



GENOA CHARTER TOWNSHIP
Application for Re-Zoning

GENOA TOWNSHIP

JAN 29 2019

RECEIVED

APPLICANT NAME: James Pappas ADDRESS: 550 East Nine Mile Road
Ferndale, MI 48220
2528 Harte Drive

OWNER NAME: James Harte ADDRESS: Brighton, MI 48114

PARCEL #(s): 4711-13-300-009 PRIMARY PHONE: (810) 499-7144

EMAIL 1: birkenstockconstructionllc@gmail.com EMAIL 2: NA

We, the undersigned, do hereby respectfully make application to and petition the Township Board to amend the Township Zoning Ordinance and change the zoning map of the township of Genoa as hereinafter requested, and in support of this application, the following facts are shown:

A. REQUIRED SUBMITTAL INFORMATION

1. A legal description and street address of the subject property, together with a map identifying the subject property in relation to surrounding properties;
2. The name, signature and address of the owner of the subject property, a statement of the applicant's interest in the subject property if not the owner in fee simple title, and proof of consent from the property owner;
3. It is desired and requested that the foregoing property be rezoned from:

GCD - General Commercial District to PID - Planned Industrial Development

4. A site plan illustrating existing conditions on the site and adjacent properties; such as woodlands, wetlands, soil conditions, steep slope, drainage patterns, views, existing buildings, sight distance limitations, relationship to other developed sites, and access points in the vicinity;
5. A conceptual plan demonstrating that the site could be developed with representative uses permitted in the requested zoning district meeting requirements for setbacks, wetland buffers access spacing, any requested service drives and other site design factors;
6. A written environmental impact assessment, a map of existing site features as described in Article 18 describing site features and anticipated impacts created by the host of uses permitted in the requested zoning district;
7. A written description of how the requested rezoning meets Sec. 22.04 "Criteria for Amendment of the Official Zoning Map."
8. The property in question shall be staked prior to the Planning Commission Public Hearing.

B. DESCRIBE HOW YOUR REQUESTED RE-ZONING MEETS THE ZONING ORDINANCE CRITERIA FOR AMