it is up to date. The hourly traffic volume counts presented in table 1 show that the AM peak hour is between 8:00 am and 9:00 am and the PM peak hour is between 4:00 pm and 5:00 pm.

VEHICLE TRIP GENERATION

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation, 10th Edition, were applied to the proposed land use in order to estimate the average daily traffic (ADT) and peak hour vehicle trips. A vehicle trip is defined as a one-way vehicle movement from point of origin to point of destination.

Table 2 presents average trip generation rates for the proposed development. Use of average trip generation rates presents a conservative analysis. ITE land use code 220 Multifamily Housing (Low-Rise) was used for analysis because of its best fit to the proposed land use.

Table 3 summarizes the projected average daily traffic (ADT) and peak hour traffic volumes likely generated by the proposed land use. As Table 3 shows, the proposed development area has the potential to generate approximately 410 daily trips with 26 of those occurring during the morning peak hour and 32 during the afternoon peak hour.

Table 1: Hourly Traffic Volume Counts from SEMCOG Database for Williams Lake Rd

WILLIAMS LAKE TRAFFIC COUNT BETWEEN COOLEY LAKE AND ELIZABETH LAKE			
INTERVAL:60-MIN (Wed 12/8/2021 and Thu 12/9/2021)			
Time	SB Hourly Count	NB Hourly Count	Two Way Hourly Count
0:00-1:00	42	64	106
1:00-2:00	18	25	43
2:00-3:00	31	44	75
3:00-4:00	69	32	101
4:00-5:00	124	134	258
5:00-6:00	296	419	715
6:00-7:00	408	318	726
7:00-8:00	417	525	942
8:00-9:00	506	561	1067
9:00-10:00	432	533	965
10:00-11:00	428	546	974
11:00-12:00	408	583	991
12:00-13:00	364	568	932
13:00-14:00	352	574	926
14:00-15:00	379	644	1023
15:00-16:00	440	812	1252
16:00-17:00	438	874	1312
17:00-18:00	407	896	1303
18:00-19:00	290	768	1058
19:00-20:00	210	493	703
20:00-21:00	194	392	586
21:00-22:00	181	315	496
22:00-23:00	112	208	320
23:00-24:00	70	121	191
Total	6,616	10,449	17,065

Table 2: Trip Generation Rates									
ITE Code	Land Use	Unit	24 Hour	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
220	Multifamily Housing (Low-Rise)	DU	7.32	0.11 (23%)	0.35 (77%)	0.46	0.35 (63%)	0.21 (37%)	0.56

Key : DU = Dwelling Unit

Table 3: Trip Generation Summary									
ITE Code	Land Use	Unit	24 Hour	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
220	Multifamily Housing (Low-Rise)	56 DU	410	6	20	26	20	12	32

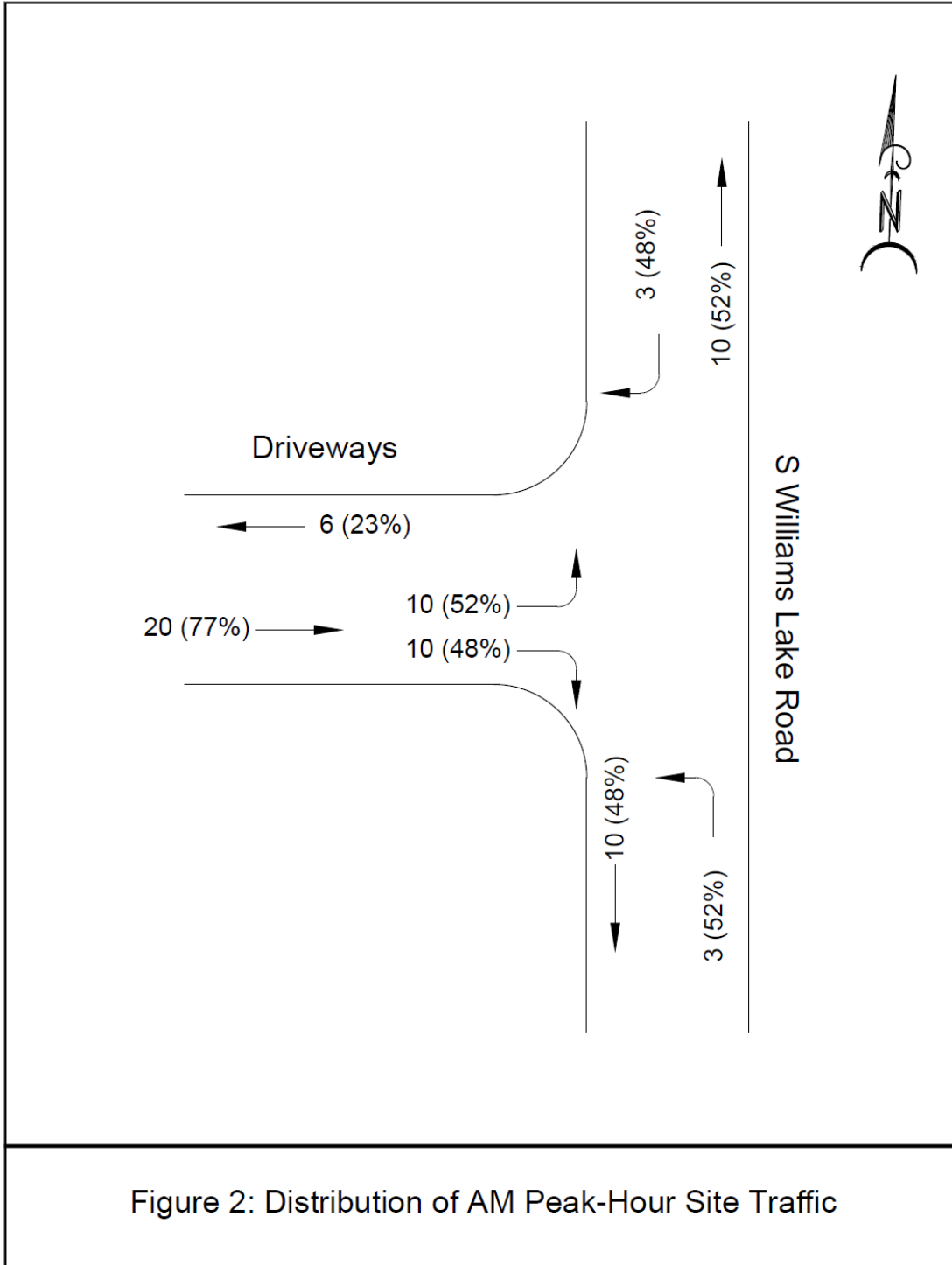
Adjustments to Trip Generation Rates

A development of this type is not likely to attract trips from within area land uses nor pass-by or diverted link trips from the adjacent roadway system, therefore no trip reduction/adjustment was taken in this analysis.

Trip Generation Distribution and Assignment

Overall directional distribution of site-generated traffic was determined by examining current traffic patterns in the study area and assessing how well those patterns can be expected to represent the new site traffic, subject to the site access plan and professional judgment. Site-generated traffic is anticipated to be distributed through the access points along S Williams Lake Road. Traffic assignment is how the site-generated and distributed trips are expected to be loaded on the roadway network. For this development, the existing traffic volumes were used to develop a trip distribution model for the AM and PM peak hours for traffic generated by the proposed development. The trips were assigned to northbound and southbound S Williams Lake Road. Figure 2 through 5 in the next pages present the distribution of the site traffic in the AM

and PM peak hours. They also present the total projected traffic volumes at the main access points of the development.



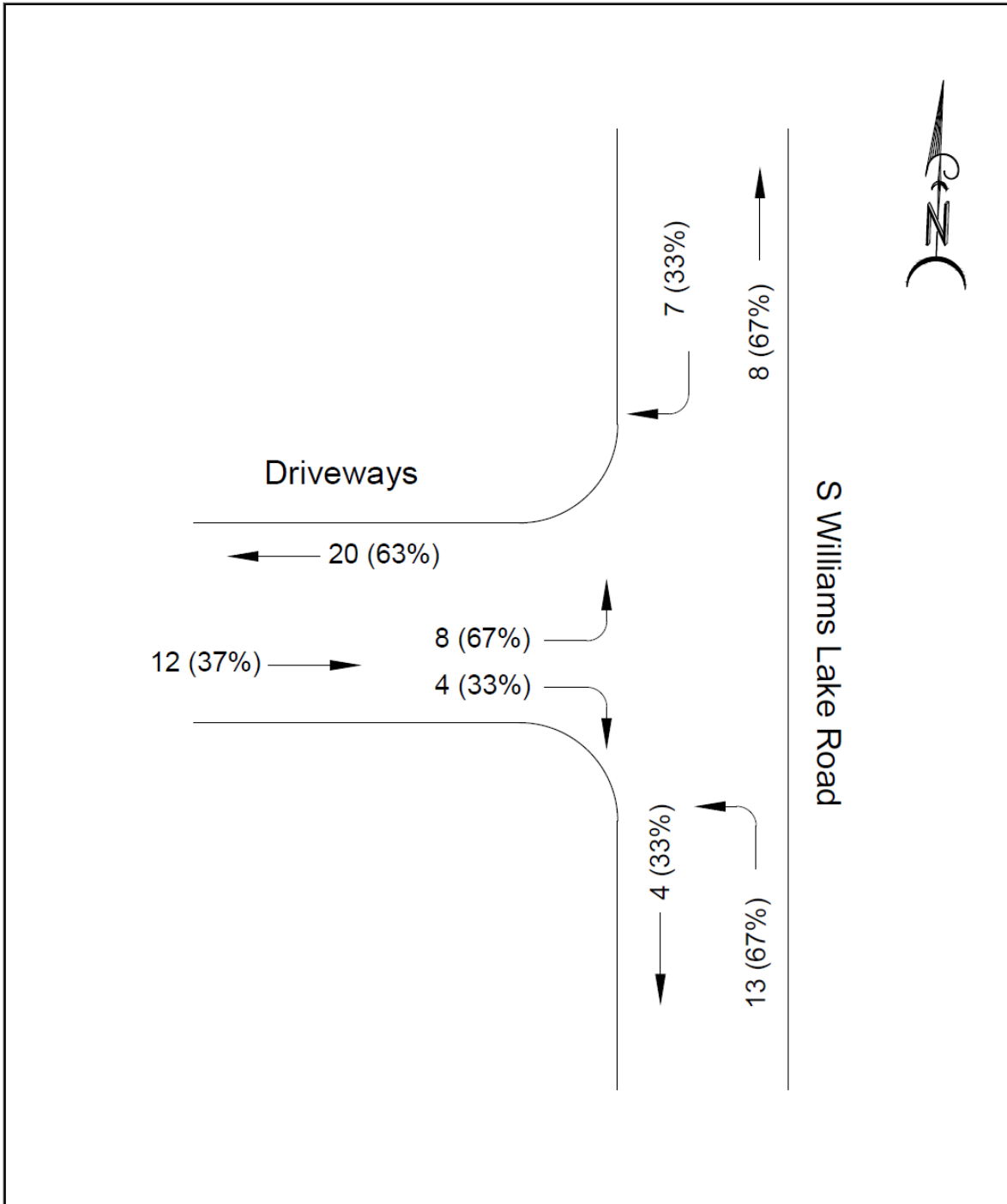


Figure 3: Distribution of PM Peak-Hour Site Traffic

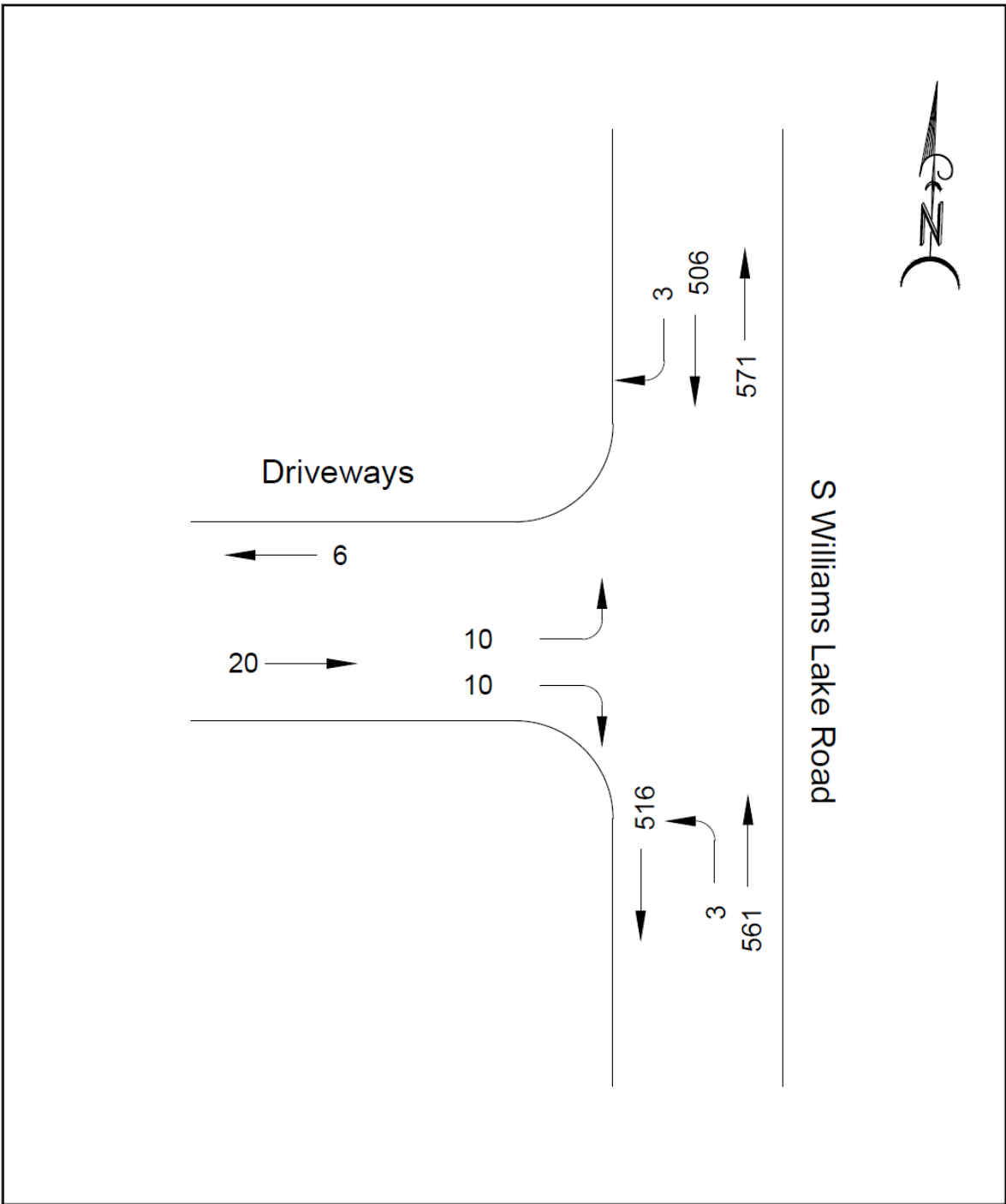


Figure 4: Total AM Peak-Hour Traffic Volume

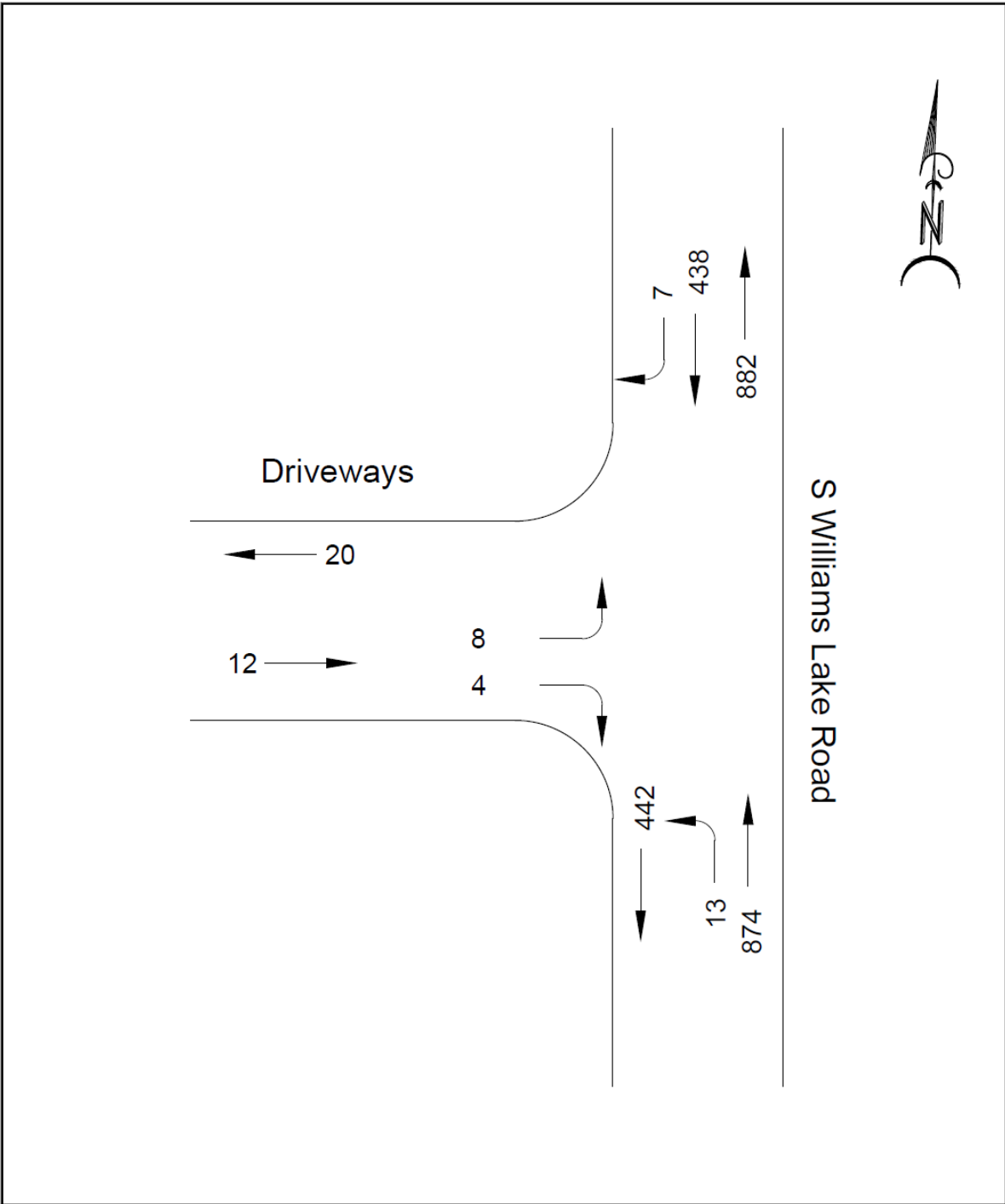


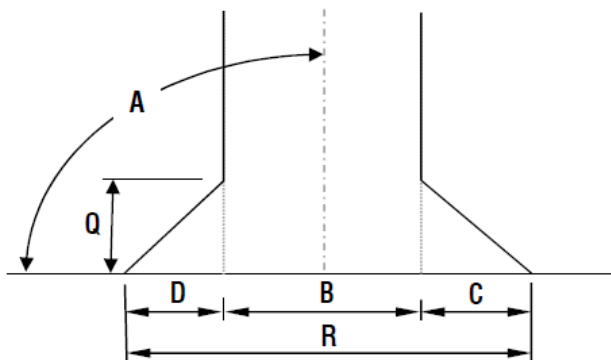
Figure 5: Total PM Peak-Hour Traffic Volume

Warrant Study for Turn Lanes

The section of Williams Lake Rd has a center left turn lane where the development is located. The maximum peak hour right turns are 10 vph and they are divided on two driveways. Around 5 right turns per hour per driveway. According to the Road Commission for Oakland County (RCOC) permit rules, specifications and guidelines, warrant for right turn deceleration lane or taper is presented in Figure 6-3 of the guidelines. Because, the peak hour right turns are less than 10 vph per driveway and the two-way traffic volume is 17,065 vpd, adding taper or right turn lane/deceleration lane are not warranted. The driveway will be designed according to table 6-3 of the guidelines which is presented below:

**Table 6-3:
Residential Driveway - Subdivision
Design Features**

		<u>Typical</u>	<u>Range</u>
Intersecting Angle	A	90°	60° to 90°
Driveway Width	B	16'	10' to 25'
Entering Taper Width	C	6'	2' to 15'
Exiting Taper Width	D	6'	2' to 15'
Taper Depth	Q	10'	10' to 20'
Total Opening	R	24'	14' to 55'
B+C+D=			



NOTE:
The TYPICAL dimension shall be used unless the Permits Division specifies or the Applicant shows cause for, and the Permits Division approves, a different value. The RANGE in dimensions indicates the working value for each design feature.

Comparison of Trip Generation Between Existing and Proposed Developments

The current zoning of the parcel is agricultural (AG). The parcel currently has a one ranch style home (1,551 sq ft) on a 2.5 acres land. ITE land use code 210 Single-family Housing was used for analysis because of its best fit to the existing land use. The proposed zoning is attached single family residential (RM-1). ITE land use code 220 Multifamily Housing (Low-Rise) was used for

analysis because of its best fit to the proposed land use. Table 4 presents average trip generation rates for the existing and proposed developments. Table 5 presents a comparison of trip generation between the existing and proposed developments.

Table 4: Trip Generation Rates									
ITE Code	Land Use	Unit	24 Hour	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
210	Existing Development Single-Family Detached Housing	DU	9.44	0.19 25%	0.55 75%	0.74	0.63 63%	0.37 37%	0.99
220	Proposed Development Multifamily Housing (Low-Rise)	DU	7.32	0.11 23%	0.35 77%	0.46	0.35 63%	0.21 37%	0.56

Key : DU = Dwelling Unit

Table 5: Comparison of Trip Generation Between Existing and Proposed Developments									
ITE Code	Land Use	Unit	24 Hour	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
210	Single-Family Detached Housing	1 DU	9.4	0.1	0.6	0.7	0.6	0.4	1
220	Multifamily Housing (Low-Rise)	56 DU	409.9	5.9	19.8	25.8	19.8	11.6	31.4
Difference of Trip Generation Between Existing and Proposed Developments			400	6	19	25	19	11	30

Development Impacts

According to White Lake Township Zoning Ordinance, a Traffic Impact Assessment (TIA) is required if the proposed use(s) would generate 500-749 driveway trips per day, or 50-99 peak-hour, peak-direction driveway trips. A Traffic Impact Statement (TIS) is required if the proposed use(s) would generate 750 or more driveway trips per day, or 100 or more peak-hour, peak direction driveway trips. The trips generated by the development are less than the threshold for TIA or TIS requirements. As Figures 2 through 5 show, there is an increase in peak hour traffic volumes anticipated from the proposed development, but they are considered minor. These minor volumes are not likely to negatively impact traffic operations in the area. The level of service and the delay of the nearby intersections will have unnoticeable change.

CONCLUSION

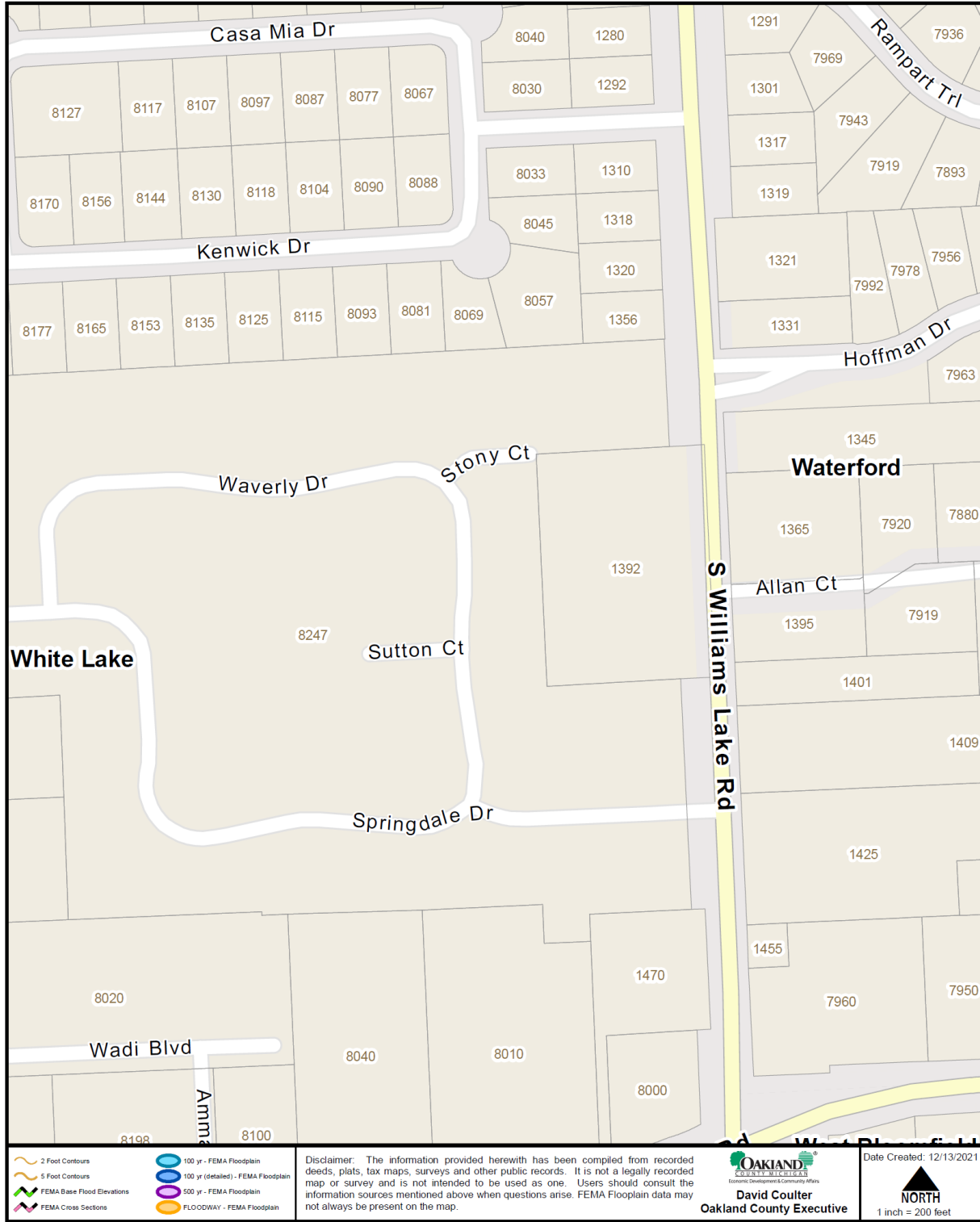
This analysis assessed traffic generation for the proposed multifamily residential development located at 1392 S Williams Lake Rd and potential impacts to the adjacent roadway network. It is our professional opinion that the proposed site-generated traffic is expected to create no negative impact to traffic operations for the surrounding roadway network. Analysis of site-generated traffic concludes that proposed development traffic volumes are minor. We trust that our findings will assist in the planning and approval of this proposed development.

APPENDICES

WILLIAMS LAKE SB TRAFFIC COUNT NORTH OF COOLEY LAKE					
INTERVAL:15-MIN (Wed 12/8/2021 and Thu 12/9/2021)					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	12	15	3	12	42
1:00-2:00	8	6	3	1	18
2:00-3:00	9	7	6	9	31
3:00-4:00	14	13	33	9	69
4:00-5:00	29	28	32	35	124
5:00-6:00	61	80	76	79	296
6:00-7:00	109	112	96	91	408
7:00-8:00	92	90	117	118	417
8:00-9:00	126	130	135	115	506
9:00-10:00	98	111	113	110	432
10:00-11:00	89	127	111	101	428
11:00-12:00	98	95	109	106	408
12:00-13:00	111	72	78	103	364
13:00-14:00	56	89	106	101	352
14:00-15:00	101	91	94	93	379
15:00-16:00	115	102	96	127	440
16:00-17:00	109	101	120	108	438
17:00-18:00	114	96	111	86	407
18:00-19:00	77	80	82	51	290
19:00-20:00	58	55	48	49	210
20:00-21:00	39	37	59	59	194
21:00-22:00	45	44	43	49	181
22:00-23:00	34	25	30	23	112
23:00-24:00	19	17	26	8	70
Total					6,616

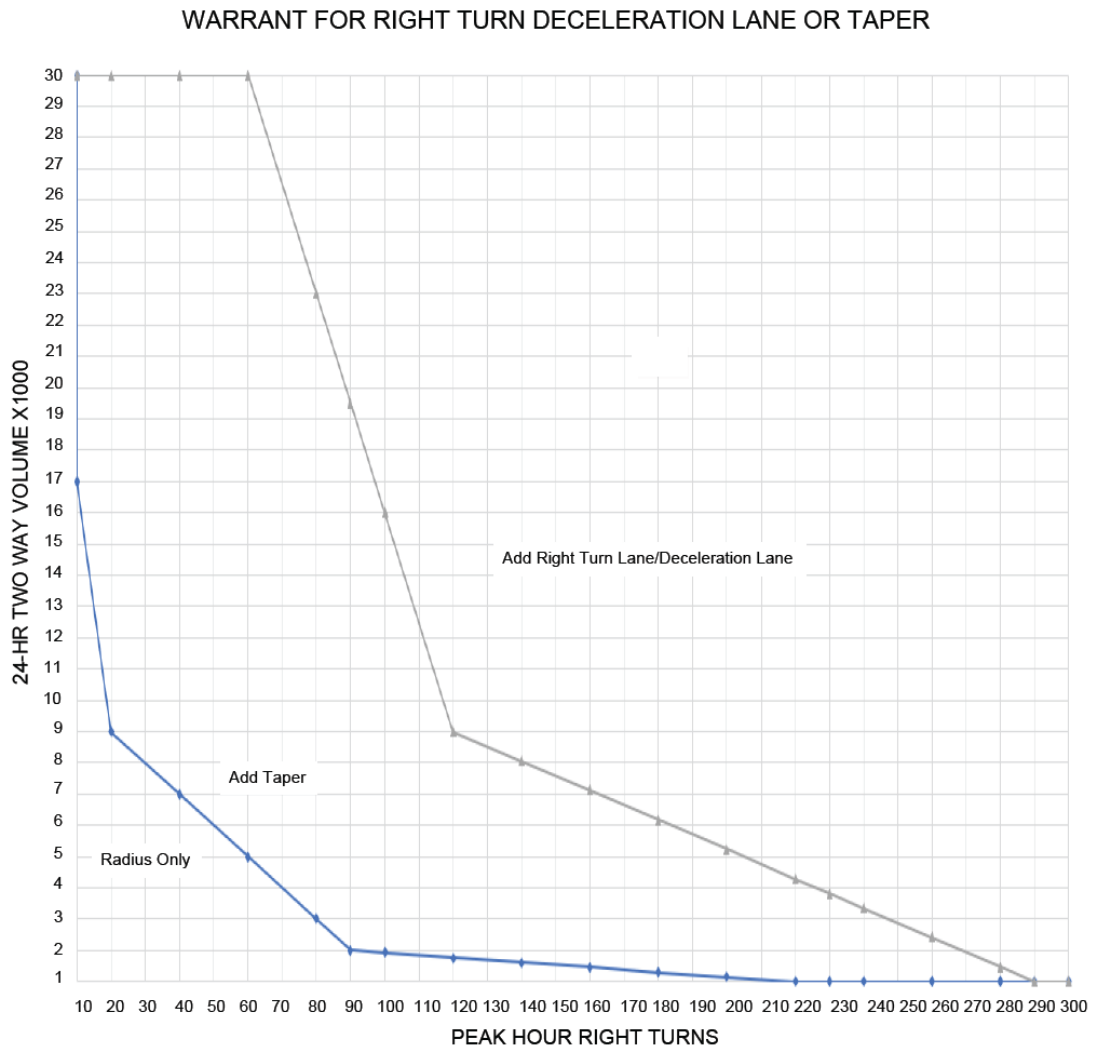
WILLIAMS LAKE NB TRAFFIC COUNT SOUTH ELIZABETH LAKE					
INTERVAL:15-MIN (Wed 12/8/2021 and Thu 12/9/2021)					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	18	17	15	14	64
1:00-2:00	7	5	10	3	25
2:00-3:00	3	8	19	14	44
3:00-4:00	6	6	3	17	32
4:00-5:00	11	23	27	73	134
5:00-6:00	110	115	121	73	419
6:00-7:00	58	84	76	100	318
7:00-8:00	105	149	130	141	525
8:00-9:00	119	125	158	159	561
9:00-10:00	121	160	125	127	533
10:00-11:00	146	123	132	145	546
11:00-12:00	138	131	147	167	583
12:00-13:00	140	129	165	134	568
13:00-14:00	168	131	147	128	574
14:00-15:00	167	139	165	173	644
15:00-16:00	195	196	204	217	812
16:00-17:00	209	198	246	221	874
17:00-18:00	244	220	210	222	896
18:00-19:00	210	222	183	153	768
19:00-20:00	132	134	114	113	493
20:00-21:00	120	113	90	69	392
21:00-22:00	80	78	94	63	315
22:00-23:00	81	48	37	42	208
23:00-24:00	38	39	16	28	121
Total					10,449

1392 S WILLIAMS LAKE



Oakland County One Stop Shop - 2100 Pontiac Lake Road Bldg. 41 West Waterford, MI 48328 Phone: 248-858-0721 Web: www.advantageoakland.com

FIGURE 6-3



Single-Family Detached Housing (210)

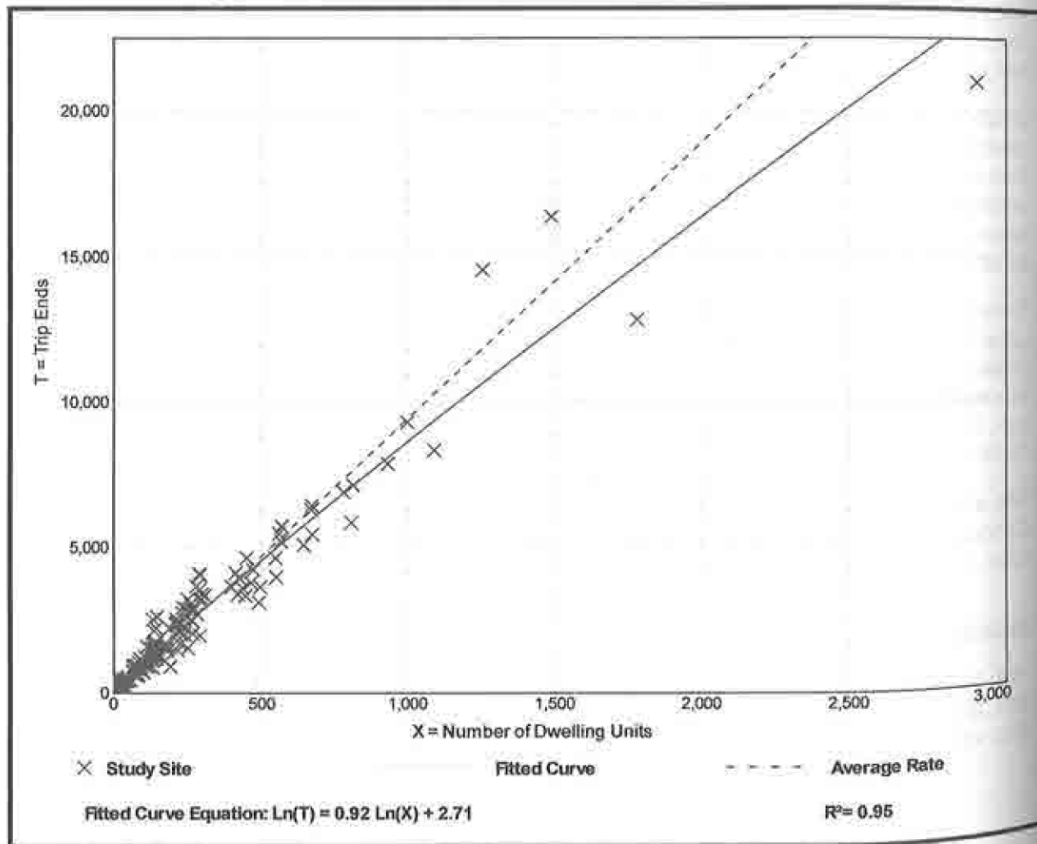
Vehicle Trip Ends vs: Dwelling Units
On a: **Weekday**

Setting/Location: General Urban/Suburban
Number of Studies: 159
Avg. Num. of Dwelling Units: 264
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.44	4.81 - 19.39	2.10

Data Plot and Equation



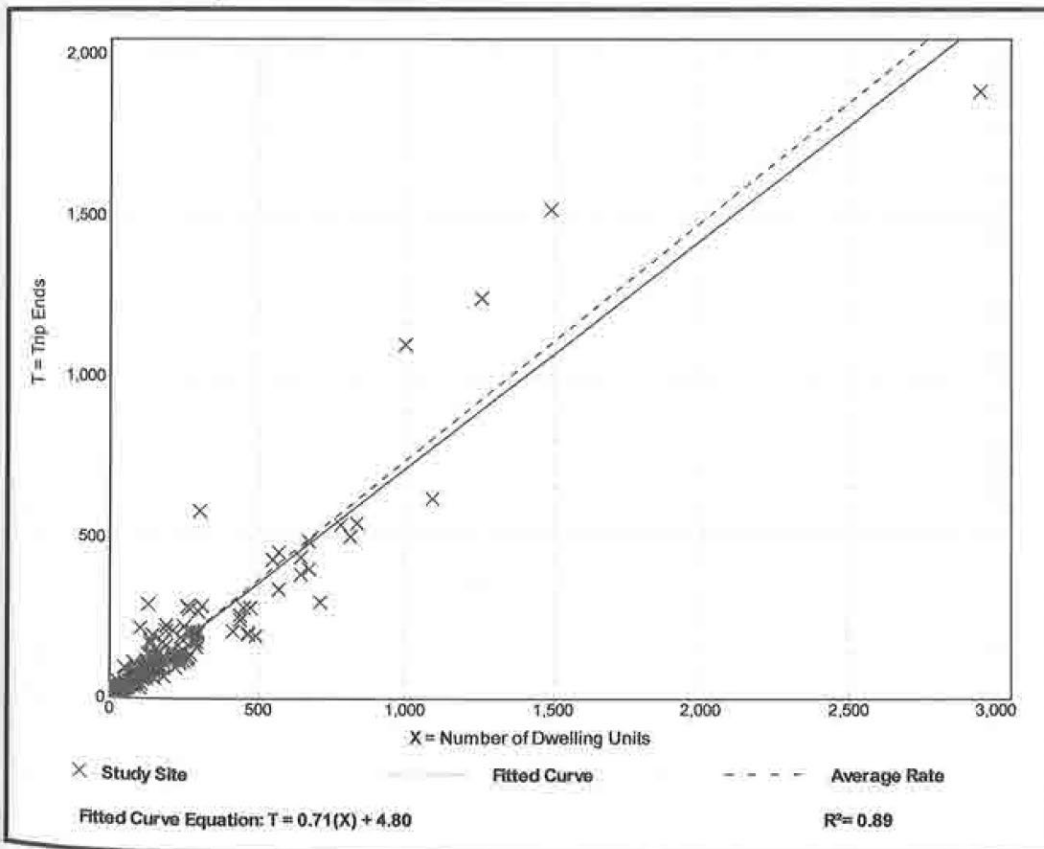
Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 173
 Avg. Num. of Dwelling Units: 219
 Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.74	0.33 - 2.27	0.27

Data Plot and Equation



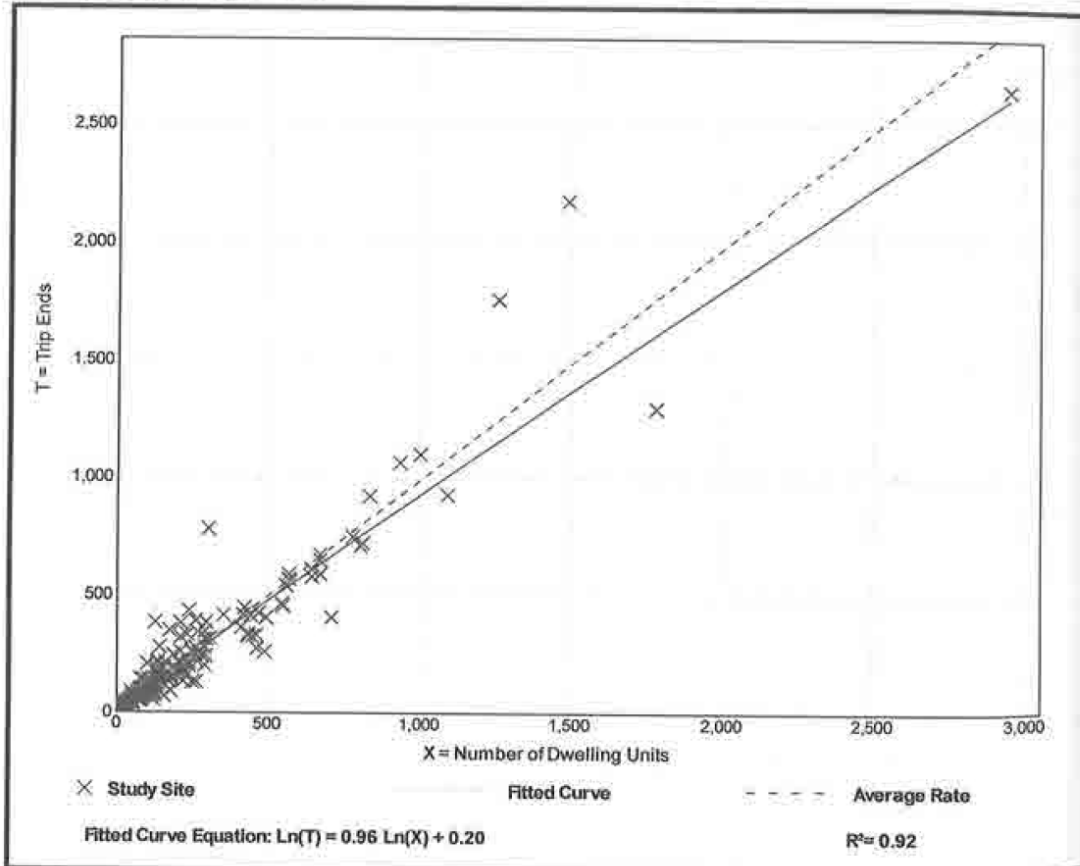
Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 190
 Avg. Num. of Dwelling Units: 242
 Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.99	0.44 - 2.98	0.31

Data Plot and Equation



Multifamily Housing (Low-Rise) (220)

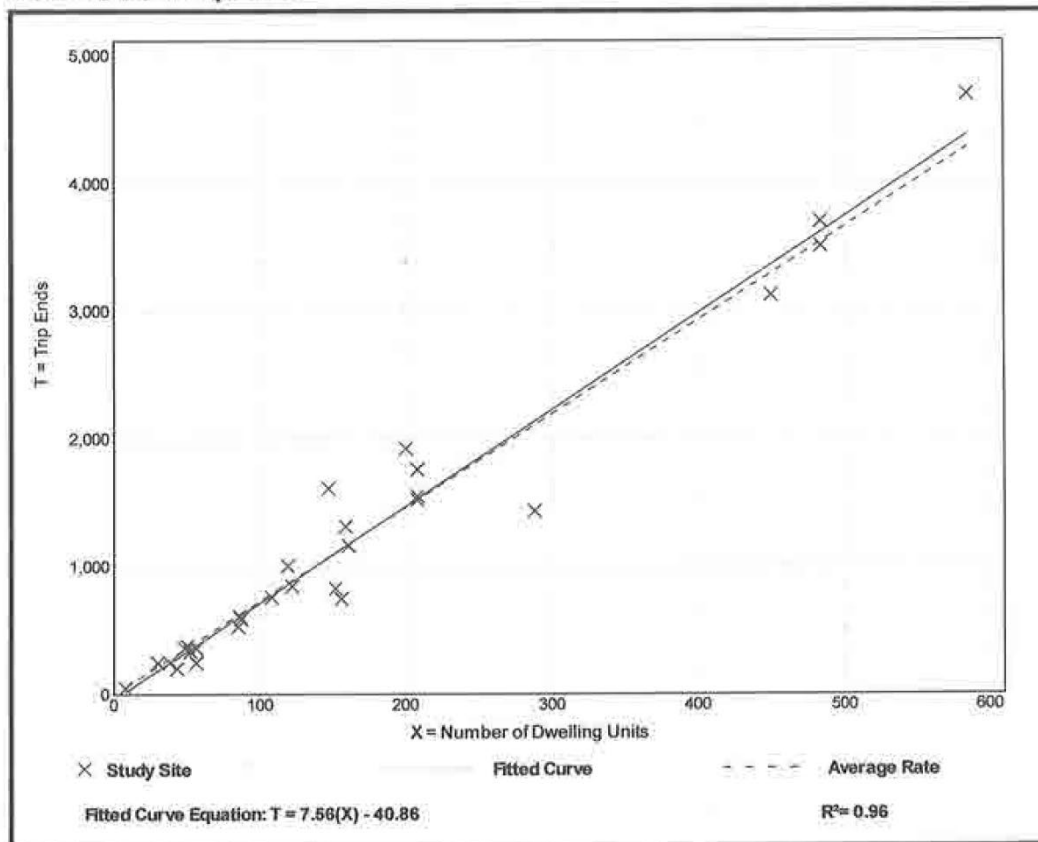
Vehicle Trip Ends vs: Dwelling Units
On a: **Weekday**

Setting/Location: General Urban/Suburban
Number of Studies: 29
Avg. Num. of Dwelling Units: 168
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.32	4.45 - 10.97	1.31

Data Plot and Equation



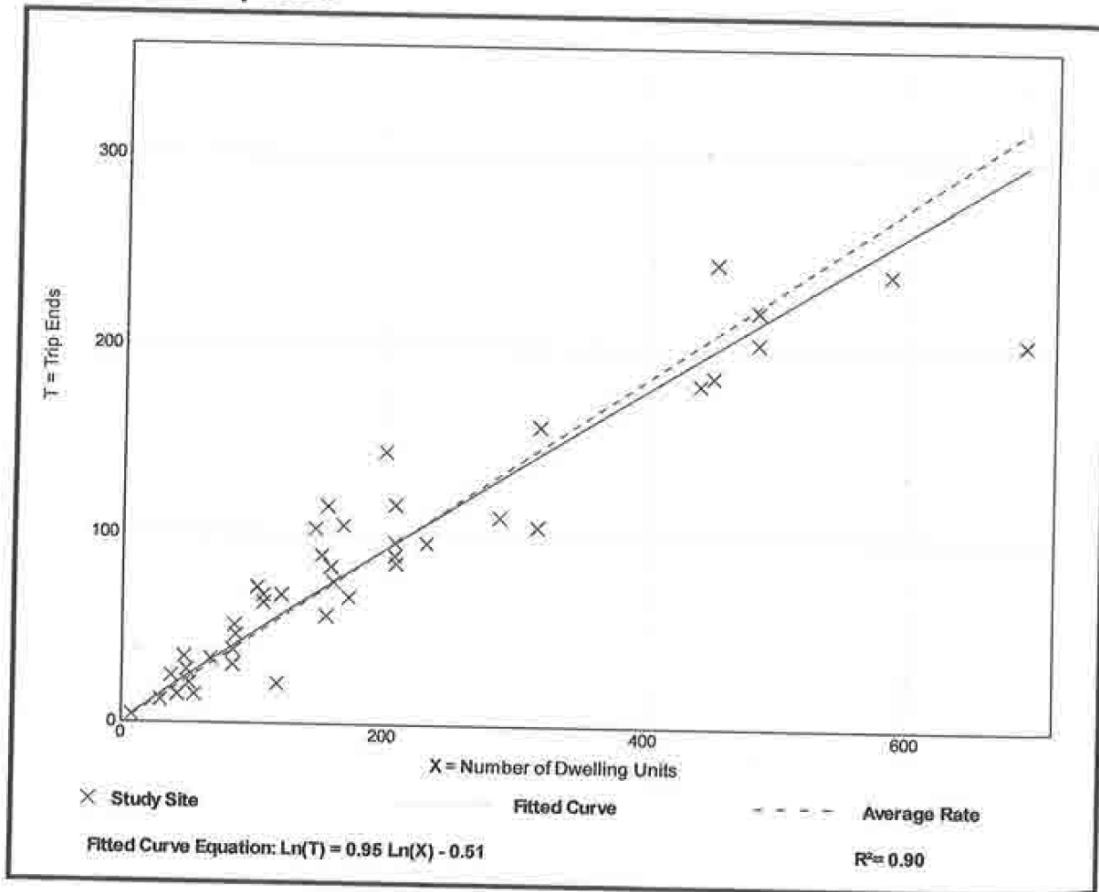
Multifamily Housing (Low-Rise) (220)

Vehicle Trip Ends vs: Dwelling Units
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 42
 Avg. Num. of Dwelling Units: 199
 Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.46	0.18 - 0.74	0.12

Data Plot and Equation



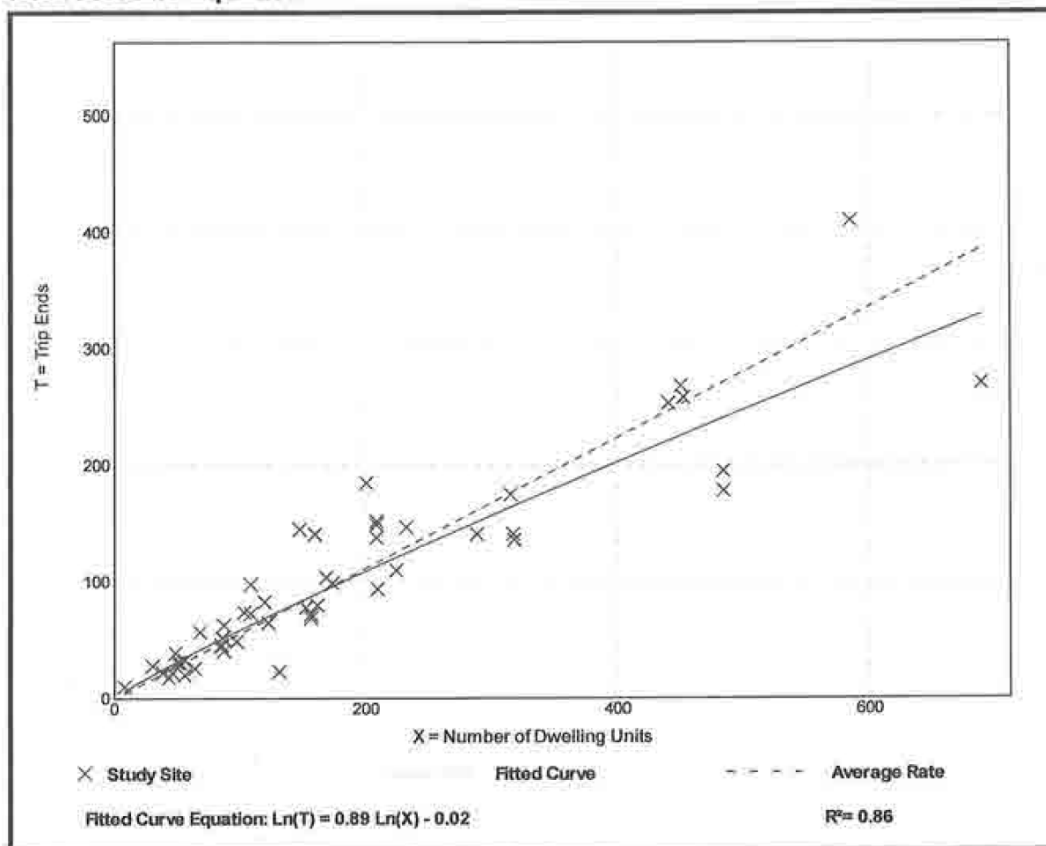
Multifamily Housing (Low-Rise) (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 50
 Avg. Num. of Dwelling Units: 187
 Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.56	0.18 - 1.25	0.16

Data Plot and Equation





INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

April 22, 2022

Sean O'Neil, Director
Community Development Department
Charter Township of White Lake
7525 Highland Road
White Lake, Michigan 48383

**Re: 1392 Williams Lake Road
Traffic Study Review**

Ref: DLZ File No. 2245-7382-01

Date of Study: 4/2022

Design Professional: Ahmad M Fawaz, PE

The applicant has submitted a revised Traffic Study for P.I. 12-36-476-002, located along the west side of S. Williams Lake Road opposite Allan Court and approximately 1,000 feet north of Cooley Lake Road. The proposed development in the study is a multi-family development with 56 proposed dwelling units. The study utilized a combination of the SEMCOG traffic count database, using the Oakland County Sydney Coordinated Adaptive Traffic System (SCATS), and a tube traffic volume counter to evaluate the existing traffic volumes along S. Williams Lake Road, Cooley Lake Road, and Elizabeth Lake Road. The latest traffic counts present in the SEMCOG database were from 2015-2021, the SCATS data was collected on December 8 and 9, 2021. The tube traffic volume counter collected data on July 8, 2021. The study also calculated the anticipated quantity of additional traffic generated by the site and compared it with potential traffic generated by the site, should it remain zoned agricultural (AG).

We have reviewed the analysis; the methodology is in line with standard practices, and the findings are supported by the data provided. Based on data from the Multi-Family (Low Rise) section of the 10th edition of the "ITE Trip Generation Manual", the additional daily trips are 400 trips per day. Additionally, 26 AM Peak Hour trips per day and 32 PM Peak Hour trips per day are anticipated to be added to the existing traffic volumes. Based on the White Lake Zoning Ordinance, the number of daily trips generated by the site falls below the minimum thresholds for requiring either a Traffic Impact Assessment (500-750 daily trips) or a Traffic Impact Study (750+ daily trips). Therefore, the study asserts that the development will have no negative impact to traffic operations on the surrounding roadway network.

The study also evaluated the need for turn lanes or tapers at the proposed site drive. Due to the existing center left turn lane on Williams Lake Road, it was determined a passing lane on the east side of Williams Lake Road is not warranted. Based on the volume of traffic on Williams Lake Road and the low number of anticipated right turns into the development, it was determined that a right turn deceleration lane or taper is also not



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

1392 S. Williams Lake Road
Traffic Impact Analysis Review
Page 2 of 2

warranted. However, the Road Commission for Oakland County (RCOC) often requires right turn tapers on developments of this nature along their roadways. An RCOC permit will be required prior to construction. If you have any questions, please feel free to contact to me.

Respectfully,
DLZ, Inc.

Leigh Merrill, P.E.
Project Manager

Cc: Michael Leuffgen, P.E., DLZ *via email*
Justin Quagliata, Community Development *via e-mail*
Hannah Micallef, Community Development *via e-mail*

Director's Report

Project Name: VCA
 Description: Amended final site plan & special land use approvals
 Date on Agenda this packet pertains to: May 19th, 2022

- Public Hearing
- Special Land Use
- Initial Submittal
- Rezoning
- Revised Plans
- Other:
- Preliminary Approval
- Final Approval

Contact	Consultants & Departments	Approval	Denial	Approved w/Conditions	Other	Comments
Sean O'Neil	Planning Director	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Based on comments from the Staff Planner.
Justin Quagliata	Staff Planner	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 04/26/2022

WHITE LAKE TOWNSHIP PLANNING COMMISSION

REPORT OF THE COMMUNITY DEVELOPMENT DEPARTMENT

TO: Planning Commission

FROM: Sean O’Neil, AICP, Community Development Director
Justin Quagliata, Staff Planner

DATE: April 26, 2022

RE: VCA Animal Hospital
Amended final site plan and special land use approval – Review #1

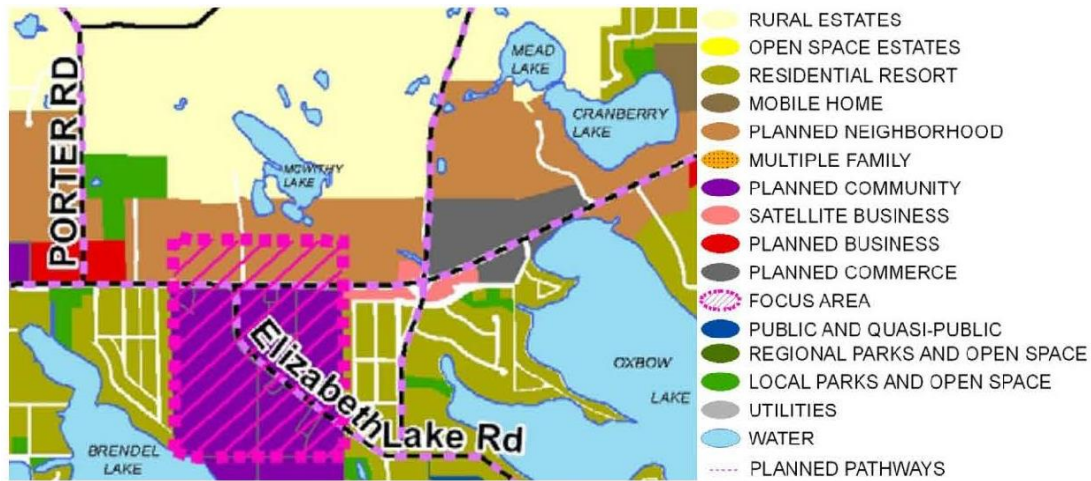
VCA Animal Hospitals, Inc. (VCA) has requested special land use approval to operate an animal hospital at 7755 Highland Road (Parcel Number 12-21-276-023), located on the north side of Highland Road, west of Elizabeth Lake Road. The approximately 1.27-acre subject site is zoned LB (Local Business) and currently occupied by an 11,400 square foot untenanted commercial building known as Centerpointe Plaza. The proposed animal hospital would occupy 5,533 square feet of the existing building. Preliminary site plan approval for development of the site was granted by the Township Board on March 12, 2019 and the final site plan was approved by the Planning Commission on July 18, 2019. Since that time the building shell was constructed and site work completed; the interior build-out is pending tenant leasing.

At its meeting on January 18, 2022 the Township Board adopted amendments to the zoning ordinance (Amendment 22-01). Animal Care Facilities (Veterinary Clinics and Hospitals) were added as a special land use in the LB zoning district. This particular zoning amendment was precipitated by a request from the owner of Centerpointe Plaza and VCA to operate an animal hospital on the subject site. As animal hospitals are allowed with special land use approval in the RB (Restricted Business) and GB (General Business) zoning districts, it was appropriate to add the use as eligible for consideration in the LB district.

Master Plan

The Future Land Use Map from the Master Plan designates the subject site in the Planned Neighborhood category, which is envisioned as a primarily residential land use of mixed densities and multiple product types, in a setting that may occasionally include a limited number of neighborhood retail, office, and personal service clusters. Connections to and segments of the Township community-wide pathway system are required as an integral part of all developments.

FUTURE LAND USE MAP



Zoning

Animal Care Facilities (Veterinary Clinics and Hospitals) are permitted with special land use approval in the LB zoning district, which requires a minimum lot area of one acre and 120 feet of lot width. The subject site contains 165 feet of frontage along Highland Road and approximately 1.27 acres of lot area.

Access

The site fronts on Highland Road, which along the subject property is a five-lane (center turn lane) public road with curb and gutter designated as a principal arterial by the National Functional Classification System (NFCS) utilized by the Michigan Department of Transportation (MDOT). An eight-foot-wide concrete sidewalk is installed along the property frontage. No improvements to site access are required to serve the animal hospital.

Utilities

Municipal water and sanitary sewer serve the site.

Staff Analysis

Special land uses for Animal Care Facilities (Veterinary Clinics and Hospitals) are evaluated using the general standards for all special land uses listed in Article 6, Section 10 of the zoning ordinance and the following specific standards for Animal Care Facilities (Veterinary Clinics and Hospitals) found in Article 4, Section 6 of the zoning ordinance:

- *The site shall abut at least a major arterial as designated on the Township's adopted Master Plan.* The site fronts on Highland Road, which is designated a Principal Arterial by MDOT.

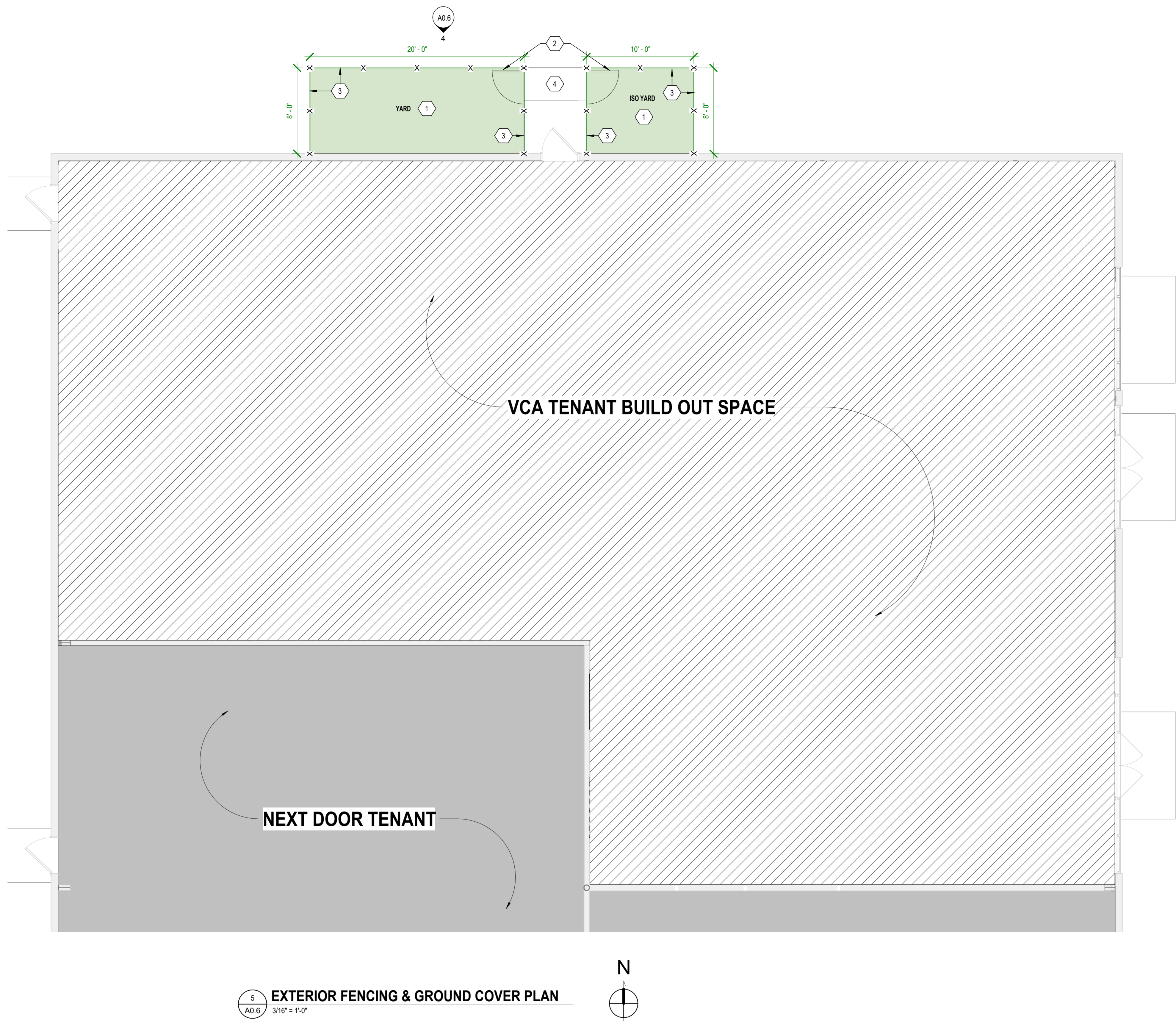
- *All breeding areas shall be within a completely enclosed building.* The applicant indicated no breeding is proposed at the animal hospital.
- *All animals shall be adequately housed, fenced and maintained so as not to be or become a public or private nuisance. The premises shall be maintained in such a manner so as not to be harmful to surrounding properties, or create any hazard or detriment to public health, safety or general welfare.* Two fenced outdoor “pet yards” are proposed on the east side of the building. The northerly pet yard (turf) is 20 feet by 8 feet (160 square feet) and the southerly pet yard (iso turf) is 10 feet by 8 feet (80 square feet). Six-foot-tall white vinyl fencing is proposed around the pet yards; the upper two-feet of the fencing incorporates a lattice design. The site plan notes various protocols for turf yard use and maintenance, including:
 1. Only one pet allowed in each yard at a time.
 2. Any pet utilizing the yard is to be leashed.
 3. No unattended pets at any time.
 4. Attendant to appropriately dispose of any pet waste immediately.
 5. Each yard to be kept from of pet waste and any debris, and cleaned on a daily basis. **(The word “from” shall be replaced with the word “free”).**
 6. Each yard to be watered daily to flush any fluid wastes through the natural substrate (turf-based yards).
- *In addition to the screening and landscaping requirements specified in Section 5.19, the Planning Commission may require additional screening where the Planning Commission determines such screening is necessary to reduce the impact of the proposed facility on adjacent properties or rights of way.* The site currently has adequate screening, and the proposed pet yards would be fenced as previously described.
- *The building shall be adequately soundproofed and constructed so that there will be no emission of odor or noise detrimental to surrounding properties.* The interior build-out of the tenant space shall be completed in accordance with this requirement.
- *Boarding of small animals shall be permitted as an accessory use, except all boarding shall be conducted within a wholly enclosed building and incidental to such care of an animal.* VCA has acknowledged in its application any boarding services or overnight care shall be incidental to the clinical work of the hospital.
- *Any use permitted by the Township under this section shall terminate immediately when the lot area requirements herein set forth are decreased in any manner or the provisions of this ordinance violated.* The subject site exceeds the minimum lot area requirement of the LB zoning district. Furthermore, VCA will comply with the provisions of the zoning ordinance.

Planning Commission Options

The Planning Commission may approve, approve with conditions, or deny the special land use (to allow the animal hospital) and amended final site plan (to allow the outdoor “pet yards”).

Staff recommends approval of the amended final site plan and special land use, subject to the following hours of operation proposed by the applicant being adhered to by the animal hospital:

- **Monday through Friday: 9:00 a.m. to 5:00 p.m.**
- **Saturday: 9:00 a.m. to 1:00 p.m.**
- **Sunday: Closed**



5
A0.6
EXTERIOR FENCING & GROUND COVER PLAN
3/16" = 1'-0"

EXTERIOR FENCING PLAN KEYNOTES

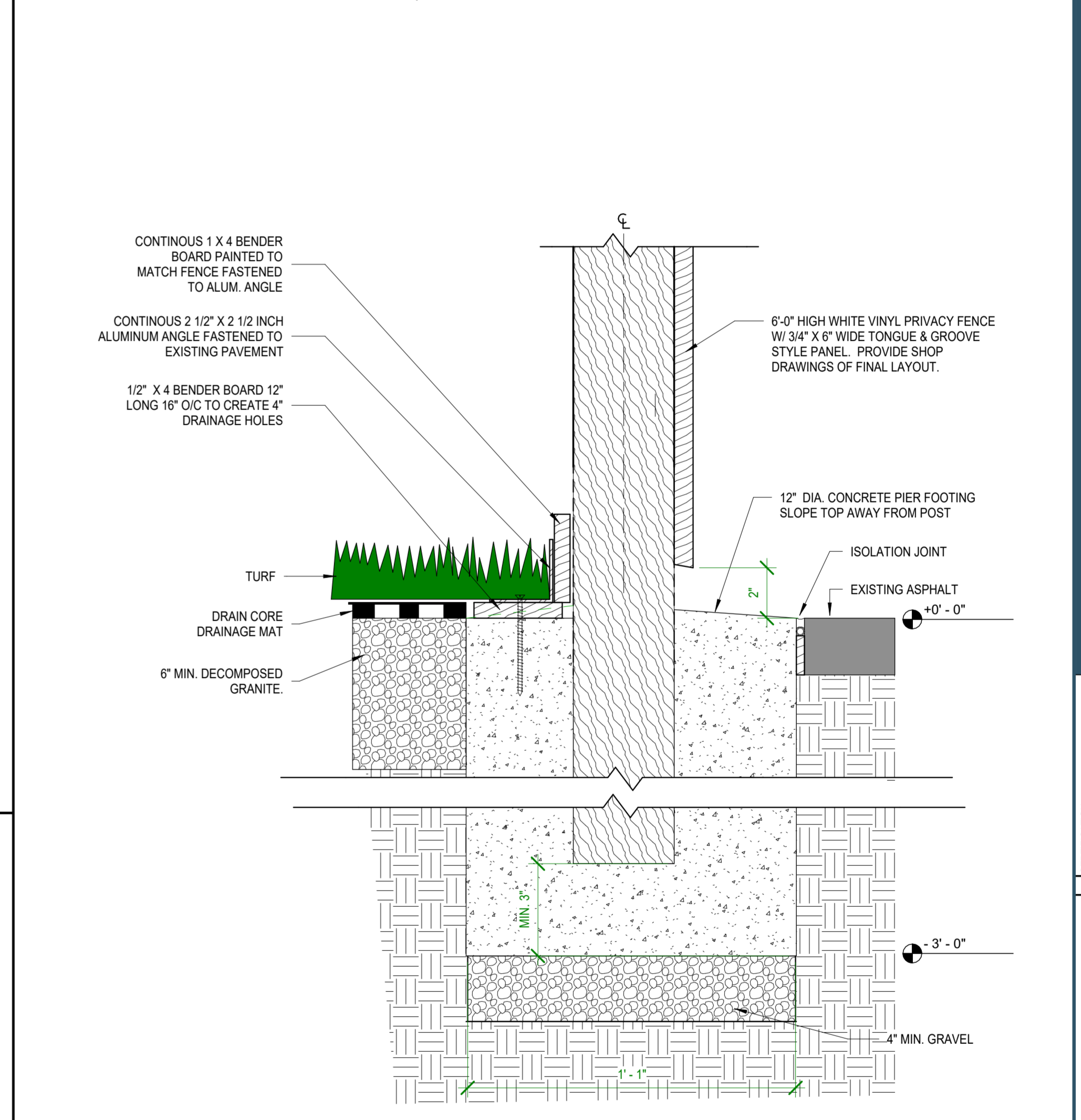
- 1 GC TO INSTALL TIGER TURF ON 6" DEEP DECOMPOSED GRANITE BASE (COLOR: GRAY).
- 2 NEW 3'-0" WIDE X 6'-0" HIGH WHITE PVC GATE W/ ADA COMPLIANT HARDWARE, (MFR: LOCKEY USA, SERIES: PS-11 EDGE VALUE PANIC BAR KITS FOR GATES. FINISH: BLACK) ON PUSH SIDE.
- 3 NEW 6'-0" HIGH VINYL TOP LATTICE PANEL WITH SOLID VINYL PANEL FENCING BELOW. COLOR: WHITE. FENCING WITH:
 - 1-1/2" X 5-1/2" TOP AND BOTTOM RAILS
 - BOTTOM RAIL TO HAVE ALUMINUM CHANNEL INSIDE.
 - 5" X 5" POSTS TO BE CORE DRILLED IN EXISTING CONCRETE.
 - 2" HIGH (MAX) BOTTOM GAP
 - PROVIDE FENCING SHOP DRAWINGS TO ARCHITECT FOR APPROVAL.
- 4 NEW 4" CONCRETE STOOP TO BE INSTALLED. PROVIDE SMOOTH, FLUSH TRANSITION TO EXISTING SIDEWALK.

FENCING GENERAL NOTES

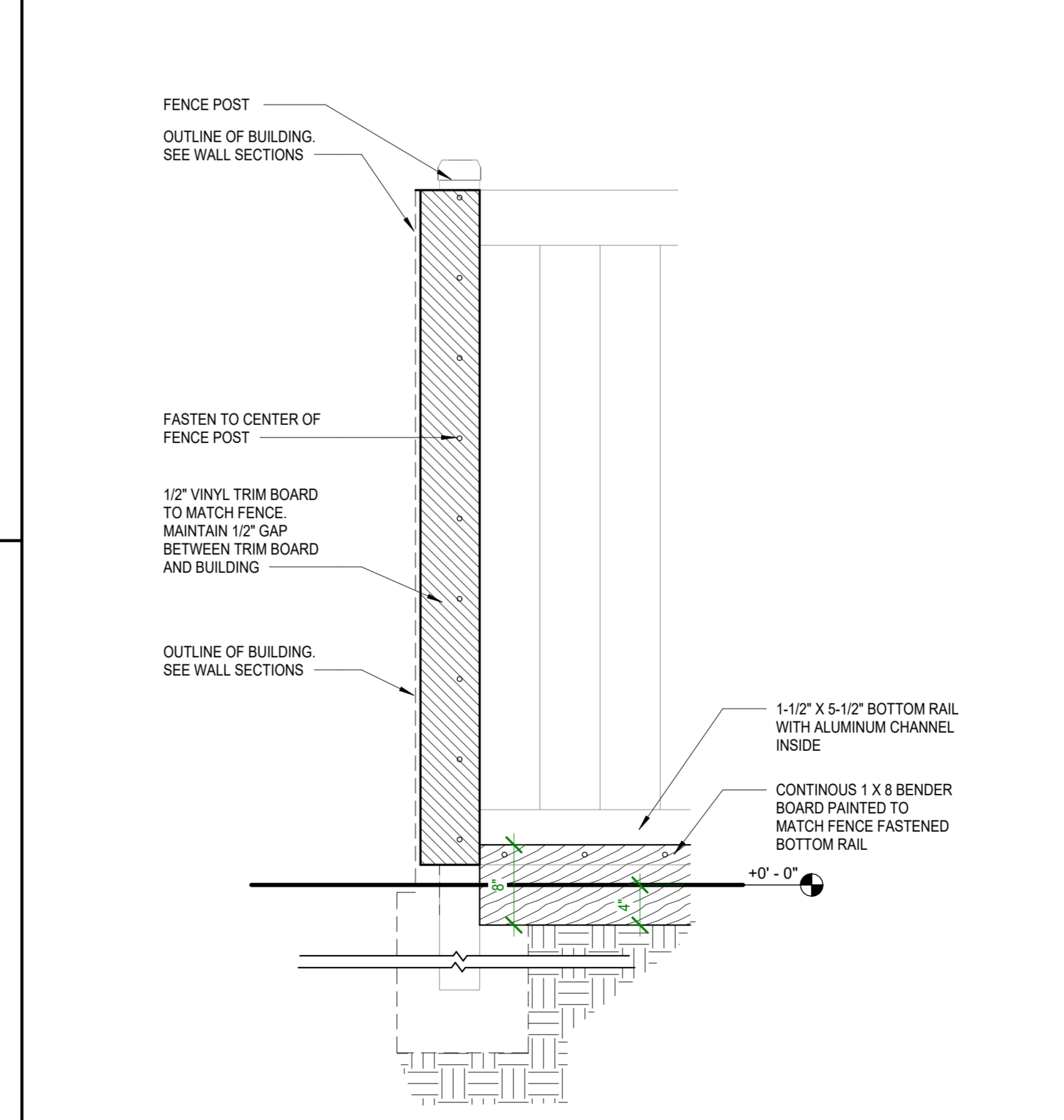
1. 1-1/2" X 5-1/2" TOP & BOTTOM RAILS WITH SLANTED TOPS.
2. 3/4" X 6" VERTICAL TONGUE & GROOVE BOARDS.
3. 4" X 4" POSTS SET IN CONCRETE.
4. 1-7/8" COATED ALUMINUM NAILS AT PICKETS.
5. 3" COATED ALUMINUM NAILS AT RAILS.
6. 2" BOTTOM GAP.
7. PROVIDE ADA COMPLIANT PANIC HARDWARE AT GATE.
8. PROVIDE SHOP DRAWINGS OF FINAL LAYOUT AND COORDINATION WITH ADJACENT AREAS TO ARCHITECT FOR APPROVAL.
9. G.C. TO PROVIDE & INSTALL NEW SOD AROUND THE EXTERIOR PERIMETER OF THE NEW PVC FENCING (FOR CLEAN, FINISHED APPEARANCE).

TURF GENERAL NOTES

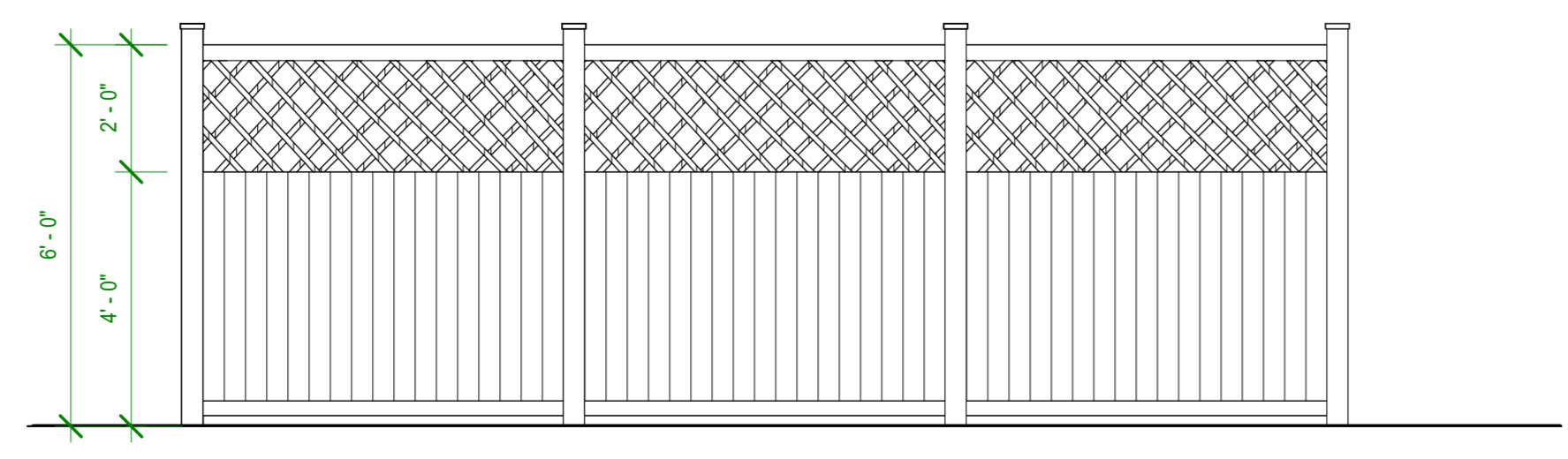
- NEW PET TURF TO BE INSTALLED. MFR: TIGER TURF. CONTACT VIC WATTERSON (WATERLESS TURF CO.) (PHONE: (949) 923-0923 (VIC HAS DONE VCA PROJECTS IN THE PAST))
- G.C. TO VERIFY POSITIVE DRAINAGE TOWARDS NEW TRENCH DRAINS. NOTIFY ARCHITECT IMMEDIATELY IF ANY WATER WOULD PUDDLE OR RUN TOWARDS THE BUILDING IN THE AREA OF THE PROPOSED TURF AREA.
- (FENCING INFO)
- BORDER OF 12" X 4" POLY BENDER BOARD (LYING FLAT AS A PERIMETER).
 - LEAVE OPEN SLOTS EVERY FOOT OR SO WITH BENDER BOARD FOR LIQUID TO DRAIN.
 - INSIDE THAT FRAME, INSTALL THE 1/2" DRAINAGE MEMBRANE.
 - LAY THE TURF ON TOP OF THE MEMBRANE & ATTACH IT TO PERIMETER POLYBOARD WITH STAINLESS SCREWS ALONG THE ENTIRE PERIMETER, AND WRAP IT OVER THE EDGE.



2
A0.6
DETAIL - EXTERIOR FENCE @ GROUND LEVEL
3" = 1'-0"



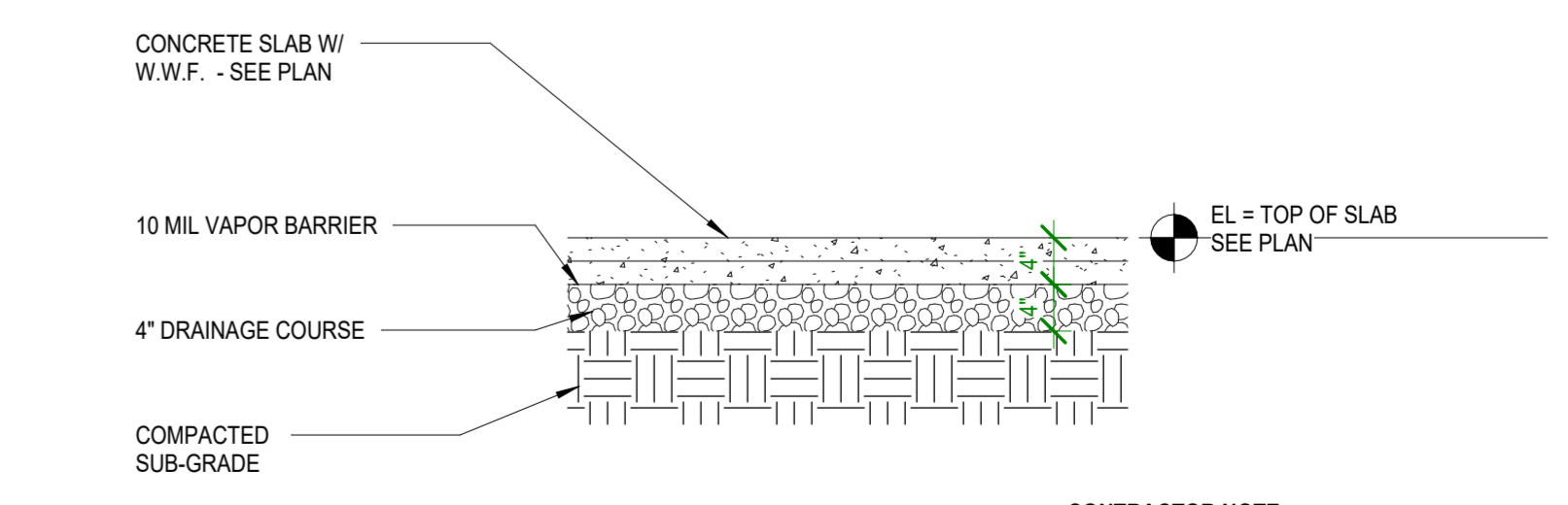
3
A0.6
DETAIL - EXT. FENCE AT BUILDING
2" = 1'-0"



4
A0.6
ELEVATION - LATTICE VINYL FENCE
3/8" = 1'-0"



(EXAMPLE) NEW WHITE PVC FENCING WITH LATTICE ABOVE



1
A0.6
SLAB DETAIL - TYPICAL SECTION ON GRADE
3/4" = 1'-0"

CONTRACTOR NOTE:
PROVIDE 1:50 CONCRETE SLOPE AWAY FROM BUILDING.

VCA WHITE LAKE ANIMAL HOSPITAL
7755 HIGHLAND RD WHITE LAKE, MI 48393

EXTERIOR FENCING & GROUND COVER PLAN

DATE: _____
PROJECT NUMBER: _____
SHEET: _____
NO. REVISIONS: _____

A0.6

THREE DRAWINGS ARE SHOWN IN CONJUNCTION WITH THIS DRAWING. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE GENERAL NOTES AND SPECIFICATIONS. ANY DISCREPANCY SHALL BE RESOLVED BY THE ARCHITECT. ALL DIMENSIONS SHALL BE IN UNITS OF FEET AND INCHES UNLESS OTHERWISE SPECIFIED. COPYRIGHT © 2024 MD ARCHITECTS

KIEFT ENGINEERING, INC.

5852 S. Main St.
 CLARKSTON, MICHIGAN 48346
 Phone: (248) 625-5251
 Fax: (248) 625-7110

LETTER OF TRANSMITTAL	
DATE: 4/12/2022	JOB NO. 2022.116
ATTENTION: Hannah Micallef	
RE: Centerpointe Plaza Site Plan	
Hand Delivered	

TO: White Lake Twp. - Community Development
 7525 Highland Road
 White Lake, MI 48383

- WE ARE SENDING YOU:
- Attached
 - Under separate cover via the following items
 - Shop Drawings
 - Prints
 - Plans
 - Samples
 - Specifications
 - Copy of Letter
 - Change Order
 - _____

Copies	Date	No.	Description
7 sets	4-11-22	3 sets	Site Plan (24"x36" Signed) & Architect Floor Plan
1	4-8-22	1 Pg.	Site Plan Review Application (Signed)
1		3 Pgs	Board of Directors signature authority authorization
1		1 Pg	VCA Narrative Letter

THESE ARE TRANSMITTED as checked below:

- For approval
- Approved as submitted
- Resubmit ___ copies for approval
- For your use
- Approved as noted
- Submit ___ copies for distribution
- As requested
- Return for corrections
- Return ___ corrected prints
- For review and comment
- For your file
- FOR BIDS DUE:

REMARKS Hannah,
 This submittal package was also emailed to you with a plan PDF.
 The client will be sending the application fee check for \$1,477.00 by Wednesday (4-13-22).

COPY TO: VCA Animal Hospitals, Inc.
 Eric Hittelman

Sincerely,
 Patrick McWilliams, P.E.

CHARTER TOWNSHIP OF WHITE LAKE
SITE PLAN REVIEW APPLICATION
Community Development Department, 7525 Highland
Road, White Lake, Michigan 48383
(248) 698-3300 x5

APPLICANT AND PROPERTY INFORMATION

Applicant: VCA Animal Hospitals, Inc.

Phone: (310) 442-4495 direct or (310) 571-6500 Email Address: eric.hittelman@vca.com

Address: 12401 West Olympic Blvd., Los Angeles, CA 90064
(Street) (City) (State) (Zip)

Applicant's Legal Interest in Property: Tenant

Property Owner: RSI Holdings, LLC Phone: (248) 698-4033

Address: c/o Robert Pope, 75 Jesswood Lane, White Lake, MI 48386
(Street) (City) (State) (Zip)

PROJECT INFORMATION

Project Name: Centerpointe Place Parcel I.D. No.: 12-21-276-023

Proposed Use: Animal Hospital Current Zoning: LB

Existing Use: none, newly built Parcel Size: 1.49 Acres Floor Area / No. of Units 5,533 SF

TYPE OF DEVELOPMENT

Subdivision Site Condominium Commercial

Multiple Family Special Land Use Industrial

Adult Entertainment

SITE PLAN SUBMITTAL CHECKLIST

PDF File and One Paper Copy (sealed and no larger than 24x36)

Application Review Fees (to be calculated by the Community Development Department)

*** PLANS WILL NOT BE ACCEPTED UNLESS FOLDED ***

REQUIRED SIGNATURES

DocuSigned by: Rob Pope 4/8/2022
310C4CE37847472 (Signature of Property Owner) (Date)

DocuSigned by: G. H. Lindell 4/8/2022
E571C9C94094495 (Signature of Applicant) (Date)

SIGNATURES TO BE VERIFIED BY THE TOWNSHIP

**ACTION TAKEN BY UNANIMOUS
WRITTEN CONSENT BY THE
BOARD OF DIRECTORS OF
THE CORPORATIONS IDENTIFIED ON SCHEDULE I**

August 15, 2021

The undersigned do hereby certify that they are the duly elected members of the board of directors (the “**Board**”) of each of the entities listed on Schedule I hereto (each, a “**Corporation**”) and that in accordance with the applicable corporate law of the State in which such Corporation is incorporated, they do hereby subscribe their written consent to the adoption of the following resolutions and the taking of the actions contemplated thereby:

Appointment of Officers

WHEREAS, the Board has determined that it is in the best interests of each Corporation to appoint Trevor Adams as Vice President, Chief Financial Officer, and Treasurer of such Corporation;

NOW, THEREFORE, BE IT RESOLVED, that the following persons be, and they hereby are, elected to the offices of each Corporation set forth opposite their respective names, to serve at the pleasure of the Board for the ensuing year and until their successors have been duly elected and qualified:

OFFICER NAME	OFFICER TITLE(S)
Todd Lavender	Chief Executive Officer/President/Chairman of the Board
Trevor Adams	Vice President/Chief Financial Officer/Treasurer
Garrett Lewis	Chief Operations Officer
Neil Tauber	Senior Vice President/Assistant Secretary
Gina Lindell	Vice President/General Counsel/Secretary
Keith Melman	Assistant Secretary

General.

FURTHER RESOLVED, that each of the named officers of each Corporation be, and hereby is, authorized, for and on behalf of such Corporation, to execute and deliver any and all additional documents, instruments and agreements, and to perform or cause to be performed any and all acts as may, in their judgment, be necessary or desirable to accomplish the purposes of the foregoing resolutions and the transactions contemplated thereby.

This written consent may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Facsimile signatures shall be fully binding and effective for all purposes and shall be given the same effect as original signatures.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the undersigned have executed this unanimous written consent of the Board as of the date first above written.

DocuSigned by:
Todd Lavender
594F5144E3A8402

Todd Lavender

DocuSigned by:
Trevor Adams
EEE4DD1ACFED404

Trevor Adams

DocuSigned by:
Gina Lindell
E571C9694091495...

Gina Lindell

DocuSigned by:
Neil Tauber
10375F3524AB41C

Neil Tauber

SCHEDULE I
CORPORATIONS

NO.	CORPORATION NAME	JURISDICTION OF ORGANIZATON
1.	Animal Care Center at Mill Run, Inc.	Ohio
2.	Animal Care Centers of America, Inc.	Ohio
3.	Edgebrook, Inc.	New Jersey
4.	Pet Partners Management of California, Inc.	California
5.	South County Veterinary Clinic, Inc.	California
6.	VCA - Asher, Inc.	California
7.	VCA Animal Hospitals, Inc.	California
8.	VCA Maple Leaf, Inc.	California
9.	VCA of New York, Inc.	Delaware
10.	VCA Real Property Acquisition Corporation	California
11.	Veterinary Centers of America-Texas, Inc.	Texas



VCA WHITE LAKE ANIMAL HOSPITAL

Proposed Relocation Site:

**7755 Highland Road
White Lake, Michigan 48383 (the "Premises")**

About VCA

VCA was founded in 1987 and operates over 1,000 neighborhood animal hospitals throughout the United States and Canada, employing over 6,000 veterinarians and thousands more support staff. VCA delivers world-class veterinary medicine with hometown care, powered by the people who carry on our shared legacy of excellence at each of our local hospitals.

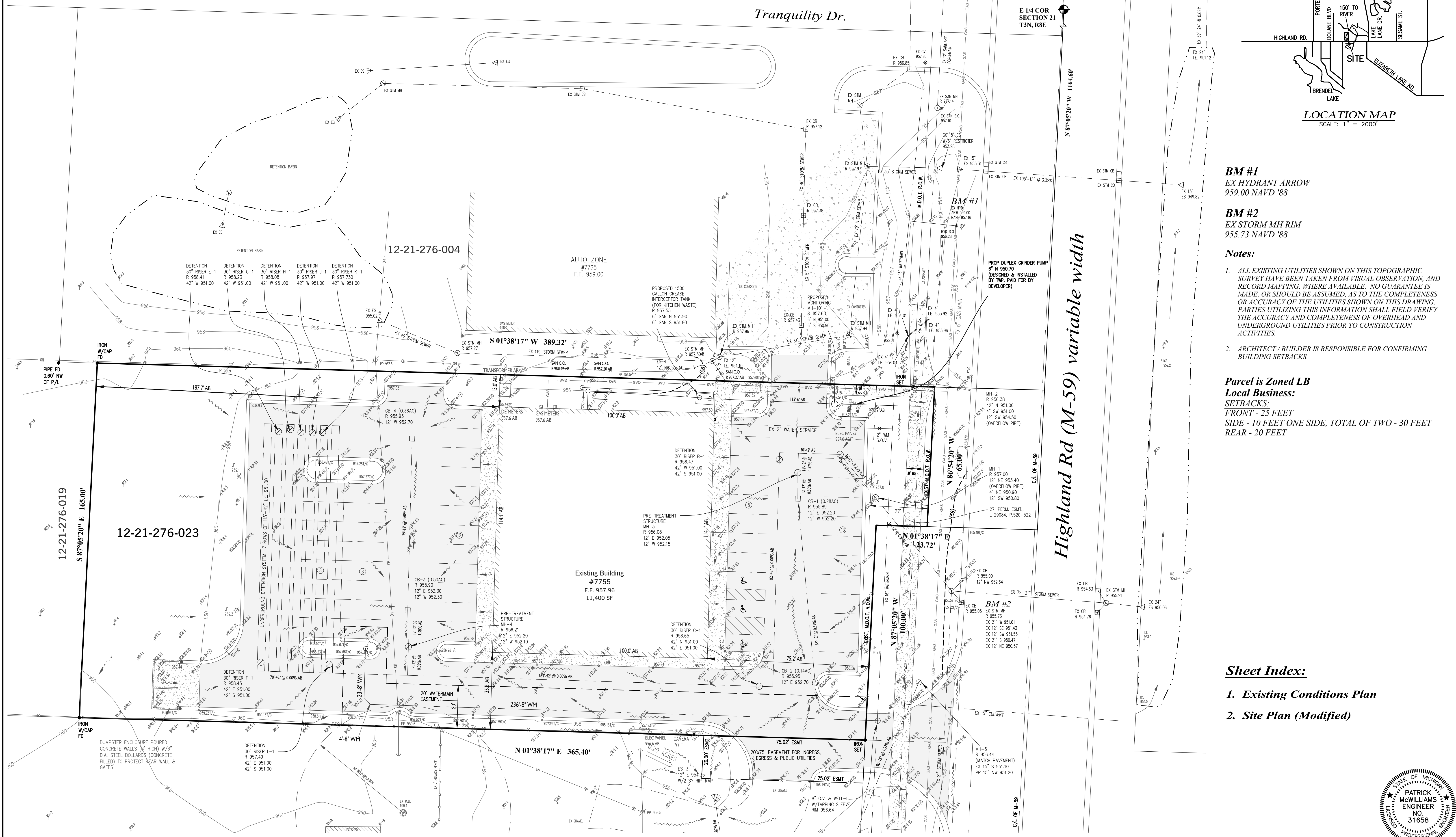
About VCA White Lake Animal Hospital

VCA White Lake Animal Hospital is a General Practice Veterinary Hospital that will provide a variety of services to the general public. The proposed use at the Premises is as veterinary hospital, providing services such as primary care, preventative care, dental care and other veterinary specialties, grooming, and retail sales specialty pet foods and pharmaceuticals. Any boarding services or overnight care shall be incidental to the clinical work of the hospital. Hospital Staff includes two veterinarians, six veterinary support staff and one hospital manager/administrator. Hospital hours are expected to be:

Monday through Friday:	9:00 am to 5:00 pm
Saturday:	9:00 am to 1:00 pm
Sunday:	Closed

Parcel 12-21-276-023:

THE SOUTH 150 FT OF EAST 65 FT OF THE WEST 165 OF THE SE 1/4 OF THE NE 1/4 EXCEPTING M-59 HIGHWAY, ALSO PART OF THE SE 1/4 OF SECTION 21, T3N, R8E, WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS BEGINNING AT A POINT LOCATED N 87-05-20 W 1164.60 FT & N 01-38-17 E 150 FT FROM THE E 1/4 CORNER, SECTION 21, T3N, R8E; TH N 87-05-20 W 65.00 FT; TH S 01-38-17 W 75 FT; TH N 87-05-20 W 100.00 FT; TH N 01-38-17 E 365.40 FT; TH S 87-05-20 E 165 FT; TH S 01-38-17 W 290.40 FT TO THE POINT OF BEGINNING. CONTAINING 1.49 ACRES. SUBJECT TO EASEMENTS & RESTRICTIONS OF RECORD, IF ANY.



- BM #1**
EX HYDRANT ARROW
959.00 NAVD '88
- BM #2**
EX STORM MH RIM
955.73 NAVD '88

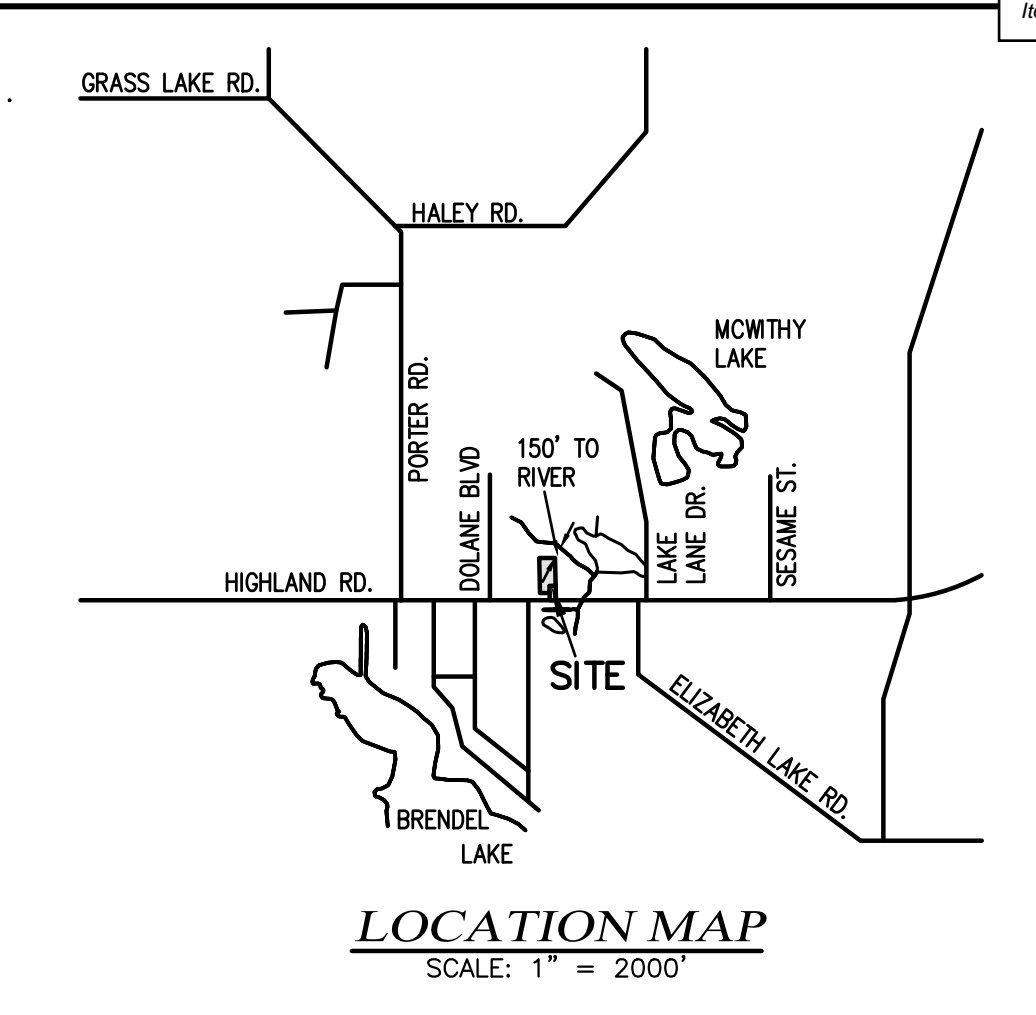
Notes:

- ALL EXISTING UTILITIES SHOWN ON THIS TOPOGRAPHIC SURVEY HAVE BEEN TAKEN FROM VISUAL OBSERVATION, AND RECORD MAPPING, WHERE AVAILABLE. NO GUARANTEE IS MADE, OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS OF OVERHEAD AND UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES.
- ARCHITECT / BUILDER IS RESPONSIBLE FOR CONFIRMING BUILDING SETBACKS.

Parcel is Zoned LB
Local Business:
SETBACKS:
FRONT - 25 FEET
SIDE - 10 FEET ONE SIDE, TOTAL OF TWO - 30 FEET
REAR - 20 FEET

Sheet Index:

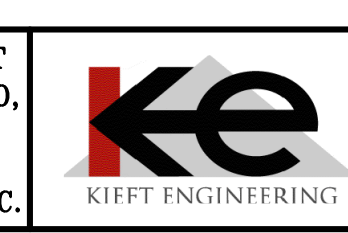
- Existing Conditions Plan
- Site Plan (Modified)



DATE	ISSUE

PROPRIETOR:
RSI HOLDINGS, LLC
75 JESSWOOD LANE
WHITE LAKE, MI 48386
(248) 698-4033

THIS DRAWING IS THE PROPERTY OF KIEFT ENGINEERING, INC. AND MAY NOT BE USED, REPRODUCED OR PUBLISHED, IN PART OR IN WHOLE, WITHOUT EXPRESSED WRITTEN PERMISSION FROM KIEFT ENGINEERING, INC.



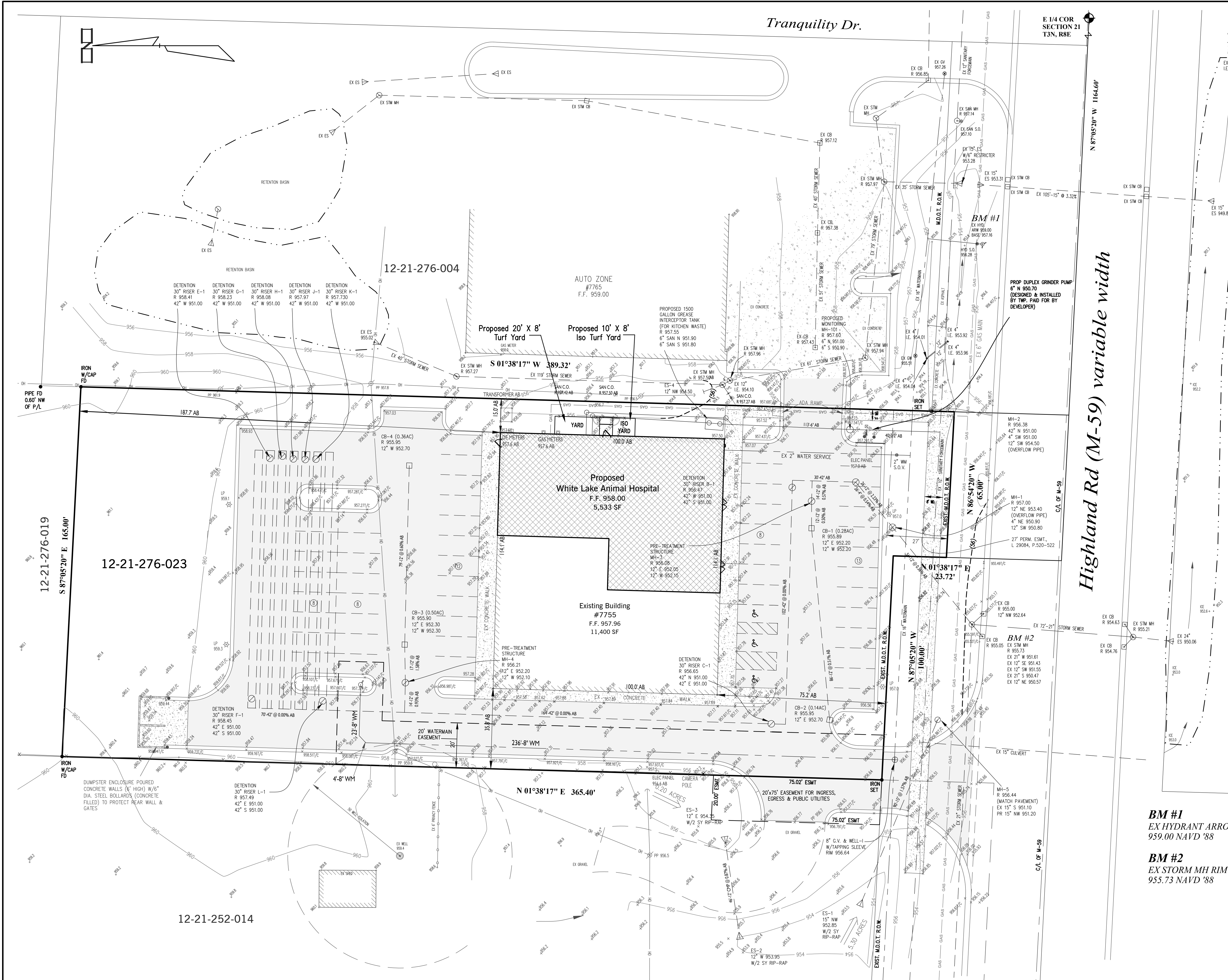
KIEFT ENGINEERING, INC.
PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS
5852 SOUTH MAIN STREET, SUITE 1, CLARKSTON, MICHIGAN 48346
PHONE (248) 625-5251 www.kiefteng.com FAX (248) 625-7110

DATE	4-11-2022	CKD. BY	DATE
DRAWN GF			
DESIGN PCM			
SECTION 21		T-3-N, R-8-E	



Existing Conditions Plan
"CENTERPOINTE PLAZA"
WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE 1" = 20'
SHEET 1 OF 2
KE 2022.116



VARIOUS PROTOCOLS FOR TURF YARD USE AND MAINTENANCE

1. Only one pet allowed in each yard at a time;
2. Any pet utilizing the yard is to be leashed;
3. No unattended pets at any time;
4. Attendant to appropriately dispose of any pet waste immediately;
5. Each yard to be kept from of Pet waste and any debris, and cleaned on a daily basis;
6. Each yard to be watered daily to flush any fluid wastes through the natural substrate (turf-based yards).

LEGEND

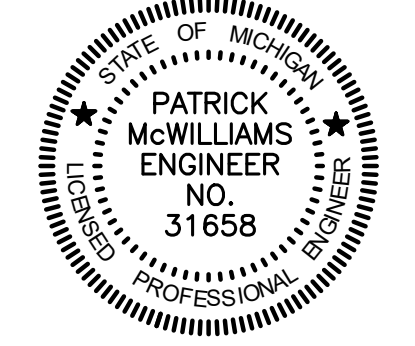
--- (dashed line)	EXISTING	--- (dashed line)	STORM SEWER
--- (dotted line)	GAS	--- (dotted line)	SANITARY SEWER
--- (dash-dot line)	WATERMAIN	--- (dash-dot line)	GAS MAIN
--- (long-dash line)	ELEC. TELE. CABLE	--- (long-dash line)	ELEC. TELE. CABLE
--- (short-dash line)	EXISTING OVERHEAD	--- (short-dash line)	EXISTING OVERHEAD
--- (dash-dot-dot line)	WETLAND LIMITS	--- (dash-dot-dot line)	WETLAND LIMITS
--- (dotted line with cross-hatch)	25' NATURAL FEATURES SETBACK	--- (dotted line with cross-hatch)	25' NATURAL FEATURES SETBACK
--- (dotted line with circles)	STORM MANHOLE	--- (dotted line with circles)	STORM MANHOLE
--- (dotted line with squares)	CATCH BASIN	--- (dotted line with squares)	CATCH BASIN
--- (dotted line with triangles)	INLET	--- (dotted line with triangles)	INLET
--- (dotted line with diamonds)	REARYARD CATCH BASIN	--- (dotted line with diamonds)	REARYARD CATCH BASIN
--- (dotted line with stars)	END SECTION	--- (dotted line with stars)	END SECTION
--- (dotted line with crosses)	SANITARY MANHOLE	--- (dotted line with crosses)	SANITARY MANHOLE
--- (dotted line with dots)	GATE VALVE AND WELL	--- (dotted line with dots)	GATE VALVE AND WELL
--- (dotted line with pluses)	HYDRANT	--- (dotted line with pluses)	HYDRANT
--- (dotted line with asterisks)	CONTOURS	--- (dotted line with asterisks)	CONTOURS
--- (dotted line with X's)	POWER POLE	--- (dotted line with X's)	POWER POLE
--- (dotted line with hash marks)	LIGHT POLE	--- (dotted line with hash marks)	LIGHT POLE
--- (dotted line with circles and dots)	GRADE	--- (dotted line with circles and dots)	GRADE
--- (dotted line with stars and dots)	SOIL BORING	--- (dotted line with stars and dots)	SOIL BORING
--- (dotted line with triangles and dots)	DEMOLITION LIMITS	--- (dotted line with triangles and dots)	DEMOLITION LIMITS

Proposed Tenant Applicant:

VCA Animal Hospitals, Inc.
 12401 West Olympic Blvd.
 Los Angeles, CA 90064
 Attention: Eric Hittelman
 Cell: (310) 442-4495
 Office: (310) 571-6500
 Email: eric.hittelman@vca.com

BM #1
 EX HYDRANT ARROW
 959.00 NAVD '88

BM #2
 EX STORM MH RIM
 955.73 NAVD '88



DATE	ISSUE

PROPRIETOR:
 RSI HOLDINGS, LLC
 75 JESSWOOD LANE
 WHITE LAKE, MI 48386
 (248) 698-4033

THIS DRAWING IS THE PROPERTY OF KIEFT ENGINEERING, INC. AND MAY NOT BE USED, REPRODUCED OR PUBLISHED, IN PART OR IN WHOLE, WITHOUT EXPRESSED WRITTEN PERMISSION FROM KIEFT ENGINEERING, INC.



KIEFT ENGINEERING, INC.
 PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS
 5852 SOUTH MAIN STREET, SUITE 1, CLARKSTON, MICHIGAN 48346
 PHONE (248) 625-5251 www.kiefteng.com FAX (248) 625-7110

DATE 4-11-2022	CKD. BY	DATE
DRAWN GF		
DESIGN PCM		
SECTION 21	T-3-N-R-8-E	

Site Plan (Modified)
 "CENTERPOINTE PLAZA"
 WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE 1" = 20'
SHEET 2 OF 2
KE 2022.116



VCA WHITE LAKE ANIMAL HOSPITAL

SPACE PLAN

PRESENTED BY:



**WHITE LAKE TOWNSHIP
NOTICE OF PUBLIC HEARING**

Notice is hereby given of a public hearing by the White Lake Township Planning Commission on **Thursday, May 19, 2022 at 7:00 P.M.** at the Township Annex, 7527 Highland Road, White Lake, Michigan, 48383, to consider the following request for Special Land Use Approval, under Zoning Ordinance No. 58 – Article 4, Section 6, Animal Care Facilities.

Property described as parcel number 12-21-276-023 (7755 Highland Road), located on the north side of Highland Road, west of Elizabeth Lake Road, consisting of approximately 1.27 acres.

Applicant is requesting to **establish and operate an animal hospital.**

Persons interested are requested to be present. Pertinent information relative to this matter is on file at the White Lake Township Community Development Department and may be examined at any time during regular business hours of 8 a.m. to 5 p.m. Persons interested may visit the White Lake Community Development Department, contact the White Lake Community Development Department by telephone at 248-698-3300, ext. 5, or attend the Public Hearing on the date specified. Written comments are also welcome at 7525 Highland Road, White Lake, MI 48383. Individuals with disabilities requiring auxiliary aids or services should contact the Clerk's Office at least 5 days before the hearing.

Sean O'Neil, AICP
Community Development Director

Director's Report

Project Name: Comfort Care White Lake
 Description: Rezoning & Preliminary Site Plan Approval
 Date on Agenda this packet pertains to: May 19th, 2022

- | | |
|---|--|
| <input type="checkbox"/> Public Hearing
<input type="checkbox"/> Initial Submittal
<input checked="" type="checkbox"/> Revised Plans
<input checked="" type="checkbox"/> Preliminary Approval
<input type="checkbox"/> Final Approval | <input type="checkbox"/> Special Land Use
<input checked="" type="checkbox"/> Rezoning
<input type="checkbox"/> Other: _____ |
|---|--|

Contact	Consultants & Departments	Approval	Denial	Approved w/Conditions	Other	Comments
Sean O'Neil	Planning Director	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Based on comments from staff and consultants
DLZ	Engineering Consultant	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 5/12/2022
Justin Quagliata	Staff Planner	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 5/11/2022
Jason Hanifen	WLT Fire Marshal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See letter dated 05/11/2022
Jeanine Smith	Assessor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See memo dated 4/27/2022



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

May 12, 2022

Sean O' Neil
Community Development Department
Charter Township of White Lake
7525 Highland Road
White Lake, Michigan 48383

RE: Comfort Care Assisted Living- Preliminary Site Plan Review – 4th Review

Ref: DLZ No. 2145-7233-19

Design Professional: Griggs Quaderer Inc.

Dear Mr. O' Neil,

Our office has performed the above mentioned Preliminary Site Plan review of the revised plan dated April 12, 2022. The plans were reviewed for feasibility based on general conformance with the Township Engineering Design Standards.

General Site Information

This site is located on the west side of Union Lake Road between Hutchins and Cooley Lake Roads. The property abuts the existing Preserve at Hidden Lake residential development just to the north and the future West Valley residential development to the southwest. Total site acreage is approximately 8.6977 acres.

Site Improvement Information:

- Construction of a (1) one story assisted living and memory care building totaling 57,443 square feet.
- Associated paved and curbed parking including ADA accessible parking spaces and maneuvering aisles.
- Site to be serviced by watermain and sanitary sewer.
- Storm water runoff is proposed to be detained in a proposed detention basin located on the south side of the parcel. Discharge is proposed to the future West Valley development's storm sewer located to the southwest.



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

WLT-Comfort Care Assisted Living- PSP Review.04

May 12, 2022

Page 2 of 7

Comments from our previous review letter dated January 27, 2022 are in *italics*. Responses to those comments are in **bold**. New comments are in standard typeface.

The following items should be noted with respect to Planning Commission review:

- a) *The plan proposes a future emergency access drive with connection to the emergency access drive stub for the West Valley development. DLZ notes the West Valley development is not constructed, thus rendering the proposed stub with no connection should the West Valley site not move forward. In addition, the proposed location of the Comfort Care stub as shown on the plan does not align with the proposed stub location shown on the previously approved West Valley Final Engineering Plan which would require modification of the West Valley plans and easement documents. We request a turning radius profile be provided for this proposed access route utilizing a 40-foot vehicle to demonstrate feasibility. Comment outstanding. While a turnaround radius profile for a 40' vehicle has been provided for the emergency access route, the design engineer still proposes the emergency access drive in a location that does not align with the stub shown on the approved West Valley engineering plan. Revisions to the West Valley plans/easements will be required for use of this access route. Comment addressed. The design engineer in their response letter has stated that they are working with the designer of West Valley; West Valley is flexible on the final location of the emergency access drive. We find this acceptable at the Preliminary Site Plan level of review. However, final details shall be required at the time of Final Site Plan/Final Engineering Plan submittal. We also note that consideration of the emergency access drive location proposed on the West Valley site should be evaluated to determine if there are any setback requirements relative to the proposed adjacent residential structure.*
- b) *Should the proposed plan not be able to achieve emergency access to the future West Valley development, a means of secondary access to the proposed facility should be considered due to the nature of the use of the facility. In addition, there is the concern that only one means of access to the site could pose access issues for the existing residence that would also utilize the sole entrance to Comfort Care. Should this entrance become blocked, the existing residence would have no other means of egress from their property. We also question whether the language for the existing 60' access easement allows for multiple users of this easement for access. An alternate emergency access drive is now shown on the plans with connection to Union Lake Road, presumably in the event the West Valley Development is not available for connection. Details regarding proposed alternate emergency access drive width and turning radius profile for a 40' emergency vehicle shall be provided. Provide details on whether this access drive would also be utilized for site access and if not,*

how would the drive be blocked off from use. Note also that the existing and proposed steep grades in the area of the alternate drive may pose a difficulty in placement of such drive with respect to emergency vehicle access. Provide details to demonstrate the angle of approach will not pose an issue for fire trucks. Comment partially addressed. The design engineer has stated that either emergency access through West Valley or off Union Lake Road will be provided. Drive width and a turning radius profile for a 40' emergency vehicle has been provided for the proposed emergency access drive off Union Lake Road. The access drive would be gated with a Knox Box provided for emergency vehicle access only. The concern regarding the existing and proposed steep grades for this drive has not been addressed but can be further clarified at the time of Final Site Plan. **Comment rescinded. The applicant is no longer pursuing an emergency access off Union Lake Road and the secondary access is entirely dependent upon West Valley being developed.**

- c) Developer for Comfort Care will need to ensure that a means of access to the existing house to the west is maintained at all times during construction, especially during construction of the proposed drive and drive approach. A separate construction entrance for construction vehicles is recommended. Comment addressed and remains as a notation. A separate construction entrance is proposed. DLZ notes the existing grades in this area are steep and additional details will be required at the time of Final Site Plan/Final Engineering Plan submittal to demonstrate temporary grading. **Comment addressed. A separate construction entrance is now shown in an area of less steep grades. Additional details can be provided at the time of Final Site Plan/Final Engineering Plan.**
- d) It will need to be clarified as to how the proposed retaining wall adjacent to the three existing trees on the residential property to the west shall be installed without damage (particularly root damage) to these trees. The proposed wall location is extremely close to these trees. Plans do not appear to address this concern; it should be noted by the Planning Department and Planning Commission that damage/loss of these trees is likely. **Comment addressed at this level of review and remains as a notation. Design engineer has stated that wall has been moved back toward the curb to line up with back of curb, which will provide an additional 3' of separation for a total of 12' of separation between the wall and the existing trees. A note indicating that any existing damaged trees shall be replaced by the responsible party shall be added to the Final Site/Final Engineering Plan.**
- e) There is a concern regarding the proximity of the proposed storm sewer along the southwestern side of the site relative to the proposed retaining wall; the storm sewer will need to be located outside of the influence of the wall (at a minimum of 10' horizontal separation) with respect to lateral and vertical stresses. The storm sewer location has been adjusted slightly. There is still a concern near

the south building corner where the proposed storm sewer is shown approximately 3' off of the decorative retaining wall. **The proposed wall has been moved further west and away from the proposed storm sewer. Note that off-site grading easements from the property to the west and from West Valley may be required for construction of the retaining wall as the proposed retaining wall is now shown 3' from the west property line. This item can be considered addressed for this level of review; however further revisions may be required at the time of Final Site/Final Engineering Plan review.**

- f) *The design for the detention basin proposes discharge into the future West Valley storm sewer. The existing West valley storm system will need to be redesigned to accommodate this additional discharge as the proposed West Valley system was at hydraulic capacity prior to accounting for these discharges. This additional discharge will require modification to the West Valley storm water discharge permit. Design engineer has stated the following in their response letter dated January 11, 2022: "West Valley will revise their storm water system to incorporate the additional runoff from this site. Should West Valley not be able to incorporate the additional runoff, we will revise the storm water management utilizing a retention basin. The soils for this site are sandy and suitable for a retention basin based on initial conversation with the geotechnical consultant. We will have the final soils report during final site plan review."* **DLZ notes that the change from detention to retention will require additional pond area and relocation of proposed landscaping. We defer to the Township as to whether such a change with respect to stormwater management on the Final Site/ Final Engineering Plan would require a revised Preliminary Site Plan to be submitted for administrative review. Comment remains as a notation. Design engineer has stated in their April 11, 2022 response letter that West Valley will revise their storm sewer system and incorporate the restricted runoff from the Comfort Care detention basin.**
- g) *The layout for the water main proposes a second connection to the watermain stub to the southwest provided by the future West Valley development. Note that West Valley has not been constructed so a second connection point for the watermain will not be feasible until West Valley has been constructed. This would result in a dead end main >600' in length which is not allowable per WLT Engineering and Design Standards. Note watermain easements are required to be 20' wide; plan currently proposes 15' wide easements. Wording on plan should also be revised on the Site Utility Plan from existing West Valley stub to proposed stub. Comment partially addressed. The proposed watermain is now shown in a 20' wide easement. The remaining portion of this comment remains outstanding. If the West Valley development is not available for connection, the proposed watermain extension would be a dead end of approximately 1,000 feet with the last 400 feet being stagnant, which is undesirable from a water quality standpoint. An alternate layout may need to be considered*



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

WLT-Comfort Care Assisted Living- PSP Review.04

May 12, 2022

Page 5 of 7

in the event West Valley is not constructed. An alternate route has been provided showing a secondary water main connection to the existing water main along Union Lake Road in the event that connection to the West Valley water main is not feasible. Further analysis will be required at the time of Final Site Plan submittal to determine pressure reducing valve requirements if the connection to West Valley is not feasible. The applicant needs to be prepared for the need for a second pressure reducing valve and vault at the second watermain connection. **Comment addressed. The design engineer has indicated that this site will tie into West Valley's watermain system as a secondary watermain connection.**

The following comments can be addressed on the Final Site Plan/Final Engineering Plan:

Final Site Plan/Final Engineering Plan Comments-

General

1. *Plan shall contain notes per White Lake Township Engineering Design Standards Section A. 8. a.-d.* **Comment outstanding.**

Paving/Grading

1. *ADA accessible ramps will be required on sidewalk adjacent to ADA parking spaces. Ramp slopes shall meet ADA requirements.* **Comment remains as a notation. A ramp detail shall be required on the Final Site Plan/Final Engineering Plan.**
2. *Structural wall calculations, that have been signed and sealed by a Registered Structural Engineer, verifying the wall integrity and the ability to support lateral and vertical stresses will need to be provided for retaining walls over 30" tall.* **Comment outstanding.**
3. *A retaining wall may be required in the greenspace area between the proposed sidewalk along Union Lake Road and the southeast corner of the building; the grades will need to be verified in this area to ensure they do not exceed 33%.* **Comment outstanding.**

Watermain

1. *We defer to the Fire Department regarding items related to fire suppression and hydrant coverage.* **Comment remains as a notation.**
2. *Remove all references to Genessee County on the water main notes on Sheet C400- Site Utility Plan. Note that all notes regarding proposed utilities shall be per White Lake Township standards.* **Comment addressed.**



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

WLT-Comfort Care Assisted Living- PSP Review.04

May 12, 2022

Page 6 of 7

Sanitary Sewer

1. *Additional details regarding the sanitary lead and connection will be required; a monitoring manhole shall be provided as well as a wye in the lead line which will bypass the oil and grease separator. The line with the oil and grease separator shall be directly connected only and to all kitchen/food prep areas. **Comment partially addressed. The monitoring manhole shall be located downstream of the proposed oil and grease separator.***

Stormwater Management

1. *The design engineer will need to demonstrate that the proposed storm sewer material (ADS HD) will maintain its integrity when located under proposed pavement, otherwise use CLIV Reinforced Concrete pipe within pavement influence. **Comment outstanding.***
2. *Sheet C300 – Site Grading Plan indicates a 15' wide storm sewer easement for West Valley; easement width is 12'. **Comment addressed. Easement now shown as 12' wide.***
3. *Clarify on the Soil Erosion Plan as to why the OCS structure in the basin is to be temporary. **Comment outstanding.***
4. *Clarify reference to South Pond on OCS#2 detail on Site Details sheet. **Comment addressed.***

Landscape Plan

1. *Landscaping shall be revised such that proposed trees are located a minimum of 10' horizontal separation from all watermain, sanitary sewer, and storm sewer. Note that proposed trees appear too close to storm sewer along the western property line. **Comment outstanding.***

Recommendation

Engineering feasibility for the proposed site is entirely dependent on the West Valley development being modified and constructed before the Comfort Care development in order to have utility access and secondary emergency access. DLZ recommends approval contingent upon successful modification to the West Valley plans and completion of the West Valley Watermain, Storm Sewer, and roads for beneficial use of the Comfort Care development.



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

WLT-Comfort Care Assisted Living- PSP Review.04

May 12, 2022

Page 7 of 7

Please feel free to contact our office should you have any questions.

Sincerely,

DLZ Michigan

Michael Leuffgen, P.E.
Department Manager

Victoria Loemker, P.E.
Senior Engineer

Cc: Justin Quagliata, Community Development, *via email*
Hannah Micallef, Community Development, *via email*
Aaron Potter, DPS Director, White Lake Township, *via email*
John Holland, Fire Chief, White Lake Township, *via email*
Jason Hanifen, Fire Marshal, White Lake Township, *via email*

X:\Projects\2021\2145\723319 WLT Comfort Care A\PSP- Review.04\Review.04.docx

WHITE LAKE TOWNSHIP PLANNING COMMISSION

REPORT OF THE COMMUNITY DEVELOPMENT DEPARTMENT

TO: Planning Commission

FROM: Sean O’Neil, AICP, Community Development Director
Justin Quagliata, Staff Planner

DATE: May 11, 2022

RE: Comfort Care
Rezoning and Preliminary Site Plan – Review #4

Staff reviewed the revised site plan prepared by Griggs Quaderer Inc. (revision date April 12, 2022). At its February 3, 2022 meeting the Planning Commission tabled the rezoning and preliminary site plan (PSP) applications to provide the Developer an opportunity to address issues raised with the prior proposal. Comfort Care has requested rezoning to PD (Planned Development) and PSP approval to construct an independent living, assisted living, and memory care facility at Parcel Number 12-36-176-002, located on the west side of Union Lake Road, south of Preserve at Hidden Lake. The subject site is approximately 7.49-acres in size (net area) and currently zoned LB (Local Business).

The building was reduced in size from 66,842 square feet and 70 units to 57,443 square feet and 60 units (9,399 square foot and 10-unit reduction). With the reduction of area, the building width was reduced from 497’-8” to 420’-8” (77-foot reduction). Overall, there would 40 assisted living units consisting of 10 studio units, 10 one-bedroom units, four two-bedroom units, 16 memory care studio units and 20 independent living units (apartments) consisting of two, 918 square foot studio units, ten, 685 square foot one-bedroom units, and eight, 1,038 square foot two-bedroom units. Each apartment unit would contain a porch (if at the exterior of the building) or a patio (for interior (courtyard facing) units). Apartments accessed from the exterior of the building would also have a door provided to a common hallway circulating through the wing of the building. Near the center of the building, the conceptual floor plan shows a theater and salon. Common areas would be provided for each section of the building, with dining areas centrally located within the assisted living and memory care areas.

Access

The previously proposed alternate emergency access onto Union Lake Road is no longer shown on the site plan. A 20-foot-wide asphalt emergency access drive is proposed to connect to the adjacent parcel to the south, which was previously granted site plan approval for a 69-unit ranch-style apartment complex known as West Valley, which has not yet commenced construction. **The curb and gutter across the north end of the emergency access drive shall be removed. Additionally, curb and gutter shall be installed on each side of the secondary access drive. Furthermore, staff recommends the Planning Commission require the posting of ‘No Parking’ signs within the drive (designation of fire lane).**

Community / Public Benefit

A public benefit must be provided, in part, to offset the impact(s) of development on the Township. When Comfort Care was last before the Planning Commission, the Developer verbally offered \$5,000 to the Parks and Recreation Fund as a community/public benefit. Commissioners expressed the amount of the proposed contribution was not adequate and suggested adding a zero to the contribution amount initially proposed. The Developer previously indicated this was an approximately \$12,000,000 project. If Comfort Care offered \$50,000 as suggested by the Planning Commission, close to 0.5% of the overall project cost would be provided as a public benefit. Without a community/public benefit to justify allowing a Planned Development (PD), staff would not recommend rezoning the property to PD, but rather RM-1 (Attached Single Family) or RM-2 (Multiple Family). If the property is not rezoned to PD but rather RM-1 or RM-2, then there would be no public benefit required and the Developer could request variances from the Zoning Board of Appeals to deviate from the ordinance. Staff supports the suggestion of the Planning Commission; if the proposed public benefit is materially different, staff recommends RM-1 or RM-2 zoning for this property.

Density

Per the Master Plan, in Planned Neighborhood net residential densities are anticipated to range between 2.0 and 8.0 units per acre. As requested by the Planning Commission, the number of units was reduced by ten (10), from 70 to 60. With 60 total units on approximately 7.49-acres, density of the proposed project is eight (8) dwelling units per acre (du/a).

Building Architecture and Design

Starting with the first PSP review, staff recommended the front facade of the building be divided vertically into segments no greater than 60 feet wide and relief of the facade be achieved by utilizing varying high-quality building materials, with each of the articulated segments recessed/off-set (change in the building plane) at least two and no more than five feet across the front facade. The conceptual floor plan and exterior elevations incorporate the above-mentioned design features. The public entrance to the building (where the porte cochere projects outward) is 55’–8” wide, with said segment off-set seven (7) feet from the main plane of the front facade. There are also two, 47’–4” wide building segments, located east and west of the public entrance to the building, which off-sets 2’–6” from the main plane of the front facade.

Landscape and Screening

A 20-foot greenbelt is now proposed along the future Union Lake Road right-of-way; therefore, the previously requested waiver from the minimum greenbelt width is no longer necessary. A retaining/screen wall is now proposed along the drive aisle/maneuvering lane parallel to the rear property line. The zoning ordinance requires a screen wall be six feet in height, eight inches in width (faced with a decorative masonry product), with a five-foot greenbelt adjacent to the screen wall for its entire length planted with one large deciduous or evergreen tree and eight shrubs for every 30 linear feet. The masonry wall cross sections on Sheet C600 show the wall is 8-inch split-face block (color to match building) with 2-inch high, 1'-4" wide precast concrete or sandstone cap. The wall detail said the height varies; **the detail shall be revised to indicate a minimum six-foot wall height.**

Other initial landscape plan comments include:

- The 980 square foot landscape area is not considered parking lot landscaping and shall be removed from said calculation. **Revise accordingly.**
- Trees shall not be planted closer than four feet to a property line. **Add note to landscape plan at final site plan.**
- All required landscape areas in excess of 200 square feet shall be irrigated to assist in maintaining a healthy condition for all plantings and lawn areas. **An irrigation plan shall be provided at final site plan.**
- All required site irrigation systems shall include a rain sensor or similar measure to ensure irrigation does not occur during or shortly after precipitation events. All site plans shall note installation of required irrigation. **Add note to plans at final site plan.**
- Note 9 on the landscape plan mentions mulch. Sheet C500 also contains a mulch and edging detail. The zoning ordinance states the mulch product itself shall be at least doubled-shredded quality. **Revise accordingly.**
- The Planting Requirements table on Sheet C500 shall be revised to indicate the screen wall requirements for the 'Residential Buffer (west side)' minimum requirement.
- Trees identified for protection during construction and the means of protection shall be identified at final site plan. No construction shall occur until tree protection has been installed and approved by the Community Development Director.

Parking

Additional parking is shown on the revised site plan. Previously, 56 parking spaces were provided (56 spaces are required to serve the development). On the revised plan, 62 parking spaces are provided.

Waivers

Based on the submitted site plan, the following waivers are required:

- Building setback: 19-foot front canopy setback (56-foot waiver)
- Building setback: 45-foot rear building setback (30-foot waiver)
- The zoning ordinance requires three loading spaces for a development of this size. A waiver to eliminate two of the three required loading spaces is requested.
- For a majority of its length, the screen wall is three feet from the rear property line. Therefore, a two-foot waiver from the required screen wall greenbelt width is required.
- 766 shrubs are required for interior landscaping, and 722 interior shrubs are proposed. Therefore, a 44-shrub waiver from the required interior landscaping is requested.

An updated list of all requested waivers shall be provided on Sheet C200 of the site plan.

Other miscellaneous comments and/or notations

- The Developer’s architect previously indicated there would be bay windows across the front of the building. **Bay windows are not labeled on Sheet A1 or Sheet A2; clarify if bay windows are proposed and revise accordingly.**
- A sample board of building materials to be displayed at the Planning Commission meeting and elevations in color are required by the zoning ordinance and must be submitted at final site plan. Additionally, the address (street number) location shall be shown on the building. Six-inch-tall numbers visible from the street shall be required. The address location is subject to approval of the Township Fire Marshal.
 - **Comment remains as a notation – must be addressed at final site plan.**
- Details for the items to be located on the patio...shall be provided at final site plan.
 - **Comment remains as a notation – must be addressed at final site plan.**
- Accessory items such as railings, benches, trash receptacles, outdoor seating (such as tables and chairs), or sidewalk planters located in the vicinity of sidewalks and/or outdoor seating areas are required to be of commercial quality and complement the building design and style. These details shall be provided at final site plan.
 - **Comment remains as a notation – must be addressed at final site plan.**
- If units revert to general occupancy, then two parking spaces per unit shall be provided.
 - **Comment remains as a notation.**
- Information on site lighting will be reviewed in detail during final site plan review.
 - **Comment remains as a notation.**
- The frontage sidewalk along Union Lake Road shall be constructed through the driveway (concrete sections through the approach). **Revise accordingly.**

Planning Commission Options / Recommendation

The Planning Commission may recommend approval or denial of the rezoning request, or it may recommend a different zoning designation than proposed by the applicant to the Township Board. The Planning Commission may recommend approval, approval with conditions, or denial of the preliminary site plan to the Township Board. **Staff recommends approval of the rezoning, and approval of the preliminary site plan subject to the items identified in this memorandum being addressed at final site plan.**

The following notations summarize the preliminary site plan review:

- Recommendation of approval is in accordance with the plans prepared by Griggs Quaderer Inc. (revision date ~~October 28, 2021~~ ~~December 13, 2021~~ ~~January 12, 2022~~ **April 12, 2022**), subject to revisions as required. The utility, grading, and storm drainage plans for the site are subject to the approval of the Township Engineering Consultant and shall be completed in accordance with the Township Engineering Design Standards.
- Recommendation of approval is in accordance with the exterior elevations and floor plan prepared by John K. Costa, AIA dated June 1, 2021 (revision date ~~December 8, 2021~~ ~~January 7, 2022~~ **February 14, 2022**), subject to revisions as required.



Fire Department
Charter Township
of White Lake

Site / Construction Plan Review

To: Sean O'Neil, Planning Department Director

Date: 05/11/2022

Project: Comfort Care Senior Living

Job #: 210303

Date on Plans: 04/12/2022

The Fire Department has the following comments with regards to the 4th review of preliminary site plans for the project known as Comfort Care Senior Living.

The Fire Department has no further comments at this time.

Jason Hanifen
Fire Marshal
Charter Township of White Lake
(248)698-3993
jhanifen@whitelaketwp.com

Plans are reviewed using the International Fire Code (IFC), 2015 Edition and Referenced NFPA Standards.

Assessing Department

Memo

To: Sean O'Neil, Planning

From: Jeanine A Smith

Date: April 27, 2022

Re: Project Name: Comfort Care
Assisted Living

File No:

Parcel Number: 12-36-176-002

Comments: No comment

COMFORT CARE

NEW ASSISTED LIVING & MEMORY CARE

SITE PLAN APPROVAL PACKAGE

UNION LAKE ROAD
 WHITE LAKE TWP., MI 48386

PART OF THE NORTHWEST 1/4 OF SECTION 36
 TOWNSHIP 3 NORTH, RANGE 8 EAST
 WHITE LAKE TOWNSHIP, COUNTY OF OAKLAND, STATE OF MICHIGAN

PROPERTY DESCRIPTION (MEASURED): (PARCEL ID# 12-36-176-002)

PART OF THE NORTHWEST 1/4 OF SECTION 36, TOWN 3 NORTH, RANGE 8 EAST, WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS BEGINNING AT A POINT DISTANT NORTH 00 DEGREES 12 MINUTES 01 SECONDS WEST 892.33 FEET AND DUE EAST 424.46 FEET AND SOUTH 84 DEGREES 30 MINUTES 00 SECONDS EAST 280.00 FEET AND NORTH 68 DEGREES 00 MINUTES 00 SECONDS EAST 270.00 FEET AND NORTH 46 DEGREES 30 MINUTES 00 SECONDS EAST 310.00 FEET FROM THE WEST 1/4 CORNER OF SECTION 36, TOWN 3 NORTH, RANGE 8 EAST; SAID POINT OF BEGINNING ALSO BEING THE SOUTHEAST CORNER OF THE "PRESERVE AT HIDDEN LAKE" CONDOMINIUM AS RECORDED AT THE OAKLAND COUNTY REGISTER OF DEEDS;

THENCE FROM SAID POINT OF BEGINNING AND ALONG THE SOUTH EAST LINE OF SAID CONDOMINIUM, NORTH 14 DEGREES 38 MINUTES 35 SECONDS EAST 445.59 FEET TO A POINT OF THE CENTERLINE OF UNION LAKE ROAD; THENCE ALONG SAID CENTERLINE ON A CURVE TO THE RIGHT WITH RADIUS 2,852.97 FEET, A CENTRAL ANGLE OF 02 DEGREES 53 MINUTES 04 SECONDS AND WHOLE CHORD BEARS SOUTH 38 DEGREES 57 MINUTES 59 SECONDS EAST A DISTANCE OF 143.61 FEET; THENCE CONTINUING ALONG SAID CENTERLINE SOUTH 37 DEGREES 31 MINUTES 27 SECONDS EAST, 170.04 FEET; THENCE CONTINUING ALONG SAID CENTERLINE SOUTH 36 DEGREES 58 MINUTES 19 SECONDS EAST, 473.41 FEET; THENCE CONTINUING ALONG SAID CENTERLINE SOUTH 36 DEGREES 31 MINUTES 19 SECONDS EAST, 395.43 FEET; THENCE SOUTH 52 DEGREES 47 MINUTES 19 SECONDS WEST, 347.60 FEET; THENCE NORTH 37 DEGREES 19 MINUTES 50 SECONDS WEST, 340.64 FEET; THENCE SOUTH 89 DEGREES 54 MINUTES 33 SECONDS EAST, 4.87 FEET; THENCE NORTH 37 DEGREES 41 MINUTES 37 SECONDS WEST, 559.50 FEET TO SAID POINT OF BEGINNING; SAID PARCEL CONTAINS 8.37 GROSS ACRES OF LAND.

DRAWING INDEX:

●	04-12-2022	C000 — COVER SHEET
○	04-12-2022	C100 — BOUNDARY & TOPOGRAPHIC SURVEY
○	04-12-2022	C101 — SITE REMOVAL PLAN
○	04-12-2022	C200 — SITE LAYOUT PLAN
○	04-12-2022	C300 — SITE GRADING PLAN
○	04-12-2022	C301 — SOIL EROSION CONTROL PLAN
○	04-12-2022	C302 — DRAINAGE AREA MAP & STORM CALCULATIONS
○	04-12-2022	C400 — SITE UTILITY PLAN
○	04-12-2022	C401 — SITE PHOTOMETRIC PLAN
○	04-12-2022	C500 — SITE LANDSCAPE PLAN
○	04-12-2022	C501 — SITE LANDSCAPE PLAN (NORTH DETAIL)
○	04-12-2022	C502 — SITE LANDSCAPE PLAN (SOUTH DETAIL)
○	04-12-2022	C600 — SITE DETAILS
○	04-12-2022	A1 — FLOOR PLAN
○	04-12-2022	A2 — EXTERIOR ELEVATIONS
○	-	- SANITARY SEWER DETAILS (WHITE LAKE TWP.)
○	-	- WATER MAIN DETAILS (WHITE LAKE TWP.)
○	-	- STORM SEWER DETAILS (WHITE LAKE TWP.)
○	-	- WRC SOIL EROSION CONTROL DETAILS

DATE
 MOST RECENT ISSUE / REVISION DATE
 FILLED CIRCLE INDICATES SUBMITTED DRAWING

BENCHMARKS (NAVD88 DATUM):

- BM #1 TOP ARROW ON FIRE HYDRANT LOCATED APPROXIMATELY 5' EAST OF SAWGRASS LANE, 230' SOUTH OF HOUSE #8605 SAWGRASS LN AND 380' WEST OF UNION LAKE ROAD. ELEVATION = 964.69
- BM #2 TOP ARROW ON FLANGE OF FIRE HYDRANT LOCATED APPROXIMATELY 75' SOUTH OF CONCORD DRIVE AND 52' EAST OF UNION LAKE ROAD. ELEVATION = 966.21
- BM #3 TOP BENCHMARK MARKER ON WEST FACE OF UTILITY POLE LOCATED APPROXIMATELY 650' SOUTH OF INDEPENDENCE CIRCLE, 34' EAST OF UNION LAKE ROAD AND 107' SOUTH OF FIRE HYDRANT. ELEVATION = 983.51

NPDES STATEMENT:

THE OWNER WILL NEED TO OBTAIN AN NPDES STORM WATER DISCHARGE PERMIT FROM EGLE. TOTAL DISTURBED AREA: 7.84 ACRES

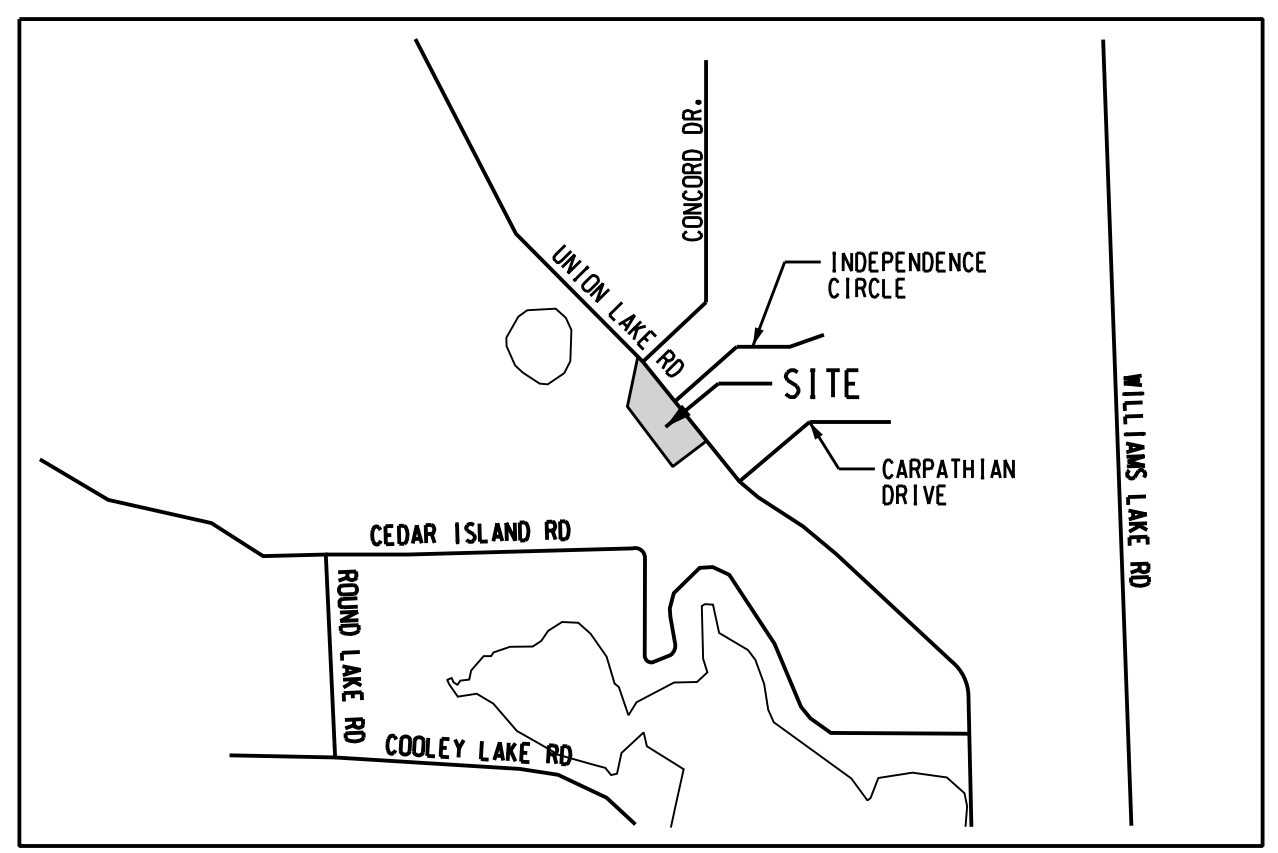
TOPOGRAPHIC SURVEY STATEMENT:

THE EXISTING FEATURES SHOWN ON THIS PLAN ARE FROM AN ACTUAL TOPOGRAPHIC SURVEY PERFORMED BY GRIGGS QUADERER, INC. IN JUNE OF 2021. THE UNDERGROUND UTILITIES SHOWN WERE EITHER VERIFIED BY THIS SURVEY OR WERE PLOTTED IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE. NO EXISTING UTILITIES WERE EXPOSED FOR VERIFICATION OF LOCATION AND ELEVATION. NO GUARANTEES ARE GIVEN THAT THE LOCATIONS ARE ABSOLUTELY ACCURATE OR THAT UTILITIES OTHER THAN THOSE SHOWN ARE NOT PRESENT.

OWNER: DOUG BOEHM
 COMFORT CARE
 4180 TITTABAWASSEE ROAD
 SACINAW, MI 48604
 PH: (248) 930-7875
 EMAIL: DOUG@COMFORTCARES.COM

ARCHITECT: JOHN COSTA, AIA
 ARCHITECTURAL DESIGN & CONSULTATION, PLLC
 417 OLMILL DRIVE
 FLUSHING, MI 48433
 PHONE: (810) 659-5275
 EMAIL: JNL.COSTA@SBCGLOBAL.NET

ENGINEER: RUDY QUADERER, PE
 GRIGGS QUADERER, INC.
 8308 OFFICE PARK DR.
 GRAND BLANC, MI 48439
 PH: (810) 695-0154
 EMAIL: RQUADERER@GQINCORP.COM



LOCATION MAP
 NOT TO SCALE

STANDARD LEGEND	
DESCRIPTION	EXISTING
BUILDING	—
STORM SEWER	— S —
SANITARY SEWER	— S —
WATER	— W —
GAS LINE	— G —
ELECTRIC LINE	— E —
TELEPHONE LINE	— T —
MANHOLE	○
CATCH BASIN	⊗
FIRE HYDRANT	△
VALVE	•
UTILITY POLE W/GUY WIRE	⊕
UTILITY RISER	⊞
LIGHT POLE	*
SIGN	△
CURB & GUTTER	—
FENCE	— x —
GUARD RAIL	—
INVERT ELEVATION	IE 6" 750.00
CONTOUR	--- 750 ---
SPOT ELEVATION	
ASPHALT SURFACE	ASPH.
CONCRETE SURFACE	CONC.
GRAVEL SURFACE	GRAV.
TREE LINE	—
TREE	⊕

GENERAL NOTES:

- STANDARD SPECIFICATIONS: ALL MATERIALS AND CONSTRUCTION METHODS FOR THIS PROJECT SHALL CONFORM WITH THE REQUIREMENTS OF ALL GOVERNING AGENCIES HAVING JURISDICTION (LOCAL, COUNTY, STATE). UNLESS OTHERWISE NOTED, CONSTRUCTION MATERIALS SHALL COMPLY WITH THE LATEST EDITION OF THE STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND PROJECT SPECIFICATIONS. IN CASE OF DISCREPANCIES BETWEEN REQUIREMENTS, THE MOST STRINGENT SHALL APPLY.
- EXISTING BACKGROUND INFORMATION: THE EXISTING FEATURES SHOWN ON THESE DOCUMENTS ARE FROM AN ACTUAL TOPOGRAPHIC SURVEY PERFORMED BY GRIGGS QUADERER, INC. IN JUNE OF 2021. THE UNDERGROUND UTILITIES SHOWN WERE EITHER VERIFIED BY THIS SURVEY OR WERE OBTAINED FROM THE BEST AVAILABLE DOCUMENT INFORMATION. NO GUARANTEES ARE GIVEN TO THE ACCURACY OF ALL UTILITY INFORMATION SHOWN OR THAT ALL UTILITIES ARE INDICATED ON THIS DOCUMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS BEFORE COMMENCING WORK AND TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- MISS DIG UTILITY PROTECTION SERVICES: THE CONTRACTOR SHALL CONTACT MISS DIG UTILITY SERVICES (811) THREE (3) WORKING DAYS PRIOR TO BEGIN OF CONSTRUCTION TO VERIFY LOCATIONS OF UTILITIES. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. ANY UTILITY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED WITH THE IDENTICAL MATERIAL IN ACCORDANCE WITH THE UTILITY OWNERS REQUIREMENTS. THE CONTRACTOR SHALL VERIFY THE DEPTH AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
- SUBSURFACE SOIL CONDITIONS: A SOIL INVESTIGATION FOR THIS SITE IS AVAILABLE FOR REVIEW. THE CONTRACTOR IS RESPONSIBLE TO ACQUAINT HIMSELF WITH CURRENT SOIL AND GROUNDWATER CONDITIONS FOR HIS OWN INFORMATION PRIOR TO BIDDING. NO MODIFICATIONS TO UNIT PRICES OR FINAL BID WILL BE MADE DUE TO VARIABLE SUBSURFACE CONDITIONS. DEWATERING, IF DETERMINED NECESSARY BY THE CONTRACTOR, WILL BE CONSIDERED INCIDENTAL TO THE INSTALLATION COST OF UTILITIES OR STRUCTURES.
- PERMITS: THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL PERMITS REQUIRED TO PERFORM ALL WORK SHOWN ON THESE DOCUMENTS. THE CONTRACTOR SHALL PAY FOR AND OBTAIN ALL PERMITS REQUIRED BY FEDERAL, STATE, LOCAL OR PRIVATE AGENCIES INCLUDING REQUIRED BONDS. COSTS INSPECTION AND TESTING SERVICES SHALL BE PAID FOR BY THE CONTRACTOR.
- SOIL EROSION CONTROL: CONTRACTOR SHALL OBTAIN SOIL EROSION CONTROL PERMIT PRIOR TO BEGIN OF CONSTRUCTION. THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF ACT 451, PART 91 FOR SOIL EROSION & SEDIMENTATION CONTROL, AND WILL BE RESPONSIBLE FOR ALL MAINTENANCE UNTIL THE FINAL ACCEPTANCE OF THE PROJECT. CONTRACTOR SHALL PROTECT ALL EXISTING AND PROPOSED STORM WATER FACILITIES ON SITE DURING CONSTRUCTION.
- MICHIGAN SAFETY REQUIREMENTS: ALL WORK CONSTRUCTION METHODS AND MATERIALS SHALL COMPLY WITH ALL APPLICABLE STATE AND FEDERAL SAFETY, OCCUPATIONAL, HEALTH AND ENVIRONMENTAL REGULATIONS AS WELL AS NFPA AND ANSI CODES AS APPLICABLE.
- PRE-CONSTRUCTION MEETING: CONTRACTOR SHALL ATTEND PRE-CONSTRUCTION MEETING FOR COORDINATION WITH MUNICIPALITY, AGENCIES AND UTILITY COMPANIES. ITEMS FOR DISCUSSION WILL INCLUDE SCHEDULE, INSPECTION SERVICES, TESTING OF PUBLIC UTILITIES AND FINAL AS-BUILT DOCUMENTS.
- CONSTRUCTION INSPECTIONS & FINAL TESTING: CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL INSPECTION AGENCIES THREE (3) WORKING DAYS PRIOR TO START OF CONSTRUCTION AND ARRANGE FOR ON-SITE INSPECTION. PUBLIC UTILITIES SHALL BE TESTED PER LOCAL AND COUNTY AGENCY REQUIREMENTS WITH INSPECTORS FROM BOTH AGENCIES PRESENT. THE CONTRACTOR SHALL NOT CONNECT TO THE EXISTING PUBLIC UTILITY UNTIL THE NEW UTILITY IS TESTED AND APPROVED BY THE AGENCIES.

NO.	DATE	SUBJECT
	04-12-22	REISSUED TO WHITE LAKE TWP.
	01-12-22	REISSUED TO WHITE LAKE TWP.
	12-13-21	REISSUED WHITE LAKE TWP.
	10-28-21	WHITE LAKE TWP. (SITE PLAN)
	04-13-21	TOPOGRAPHIC SURVEY

NORTHWEST 1/4 SECTION 36 T-3N, R-8E

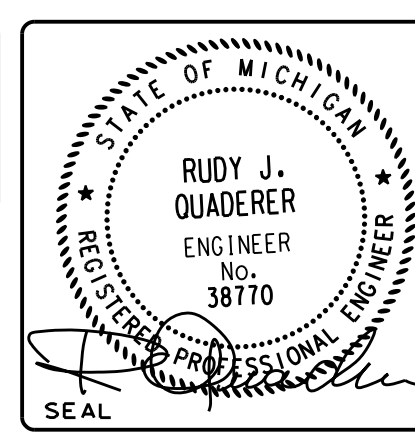
COMFORT CARE

UNION LAKE ROAD
 WHITE LAKE TWP.,
 OAKLAND COUNTY
 STATE OF MICHIGAN

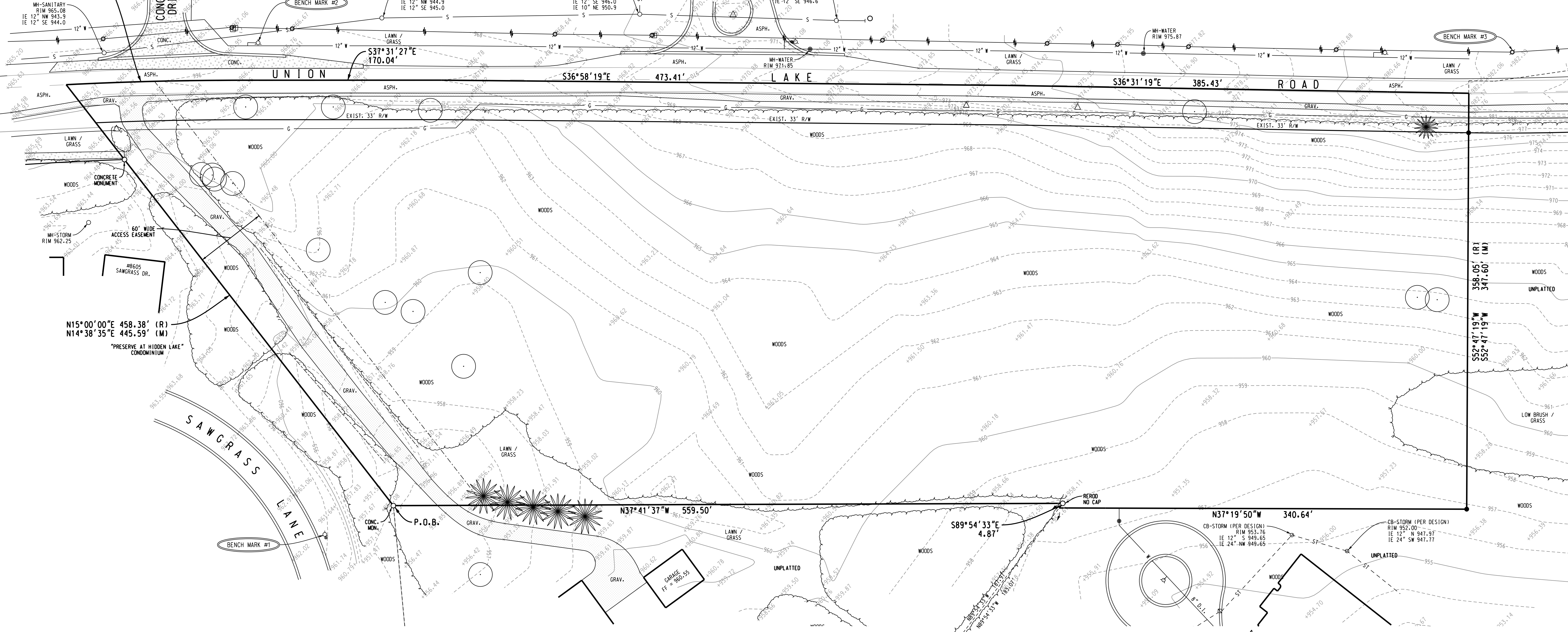
DRAWING TITLE
 COVER SHEET

PROJECT NUMBER 210303	SHEET C000
PROJECT PHASE SPA	

DRAWN
 DESIGNED BRZEZINSKI
 CHECKED QUADERER
 FIELD WORK



CA: 02°53'04"
RAD: 2852.97'
LC: S38°57'59"E
LC: 143.61'



STANDARD LEGEND	
DESCRIPTION	EXISTING
BUILDING	—
STORM SEWER	—
SANITARY SEWER	—
WATER	—
GAS LINE	—
ELECTRIC LINE	—
TELEPHONE LINE	—
MANHOLE	○
CATCH BASIN	□
FIRE HYDRANT	△
VALVE	●
UTILITY POLE W/GUY WIRE	—
UTILITY RISER	□
LIGHT POLE	☆
STON	△
CURB & CUTTER	—
FENCE	—
GUARD RAIL	—
INVERT ELEVATION	1E 6" 750.00
CONTOUR	— 750
SPOT ELEVATION	750.00
ASPHALT SURFACE	ASPH.
CONCRETE SURFACE	CONC.
GRAVEL SURFACE	GRAV.
TREE LINE	—
TREE	○

GENERAL UTILITY NOTE:
THE UTILITIES AS SHOWN ON THIS DOCUMENT WERE EITHER VERIFIED BY AN ACTUAL FIELD SURVEY OR WERE PLOTTED IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE. GRIGGS QUADERER MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN INCLUDE ALL POSSIBLE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE, GRIGGS QUADERER DOES NOT GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH GRIGGS QUADERER DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. THE UNDERGROUND UTILITY PIPE SIZES AS SHOWN ON THIS DOCUMENT WERE OBTAINED EITHER BY RECORD PLAN INFORMATION OR BY FIELD MEASUREMENTS. GRIGGS QUADERER CAN NOT GUARANTEE THE ACCURACY OF THE PIPE SIZES OR THEIR LOCATIONS EITHER BY FIELD MEASUREMENT OR BY RECORD DATA AND SHALL NOT BE HELD RESPONSIBLE FOR ANY DISCREPANCIES REGARDING THESE UTILITIES.

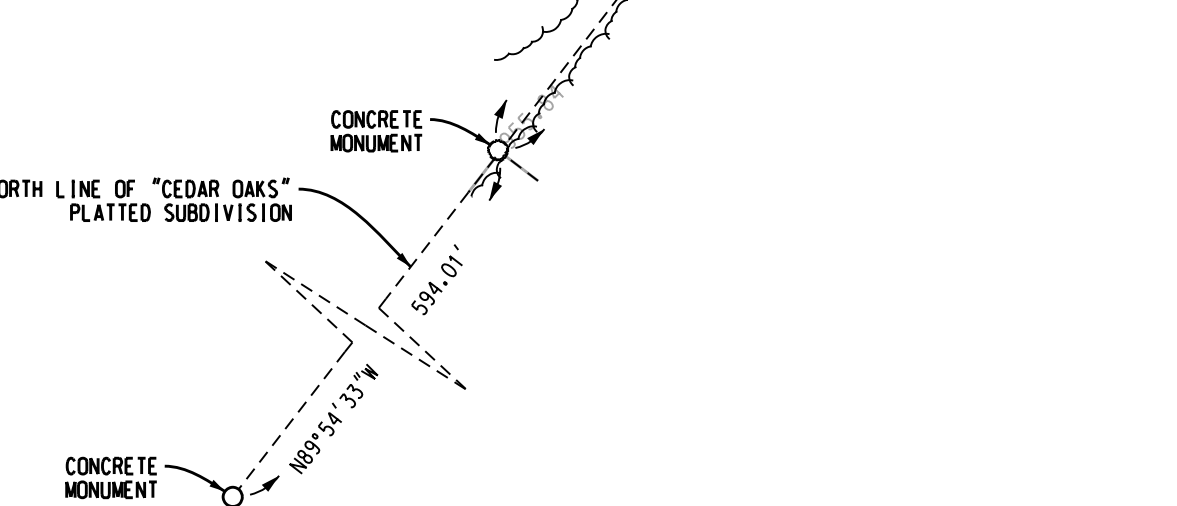
BENCHMARKS (NAVD88 DATUM):
 BM #1 TOP ARROW ON FIRE HYDRANT LOCATED APPROXIMATELY 5' EAST OF SAWGRASS LANE, 230' SOUTH OF HOUSE #8605 SAWGRASS LN AND 380' WEST OF @ UNION LAKE ROAD. ELEVATION = 964.69
 BM #2 TOP ARROW ON FLANGE OF FIRE HYDRANT LOCATED APPROXIMATELY 75' SOUTH OF CONCORD DRIVE AND 52' EAST OF @ UNION LAKE ROAD. ELEVATION = 968.21
 BM #3 TOP BENCHMITE MARKER ON WEST FACE OF UTILITY POLE LOCATED APPROXIMATELY 650' SOUTH OF @ INDEPENDENCE CIRCLE, 34' EAST OF @ UNION LAKE ROAD AND 107' SOUTH OF FIRE HYDRANT. ELEVATION = 983.51

PROPERTY DESCRIPTION (RECORDED):
PART OF THE NORTHWEST 1/4 OF SECTION 36, TOWN 3 NORTH, RANGE 8 EAST, WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS BEGINNING AT A POINT DISTANT NORTH 00 DEGREES 12 MINUTES 01 SECONDS WEST 892.33 FEET AND DUE EAST 424.46 FEET AND SOUTH 84 DEGREES 30 MINUTES 00 SECONDS EAST 280.00 FEET AND NORTH 68 DEGREES 00 MINUTES 00 SECONDS EAST 270.00 FEET AND NORTH 46 DEGREES 30 MINUTES 00 SECONDS EAST 310.00 FEET FROM THE WEST 1/4 CORNER OF SECTION 36, TOWN 3 NORTH, RANGE 8 EAST, AND PROCEEDING THENCE NORTH 15 DEGREES 00 MINUTES 00 SECONDS EAST 458.38 FEET; THENCE ALONG A CURVE TO THE RIGHT RADIUS 2,864.93 FEET, CENTRAL ANGLE 03 DEGREES 35 MINUTES 36 SECONDS, AN ARC DISTANCE OF 179.67 FEET, AND WHOSE CHORD BEARS SOUTH 38 DEGREES 46 MINUTES 05 SECONDS EAST A DISTANCE OF 179.64 FEET; THENCE SOUTH 36 DEGREES 58 MINUTES 20 SECONDS EAST 615.98 FEET; THENCE SOUTH 36 DEGREES 31 MINUTES 20 SECONDS EAST 385.35 FEET, (THE LAST THREE COURSES BEING ALONG THE CENTERLINE OF UNION LAKE ROAD); THENCE SOUTH 52 DEGREES 47 MINUTES 19 SECONDS WEST 358.05 FEET; THENCE NORTH 37 DEGREES 19 MINUTES 50 SECONDS WEST 900.00 FEET TO THE POINT OF BEGINNING, CONTAINING 8.6977 ACRES MORE OR LESS.

SAID PARCEL BEING SUBJECT TO THE RIGHTS OF THE PUBLIC FOR UNION LAKE ROAD OVER THE EASTERLY 33.00 FEET THEREOF.

ALSO SAID PARCEL BEING SUBJECT TO EASEMENTS FOR MICHIGAN BELL TELEPHONE COMPANY AS RECORDED IN LIBER 5157, PAGES 872, 873 AND 874, OAKLAND COUNTY RECORDS AND TO ANY OTHER EASEMENTS THAT MAY BE OF RECORD OVER SAID PARCEL.

ALSO SAID PARCEL BEING SUBJECT TO A 60 FOOT EASEMENT FOR INGRESS AND EGRESS DESCRIBED AS PART OF THE NORTHWEST 1/4 OF SECTION 36, TOWN 3 NORTH, RANGE 8 EAST, WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS BEGINNING AT A POINT DISTANT NORTH 00 DEGREES 12 MINUTES 01 SECONDS WEST 892.33 FEET AND DUE EAST 424.46 FEET AND SOUTH 84 DEGREES 30 MINUTES 00 SECONDS EAST 280.00 FEET AND NORTH 68 DEGREES 00 MINUTES 00 SECONDS EAST 270.00 FEET AND NORTH 46 DEGREES 30 MINUTES 00 SECONDS EAST 310.00 FEET FROM THE WEST 1/4 CORNER OF SECTION 36, TOWN 3 NORTH, RANGE 8 EAST, AND PROCEEDING THENCE NORTH 15 DEGREES 00 MINUTES 00 SECONDS EAST 458.38 FEET TO A POINT ON THE CENTERLINE OF UNION LAKE ROAD; THENCE ALONG SAID LINE, ALONG A CURVE TO THE RIGHT, RADIUS 2,864.93 FEET, AN ARC DISTANCE OF 173.46 FEET; THENCE SOUTH 15 DEGREES 00 MINUTES 00 SECONDS WEST 462.47 FEET; THENCE NORTH 37 DEGREES 19 MINUTES 50 SECONDS WEST 75.80 FEET TO THE POINT OF BEGINNING.



PROPERTY DESCRIPTION (MEASURED):
PART OF THE NORTHWEST 1/4 OF SECTION 36, TOWN 3 NORTH, RANGE 8 EAST, WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS BEGINNING AT A POINT DISTANT NORTH 00 DEGREES 12 MINUTES 01 SECONDS WEST 892.33 FEET AND DUE EAST 424.46 FEET AND SOUTH 84 DEGREES 30 MINUTES 00 SECONDS EAST 280.00 FEET AND NORTH 68 DEGREES 00 MINUTES 00 SECONDS EAST 270.00 FEET AND NORTH 46 DEGREES 30 MINUTES 00 SECONDS EAST 310.00 FEET FROM THE WEST 1/4 CORNER OF SECTION 36, TOWN 3 NORTH, RANGE 8 EAST; SAID POINT OF BEGINNING ALSO BEING THE SOUTHWEST CORNER OF THE "PRESERVE AT HIDDEN LAKE" CONDOMINIUM AS RECORDED AT THE OAKLAND COUNTY REGISTER OF DEEDS;
THENCE FROM SAID POINT OF BEGINNING AND ALONG THE SOUTH EAST LINE OF SAID CONDOMINIUM, NORTH 14 DEGREES 38 MINUTES 35 SECONDS EAST 445.59 FEET TO A POINT OF THE CENTERLINE OF UNION LAKE ROAD; THENCE ALONG SAID CENTERLINE ON A CURVE TO THE RIGHT WITH RADIUS 2,852.97 FEET, A CENTRAL ANGLE OF 02 DEGREES 53 MINUTES 04 SECONDS AND WHOSE CHORD BEARS SOUTH 38 DEGREES 57 MINUTES 59 SECONDS EAST A DISTANCE OF 143.61 FEET; THENCE CONTINUING ALONG SAID CENTERLINE SOUTH 37 DEGREES 31 MINUTES 27 SECONDS EAST, 170.04 FEET; THENCE CONTINUING ALONG SAID CENTERLINE SOUTH 36 DEGREES 58 MINUTES 19 SECONDS EAST, 473.41 FEET; THENCE CONTINUING ALONG SAID CENTERLINE SOUTH 36 DEGREES 31 MINUTES 19 SECONDS EAST, 385.43 FEET; THENCE SOUTH 52 DEGREES 47 MINUTES 19 SECONDS WEST, 347.60 FEET; THENCE NORTH 37 DEGREES 19 MINUTES 50 SECONDS WEST, 340.64 FEET; THENCE SOUTH 89 DEGREES 54 MINUTES 33 SECONDS EAST, 4.87 FEET; THENCE NORTH 37 DEGREES 41 MINUTES 37 SECONDS WEST, 559.50 FEET TO SAID POINT OF BEGINNING; SAID PARCEL CONTAINS 8.37 GROSS ACRES OF LAND.

0 40 80 120
SCALE: 1"=40'

811 Know what's below.
Call before you dig.

DRAWN
DESIGNED BRZEZINSKI
CHECKED QUADERER
FIELD WORK

Griggs Quaderer Inc.
CIVIL ENGINEERING · LAND SURVEYING · SITE PLANNING

8308 OFFICE PARK DRIVE
GRAND BLANC, MI 48439
PH: (810) 695-0154
FX: (810) 695-0158
WWW.GQINCORP.COM

NO.	DATE	SUBJECT
04-12-22		REISSUED TO WHITE LAKE TWP.
01-12-22		REISSUED TO WHITE LAKE TWP.
12-13-21		REISSUED WHITE LAKE TWP.
10-28-21		WHITE LAKE TWP. (SITE PLAN)
04-13-21		TOPOGRAPHIC SURVEY

NORTHWEST 1/4 SECTION 36 T-3N, R-8E

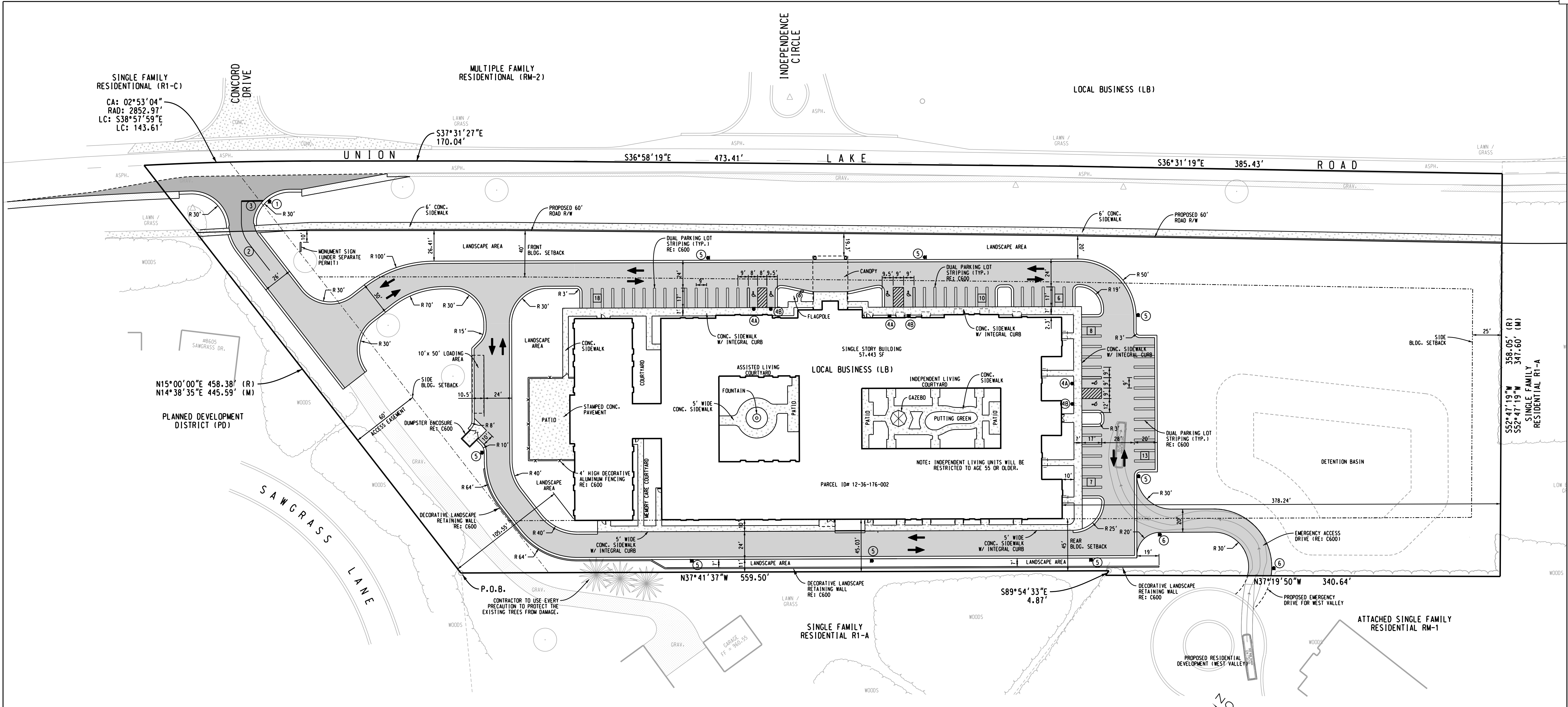
COMFORT CARE

UNION LAKE ROAD
WHITE LAKE TWP.,
OAKLAND COUNTY
STATE OF MICHIGAN

DRAWING TITLE
BOUNDARY AND TOPOGRAPHIC SURVEY

PROJECT NUMBER 210303
PROJECT PHASE SPA

SHEET C100



SINGLE FAMILY RESIDENTIAL (R1-C)
 CA: 02°53'04"
 RAD: 2852.97'
 LC: S38°57'59"E
 LC: 143.61'

MULTIPLE FAMILY RESIDENTIAL (RM-2)

LOCAL BUSINESS (LB)

UNION LAKE ROAD

UNION LAKE ROAD

UNION LAKE ROAD

PLANNED DEVELOPMENT DISTRICT (PD)
 N15°00'00"E 458.38' (R)
 N14°38'35"E 445.59' (M)

SINGLE FAMILY RESIDENTIAL R1-A
 S52°47'19"W 358.05' (R)
 S52°47'19"W 347.60' (M)

PARKING DATA:			
USE	REQUIREMENTS	PARKING REQUIRED	PARKING PROVIDED
NURSING HOME	1 SPACE/4 BEDS + 1 SPACE/EMPLOY. 44 BEDS/4 + 10 EMPLOY. =	21 SPACES	62 SPACES
INDEPENDENT LIVING	1 SPACE/UNIT + 1 SPACE/EMPLOY. 30 UNITS + 5 EMPLOY. =	35 SPACES	
BARRIER FREE	51 - 75 SPACES	3 SPACES	6 SPACES
TOTAL		56 SPACES	62 SPACES

PAVEMENT LEGEND:

	ASPHALT PAVEMENT SECTION (ON-SITE) RE: C600
	ASPHALT PAVEMENT SECTION (WITHIN ROAD R/W) RE: C600
	CONCRETE PAVEMENT SECTION RE: C600

LAND USE INFORMATION:

CURRENT ZONING: LOCAL BUSINESS (LB)
 PROPOSED ZONING: PLANNED DEVELOPMENT DISTRICT (PD) (REZONE APPROVED)
 CURRENT USE: VACANT
 PROPOSED USE: NURSING HOME/INDEPENDENT LIVING
 MIN. SITE AREA: 10.0 AC.
 ACTUAL SITE AREA: 8.37 AC. GROSS (VARIANCE OBTAINED)
 NET SITE AREA: 7.49 AC. 326,268 SF
 TOTAL BUILDING AREA: 57,443 SF
 LOT COVERAGE BY BLDG: 17.6%
 TOTAL NO. OF UNITS: 60
 UNIT DENSITY: 8 UNITS/AC.
 MAX. BLDG. HEIGHT: 30 FT
 PROPOSED BLDG. HEIGHT: 22 FT

YARD SETBACKS:

BUILDING	ART. 4, SECT. 16
FRONT YARD 40LF	75LF
SIDE YARD 25LF (TOTAL 50LF)	75LF
REAR YARD TO BE DETERMINED BY PLANN. COMM. (45LF PROVIDED)	75LF

REQUESTED WAIVERS:

- BUILDING SETBACK: 19 FOOT FRONT CANOPY SETBACK (56 FEET WAIVER) 45 FOOT REAR BUILDING SETBACK (30 FOOT WAIVER)
- PER CODE, THREE (3) LOADING SPACES REQUIRED. MOST DELIVERIES MADE BY SMALL DELIVERY VEHICLES. LARGER VEHICLES WILL VISIT SITE ONLY ONCE OR TWICE A WEEK. ONE LOADING SPACE PROVIDED. ASKING TO WAIVE THE ADDITIONAL TWO (2) LOADING SPACES.

- MARKING / SIGNAGE LEGEND:**
- ① STOP SIGN (R1-1)
 - ② 4" SINGLE SOLID LINE, YELLOW
 - ③ 24" WIDE STOP LINE, WHITE
 - ④ ACCESSIBLE SIGN (R7-8)
 - ⑤ ACCESSIBLE SIGN (R7-B & R7-8A)
 - ⑥ NO PARKING - FIRE LANE
 - ⑦ STOP EMERGENCY VEHICLES ONLY
- NO PARKING / NO DRIVING AREAS
 4" WIDE WHITE PAINT STRIPING
 2" ON CENTER @ 45°. REFER TO PAVEMENT MARKING NOTE #2 FOR BARRIER FREE PARKING

- PAVEMENT MARKING & SIGNAGE NOTES:**
- PARKING STALL WIDTH DIMENSIONS ARE TO CENTERLINE OF STRIPING.
 - ALL PAVEMENT MARKINGS SHALL BE 4" WIDE WHITE PAINT STRIPING UNLESS OTHERWISE INDICATED. ALL BARRIER FREE STRIPING SHALL BE COLORED BLUE AND IN ACCORDANCE WITH THE LATEST ADA STANDARDS FOR ACCESSIBLE DESIGN.
 - CONTRACTOR SHALL NOT APPLY TRAFFIC MARKING PAINT ON NEW ASPHALT UNTIL PAVEMENT HAS CURED A MINIMUM OF SEVEN (7) DAYS.
 - PAINT SHALL BE APPLIED WITH MECHANICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES. APPLY IN TWO COATS AT MANUFACTURER'S RECOMMENDED RATES TO PROVIDE MINIMUM 10.0 TO 15.0 MILS WET THICKNESS.
 - ALL TRAFFIC CONTROL SIGNS SHALL CONFORM WITH ALL REQUIREMENTS AS STIPULATED IN THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
 - NUMBER OF PARKING SPACES (FOR INFORMATION ONLY)

811 Know what's below. Call before you dig.

DRAWN: [Signature]
 DESIGNED: BRZEZINSKI
 CHECKED: QUADERER
 FIELD WORK

STATE OF MICHIGAN
 REGISTERED PROFESSIONAL ENGINEER
 RUDY J. QUADERER
 No. 38770
 SEAL

Griggs Quaderer Inc.
 CIVIL ENGINEERING · LAND SURVEYING · SITE PLANNING

8308 OFFICE PARK DRIVE
 GRAND BLANC, MI 48439
 PH: (810) 695-0154
 FX: (810) 695-0158
 WWW.GQINCORP.COM

NO.	DATE	SUBJECT
	04-12-22	REISSUED TO WHITE LAKE TWP.
	01-12-22	REISSUED TO WHITE LAKE TWP.
	12-13-21	REISSUED WHITE LAKE TWP.
	10-28-21	WHITE LAKE TWP. (SITE PLAN)
	04-13-21	TOPOGRAPHIC SURVEY

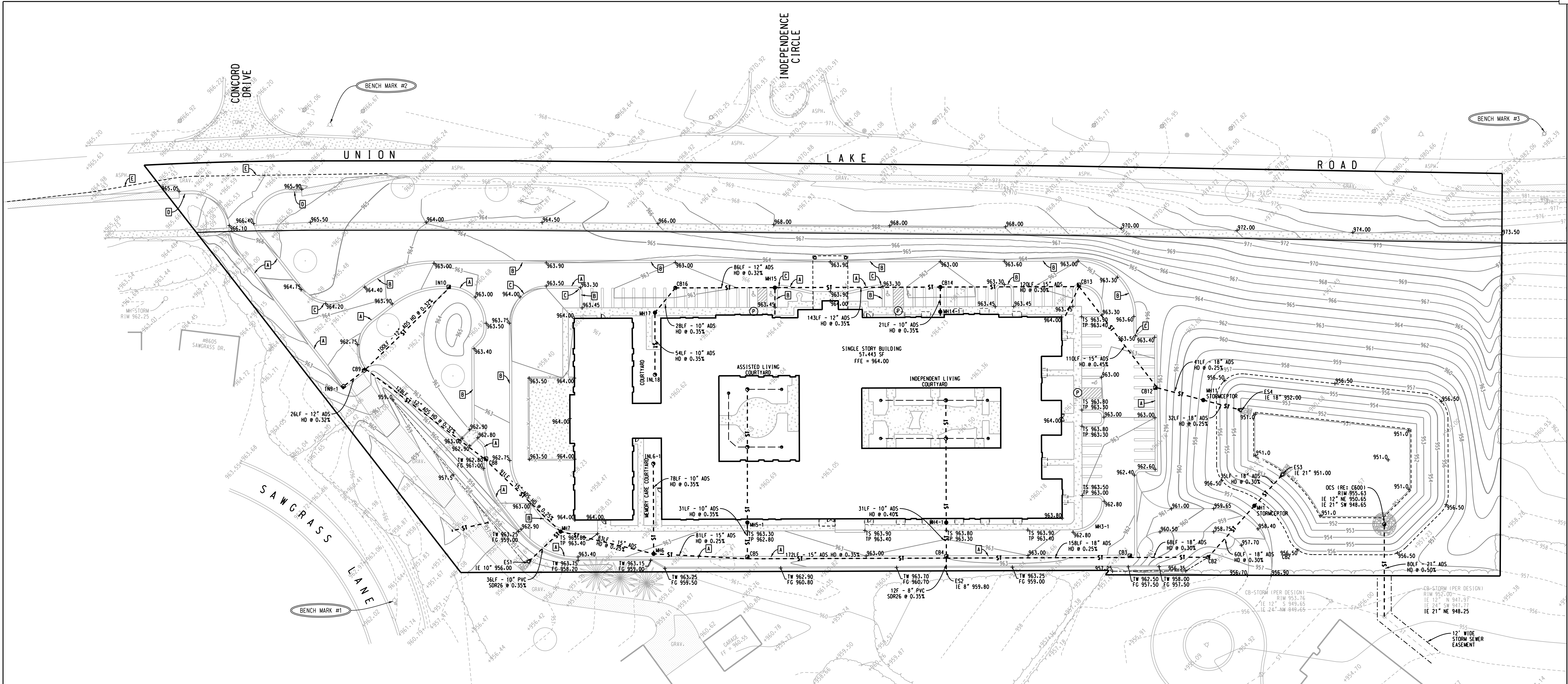
NORTHWEST 1/4 SECTION 36 T-3N, R-8E

COMFORT CARE

UNION LAKE ROAD
 WHITE LAKE TWP.,
 OAKLAND COUNTY
 STATE OF MICHIGAN

DRAWING TITLE
SITE LAYOUT PLAN

PROJECT NUMBER	210303	SHEET	C200
PROJECT PHASE	SPA		



DRAINAGE STRUCTURE SCHEDULE:

MH1 (STORMCEPTOR) RIM 962.80 IE 18" NE 951.10 IE 12" SW 956.50	CB9 (14" DIA.) IE 12" S 956.41 IE 12" W 956.50
CB2 (14" DIA.) RIM 956.00 IE 18" NE 951.28 IE 18" NW 951.28	IN9-1 (12" DIA.) RIM 962.50 IE 12" E 956.58
CB3 (14" DIA.) RIM 961.60 IE 18" SE 951.48 IE 18" NW 953.50 IE 10" NE 958.00	IN10 (12" DIA.) RIM 963.00 IE 12" W 956.82
CB4 (14" DIA.) RIM 962.50 IE 18" SE 953.90 IE 15" NW 954.00 IE 10" NE 957.50 IE 10" NW 955.14	MH11 (STORMCEPTOR) RIM 957.10 IE 18" SW 952.08 IE 18" NW 952.08
MH4-1 (14" DIA.) RIM 963.40 IE 10" SW 957.62	CB12 (14" DIA.) RIM 962.40 IE 18" SE 952.18 IE 15" NE 954.50
CB5 (14" DIA.) RIM 962.00 IE 15" SE 954.60 IE 15" NW 954.60 IE 10" NE 957.50	CB13 (14" DIA.) RIM 962.50 IE 15" SW 955.00 IE 15" NW 955.10 IE 10" W 958.00
MH5-1 (14" DIA.) RIM 963.40 IE 10" SW 957.61	CB14 (14" DIA.) RIM 962.50 IE 15" SE 955.46 IE 12" NW 956.00 IE 10" SW 958.00
MH6 (14" DIA.) RIM 962.80 IE 15" SE 954.80 IE 15" NW 954.80 IE 10" NW 957.50	MH14-1 (14" DIA.) RIM 963.95 IE 10" SE 959.07
MH7 (14" DIA.) RIM 963.25 IE 15" S 955.01 IE 15" W 955.10 IE 10" W 955.87	MH15 (14" DIA.) RIM 963.30 IE 12" SE 956.50 IE 12" NW 956.60 IE 10" SW 958.00
CB8 (14" DIA.) RIM 962.50 IE 15" S 955.33 IE 12" W 956.00	CB16 (14" DIA.) RIM 963.95 IE 12" SE 956.88 IE 10" W 957.00
	MH17 (14" DIA.) RIM 963.95 IE 12" SE 957.10 IE 10" NW 957.20
	IN18 (12" DIA.) RIM 962.50 IE 12" W 957.39

STORM SEWER NOTES:

- ALL MATERIALS SHALL COMPLY WITH MDT STANDARD SPECIFICATIONS AND/OR LOCAL GOVERNING AGENCIES.
- STORM SEWER CONVEYANCE: STORM SEWER PIPE 12" AND LARGER SHALL BE ADS HD STORM PIPE AND SHALL MEET OR EXCEED ASTM F2881. ALL JOINTS SHALL BE BELL & SPIGOT AND SHALL CONFORM TO ASTM D3212. STORM SEWER PIPE 10" AND SMALLER SHALL BE PVC SDR 26 OR AS REQUIRED BY LOCAL GOVERNING AGENCY.
- STORM SEWER STRUCTURES: REINFORCED CONCRETE IN CONFORMANCE WITH ASTM C478. DEPTH AS INDICATED ON DOCUMENTS. IF MASONRY STRUCTURES ARE ALLOWED, CONCRETE BLOCKS SHALL BE STANDARD 6" x 8" x 8" CURVED UNITS FOLLOWING ASTM C139. CONCRETE BRICK UNITS SHALL BE 2" x 4" x 8" AND FOLLOW ANSI/ASTM C55, GRADE N, TYPE 1.
- FRAME & COVERS: ALL CATCH BASINS & MANHOLES SHALL BE MANUFACTURED BY EAST JORDAN IRON WORKS (UNLESS ALTERNATE IS APPROVED BY ENGINEER)
 -CATCH BASIN - CURB LINE - EJIW #7045 TYPE M2 GRATE W/ T1 BACK
 -CATCH BASIN - PAVEMENT AREA - EJIW #1040 TYPE M1 GRATE
 -CATCH BASIN - GRASS AREA - EJIW #1130 TYPE O2 BEHIVE GRATE
 -INLET - GRASS AREA - EJIW #1040 TYPE O2 BEHIVE GRATE
 -MANHOLE - ALL AREAS - EJIW #1040 TYPE A SOLID COVER
- UNDERDRAIN: 4" PERFORATED, FLEXIBLE HOPE TUBING, COUPLING BAND, PIPE SHALL BE FILTER SOCK WRAPPED AND FITTED WITH END CAPS. PERFORATIONS SHALL BE UNIFORMLY DISTRIBUTED ALONG THE TOP OF THE BOTTOM SECTION IN ACCORDANCE WITH AASHTO M252 PERFORATION REQUIREMENTS.

CURB, GRADING & SIDEWALK RAMP NOTATIONS:

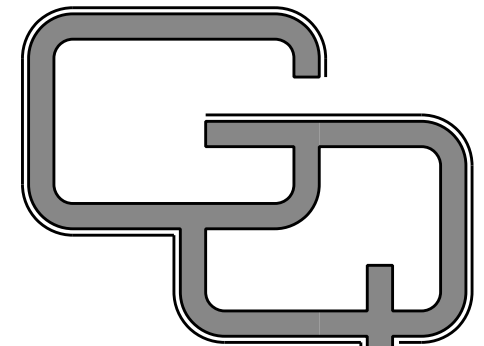
- A STANDARD CURB AND GUTTER
- B STANDARD CURB AND GUTTER WITH REVERSE SLOPE
- C 10 FOOT TRANSITION BETWEEN TYPE A AND TYPE B
- D 5 FOOT CURB END TRANSITION.
- E MATCH EXISTING PAVEMENT OR CURB ELEVATION.
- F TYPE F RAMP, PER MDT DETAIL R-28-J

GRADING NOTES:

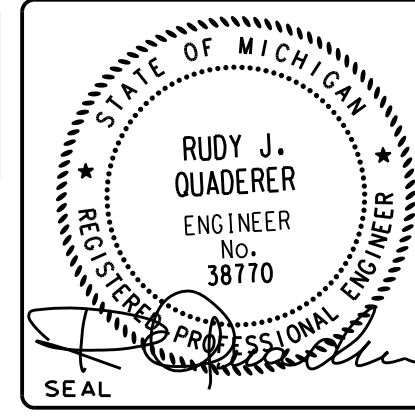
- ALL PROPOSED SPOT ELEVATIONS IN PAVED AREAS ARE TO TOP OF PAVEMENT UNLESS NOTED OTHERWISE.
 TS - TOP OF SIDEWALK
 TP - TOP OF PAVEMENT
 TW - TOP OF WALL
 FG - FINISHED GRADE
- CONTOURS SHOWN ARE FOR REFERENCE ONLY. BASE CONSTRUCTION EFFORTS ON PROPOSED SPOT ELEVATIONS ONLY.
- "BARRIER FREE" PARKING AND SIDEWALK RAMP SHALL CONFORM IN ALL RESPECTS TO THE MICHIGAN ADA (AMERICANS WITH DISABILITIES ACT) REQUIREMENTS.
- CONTRACTOR SHALL ADJUST ANY UTILITY ELEMENT/STRUCTURE MEANT TO BE FLUSH WITH GRADE (CLEAN OUT, VALVE BOXES, MANHOLES, CATCH BASINS, INLETS, ETC.) WHICH ARE AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT. NO ADDITIONAL COSTS FOR THIS WORK WILL BE ACCEPTED. THE CONTRACTOR SHALL OBTAIN ANY NECESSARY PERMITS FOR ADJUSTMENT AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR IS RESPONSIBLE FOR CUT AND FILL QUANTITIES. ADDITIONAL COMPENSATION WILL NOT BE ACCEPTED FOR HAULING OF EXCESS AND BORROW MATERIAL TO AND FROM SITE AS WELL AS LABOR COSTS FOR PLACEMENT AND/OR REMOVAL. OFF-SITE BORROW MATERIAL MUST BE CLEAN COMPACTIBLE STRUCTURAL FILL MATERIAL (NO ORGANIC MATERIAL) WHICH WILL BE INSPECTED PRIOR TO USE FOR ON-SITE FILL MATERIAL.
- SITE CONTRACTOR IS RESPONSIBLE TO PROVIDE A STABLE SUBGRADE AT DESIGN ELEVATIONS. ALL PAVED AREAS INCLUDING BUILDING PAD SHALL BE PRODDERLED & COMPACTED TO MEET 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ANSI/ASTM D1557.
- CONTRACTOR SHALL STORE SUFFICIENT TOPSOIL MATERIAL ON-SITE FOR RE-USE IN ALL DISTURBED GREEN AREAS AND NEW LANDSCAPE AREAS.
- PROVIDE POSITIVE DRAINAGE AT ALL TIMES TO ENSURE NO STANDING WATER. MAINTAIN A MINIMUM SLOPE OF 1.00% IN ALL NEW BITUMINOUS AREAS.

NORTH

DRAWN	
DESIGNED	BRZEZINSKI
CHECKED	QUADERER
FIELD WORK	



Griggs Quaderer Inc.
 CIVIL ENGINEERING · LAND SURVEYING · SITE PLANNING



8308 OFFICE PARK DRIVE
 GRAND BLANC, MI 48439
 PH: (810) 695-0154
 FX: (810) 695-0158
 WWW.GQINCORP.COM

NO.	DATE	SUBJECT
	04-12-22	REISSUED TO WHITE LAKE TWP.
	01-12-22	REISSUED TO WHITE LAKE TWP.
	12-13-21	REISSUED WHITE LAKE TWP.
	10-28-21	WHITE LAKE TWP. (SITE PLAN)
	04-13-21	TOPOGRAPHIC SURVEY

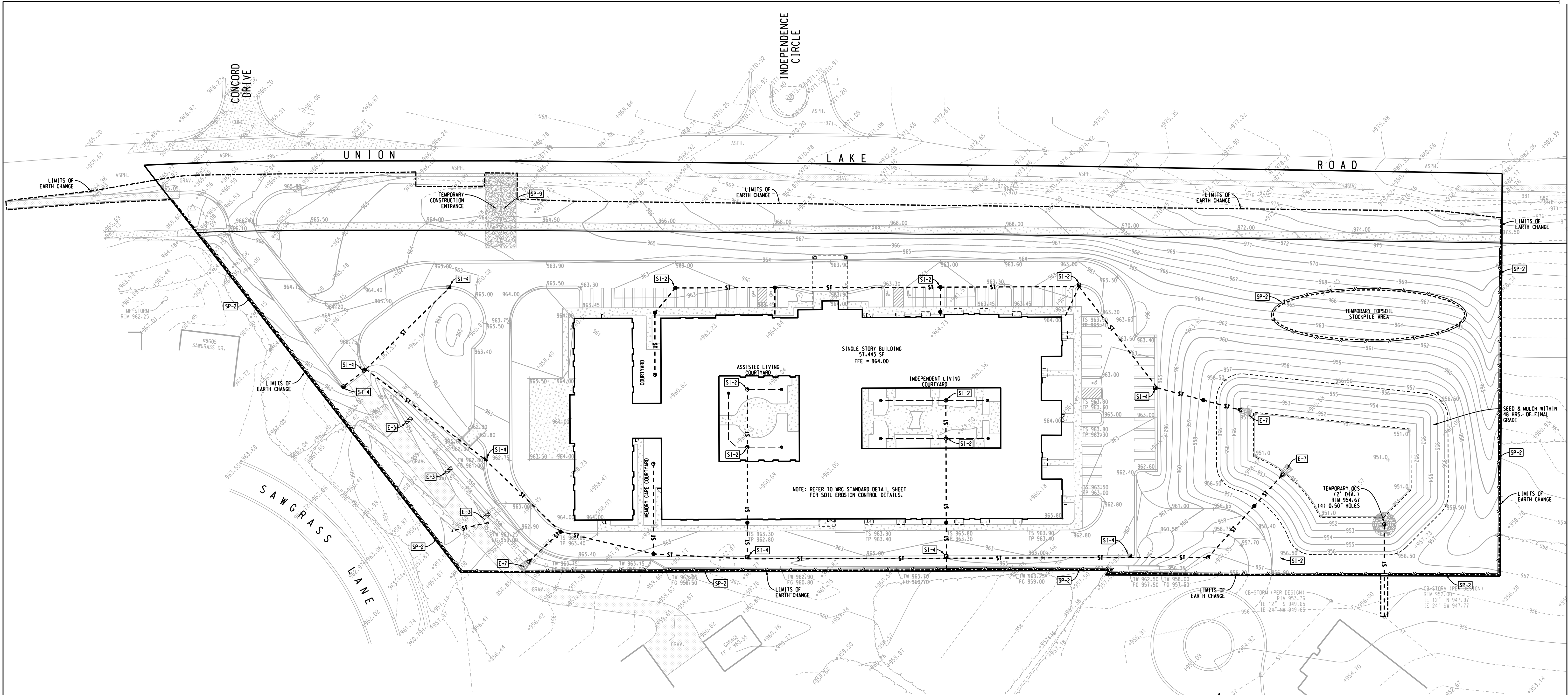
NORTHWEST 1/4
 SECTION 36
 T-3N, R-8E

COMFORT CARE

UNION LAKE ROAD
 WHITE LAKE TWP.,
 OAKLAND COUNTY
 STATE OF MICHIGAN

DRAWING TITLE
SITE GRADING PLAN

PROJECT NUMBER	210303	SHEET	
PROJECT PHASE	SPA		
			C300



CONSTRUCTION SEQUENCE:

1. PROVIDE EROSION CONTROL MEASURES THAT WILL BE USED AS PART OF THIS WORK. INSTALL ADDITIONAL MEASURES AS REQUIRED BY THESE DRAWINGS AND AS FIELD CONDITIONS DICTATE IN ACCORDANCE WITH OAKLAND COUNTY DRAIN COMMISSION STANDARDS AND SPECIFICATIONS.
2. STRIP TOPSOIL AND STOCKPILE AS DIRECTED BY OWNER.
3. PERFORM DEMOLITION WORK AND MASS GRADING.
4. BEGIN CONSTRUCTION OF BUILDING PAD AND FOUNDATION.
5. CONSTRUCT STORM SEWER SYSTEM COMPLETE. IMMEDIATELY INSTALL STONE FILTERS ON ALL CATCH BASINS AND INLETS.
6. INSTALL ALL UTILITIES.
7. INSTALL ALL PAVEMENT AND CURBING.
8. DAILY, OR AS REQUIRED, CONSTRUCT AND MAINTAIN TEMPORARY BERMS, DRAINS, SILT FENCE, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.
9. FINISH GRADE, REDISTRIBUTE AND/OR PROVIDE TOPSOIL AND ESTABLISH VEGETATION ON ALL DISTURBED GROUND AREAS.
10. COMPLETE INSTALLATION OF PERMANENT EROSION CONTROL MEASURES, INCLUDING SEEDING OPERATIONS AND PAVEMENT INSTALLATION.
11. CLEAN PAVEMENT AND STORM SEWERS OF ALL SEDIMENT.
12. REMOVE SOIL EROSION CONTROL MEASURES AFTER PERMANENT VEGETATION HAS BEEN ESTABLISHED AS DIRECTED.
13. INSTALL LANDSCAPING.
14. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL SOIL EROSION CONTROL MEASURES ARE INSTALLED AND MAINTAINED.
15. THE OAKLAND COUNTY DRAIN COMMISSION SHALL INSPECT ALL SOIL EROSION CONTROL MEASURES. ADDITIONAL MEASURES SHALL BE CONSTRUCTED AND MAINTENANCE WORK SHALL BE PERFORMED IF REQUESTED BY OAKLAND COUNTY DRAIN COMMISSION.

SESC MAINTENANCE SCHEDULE NOTES:

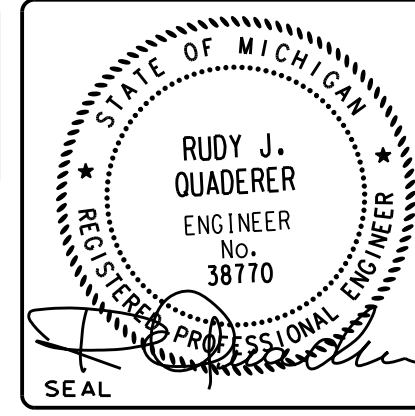
1. THE CONTRACTOR SHALL INSPECT THE SOIL EROSION AND SEDIMENT CONTROL DEVICES ONCE EACH WEEK AND WITHIN TWENTY-FOUR (24) HOURS OF A PRECIPITATION EVENT WHICH RESULTS IN A STORM WATER DISCHARGE FROM THE SITE. A LOG OF INSPECTION REPORTS SHALL BE MAINTAINED AND ACCESSIBLE IN ACCORDANCE WITH NPDES REQUIREMENTS. IMPLEMENT THE FOLLOWING STEPS IF ANY DAMAGE HAS RESULTED FROM CONSTRUCTION OR WEAR:
 2. CONSTRUCTION ACCESS ROADS (CLEAN STONE EXITS) MUST BE MAINTAINED AS NECESSARY. ADD ADDITIONAL STONE WHEN ACCESS ROAD BECOMES INEFFECTIVE DUE TO LOSS OF STONE OR COVERED WITH MUD.
 3. SILTATION CONTROL FENCE SHOULD BE TRENCHED IN, BACKFILLED, AND STAPLED OR STAKED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. MAINTENANCE INCLUDES THE REMOVAL OF BUILT-UP SEDIMENT WHEN THE SEDIMENT ACCUMULATES TO 1/3 OF THE HEIGHT OF THE FENCE. CONTRACTOR MAY HAVE TO REMOVE, REPLACE, RETRENCH, OR RE-BACKFILL THE FENCE IF IT FAILS. IT WOULD ALSO BE NECESSARY TO REINSTALL IF ANY PORTION OF THE FENCING WAS DAMAGED BY CONSTRUCTION MACHINERY.
 4. INSPECT INLET FILTERS FOR BUILD-UP OF SILT AND OTHER DEBRIS. EXCESSIVE BUILD-UP IS EVIDENT IF GEOTEXTILE / STONE STRUCTURE IS CAUSING FLOODING. MAINTENANCE CONSISTS OF REMOVING ALL SEDIMENT WITH A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IF INLET FILTER IS BEYOND THIS LEVEL OF REPAIR, IT MAY BE NECESSARY TO REPLACE BOTH THE STONE AND GEOTEXTILE FILTER FABRIC.
 5. PREPARE EROSION CONTROL SEEDING ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR / INSPECTOR SHALL INSPECT THE AREA AFTER SEEDING IS COMPLETED. REPAIR AREAS THAT ARE BARE OR NOT MULCHED PROPERLY BY SPOT SEEDING AND / OR RE-MULCHING.
 6. MAINTAIN DUST CONTROL AT ALL TIMES DURING CONSTRUCTION. SPRINKLING TANK TRUCKS SHALL BE AVAILABLE AT ALL TIMES AND USED ON HALL ROADS, ON-SITE DISTURBED AREAS, OR OTHER PLACES WHERE DUST BECOMES A PROBLEM AS A RESULT OF CONSTRUCTION EFFORTS.
 7. PROMPTLY REMOVE ALL MUD, DIRT AND DEBRIS TRACKED ONTO EXISTING ROADS FROM THIS SITE.
 8. REMOVE SILT DEPOSITS FROM TEMPORARY SEDIMENT TRAPS WHEN TRAP IS HALF FULL.
9. THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM BY THE SITE SUPERINTENDENT.

SOIL EROSION CONTROL NOTES:

1. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE OAKLAND COUNTY DRAIN COMMISSION REQUIREMENTS AND SPECIFICATIONS.
2. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR TO DETERMINE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES, AND ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
3. ANY EROSION OR SEDIMENT FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT BE ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MANMADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
4. CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED AND AS DIRECTED ON THESE PLANS. CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES AND OTHER EARTH CHANGES HAVE BEEN ESTABLISHED.
5. DUST CONTROL WILL BE EXERCISED AT ALL TIMES WITHIN THE PROJECT BY THE CONTRACTOR. SPRINKLING TANK TRUCKS SHALL BE AVAILABLE AT ALL TIMES TO BE USED ON HALL ROUTES OR OTHER PLACES WHERE DUST BECOMES A PROBLEM.
6. ALL MUD, DIRT AND DEBRIS TRACKED ONTO EXISTING ROADS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR NO LESS THAN ON A DAILY BASIS. ALL MUD, DIRT AND DEBRIS TRACKED OR SPILLED ONTO PAVED SURFACES SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
7. SP-2 & SI-4 REFER TO OAKLAND COUNTY STANDARD DETAIL SHEET FOR EROSION CONTROL AND SEDIMENTATION DETAILS.
8. PROVIDE EROSION CONTROL BLANKET FOR SIDE SLOPES 1:3 AND GREATER TO ESTABLISH VEGETATION. USE NORTH AMERICAN GRASS 1550 OR APPROVED EQUAL. (IF APPLICABLE)
9. THIS PROJECT WILL CONTINUOUSLY BE INSPECTED FOR SOIL EROSION AND SEDIMENT CONTROL COMPLIANCE. DEFICIENCIES WILL BE CORRECTED BY THE CONTRACTOR WITH 24 HOURS.
10. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE THROUGH SWALES OR OVERLAND SHEET FLOW FOR THE ENTIRE SITE. SEDIMENT SHALL BE REMOVED PRIOR TO DISCHARGE FROM LIMITS OF CONSTRUCTION. NO STANDING WATER SHALL BE PERMITTED ON SITE.
11. ALL GREEN AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED PER MICHIGAN UNIFIED KEY #6 IMMEDIATELY AFTER CONSTRUCTION IS COMPLETED.
12. DISTANCE TO NEAREST LAKE, STREAM POND, OPEN DRAIN, OR WETLAND: REGULATED WETLAND APPROXIMATELY 150 FT NORTHEAST FROM NORTHEAST CORNER OF SITE.

NORTH

DRAWN	
DESIGNED	BRZEZINSKI
CHECKED	QUADERER
FIELD WORK	



Griggs Quaderer Inc.
CIVIL ENGINEERING · LAND SURVEYING · SITE PLANNING

8308 OFFICE PARK DRIVE
GRAND BLANC, MI 48439
PH: (810) 695-0154
FX: (810) 695-0158
WWW.GQINCORP.COM

NO.	DATE	SUBJECT
	04-12-22	REISSUED TO WHITE LAKE TWP.
	01-12-22	REISSUED TO WHITE LAKE TWP.
	12-13-21	REISSUED WHITE LAKE TWP.
	10-28-21	WHITE LAKE TWP. (SITE PLAN)
	04-13-21	TOPOGRAPHIC SURVEY

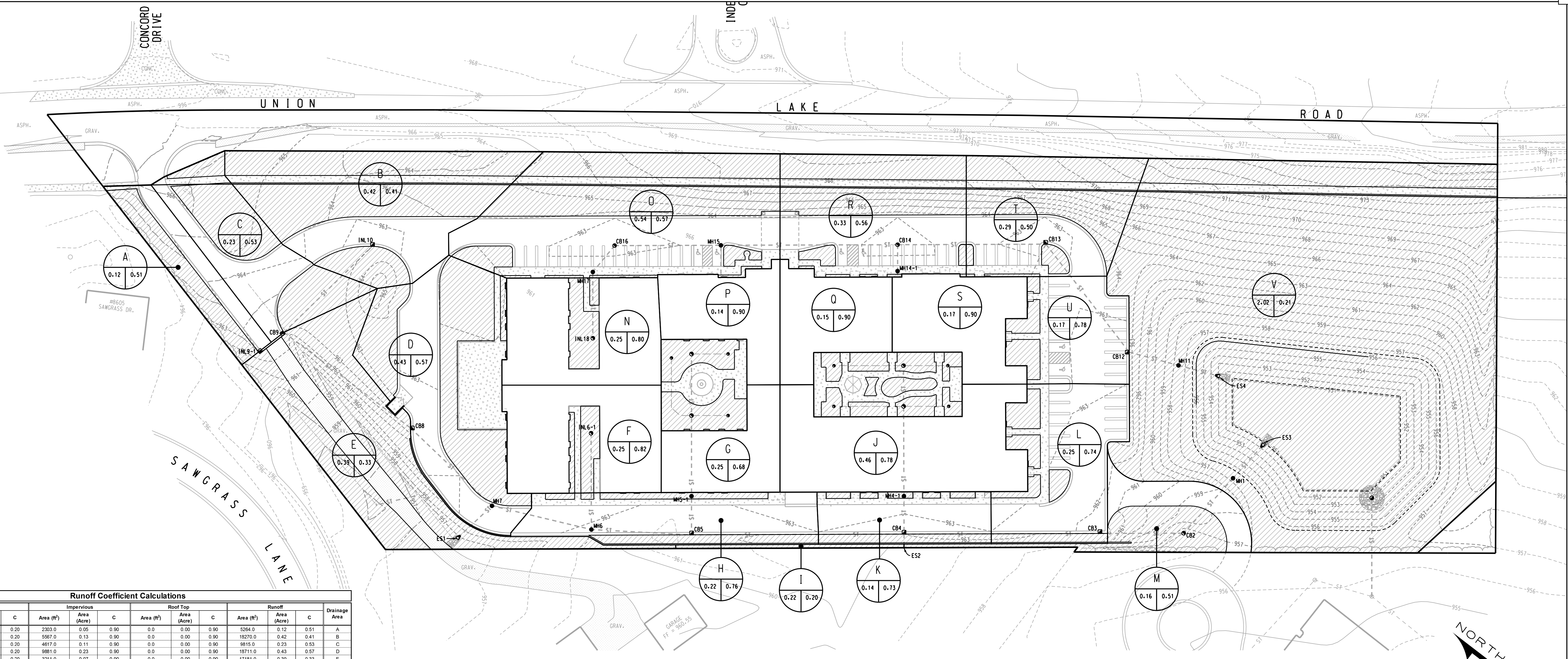
NORTHWEST 1/4
SECTION 36
T-3N, R-8E

COMFORT CARE

UNION LAKE ROAD
WHITE LAKE TWP.,
OAKLAND COUNTY
STATE OF MICHIGAN

DRAWING TITLE
SOIL EROSION CONTROL PLAN

PROJECT NUMBER	210303	SHEET	C301
PROJECT PHASE	SPA		



Runoff Coefficient Calculations

Drainage Area	Pervious			Impervious			Roof Top			Runoff			Drainage Area
	Area (ft²)	Area (Acre)	C	Area (ft²)	Area (Acre)	C	Area (ft²)	Area (Acre)	C	Area (ft²)	Area (Acre)	C	
A	2961.0	0.07	0.20	2303.0	0.05	0.90	0.0	0.00	0.90	5284.0	0.12	0.51	A
B	12703.0	0.29	0.20	5567.0	0.13	0.90	0.0	0.00	0.90	18270.0	0.42	0.41	B
C	5198.0	0.12	0.20	4617.0	0.11	0.90	0.0	0.00	0.90	9815.0	0.23	0.53	C
D	8830.0	0.20	0.20	9881.0	0.23	0.90	0.0	0.00	0.90	18711.0	0.43	0.57	D
E	13970.0	0.32	0.20	3211.0	0.07	0.90	0.0	0.00	0.90	17181.0	0.39	0.33	E
F	1220.0	0.03	0.20	4468.0	0.10	0.90	0.0	0.00	0.90	5916.0	0.14	0.73	F
G	3468.0	0.08	0.20	1654.0	0.04	0.90	5774.0	0.13	0.90	10894.0	0.25	0.68	G
H	1969.0	0.05	0.20	7658.0	0.18	0.90	0.0	0.00	0.90	9627.0	0.22	0.76	H
I	553.0	0.01	0.20	9.0	0.00	0.90	0.0	0.00	0.90	553.0	0.01	0.20	I
J	3485.0	0.08	0.20	2759.0	0.06	0.90	13592.0	0.31	0.90	19636.0	0.46	0.78	J
K	1450.0	0.03	0.20	4468.0	0.10	0.90	0.0	0.00	0.90	5916.0	0.14	0.73	K
L	2502.0	0.06	0.20	8577.0	0.20	0.90	0.0	0.00	0.90	11079.0	0.25	0.74	L
M	3896.0	0.09	0.20	3038.0	0.07	0.90	0.0	0.00	0.90	6934.0	0.16	0.51	M
N	1820.0	0.04	0.20	174.0	0.00	0.90	9039.0	0.21	0.90	10833.0	0.25	0.80	N
O	11100.0	0.25	0.20	12410.0	0.28	0.90	0.0	0.00	0.90	23510.0	0.54	0.57	O
P	0.0	0.00	0.20	0.0	0.00	0.90	6229.0	0.14	0.90	6229.0	0.14	0.90	P
Q	0.0	0.00	0.20	0.0	0.00	0.90	6475.0	0.15	0.90	6475.0	0.15	0.90	Q
R	6957.0	0.16	0.20	7574.0	0.17	0.90	0.0	0.00	0.90	14531.0	0.33	0.56	R
S	0.0	0.00	0.20	0.0	0.00	0.90	7457.0	0.17	0.90	7457.0	0.17	0.90	S
T	7282.0	0.17	0.20	5361.0	0.12	0.90	0.0	0.00	0.90	12643.0	0.29	0.50	T
U	1395.0	0.17	0.20	6248.0	0.12	0.90	0.0	0.00	0.90	7653.0	0.20	0.50	U
V	86043.0	1.98	0.20	1743.0	0.04	0.90	0.0	0.00	0.90	87786.0	2.02	0.21	V
Total	176510.0	4.19	0.20	87241.0	1.98	0.90	89295.0	1.34	0.90	322046.0	7.51	0.51	Total

Storm Design

Inlet/Outlet Manhole No.	Downstream Manhole No.	Area (ft²)	C	(Ax)C	I	S	L	v	Q						
										15 min	10 yr				
INL6-1	CB8	A	0.12	0.51	0.06	0.06	15.00	4.38	0.88	10 in.	0.35%	82	3.10	0.44	1.69
INL10	CB9	B	0.42	0.41	0.17	0.17	15.00	4.38	0.74	12 in.	0.32%	100	3.34	0.50	2.63
CB9	CB8	C	0.23	0.53	0.12	0.35	15.00	4.32	1.51	12 in.	0.32%	128	3.34	0.64	2.63
CB8	MH7	D	0.43	0.57	0.24	0.59	16.14	4.25	2.51	12 in.	0.32%	91	3.34	0.45	2.63
ES1	MH7	E	0.39	0.33	0.13	0.13	15.00	4.38	0.57	10 in.	0.35%	97	3.10	0.52	1.69
MH7	MH6	-	-	-	0.72	16.59	4.21	3.03	15 in.	0.25%	83	3.43	0.40	4.21	
INL6-1	MH6	F	0.25	0.82	0.21	0.21	15.00	4.38	0.92	10 in.	0.35%	78	3.10	0.42	1.69
MH6	CB5	G	0.25	0.68	0.17	0.17	15.00	4.38	0.74	12 in.	0.32%	91	3.34	0.45	2.63
MH5-1	CB5	H	0.22	0.76	0.17	1.10	17.39	4.13	4.54	15 in.	0.35%	172	4.06	0.71	4.98
MH4-1	CB4	J	0.46	0.78	0.35	0.35	15.00	4.38	1.53	10 in.	0.40%	31	3.31	0.16	1.81
ES2	CB4	I	0.01	0.20	0.00	0.01	15.00	4.38	0.04	8 in.	0.50%	12	3.19	0.06	1.11
CB4	CB3	K	0.14	0.73	0.10	1.46	18.09	4.06	5.93	18 in.	0.25%	158	3.87	0.68	6.85
CB3	CB2	L	0.25	0.74	0.19	1.65	18.77	4.00	6.60	18 in.	0.30%	68	4.24	0.27	7.50
CB2	ES3	M	0.16	0.51	0.08	1.73	19.04	3.97	6.87	18 in.	0.30%	95	4.24	0.37	7.50
INL18	CB16	N	0.25	0.80	0.20	0.20	15.00	4.38	0.88	10 in.	0.35%	82	3.10	0.44	1.69
CB16	MH15	O	0.54	0.57	0.31	0.51	15.44	4.33	2.21	12 in.	0.32%	86	3.34	0.43	2.63
BLDG	MH15	P	0.14	0.90	0.13	0.13	15.00	4.38	0.57	10 in.	0.35%	23	3.10	0.12	1.69
MH15	CB14	-	-	-	0.64	15.87	4.28	2.74	12 in.	0.35%	143	3.50	0.68	2.75	
MH14-1	CB14	Q	0.15	0.90	0.13	0.13	15.00	4.38	0.57	10 in.	0.35%	21	3.10	0.11	1.69
CB14	CB13	R	0.33	0.56	0.19	0.96	16.55	4.21	4.04	15 in.	0.30%	120	3.76	0.53	4.81
BLDG	CB13	S	0.17	0.90	0.15	0.15	15.00	4.38	0.66	10 in.	0.35%	132	3.10	0.71	1.69
CB13	CB12	T	0.29	0.50	0.14	1.25	17.08	4.16	5.20	15 in.	0.45%	110	4.60	0.40	5.65
CB12	ES4	U	0.17	0.78	0.13	1.38	17.48	4.12	5.68	18 in.	0.25%	23	3.87	0.10	6.85
OCS	OUTLET	V	2.02	0.21	0.43	3.54	19.41	3.94	13.95	21 in.	0.50%	23	6.07	0.06	14.60

1yr Detention Requirement

Site Information
 Design Return Period = 1 yrs
 Site Area (A) = 7.51 acre
 C = 0.51
 Allowable Outlet = 0.20 cfs/acre
 Allowable Outlet (Q_a) = 1.50 cfs

Storage Computations
 Calculate Q_a
 $Q_a = \frac{Q_p}{A \cdot C}$
 Q_a = 0.393
 Maximum Storage Time (T_s)
 $T_s = -25 + \sqrt{\frac{2700}{Q_a}}$
 T_s = 57.9 min.
 Maximum Storage (V_{s1})
 $V_{s1} = \frac{4,320 \cdot T_s}{T_s + 25} - 40 \cdot Q_a \cdot T_s$
 V_{s1} = 2108.1 ft³/ac
 Total Storage Required (V_{T1})
 $V_{T1} = V_{s1} \cdot C \cdot A$
 V_{T1} = 8066.7 ft³

100yr Detention Requirement

Site Information
 Design Return Period = 100 yrs
 Site Area (A) = 7.51 acre
 C = 0.51
 Allowable Outlet = 0.20 cfs/acre
 Allowable Outlet (Q_a) = 1.50 cfs

Storage Computations
 Calculate Q_a
 $Q_a = \frac{Q_p}{A \cdot C}$
 Q_a = 0.393
 Maximum Storage Time (T_{s100})
 $T_{s100} = -25 + \sqrt{\frac{10312.5}{Q_a}}$
 T_{s100} = 137.1 min.
 Maximum Storage (V_{s100})
 $V_{s100} = \frac{16,5000 \cdot T_{s100}}{T_{s100} + 25} - 40 \cdot Q_a \cdot T_{s100}$
 V_{s100} = 11802.6 ft³/ac
 Total Storage Required (V_{T100})
 $V_{T100} = V_{s100} \cdot C \cdot A$
 V_{T100} = 45162.6 ft³

Detention Capacity

Elevation	Volume (ft³)	Total Volume (ft³)
951.00	0.0	0.0
951.50	4682.0	4682.0
952.00	5302.0	9984.0
952.50	5953.0	15937.0
953.00	6638.0	22575.0
953.50	7355.0	29930.0
954.00	8100.0	38030.0
954.50	8874.0	46904.0
955.00	9677.0	56581.0
955.50	10507.0	67088.0
956.00	11366.0	78454.0
956.50	12268.9	87722.9
957.00	10688.3	97791.2
957.50	10897.5	108688.7
958.00	11756.7	120445.4
958.50	12645.7	133091.1
959.00	13564.6	146655.7
Total Detention Capacity	146656	
1-YR Storm (Volume)	8067	
1-YR Storm (Elevation)	951.84	
100-YR Storm (Volume)	45163	
100-YR Storm (Elevation)	954.54	

Temporary Outlet Control

Orifice Calculations:
 The 1-yr orifice has been designed so that the pond is emptied in 48 hours.
 Allowable Release Rate
 $Q = C \cdot O \cdot \sqrt{2 \cdot g \cdot h}$
 Definitions:
 7.51 A Existing Drainage Area (acres)
 0.20 Q_a Temp. Allowable outlet rate (ft³/acre)
 0.62 C Orifice Coefficient
 32.2 g Acceleration due to gravity (ft/s²)
 3.54 h Maximum head condition at the design storage level (ft)

Maximum head condition:
 954.54 h_{max} Maximum head elevation
 951.00 h_{min} Minimum head elevation
 $h = h_w - h_{min}$
 h = 3.54 ft

Solve for Area:
 $A = \frac{Q}{C \cdot O \cdot \sqrt{2 \cdot g \cdot h}}$
 Q_a = 0.04 ft³/sec
 O = 0.62 ft/sec
 g = 32.2 ft/sec²
 h = 3.54 ft

Use the following:
 Diameter = 0.5 in.
 Area = 0.20 in²
 No. of Holes = 3
 Drainage T = 58.5 yrs

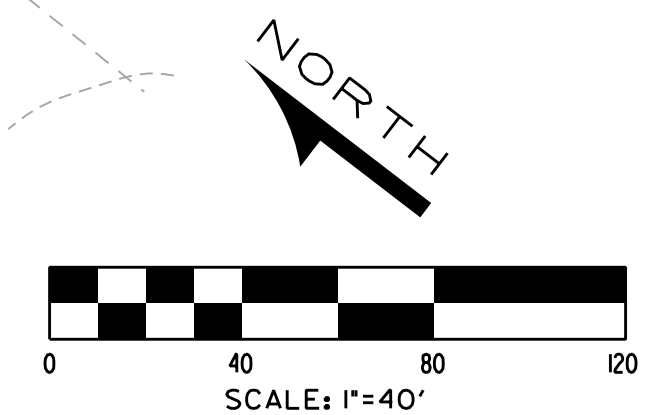
Outlet Control

Orifice Calculations:
 Allowable Release Rate
 $Q = C \cdot O \cdot \sqrt{2 \cdot g \cdot h}$
 Definitions:
 7.51 A Existing Drainage Area (acres)
 0.20 Q_a Total Allowable outlet rate (ft³/acre)
 0.62 C Orifice Coefficient
 32.2 g Acceleration due to gravity (ft/s²)
 3.54 h Maximum head condition at the design storage level (ft)

Maximum head condition:
 954.54 h_{max} Maximum head elevation
 951.00 h_{min} Minimum head elevation
 $h = h_w - h_{min}$
 h = 3.54 ft

Solve for Area:
 $A = \frac{Q}{C \cdot O \cdot \sqrt{2 \cdot g \cdot h}}$
 Q_a = 1.50 ft³/sec
 O = 0.62 ft/sec
 g = 32.2 ft/sec²
 h = 3.54 ft

Use the following:
 Diameter = 3 in. (minimum)
 Area = 7.07 in²
 No. of Holes = 1
 Drainage T = 27.3 yrs



04-12-22	REISSUED TO WHITE LAKE TWP.
01-12-22	REISSUED TO WHITE LAKE TWP.
12-13-21	REISSUED WHITE LAKE TWP.
10-28-21	WHITE LAKE TWP. (SITE PLAN)
04-13-21	TOPOGRAPHIC SURVEY

NO.	DATE	SUBJECT
REVISION R ISSUE		

NORTHWEST 1/4 SECTION 36 T-3N, R-8E

COMFORT CARE

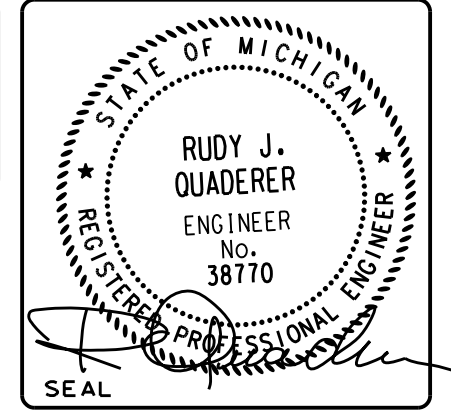
UNION LAKE ROAD
 WHITE LAKE TWP.,
 OAKLAND COUNTY
 STATE OF MICHIGAN

DRAWING TITLE
DRAINAGE AREA MAP & STORM CALCULATIONS

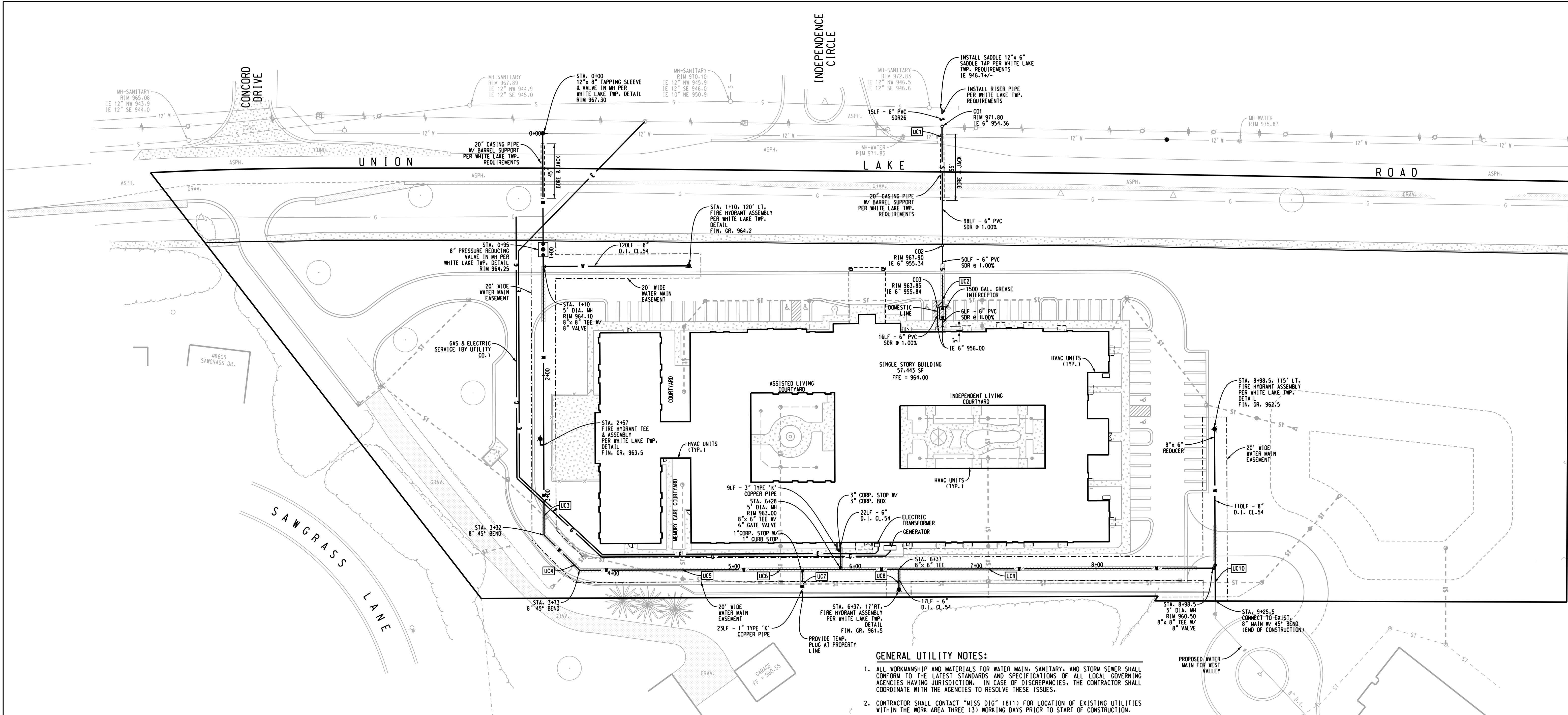
PROJECT NUMBER	210303	SHEET	C302
PROJECT PHASE	SPA		

DRAWN
 DESIGNED BRZEZINSKI
 CHECKED QUADERER
 FIELD WORK

Griggs Quaderer Inc.
 CIVIL ENGINEERING · LAND SURVEYING · SITE PLANNING



8308 OFFICE PARK DRIVE
 GRAND BLANC, MI 48439
 PH: (810) 695-0154
 FX: (810) 695-0158
 WWW.GQINCORP.COM



SANITARY SEWER NOTES:

1. MATERIAL AND CONSTRUCTION METHODS FOR THE INSTALLATION OF SANITARY SEWER SHALL BE IN ACCORDANCE WITH WHITE LAKE TOWNSHIP REQUIREMENTS.
2. ALL SANITARY SEWER PIPE SHALL BE PVC SDR 26 AND MEET OR EXCEED ASTM D-3034 FOR HEAVY WALL PIPE UNLESS OTHERWISE NOTED.
3. TESTING PROCEDURE OF NEW SANITARY LINE SHALL BE IN ACCORDANCE WITH WHITE LAKE TOWNSHIP REQUIREMENTS. CONTRACTOR TO COORDINATE INSPECTIONS WITH AGENCIES.
4. REFER TO MUNICIPALITY'S STANDARD DETAIL SHEET FOR SANITARY DETAILS AND STANDARD NOTES.

WATER MAIN NOTES:

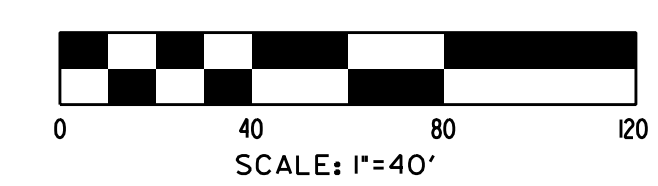
1. INSTALL WATER MAIN WITH A MINIMUM OF 6' OF COVER.
2. PROVIDE A MINIMUM OF 18" OF VERTICAL SEPARATION AND 10' OF HORIZONTAL SEPARATION BETWEEN WATERMAIN AND ALL SANITARY AND STORM SEWERS.
3. PROVIDE THRUST BLOCKS AT ALL WATER MAIN BENDS, AND TEES PER WHITE LAKE TOWNSHIP DESIGN STANDARDS.
4. ALL WATER MAIN MATERIALS SHALL CONFORM TO WHITE LAKE TOWNSHIP DESIGN STANDARD SPECIFICATIONS. NO SECOND HAND OR SALVAGED MATERIALS SHALL BE PERMITTED.
 - 12" AND LARGER WATER MAIN PIPE SHALL BE DUCTILE IRON CLASS 54 CONFORMING TO ANSI/AWWA A21.51 / C151
 - 4" TO 10" WATER MAIN PIPE SHALL BE DUCTILE IRON CLASS 53 CONFORMING TO ANSI/AWWA A21.51 / C151
 - 2" AND SMALLER WATER LEAD PIPE SHALL BE TYPE "K" COPPER.
5. THE WATER MAIN SHALL BE TESTED IN ACCORDANCE WITH WHITE LAKE TOWNSHIP REQUIREMENTS. THE INSPECTOR OF THE MUNICIPALITY SHALL BE PRESENT DURING THE TESTING PROCEDURE. CONTRACTOR SHALL COORDINATE INSPECTIONS WITH AGENCIES.

UTILITY CROSSING SCHEDULE:

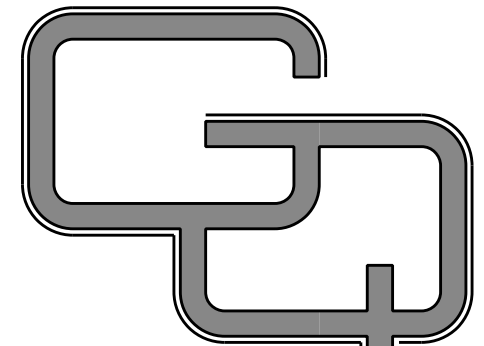
UC1	TOP SAN 955.00 BOT WATER 965.00	UC6	TOP WATER 956.40 BOT STORM 959.05
UC2	TOP SAN 956.30 BOT STORM 957.00	UC7	TOP STORM 954.00 BOT WATER 956.20
UC3	TOP WATER 955.50 BOT STORM 957.00	UC8	TOP STORM 953.90 BOT WATER 956.50
UC4	TOP WATER 955.30 BOT STORM 956.80	UC9	TOP WATER 956.50 BOT STORM 958.10
UC5	TOP STORM 954.20 BOT WATER 956.50	UC10	TOP STORM 953.50 BOT WATER 956.00

GENERAL UTILITY NOTES:

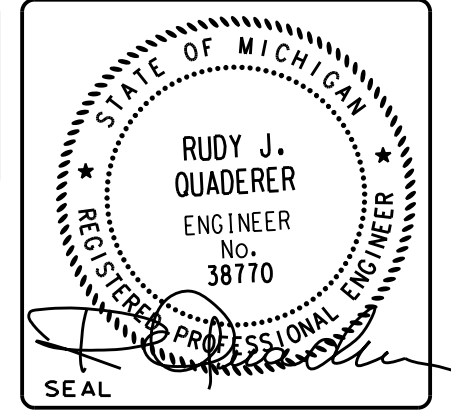
1. ALL WORKMANSHIP AND MATERIALS FOR WATER MAIN, SANITARY, AND STORM SEWER SHALL CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS OF ALL LOCAL GOVERNING AGENCIES HAVING JURISDICTION. IN CASE OF DISCREPANCIES, THE CONTRACTOR SHALL COORDINATE WITH THE AGENCIES TO RESOLVE THESE ISSUES.
2. CONTRACTOR SHALL CONTACT "MISS DIG" (811) FOR LOCATION OF EXISTING UTILITIES WITHIN THE WORK AREA THREE (3) WORKING DAYS PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND STABILIZING (IF REQUIRED) ALL TRENCH EXCAVATIONS TO ACCOMPLISH WORK INDICATED ON PLANS AND TO ACHIEVE REQUIRED COMPACTION OPERATIONS AS INDICATED IN THE PROJECT SPECIFICATIONS OR ON THESE DOCUMENTS. DEWATERING, IF DETERMINED NECESSARY BY THE CONTRACTOR, WILL BE CONSIDERED INCIDENTAL TO THE INSTALLATION COST OF UTILITIES OR STRUCTURES.
4. UTILITY SERVICE LEADS SHALL END 5 FEET FROM THE BUILDING UNLESS NOTED OTHERWISE. COORDINATE WITH BUILDING CONTRACTOR (IF NECESSARY).
5. PROTECT AND MAINTAIN 18 INCH CLEARANCE AT ALL UTILITY CROSSINGS.
6. REFER TO TRENCH DETAIL(S) SHOWN ON THESE DOCUMENTS FOR BEDDING AND BACKFILL MATERIAL REQUIREMENTS.
7. TRENCH EXCAVATIONS SHALL BE COMPACTED IN CONTINUOUS LAYERS NOT EXCEEDING 8 INCH LOOSE LIFTS. COMPACTED TO 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ANSI/ASTM D 1557 MODIFIED PROCTOR.
8. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
9. CONTRACTOR SHALL COORDINATE INSTALLATION OF GAS, ELECTRIC, AND TELEPHONE WITH THE APPROPRIATE UTILITY COMPANIES.
10. TESTING PROCEDURES FOR SANITARY AND WATER MAIN SHALL BE IN ACCORDANCE WITH LOCAL GOVERNING AGENCY REQUIREMENTS. CONTRACTOR SHALL COORDINATE WITH ALL GOVERNING AGENCIES AND HAVE INSPECTORS PRESENT DURING THE TESTING PROCEDURES. ALL TESTING MUST BE APPROVED BY ALL GOVERNING AGENCIES PRIOR TO CONNECTION INTO EXISTING UTILITIES.
11. CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER.
12. CONTRACTOR SHALL ADJUST ANY UTILITY ELEMENT MEANT TO BE FLUSH WITH NEW GRADE (CLEAN OUT, VALVE BOXES, MANHOLES, CATCH BASINS, INLETS, ETC.) THAT ARE AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT. THE CONTRACTOR SHALL OBTAIN ANY NECESSARY PERMITS FOR ADJUSTMENT AT THE CONTRACTOR'S EXPENSE (IF APPLICABLE).
13. THE CONTRACTOR SHALL PAY FOR AND OBTAIN ALL PERMITS REQUIRED BY FEDERAL, STATE, LOCAL, OR PRIVATE AGENCIES AND PAY ALL CHARGES FOR INSPECTION AND TESTING.
14. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL CONSTRUCTION LAYOUT AND GRADE ELEVATIONS FOR THE WORK IN ACCORDANCE WITH DATA SHOWN ON THESE DOCUMENTS.
15. THE CONTRACTOR SHALL CONTROL NOISE AND LIMIT WORKING HOURS TO TIMES AS ESTABLISHED BY THE LOCAL MUNICIPALITY.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP OF WORK AREA AT COMPLETION OF THE PROJECT AND LEAVE THE SITE IN AN ACCEPTABLE CONDITION AS DETERMINED BY THE ENGINEER/INSPECTOR AND/OR OWNER.



DRAWN	
DESIGNED	BRZEZINSKI
CHECKED	QUADERER
FIELD WORK	



Griggs Quaderer Inc.
CIVIL ENGINEERING · LAND SURVEYING · SITE PLANNING



8308 OFFICE PARK DRIVE
GRAND BLANC, MI 48439
PH: (810) 695-0154
FX: (810) 695-0158
WWW.GQINCORP.COM

NO.	DATE	SUBJECT
	04-12-22	REISSUED TO WHITE LAKE TWP.
	01-12-22	REISSUED TO WHITE LAKE TWP.
	12-13-21	REISSUED WHITE LAKE TWP.
	10-28-21	WHITE LAKE TWP. (SITE PLAN)
	04-13-21	TOPOGRAPHIC SURVEY

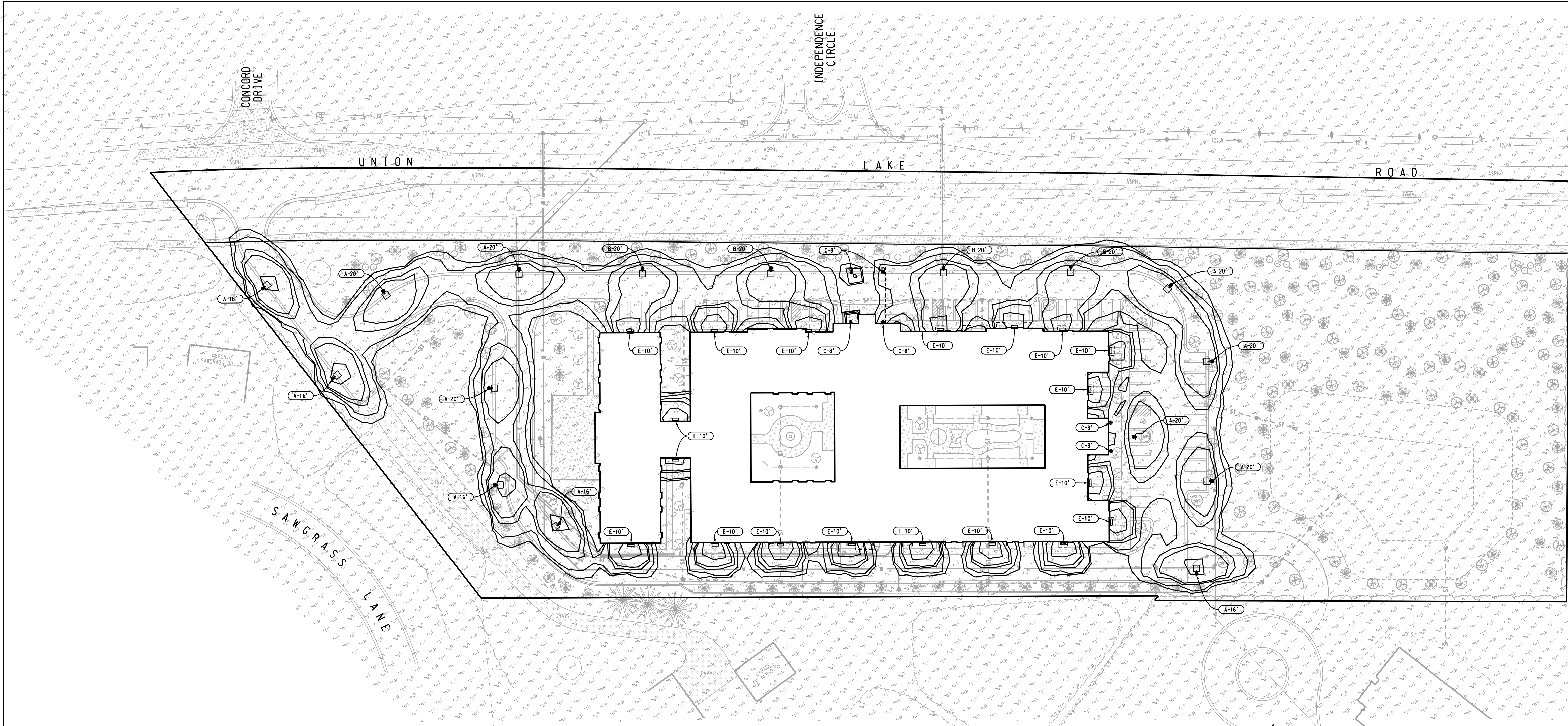
NORTHWEST 1/4
SECTION 36
T-3N, R-8E

COMFORT CARE

UNION LAKE ROAD
WHITE LAKE TWP.,
OAKLAND COUNTY
STATE OF MICHIGAN

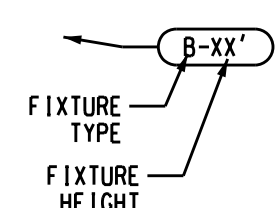
DRAWING TITLE
SITE UTILITY PLAN

PROJECT NUMBER	210303	SHEET	C400
PROJECT PHASE	SPA		

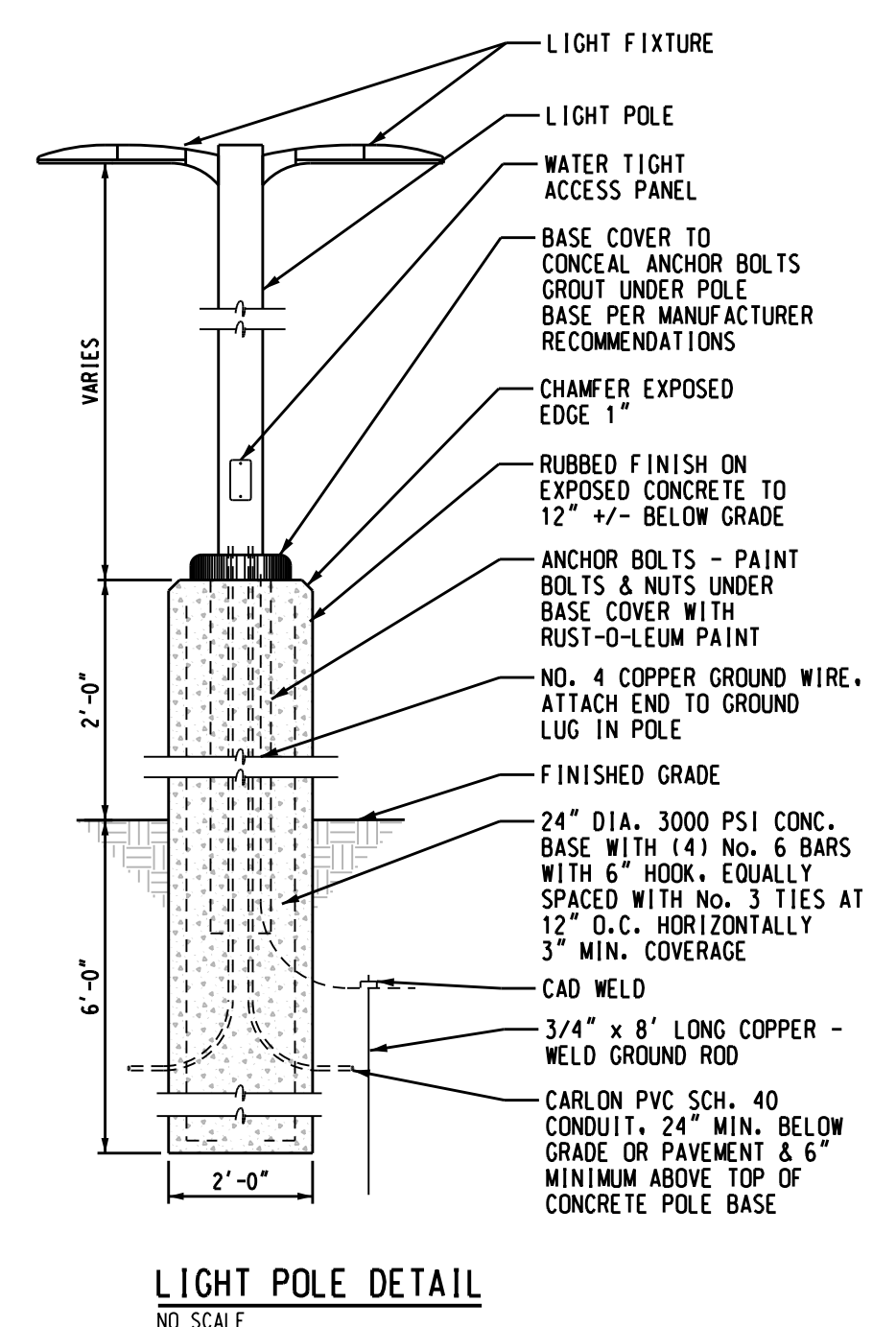
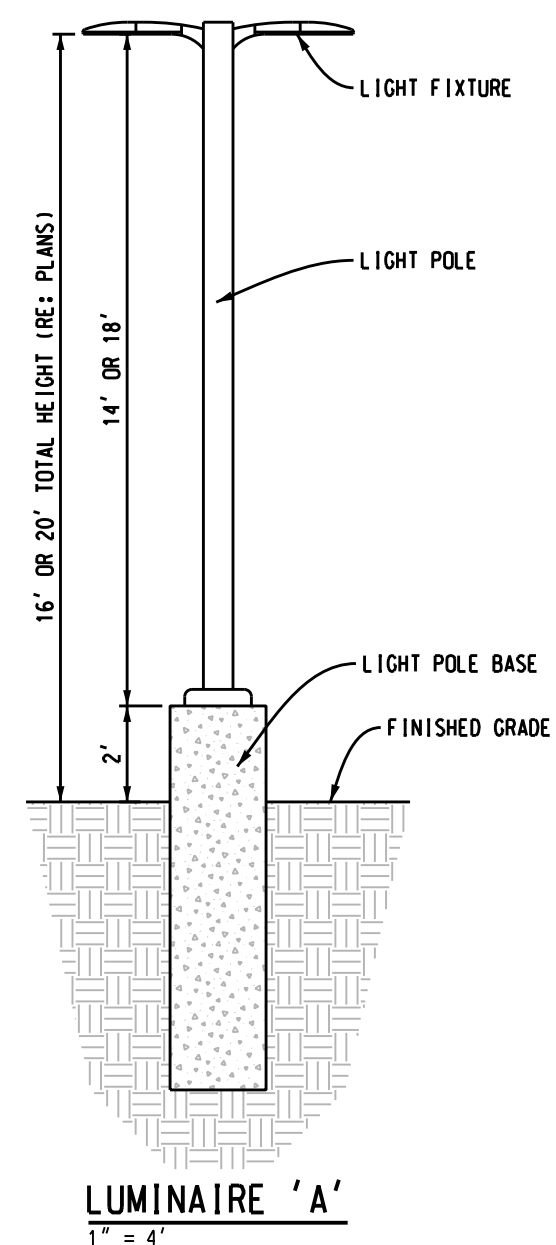
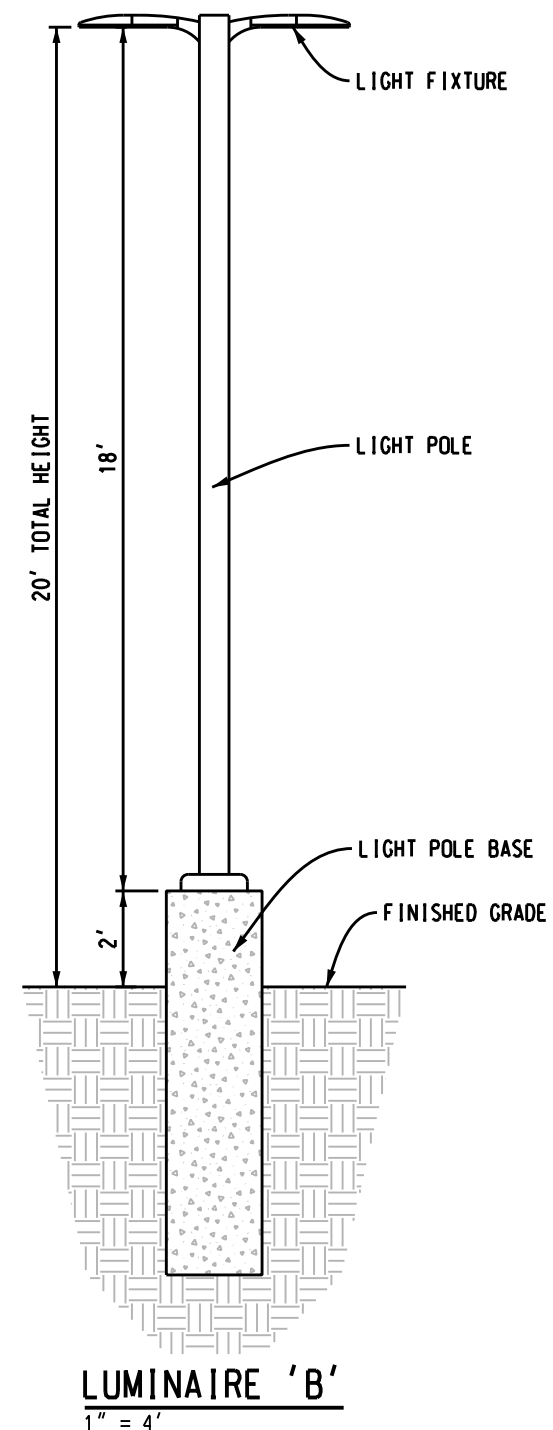


LIGHTING NOTES:
 - THE FOOTCANDLES SHOWN HEREON HAVE BEEN CALCULATED AT APPROXIMATELY SIX FEET ABOVE GRADE.
 - THE CATALOG DETAILS OF THE LIGHTING FIXTURE HAVE BEEN PROVIDED IN FULL BUT SEPARATELY FROM THESE SITE PLAN DOCUMENTS.

STATISTICAL AREA SUMMARY				
AVG	MAX	MIN	AVG/MIN	MAX/MIN
0.7	11.7	0.1	7.0 / 1	117 / 1



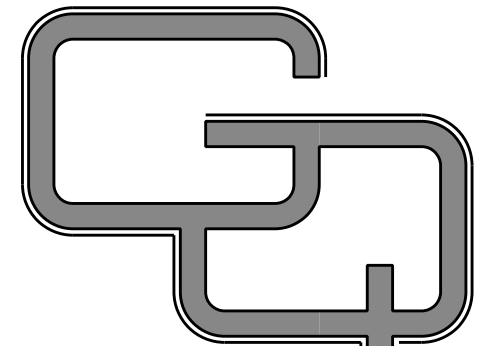
LUMINAIRE SCHEDULE							
QTY	LABEL	ARRANGEMENT	MANUFACTURER	CATALOG NO.	DESCRIPTION	LAMP	WATTAGE
12	A	SINGLE	LITHONIA	DSXO LED P1 30K T2M MVOLT HS	D-SERIES AREA SIZE 0. POLE MOUNTED, SINGLE (ONE) LIGHT FIXTURE W/ HOUSE SIDE SHIELD	LED	38
4	B	SINGLE	LITHONIA	DSXO LED P1 30K T4M MVOLT HS	D-SERIES AREA SIZE 0. POLE MOUNTED, SINGLE (ONE) LIGHT FIXTURE W/ HOUSE SIDE SHIELD	LED	38
7	C	SINGLE	LITHONIA	OLLWD LED P1 40K MVOLT	WALL MOUNTED, DOWN LIGHT ONLY, CYLINDRICAL	LED	9
19	E	SINGLE	LITHONIA	DSXW1 LED 10C 700 30K TFTM MVOLT	DSXW1 WITH (1) 10 LED LIGHT ENGINES, WALL MOUNTED, SINGLE (ONE) LIGHT FIXTURE	LED	26.2



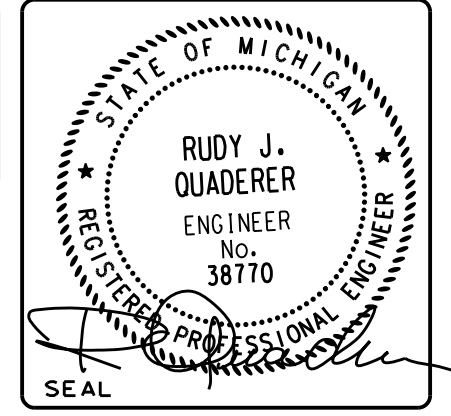
0 40 80 120
SCALE: 1"=40'

811 Know what's below. Call before you dig.

DRAWN
DESIGNED BRZEZINSKI
CHECKED QUADERER
FIELD WORK



Griggs Quaderer Inc.
CIVIL ENGINEERING · LAND SURVEYING · SITE PLANNING



8308 OFFICE PARK DRIVE
GRAND BLANC, MI 48439
PH: (810) 695-0154
FX: (810) 695-0158
WWW.GQINCORP.COM

NO.	DATE	SUBJECT
04-12-22		REISSUED TO WHITE LAKE TWP.
01-12-22		REISSUED TO WHITE LAKE TWP.
12-13-21		REISSUED WHITE LAKE TWP.
10-28-21		WHITE LAKE TWP. (SITE PLAN)
04-13-21		TOPOGRAPHIC SURVEY

NORTHWEST 1/4 SECTION 36 T-3N, R-8E

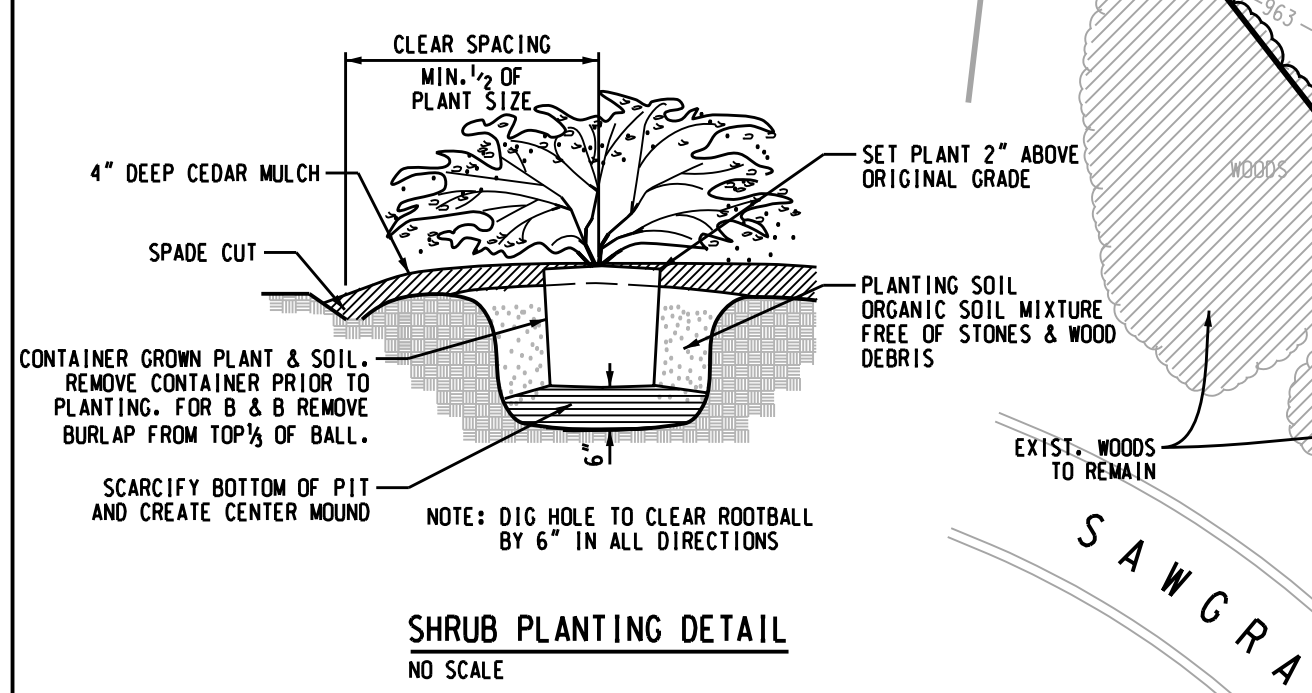
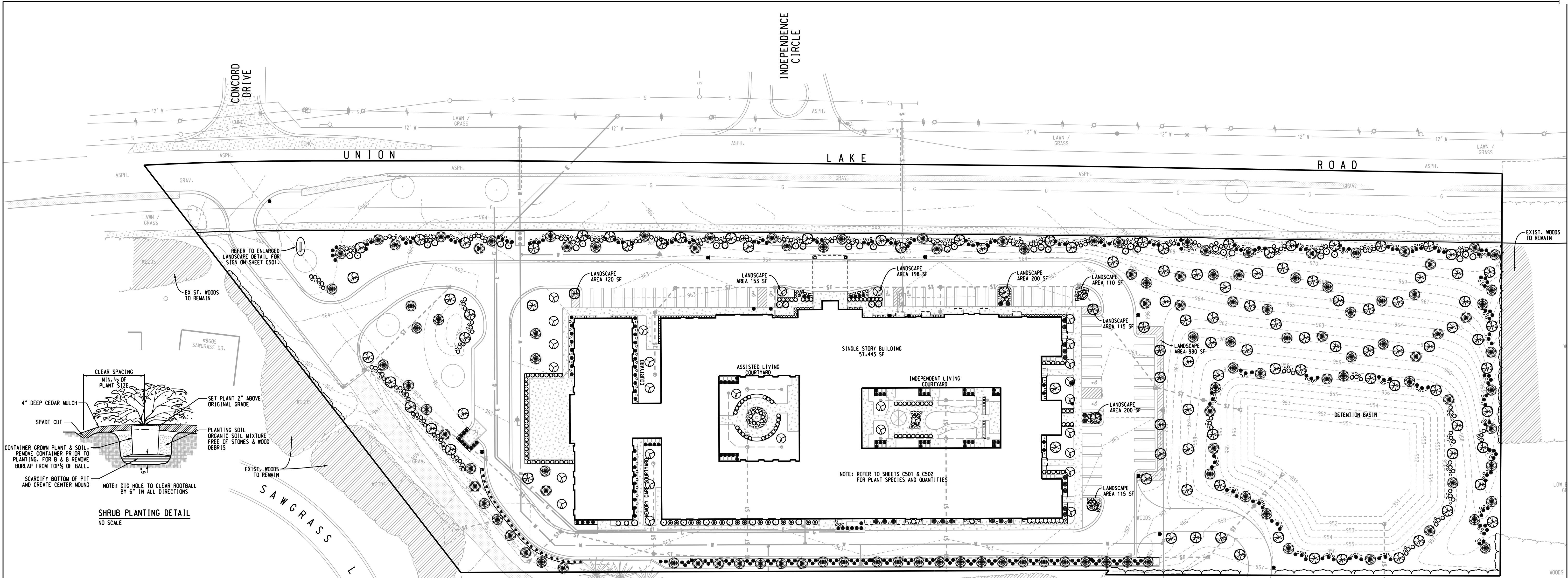
COMFORT CARE

UNION LAKE ROAD
WHITE LAKE TWP.,
OAKLAND COUNTY
STATE OF MICHIGAN

DRAWING TITLE
SITE PHOTOMETRIC PLAN

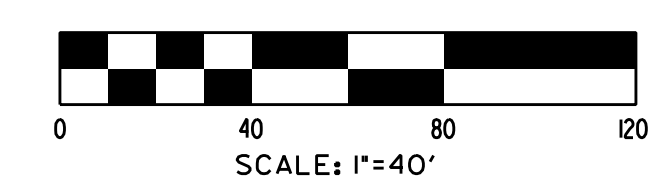
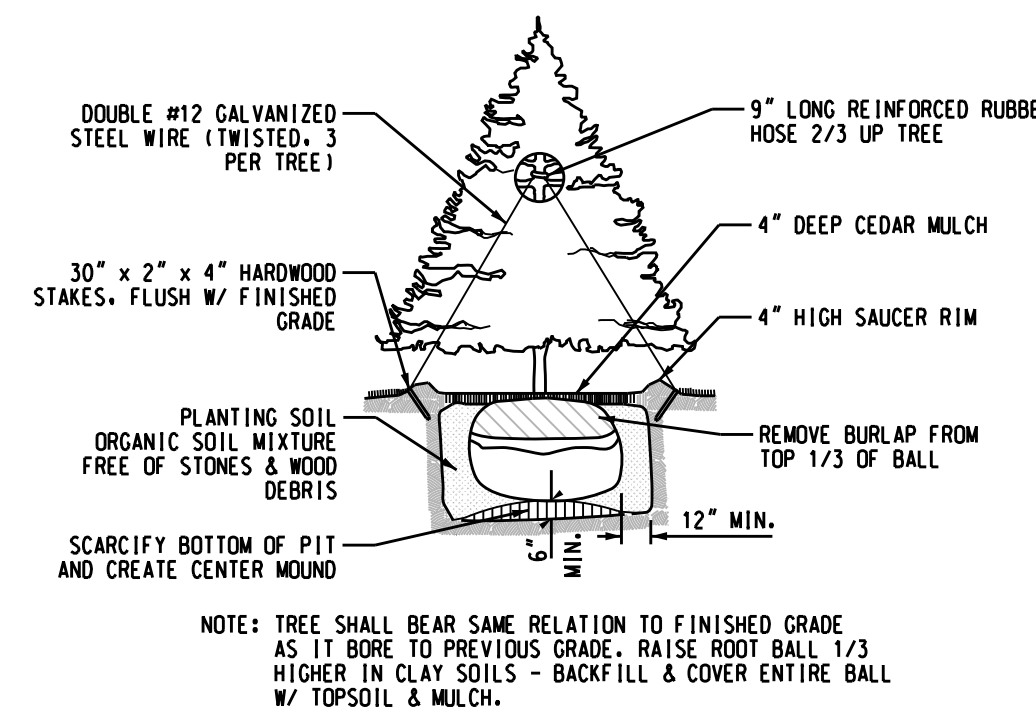
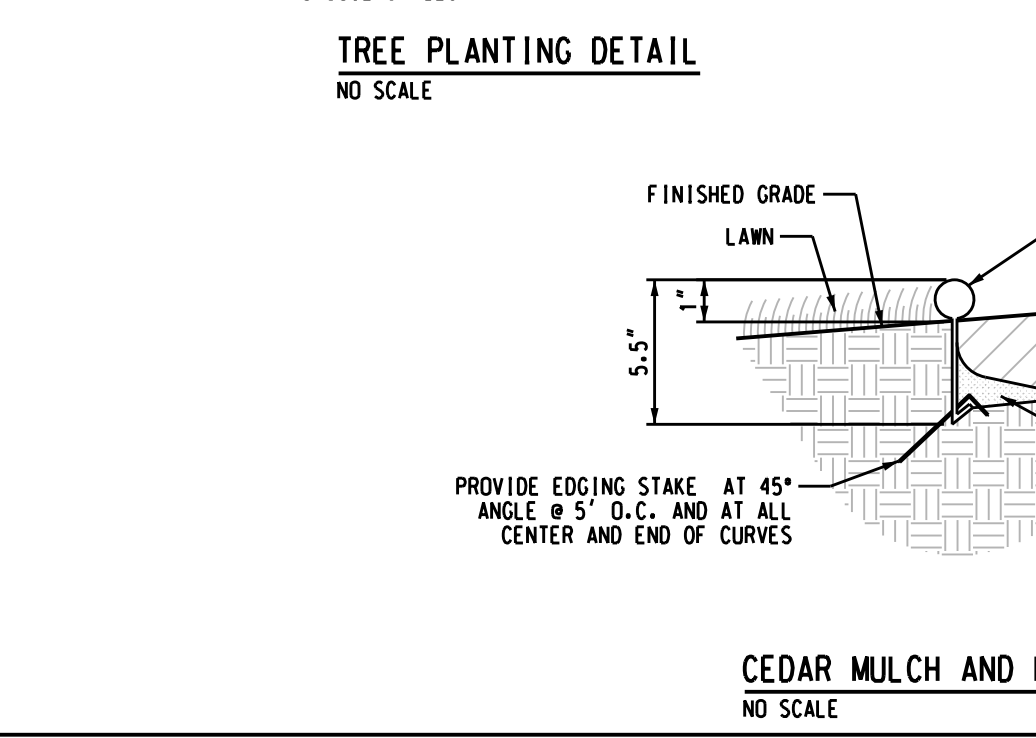
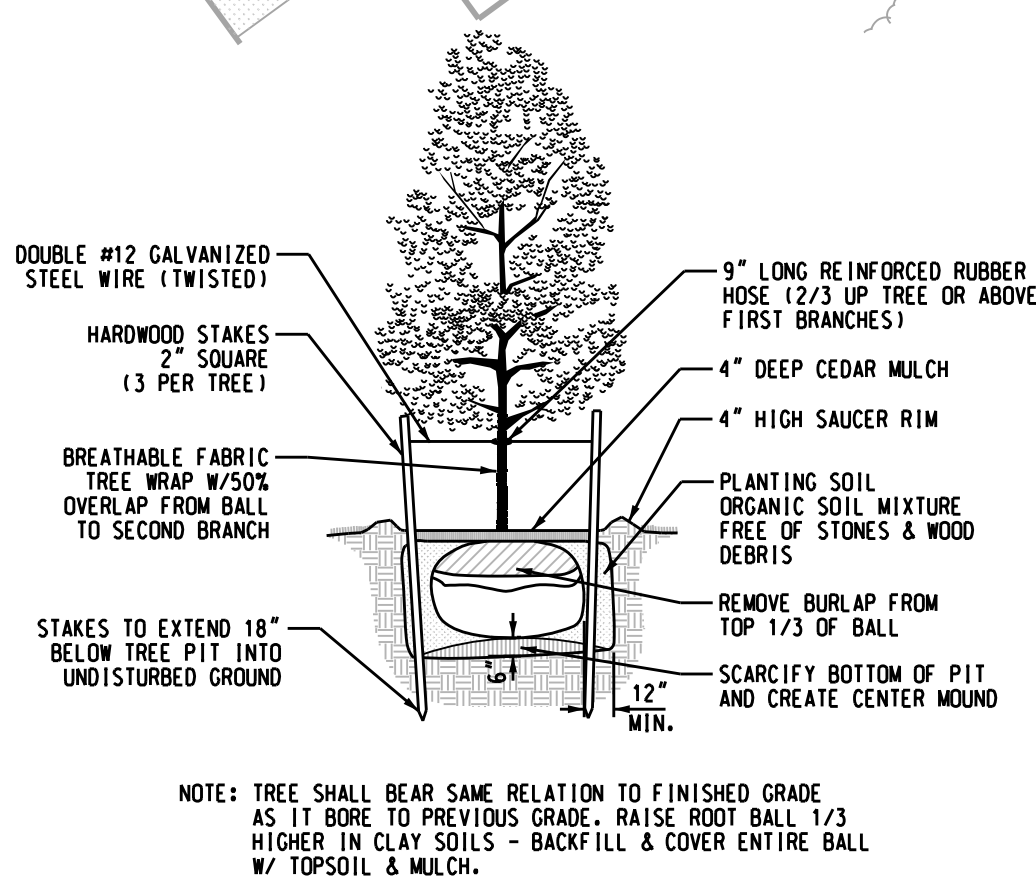
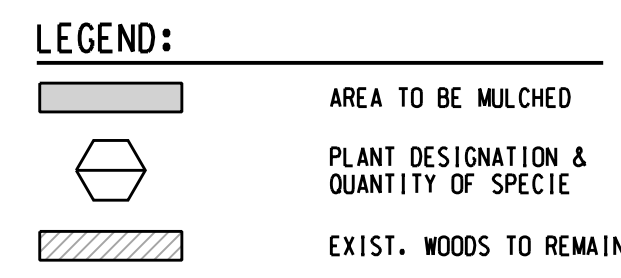
PROJECT NUMBER 210303
PROJECT PHASE SPA

SHEET C401



- LANDSCAPING NOTES:**
- INSTALLATION OF PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS LATEST EDITION.
 - PRIOR TO BEGIN OF LANDSCAPE WORK, CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES, CONTRACTOR SHALL CONTACT MISS DIG (811) FOR LOCATIONS OF ALL PRIVATE UTILITIES. ANY DAMAGE OR INTERRUPTIONS OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COORDINATE ALL RELATED WORK ACTIVITIES WITH OTHER TRADES AND REPORT ANY UNACCEPTABLE WORK CONDITIONS TO OWNER PRIOR TO COMMENCING WORK.
 - NUMERICAL VALUE OF PLANT MATERIAL SHOWN SHALL TAKE PRECEDENCE OVER GRAPHIC REPRESENTATION. VERIFY AND REPORT ANY DISCREPANCIES WITH LANDSCAPE ARCHITECT.
 - SUBSTITUTIONS OR DEVIATIONS FROM THE LANDSCAPE PLAN MUST BE APPROVED BY THE MUNICIPALITY AND/OR GOVERNING AGENCY PRIOR TO COMMENCING.
 - NEW LANDSCAPE BEDS WITHIN PREVIOUS BUILDING AND PAVEMENT AREAS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND POOR SOILS TO A MINIMUM DEPTH OF 24" AND BACKFILLED WITH GOOD MEDIUM TEXTURED ORGANIC PLANTING SOIL FREE OF ROCKS LARGER THAN 1".
 - PROTECT EXISTING TREES TO REMAIN WITH TEMPORARY FENCING PLACED AT THE DRIP LINE. NO GROUND DISTURBANCE OR STORAGE OF MATERIAL SHALL OCCUR WITHIN THE DRIP LINE LIMITS.
 - COORDINATE PLACEMENT OF PLANTS WITH UNDERGROUND UTILITY LOCATIONS. MAKE ADJUSTMENTS AS REQUIRED TO AVOID PLANTING OVER THE UTILITIES. DO NOT PLANT SHADE OR EVERGREEN TREES BELOW OVERHEAD WIRES. IF CONFLICT OCCURS, CONTACT LANDSCAPE ARCHITECT TO ADJUST LOCATION OF TREES.
 - BACKFILL ISLANDS FROM SUBGRADE TO THE TOP OF CURB WITH ON-SITE TOPSOIL UNLESS OTHERWISE NOTED ON PLAN. FINISHED GRADE IN CENTER OF ISLAND SHALL BE 4" TO 6" HIGHER THAN TOP OF CURB TO PROVIDE POSITIVE DRAINAGE TO PERIMETER OF CURB ISLAND.
 - PLACE 4" THICK BY 4" DIAMETER SHREDDED CEDAR OR CYPRESS BARK MULCH RING AT THE BASE OF ALL NEW TREES IN LAWN AREA. CUT LAWN AREA IN A SMOOTH UNIFORM CIRCULAR LINE.
 - ALL GREEN AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WITH SIDE SLOPES LESS THAN 3:1, SHALL BE GRADED AND TOPPED WITH MINIMUM 4" DEEP TOPSOIL AND SEEDED & MULCHED. REFER TO PLAN FOR SEED MIXTURE AND APPLICATION RATE.
 - ALL EXISTING TREES AND SHRUBS NOTED TO REMAIN SHALL BE PROPERLY PRUNED, TRIMMED, THINNED AND SHAPED BY A QUALIFIED NURSERYMAN OF ARBORIST. ALL DEAD LIMBS AND BRANCHES SHALL BE REMOVED FROM SITE.
 - UNLESS NOTED OTHERWISE, LANDSCAPE BEDS ADJACENT TO LAWN AREAS SHALL RECEIVE LANDSCAPE EDGING AS DETAILED ON PLAN.
 - ALL LANDSCAPING SHALL BE COMPLETED WITHIN 6 MONTHS OF COMPLETION OF BUILDING.
 - ALL STAKING MATERIALS AND WRAPPING SHALL BE REMOVED OFF SITE WITHIN ONE YEAR AFTER INSTALLATION.
 - LANDSCAPING ITEMS SHALL NOT INTERFERE WITH THE CLEAR VISION AREAS. TREES WITHIN PARKING LOT ISLANDS SHALL HAVE A CLEAR VIEW OF 4'-6" MINIMUM TO THE FIRST BRANCH AT MATURITY.
 - ALL PLANT MATERIALS INCLUDING LAWN AREAS SHALL BE WATERED, FERTILIZED, TRIMMED, MOWED AND GENERALLY MAINTAINED BY THE CONTRACTOR IN A HEALTHY GROWING CONDITION FOR A PERIOD OF 30 DAYS AFTER FINAL COMPLETION AND AFTER LAWN IS CUT FOR FIRST TIME. CONTRACTOR SHALL SUBMIT A ONE (1) YEAR WARRANTY FROM COMPLETION DATE AND BE RESPONSIBLE TO REPLACE ANY DISEASED OR DEAD PLANT MATERIAL WITHIN THAT PERIOD OF TIME WITHOUT ANY COST TO THE OWNER.

PLANTING REQUIREMENTS		
LOCATION	MINIMUM REQUIREMENT	PROVIDED
ROAD R/W GREENBELT	20' WIDE GREENBELT: 1 DECIDUOUS OR EVERGREEN TREE + 8 SHRUBS / 30LF = 1,127/30 = 38 TREES + 304 SHRUBS	57 TREES, 358 SHRUBS
PARKING LOT AREA	15SF PER PARKING SPACE = 62 SPAC.(15) = 930 SF	2,190 SF OF LANDSCAPE AREA
RESIDENTIAL BUFFER (SOUTH SIDE)	LAND FORM BUFFER A-2 = 1 TREE + 8 SHRUBS PER 30LF = 288/30 = 10 TREES + 80 SHRUBS	17 TREES, 74 SHRUBS, EXIST. WOODS
RESIDENTIAL BUFFER (WEST SIDE)	LAND FORM BUFFER A-2 = 1 TREE + 8 SHRUBS PER 30LF = 372/30 = 13 TREES + 104 SHRUBS	18 TREES, EXIST. TREES & WOODS, NEW WALL 82 SHRUBS
INTERIOR LANDSCAPING	15% OF THE TOTAL LOT AREA 1 TREE / 300 SF + 5 SHRUBS TOTAL AREA = 364,997 SF -PAVED AREA = 58,100 SF NET AREA = 306,497 SF 15% NET AREA = 45,975 SF 45975/300 = 153 TREES + 766 SHRUBS	147 TREES, 6 EXIST. TREES 722 SHRUBS



811 Know what's below. Call before you dig.

DRAWN
DESIGNED BRZEZINSKI
CHECKED QUADERER
FIELD WORK

STATE OF MICHIGAN
REGISTERED PROFESSIONAL ENGINEER
RUDY J. QUADERER
No. 38770
SEAL

Griggs Quaderer Inc.
CIVIL ENGINEERING · LAND SURVEYING · SITE PLANNING

8308 OFFICE PARK DRIVE
GRAND BLANC, MI 48439
PH: (810) 695-0154
FX: (810) 695-0158
WWW.GQINCORP.COM

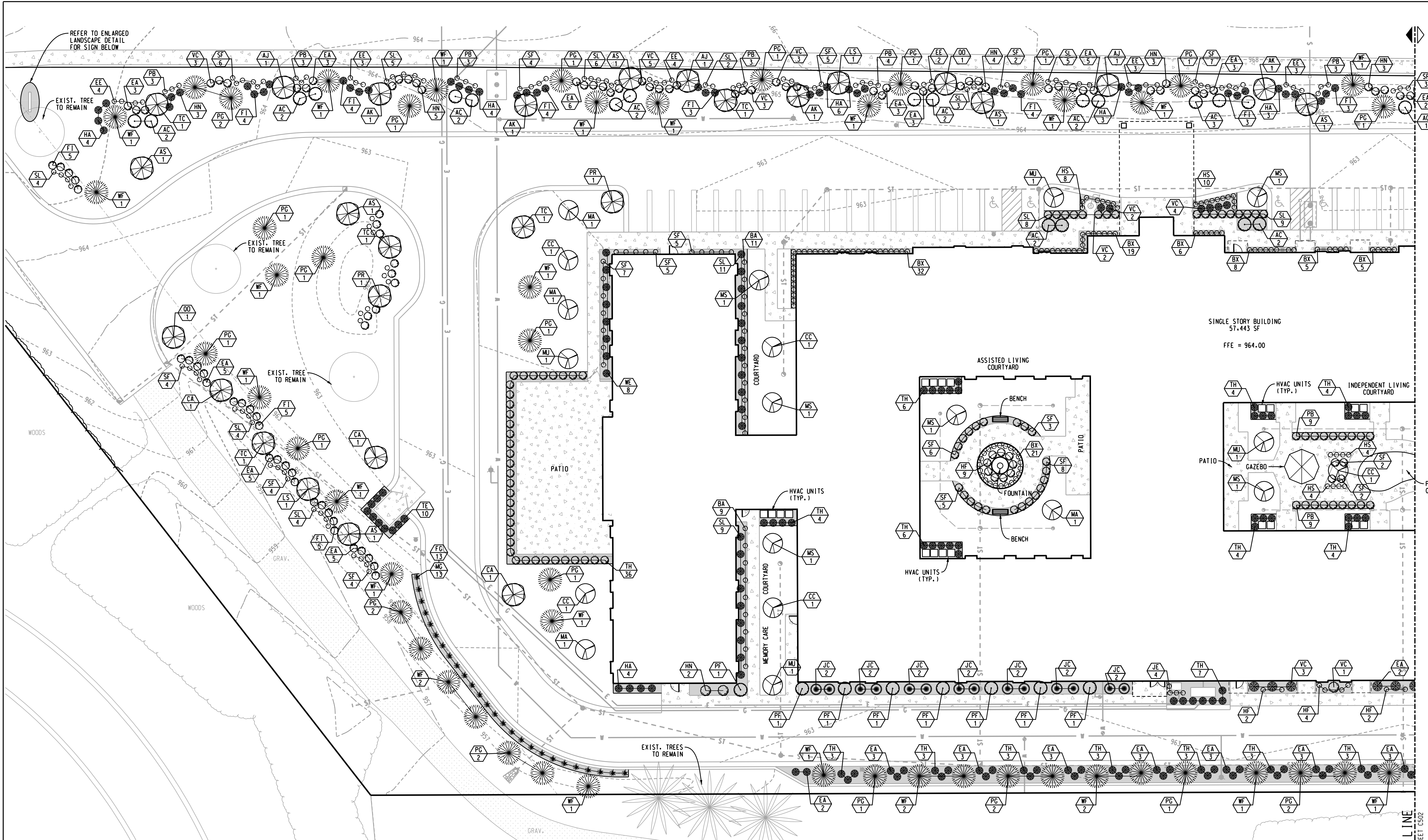
NO.	DATE	SUBJECT
04-12-22		REISSUED TO WHITE LAKE TWP.
01-12-22		REISSUED TO WHITE LAKE TWP.
12-13-21		REISSUED WHITE LAKE TWP.
10-28-21		WHITE LAKE TWP. (SITE PLAN)
04-13-21		TOPOGRAPHIC SURVEY

NORTHWEST 1/4 SECTION 36 T-3N, R-8E
COMFORT CARE
UNION LAKE ROAD
WHITE LAKE TWP.,
OAKLAND COUNTY
STATE OF MICHIGAN

DRAWING TITLE
SITE LANDSCAPE PLAN

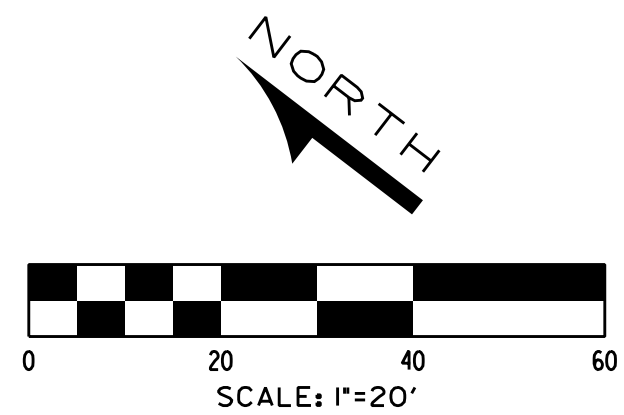
PROJECT NUMBER 210303
PROJECT PHASE SPA

SHEET
C500



NOTE: FOR PLANTING REQUIREMENTS AND LANDSCAPE DETAILS REFER TO SHEET C500.

SINGLE STORY BUILDING
57,443 SF
FFE = 964.00



NO.	DATE	SUBJECT
04-12-22		REISSUED TO WHITE LAKE TWP.
01-12-22		REISSUED TO WHITE LAKE TWP.
12-13-21		REISSUED WHITE LAKE TWP.
10-28-21		WHITE LAKE TWP. (SITE PLAN)
04-13-21		TOPOGRAPHIC SURVEY
REVISION OR ISSUE		

NORTHWEST 1/4 SECTION 36 T-3N, R-8E

COMFORT CARE

UNION LAKE ROAD
WHITE LAKE TWP.,
OAKLAND COUNTY
STATE OF MICHIGAN

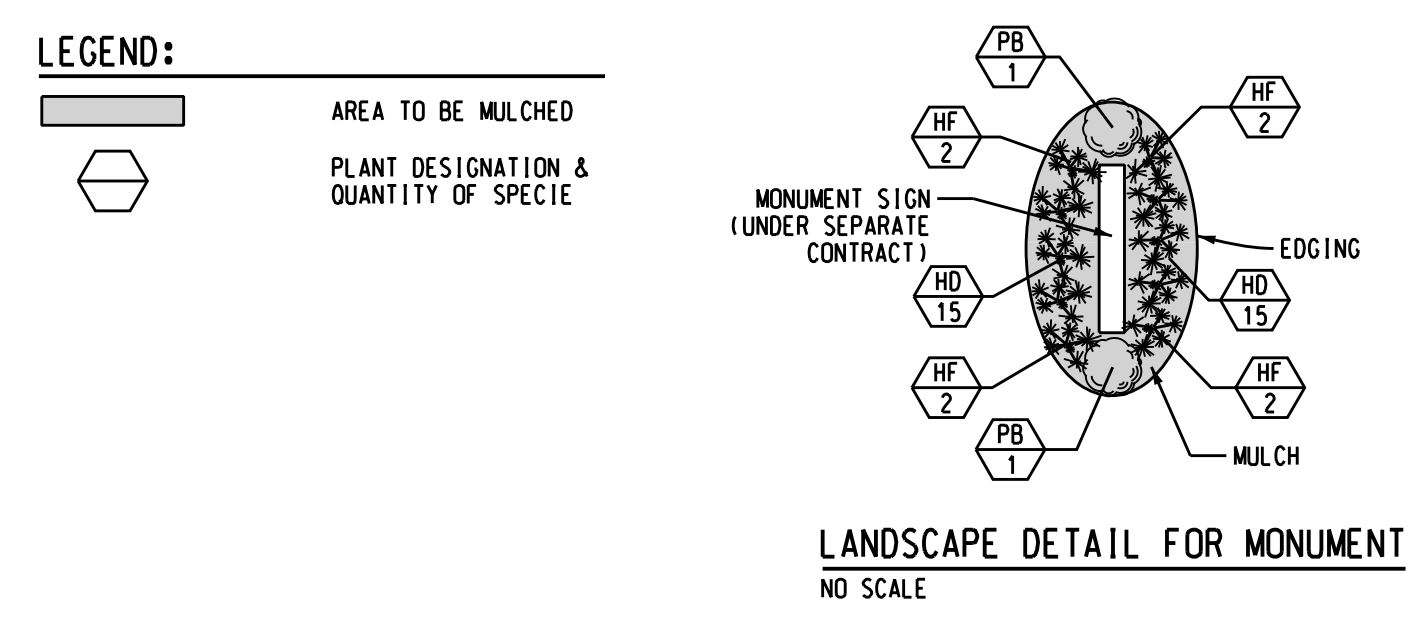
DRAWING TITLE
SITE LANDSCAPE PLAN (NORTH DETAIL)

PROJECT NUMBER	210303	SHEET	C501
PROJECT PHASE	SPA		

TREE SCHEDULE			
KEY	BOTANICAL NAME	COMMON NAME	SIZE QUANTITY
AF	ACER PALMATUM 'FIREGLOW'	FIREGLOW JAPANESE MAPLE	4' HT -
AK	ACER PLATANOIDES 'CRIMSON KING'	CRIMSON KING NORWAY MAPLE	2.5" CAL 4
AJ	ACER X FREEMANTII 'JEFFERSRED'	AUTUMN BLAZE MAPLE	2.5" CAL 3
AS	ACER SACCHARUM 'COMMEMORATION'	COMMEMORATION SUGAR MAPLE	8" HT 6
BC	BETULA NIGRA 'CULLY'	HERITAGE RIVER BIRCH	8" HT -
CA	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2.5" CAL 2
CC	CERCIS CANADENSIS	EASTERN REDBUD	2" CAL 5
LS	LIGULIDAMBAR STYRACIFLUA 'GODUZAM'	GOLD DUST AMERICAN SWEETGUM	2.5" CAL 2
MA	MAGNOLIA ACUMINATA 'GOLDSTAR'	GOLD STAR MAGNOLIA	2" CAL 3
MS	MALUS 'SNOWDRIFT'	SNOWDRIFT CRABAPPLE	2" CAL 6
MU	MALUS 'SPRING SNOW'	SPRING SNOW CRABAPPLE	2" CAL 4
PG	PICEA GLAUCA	WHITE SPRUCE	8' HT 24
PR	PYRUS CALLARYANA 'REDSPIRE'	REDSPIRE PEAR	2.5" CAL 2
OO	QUERCUS RUBRA	NORTHERN RED OAK	2.5" CAL 1
TC	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2.5" CAL 5
WF	ABIES CONCOLOR	CONCOLOR WHITE FIR	8' HT 25

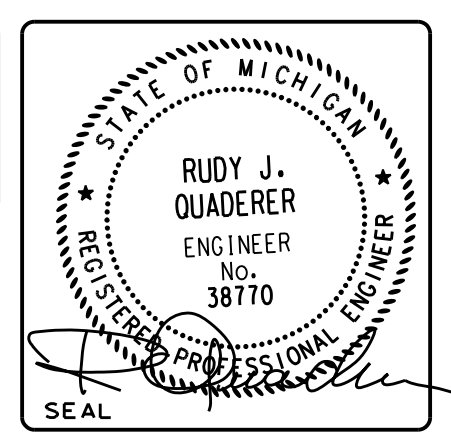
SHRUB SCHEDULE			
KEY	BOTANICAL NAME	COMMON NAME	SIZE QUANTITY
AC	AMELANCHIER LAEVIS 'CUMULUS'	CUMULUS SERVICEBERRY	4' HT 20
BA	BERBERIS ATROPURPUREA 'CRIRUZAM'	CRIMSON RUBY BARBERRY	18" HT 20
BX	BUXUS X 'GREEN GEM'	GREEN GEM BOXWOOD	NO. 3 CONT 96
CB	CORNUS ALBA 'BAILHALD'	IVORY HALD RED TWIG DOGWOOD	18" HT -
EE	EUONYMUS ALATUS 'COMPACTUS'	COMPACT BURNING BUSH	24" HT 43
EE	EUONYMUS FORTUNEI 'EMERALD CAIETY'	EMERALD CAIETY EUONYMUS	NO. 3 CONT 19
FI	FORSYTHIA INTERMEDIA	NORTHERN GOLD FORSYTHIA	24" HT 40
HA	HAMAMELIS VERNALIS	VERNAL WITCHHAZEL	24" HT 24
HN	HIBISCUS SYRIACUS 'NOTWOODONE'	LAV. CHIFFON ROSE OF SHARON	24" HT 20
HS	HYDRANGEA MAC. H. SERRATA 'PREZIOSA'	PINK BEAUTY HYDRANGEA	24" HT 26
JC	JUNIPERUS CHINENSIS 'GOLD COAST'	GOLD COAST JUNIPER	24" SPR. 14
JE	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	24" SPR. 4
PF	PICEA ABIES 'MIDIFORMIS'	BIRD'S NEST SPRUCE	18" HT 8
PB	POTENTILLA FRUTICOSA 'GOLDFINGER'	GOLDFINGER POTENTILLA	NO. 3 CONT 36
SF	SPIREA JAPONICA 'GOLDMOUND'	GOLD MOUND SPIREA	NO. 3 CONT 69
SL	SYRINGA PATULA 'MISS KIM'	MISS KIM LILAC	NO. 3 CONT 65
TE	THUJA OCCIDENTALIS 'SMARAGO'	EMERALD GREEN ARBORVITAE	5' HT 10
TH	TAXUS X MEDIA 'HICKSII'	HICKS COLUMNAR YEW	24" HT 85
VC	VIBURNUM X BURKWOODII	BURKWOOD VIBURNUM	NO. 5 CONT 24
WE	WEIGELA FLORIDA 'ELVERA'	MIDNIGHT WINE WEIGELA	NO. 3 CONT 8

PERENNIALS & GRASSES SCHEDULE			
KEY	BOTANICAL NAME	COMMON NAME	SIZE QUANTITY
FG	CALAMAGROSTIS ACUTIFLORA	FEATHER REED GRASS	NO. 2 CONT 13
HD	HEMEROCALLIS 'STELLA D'ORO'	STELLA D'ORO DAYLILLY	NO. 2 CONT 30
HF	HOSTA 'FRANCEE'	FRANCEE HOSTA	NO. 2 CONT 25
MG	MISCANTHUS SINENSIS 'GRACILLIMUS'	MAIDEN GRASS	NO. 2 CONT 13

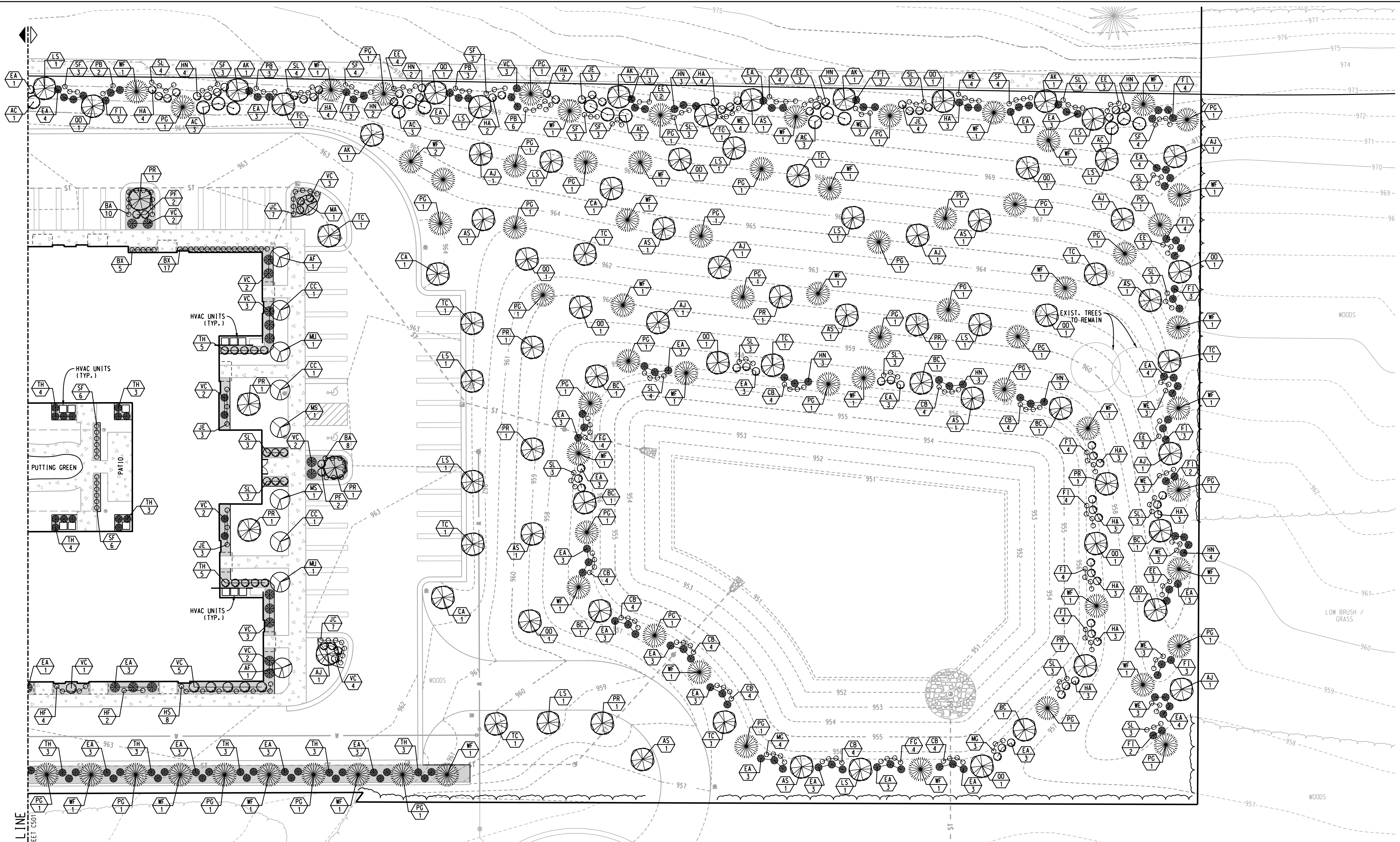


DRAWN
DESIGNED BRZEZINSKI
CHECKED QUADERER
FIELD WORK

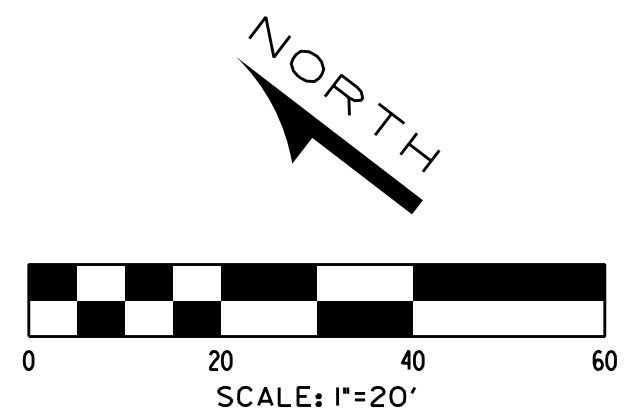
Griggs Quaderer Inc.
CIVIL ENGINEERING · LAND SURVEYING · SITE PLANNING



8308 OFFICE PARK DRIVE
GRAND BLANC, MI 48439
PH: (810) 695-0154
FX: (810) 695-0158
WWW.GQINCORP.COM



NOTE: FOR PLANTING REQUIREMENTS AND LANDSCAPE DETAILS REFER TO SHEET C500.

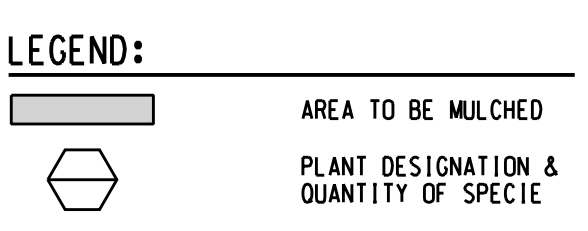


MATCH LINE
REFER TO SHEET C501

TREE SCHEDULE			
KEY BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
AF	ACER PALMATUM 'FIREGLOW'	FIREGLOW JAPANESE MAPLE	4" HT 2
AK	ACER PLATANOIDES 'CRIMSON KING'	CRIMSON KING NORWAY MAPLE	2.5" CAL 5
AJ	ACER X FREEMANII 'JEFFERSRED'	AUTUMN BLAZE MAPLE	2.5" CAL 7
AS	ACER SACCHARUM 'COMMEMORATION'	COMMEMORATION SUGAR MAPLE	2.5" CAL 9
BC	BETULA NIGRA 'CULLY'	HERITAGE RIVER BIRCH	8" HT 6
CA	CARPINUS CAROLINIANA	AMERICAN HORNBEEAM	2.5" CAL 3
CC	CERCIS CANADENSIS	EASTERN REDBUD	2" CAL 3
LS	LIQUIDAMBAR STYRACIFLUA 'GODUZAM'	GOLD DUST AMERICAN SWEETGUM	2.5" CAL 8
MA	MAGNOLIA ACUMINATA 'GOLDSTAR'	GOLD STAR MAGNOLIA	2" CAL 1
MS	MALUS 'SNOWDRIFT'	SNOWDRIFT CRABAPPLE	2" CAL 2
MU	MALUS 'SPRING SNOW'	SPRING SNOW CRABAPPLE	2" CAL 2
PG	PICEA GLAUCA	WHITE SPRUCE	8" HT 35
PR	PYRUS CALLARYANA 'REDSPIRE'	REDSPIRE PEAR	2.5" CAL 9
OD	QUERCUS RUBRA	NORTHERN RED OAK	2.5" CAL 10
TC	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2.5" CAL 11
WF	ABIES CONCOLOR	CONCOLOR WHITE FIR	8" HT 33

SHRUB SCHEDULE			
KEY BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
AC	AMELANCHIER LAEVIS 'CUMULUS'	CUMULUS SERVICEBERRY	4" HT 16
BA	BERBERIS ATROPURPUREA 'CRIRUZAM'	CRIMSON RUBY BARBERRY	18" HT 18
BX	BUXUS X 'GREEN GEM'	GREEN GEM BOXWOOD	NO. 3 CONT 22
CB	CORNUS ALBA 'BAILHALO'	IVORY HALO RED TWIG DOGWOOD	18" HT 36
EE	EUDONYMUS ALATAS 'COMPACTUS'	COMPACT BURNING BUSH	24" HT 93
EA	EUDONYMUS FORTUNEI 'EMERALD GALETY'	EMERALD GALETY EUDONYMUS	NO. 3 CONT 20
FI	FORSYTHIA INTERMEDIA	NORTHERN GOLD FORSYTHIA	24" HT 33
HA	HAMAMELIS VERNALIS	VERNAL WITCHHAZEL	24" HT 21
HN	HIBISCUS SYRIACUS 'NOTWOODONE'	LAV. CHIFFON ROSE OF SHARON	24" HT 30
HS	HYDRANGEA MAC. H. SERRATA 'PREZIOSA'	PINK BEAUTY HYDRANGEA	24" HT 8
JE	JUNIPERUS CHINENSIS 'GOLD COAST'	GOLD COAST JUNIPER	24" SPR. 14
JC	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	24" SPR. 13
PF	PICEA ABIES 'NIDIFORMIS'	BIRD'S NEST SPRUCE	18" HT 4
PB	POTENTILLA FRUTICOSA 'GOLDFINGER'	GOLDFINGER POTENTILLA	NO. 3 CONT 14
SF	SPIREA JAPONICA 'GOLDMOUND'	GOLD MOUND SPIREA	NO. 3 CONT 36
SL	SYRINGA PATULA 'MISS KIM'	MISS KIM LILAC	NO. 3 CONT 55
TL	THUJA OCCIDENTALIS 'SMARAGO'	EMERALD GREEN ARBORVITAE	5" HT -
TH	TAXUS X MEDIA 'HICKSII'	HICKS COLUMNAR YEW	24" HT 39
VC	VIBURNUM X BURKWOODII	BURKWOOD VIBURNUM	24" HT 21
WE	WEIGELA FLORIDA 'ELVERA'	MIDNIGHT WINE WEIGELA	NO. 3 CONT 29

PERENNIALS & GRASSES SCHEDULE			
KEY BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
FG	CALAMAGROSTIS ACUTIFLORA	FEATHER REED GRASS	NO. 2 CONT 8
MG	MISCANTHUS SINENSIS 'GRACILLIMUS'	MAIDEN GRASS	NO. 2 CONT 7



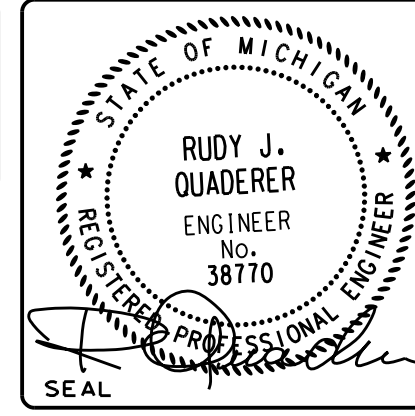
NO.	DATE	SUBJECT
04-12-22		REISSUED TO WHITE LAKE TWP.
01-12-22		REISSUED TO WHITE LAKE TWP.
12-13-21		REISSUED WHITE LAKE TWP.
10-28-21		WHITE LAKE TWP. (SITE PLAN)
04-13-21		TOPOGRAPHIC SURVEY

NORTHWEST 1/4 SECTION 36 T-3N, R-8E

COMFORT CARE

UNION LAKE ROAD
WHITE LAKE TWP.,
OAKLAND COUNTY
STATE OF MICHIGAN

DRAWN
DESIGNED BRZEZINSKI
CHECKED QUADERER
FIELD WORK

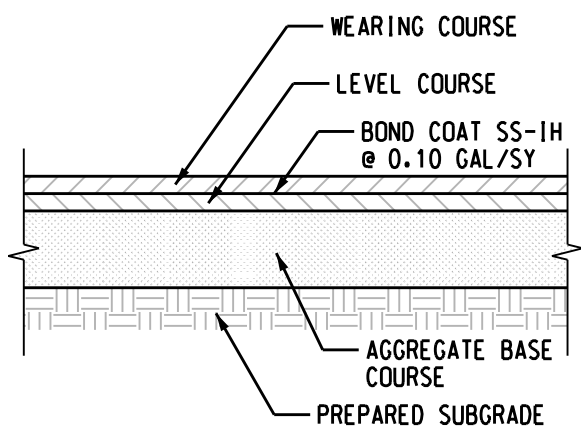


Griggs Quaderer Inc.
CIVIL ENGINEERING · LAND SURVEYING · SITE PLANNING

8308 OFFICE PARK DRIVE
GRAND BLANC, MI 48439
PH: (810) 695-0154
FX: (810) 695-0158
WWW.GQINCORP.COM

DRAWING TITLE
SITE LANDSCAPE PLAN (SOUTH DETAIL)

PROJECT NUMBER 210303	SHEET C502
PROJECT PHASE SPA	



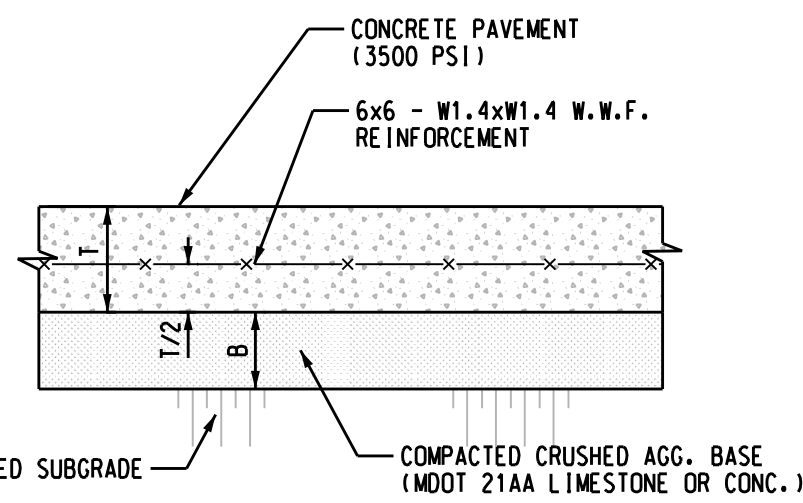
ON-SITE PAVEMENT SECTION
NO SCALE

WEARING COURSE - 1.5" MDOT 13A
LEVEL COURSE - 3" MDOT 3C
AGGREGATE BASE - 8" MDOT 21AA CRUSHED LIMESTONE

ROAD R/W PAVEMENT SECTION
NO SCALE

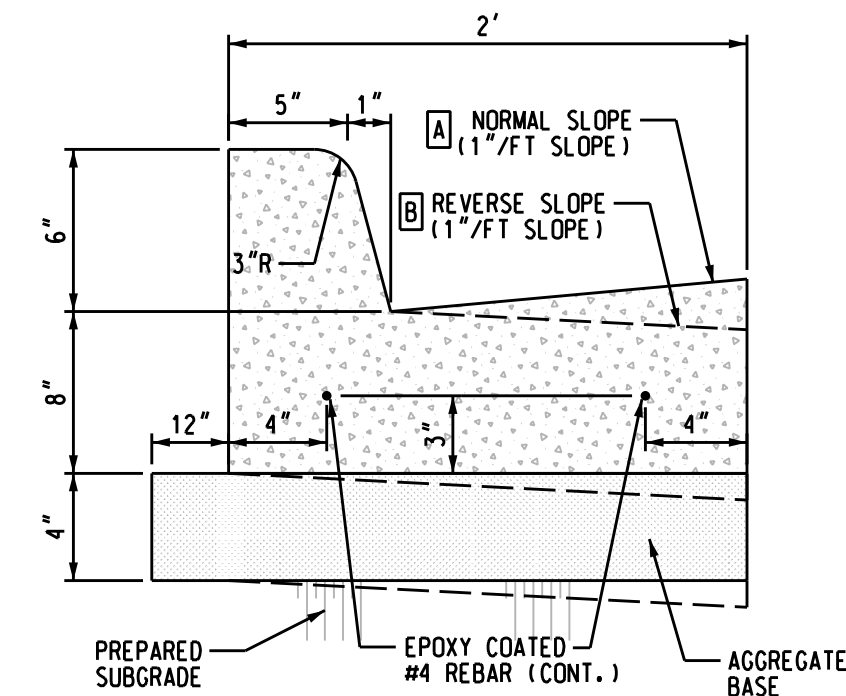
19" OF DEEP STRENGTH ASPHALT SECTION
WEARING COURSE - 2" MDOT 4C
LEVEL COURSE - 3" MDOT 3C
LEVEL COURSE - 4" MDOT 2C (FIRST LIFT)

NOTE: AS AN ALTERNATE, CONTRACTOR IS ALLOWED TO SUBSTITUTE MDOT 21AA CRUSHED CONCRETE FOR ON-SITE AGGREGATE BASE.



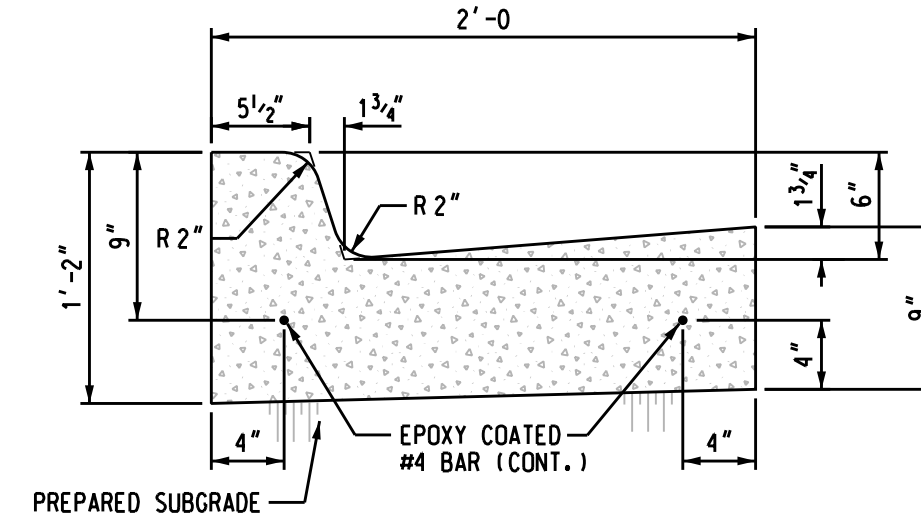
CONCRETE PAVEMENT SECTION
NO SCALE

DESIGN:
PAD UNDER CANOPY 8" 8" YES
DUMPSTER ENCLOSURE 8" 8" YES
SIDEWALK 4" 6" YES



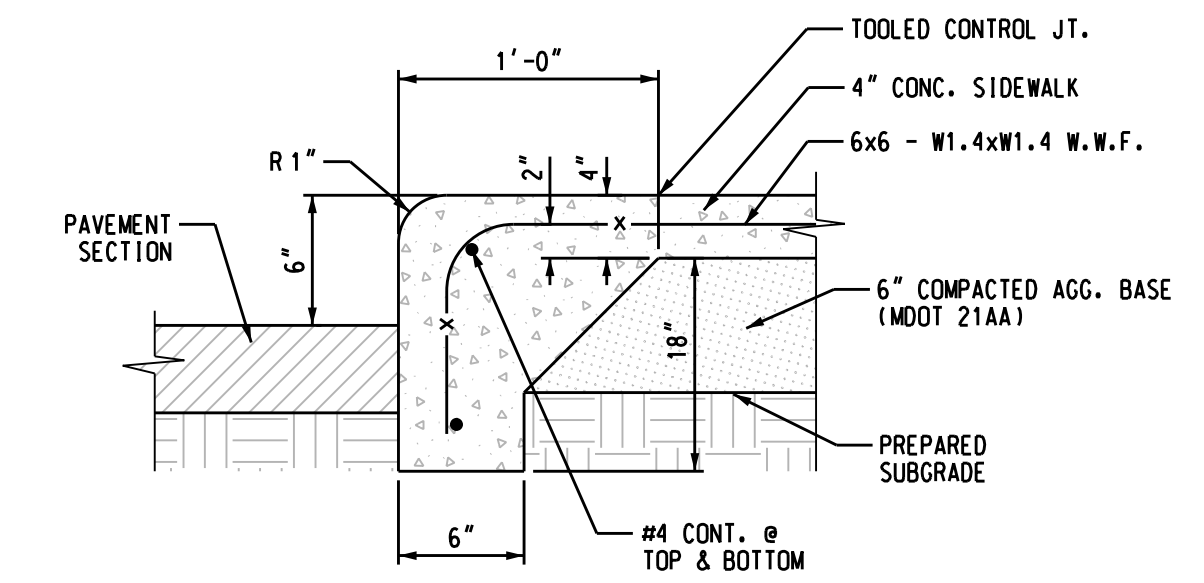
CURB & GUTTER DETAIL
NO SCALE

PROVIDE CONTROL JOINTS AT 10 FEET MAXIMUM SPACING AND DOWELED EXPANSION JOINTS AT 100 FEET MAXIMUM INTERVALS AND AT RADIUS POINTS

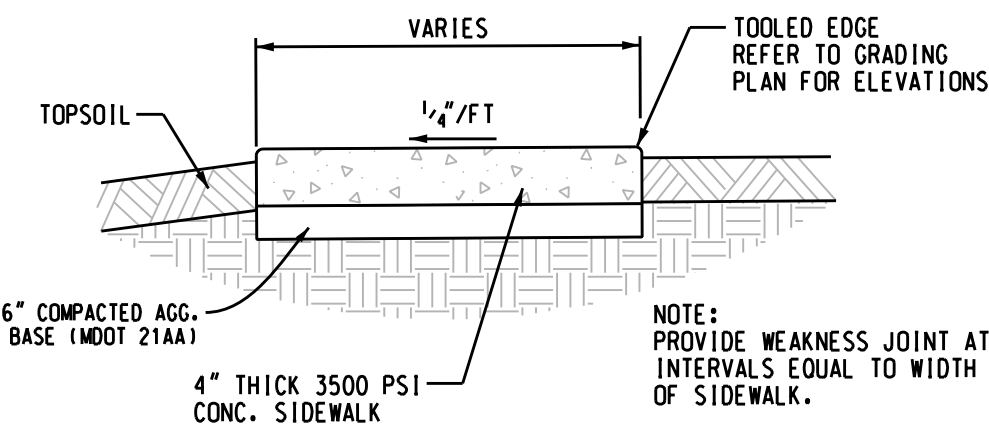


CURB & GUTTER DETAIL
NO SCALE

PROVIDE CONTROL JOINTS AT 10 FEET MAXIMUM SPACING AND DOWELED EXPANSION JOINTS AT 100 FEET MAXIMUM INTERVALS AND AT RADIUS POINTS

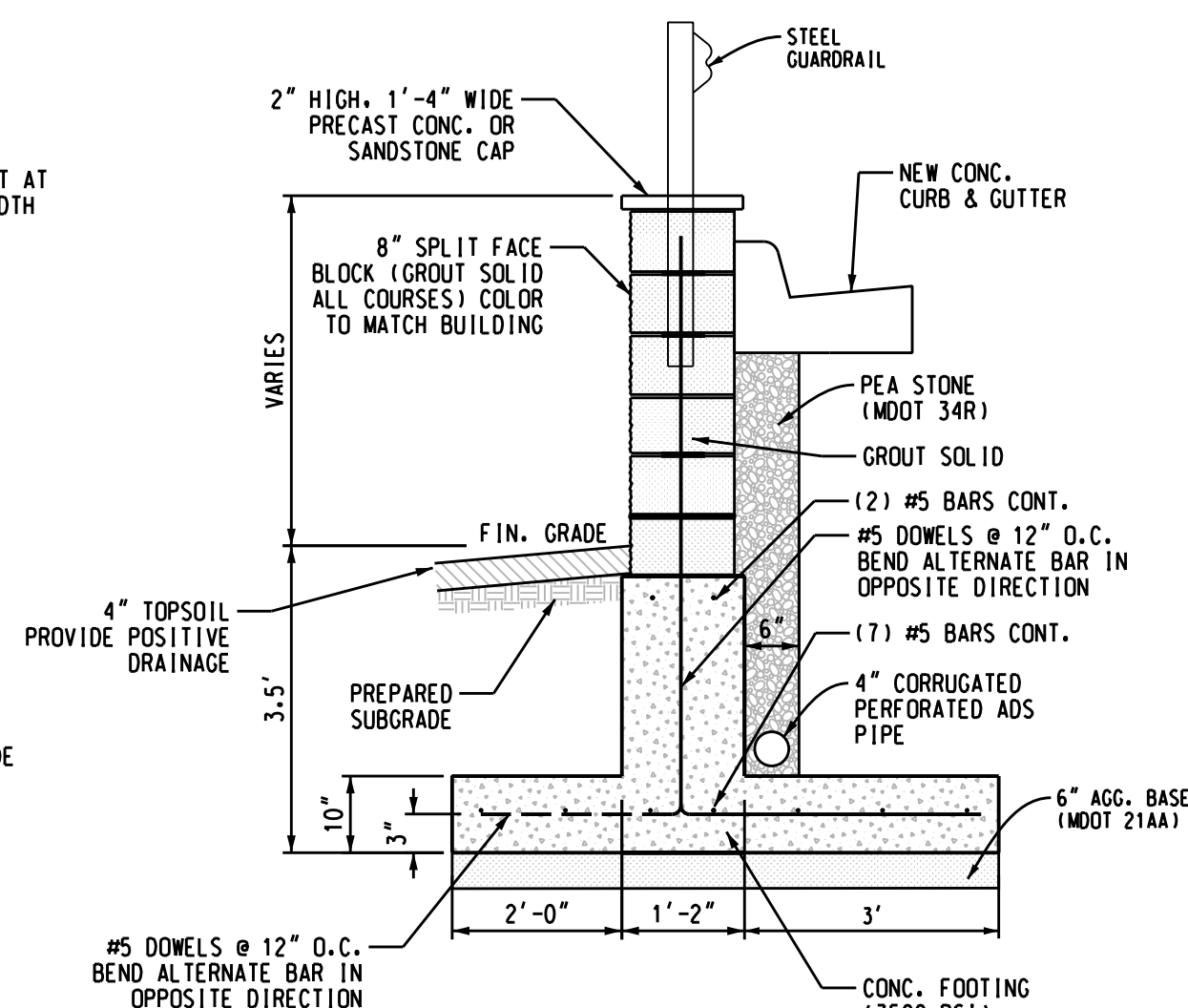


INTEGRAL CURB & SIDEWALK DETAIL
NO SCALE

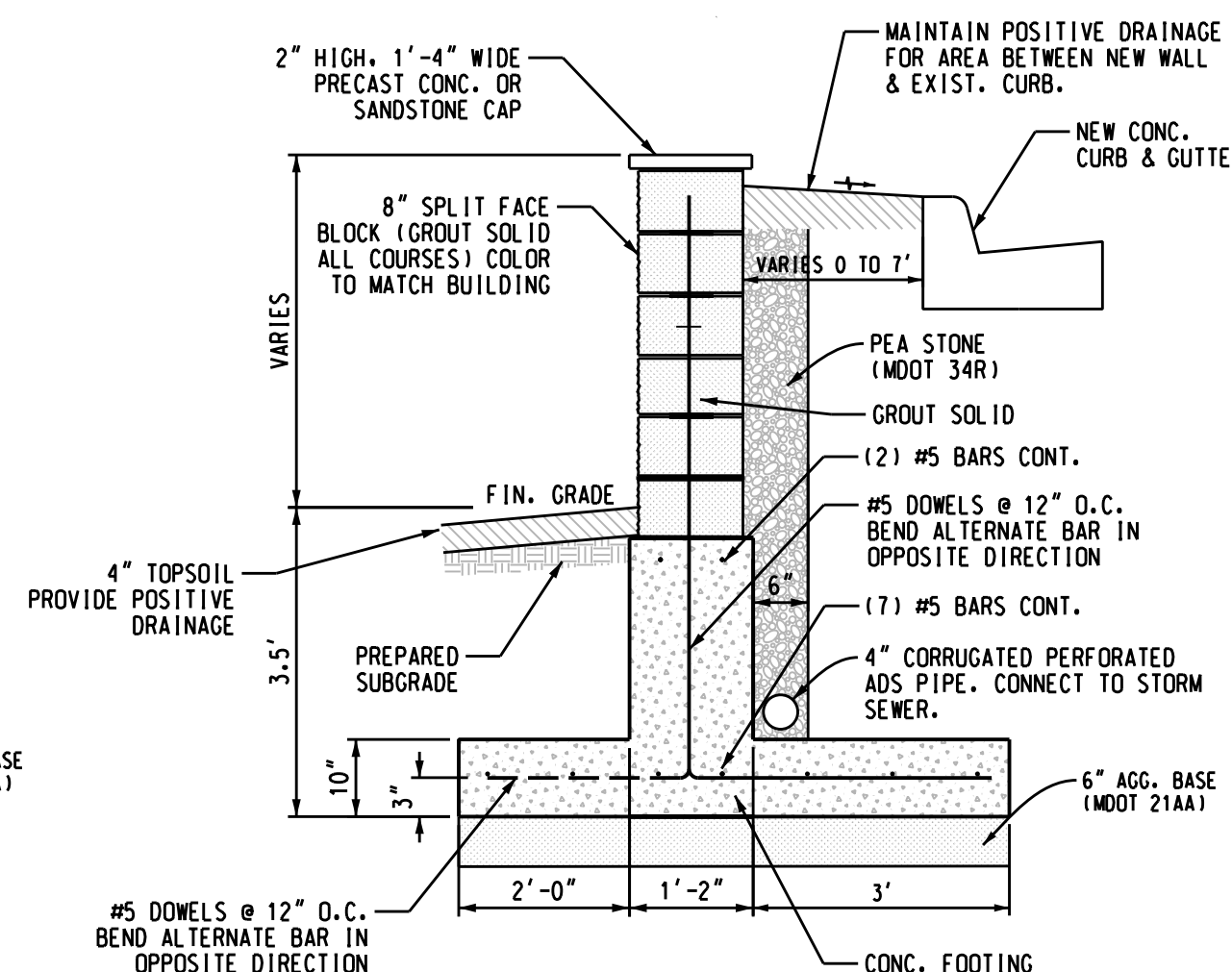


TYP. SIDEWALK DETAIL
NO SCALE

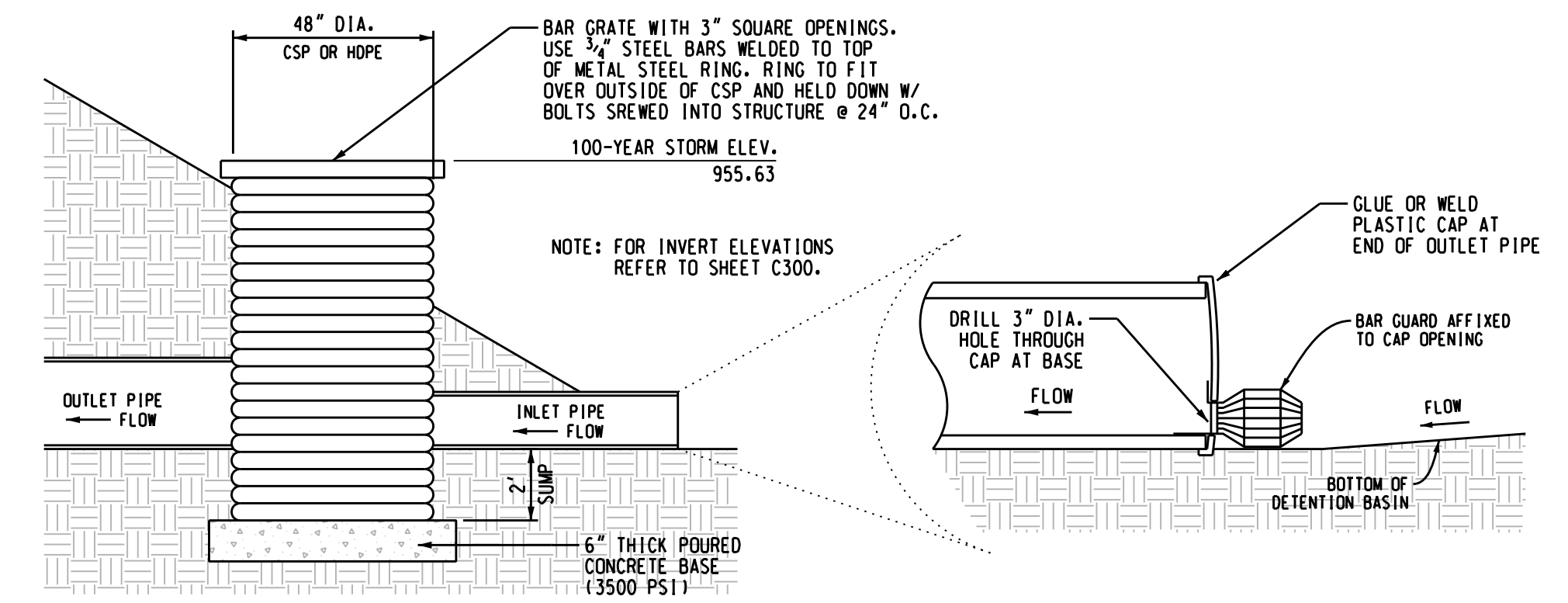
NOTE: PROVIDE WEAKNESS JOINT AT INTERVALS EQUAL TO WIDTH OF SIDEWALK.



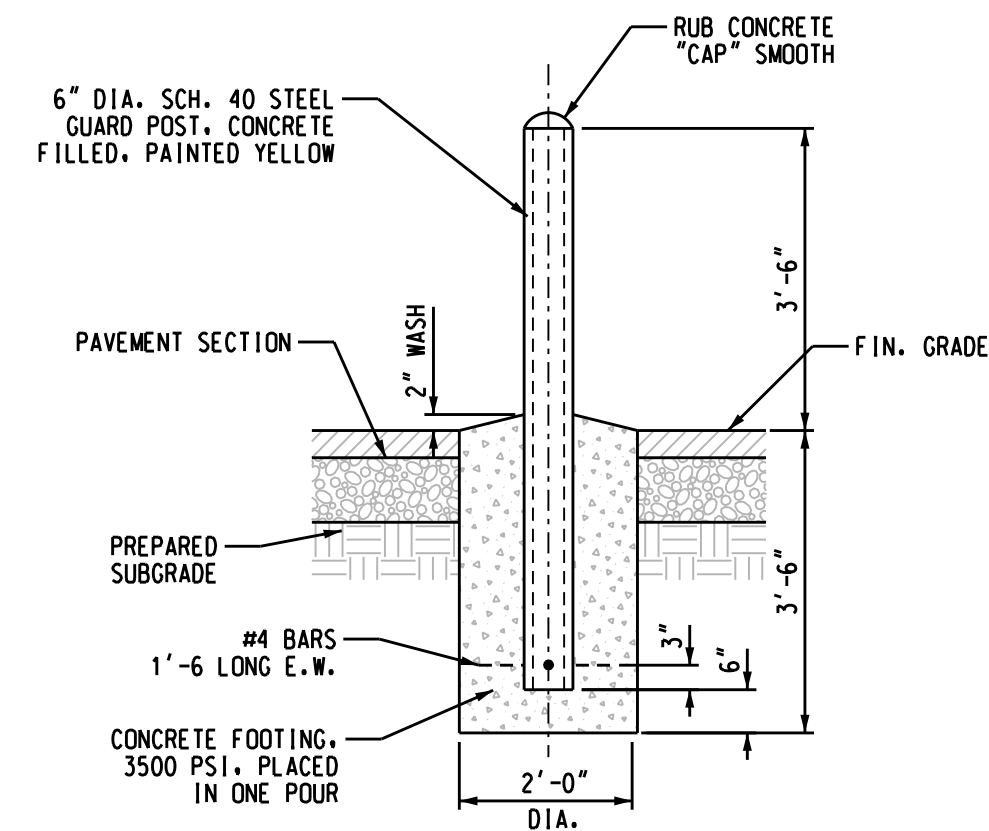
CROSS SECTION MASONRY WALL SW CORNER
NO SCALE



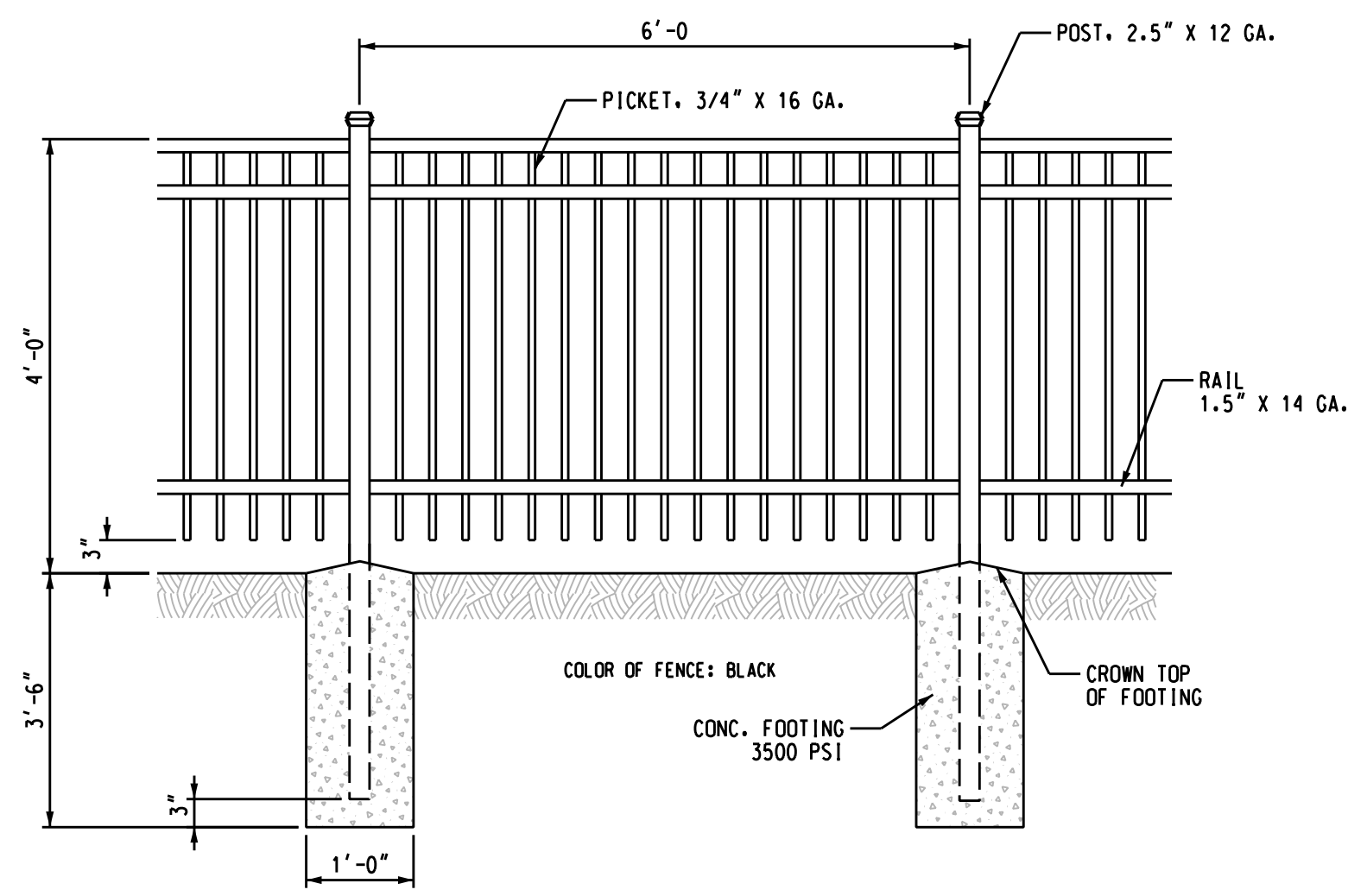
CROSS SECTION MASONRY WALL SE CORNER
NO SCALE



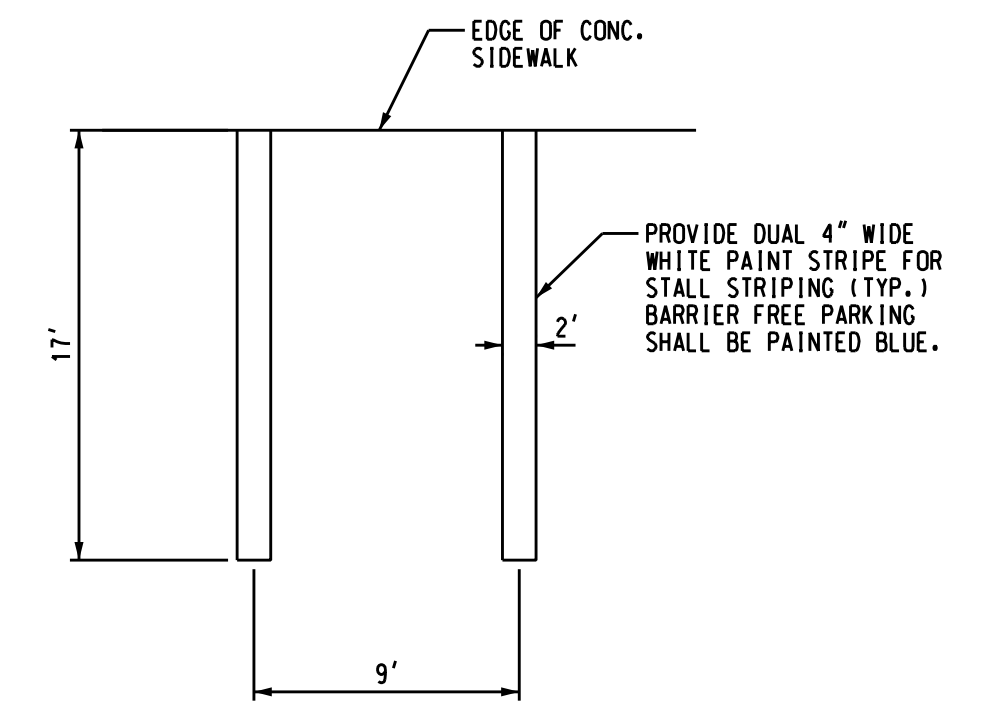
OUTLET CONTROL STRUCTURE
NO SCALE



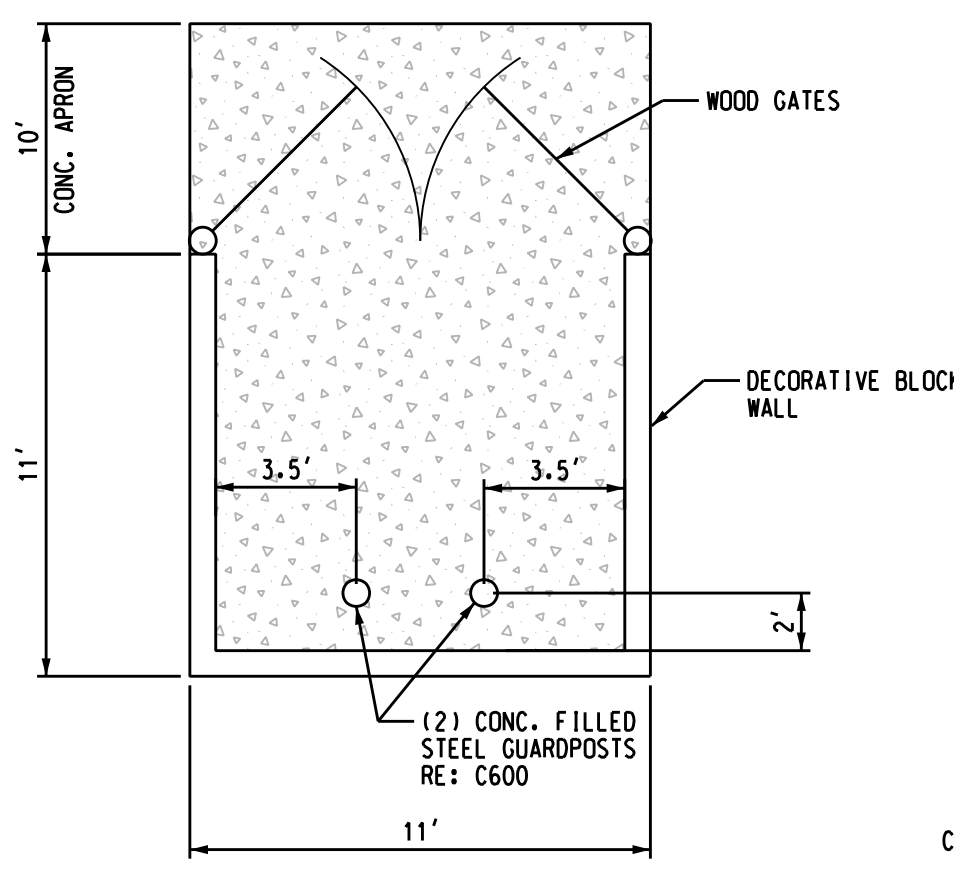
GUARD POST DETAIL
NO SCALE



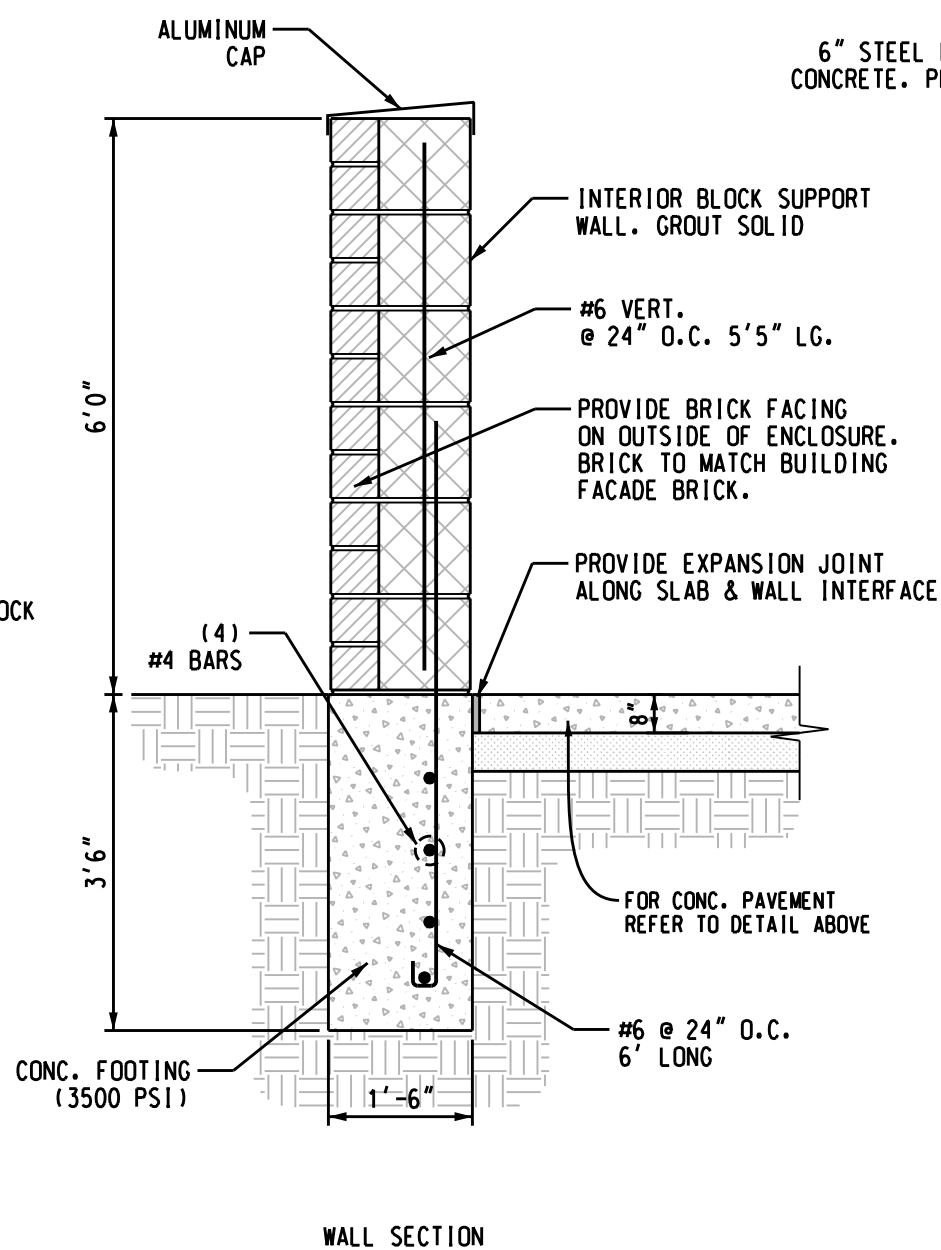
DECORATIVE ALUMINUM FENCE DETAIL
NO SCALE



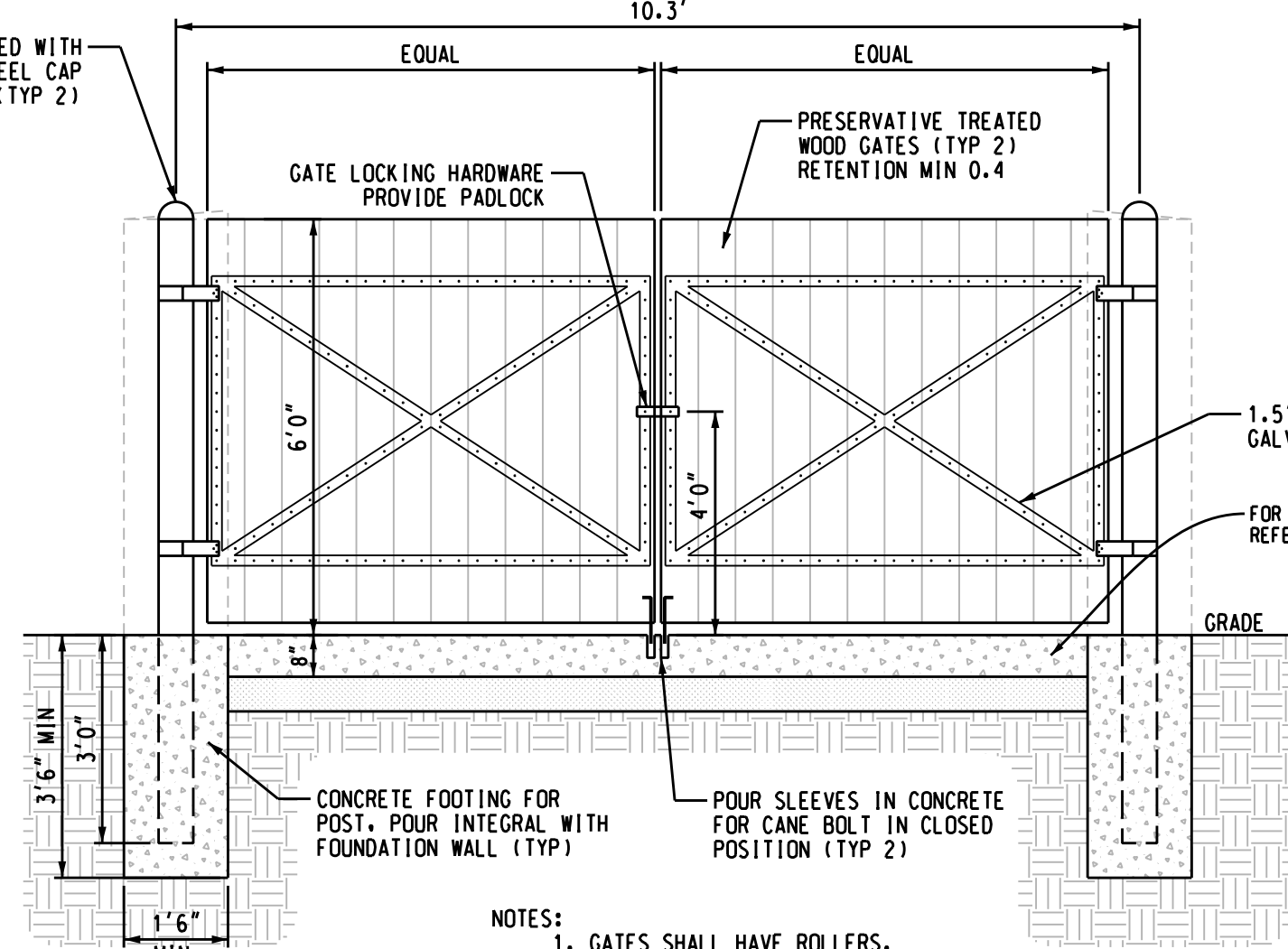
PARKING STALL PAINT STRIPING DETAIL
NO SCALE



PLAN VIEW

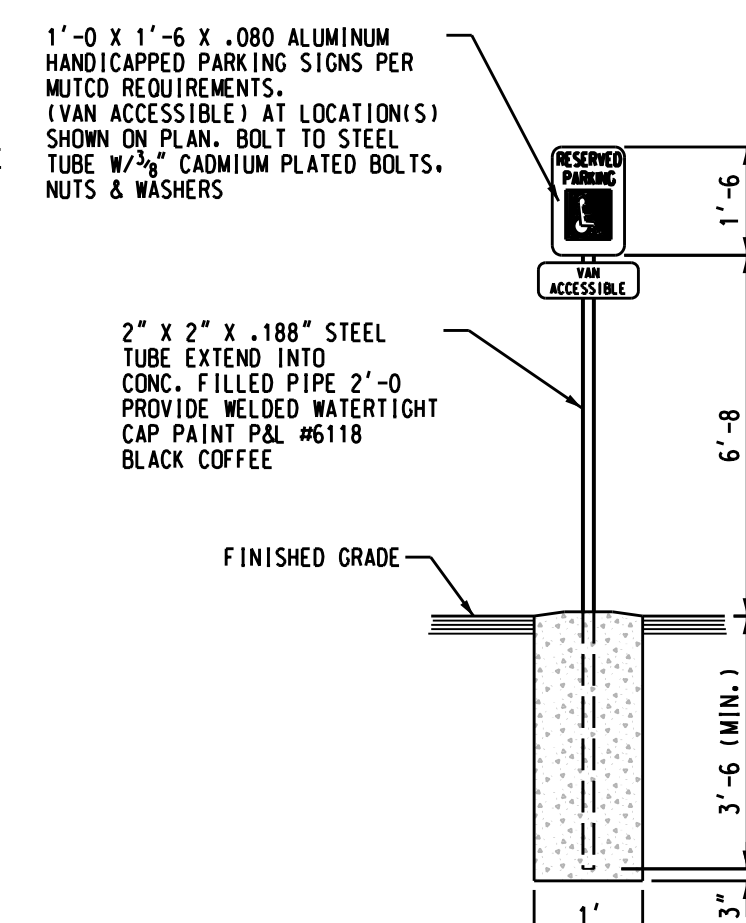


TRASH ENCLOSURE DETAIL
NO SCALE



FRONT ELEVATION

NOTES:
1. GATES SHALL HAVE ROLLERS.
2. COLOR OF GATES SHALL COMPLEMENT COLOR OF BRICK.



BARRIER FREE PARKING SIGN
NO SCALE

NO.	DATE	SUBJECT
	04-12-22	REISSUED TO WHITE LAKE TWP.
	01-12-22	REISSUED TO WHITE LAKE TWP.
	12-13-21	REISSUED WHITE LAKE TWP.
	10-28-21	WHITE LAKE TWP. (SITE PLAN)
	04-13-21	TOPOGRAPHIC SURVEY
NO.	DATE	SUBJECT
REVISION OR ISSUE		

DRAWN
DESIGNED BRZEZINSKI
CHECKED QUADERER
FIELD WORK



Griggs Quaderer Inc.
CIVIL ENGINEERING · LAND SURVEYING · SITE PLANNING

8308 OFFICE PARK DRIVE
GRAND BLANC, MI 48439
PH: (810) 695-0154
FX: (810) 695-0158
WWW.GQINCORP.COM

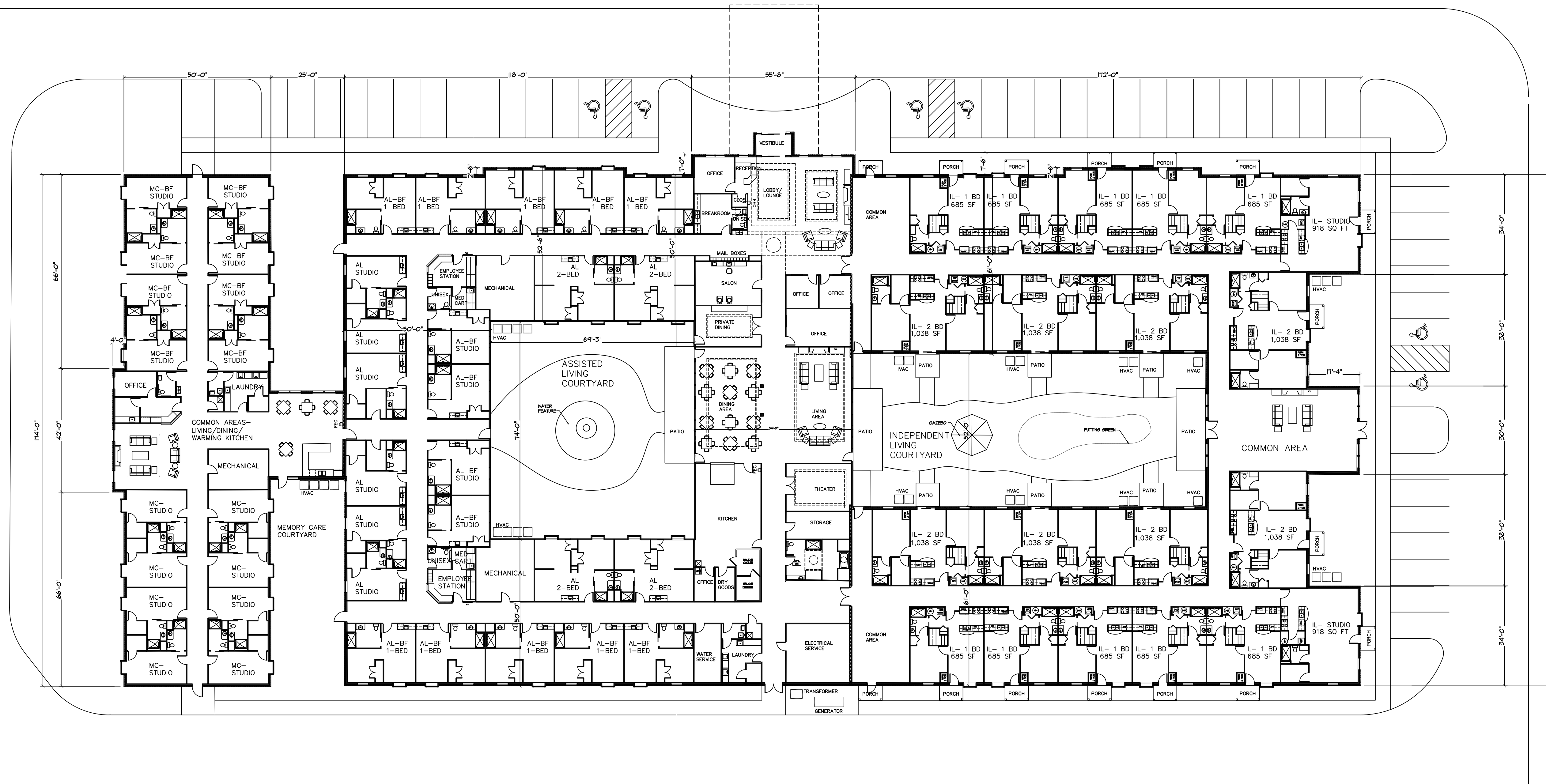
NORTHWEST 1/4 SECTION 36 T-3N, R-8E
COMFORT CARE
UNION LAKE ROAD
WHITE LAKE TWP.,
OAKLAND COUNTY
STATE OF MICHIGAN

DRAWING TITLE
SITE DETAILS

PROJECT NUMBER 210303
PROJECT PHASE SPA
SHEET C600

PROPOSED NEW SENIOR HOUSING
COMFORT CARE SENIOR LIVING
 UNION LAKE ROAD, WHITE LAKE TOWNSHIP

CONCEPTUAL FLOOR PLAN



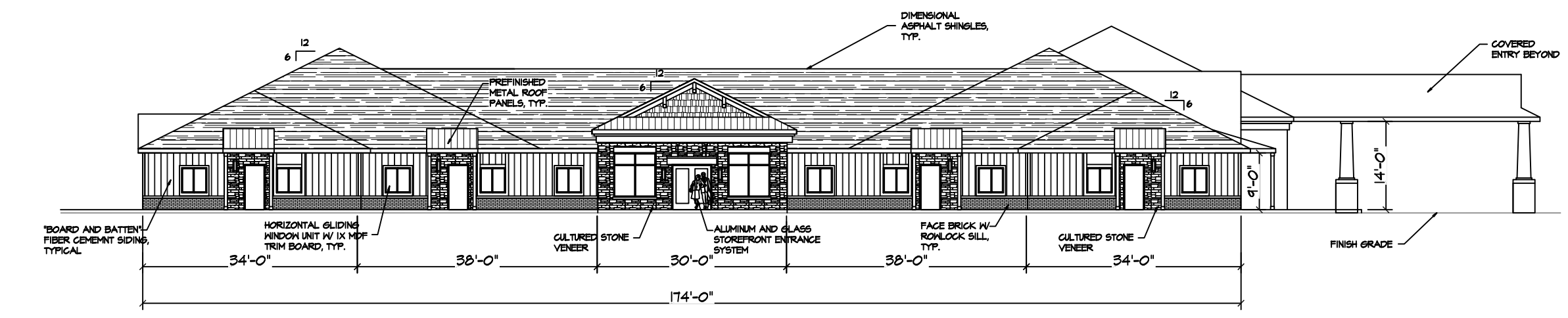
N
 CONCEPTUAL OVERALL FLOOR PLAN
 1" = 20'-0"

UNIT SUMMARY
ASSISTED LIVING
 10-AL STUDIO UNITS
 10-AL ONE BED UNITS
 4-AL TWO BED UNITS
 16-MC STUDIO UNITS
 TOTAL AL UNITS = 40
 34,970 SQ FT

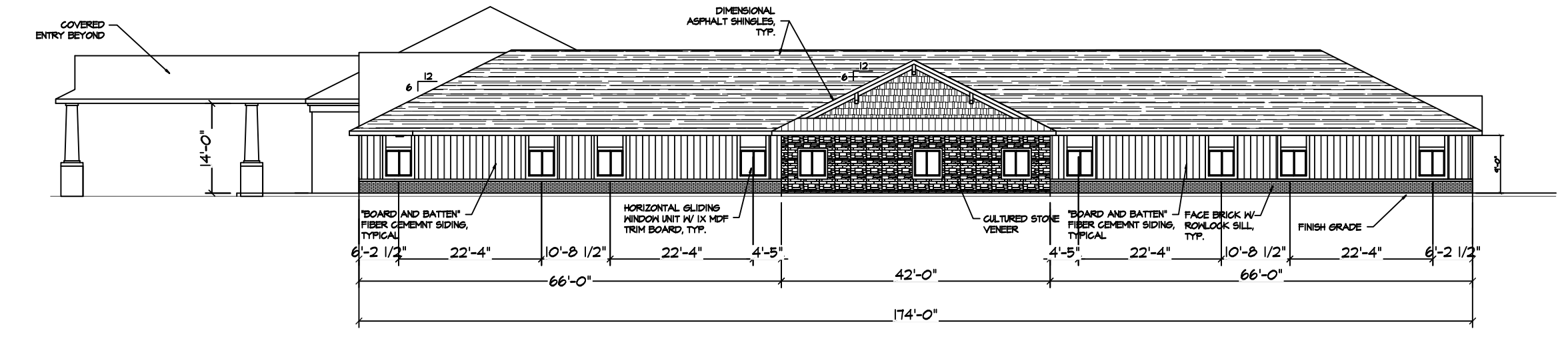
INDEPENDENT LIVING
 2-IL STUDIO UNITS
 10-IL ONE BED UNITS
 8-IL TWO BED UNITS
 TOTAL IL UNITS = 20
 22,473 SQ FT

REVISIONS	
1	12-8-2021
2	1-7-2022
3	2-14-2022
4	

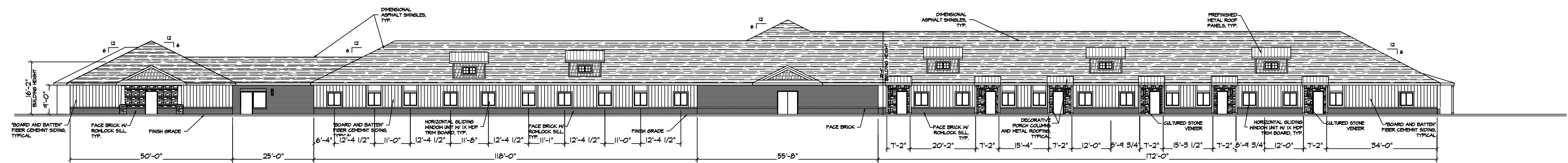
JOB NO: 021-024
 DATE: 6-1-2021
 DRAWN BY: JKC
 SCALE: AS NOTED
 SHEET NO:



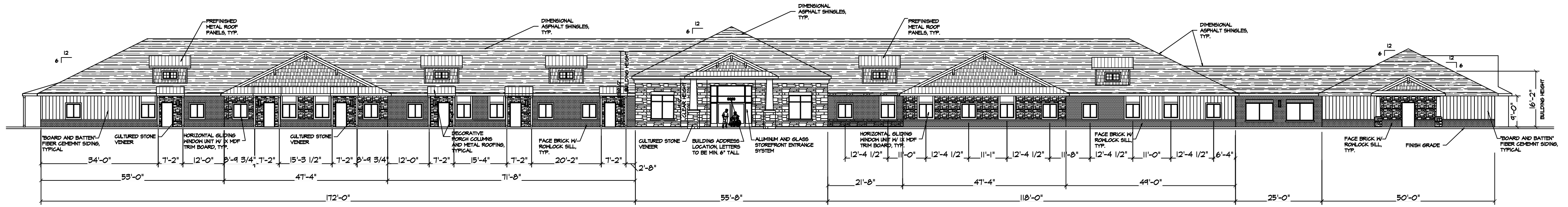
CONCEPTUAL EAST ELEVATION
 1" = 20'-0"



CONCEPTUAL WEST ELEVATION
 1" = 20'-0"



CONCEPTUAL SOUTH ELEVATION
 1" = 20'-0"



CONCEPTUAL NORTH ELEVATION
 1" = 20'-0"

REVISIONS	
1	2-8-2021
2	1-7-2022
3	2-14-2022
4	

JOB NO: 021-024
 DATE: 6-1-2021
 DRAWN BY: JKC
 SCALE: AS NOTED
 SHEET NO: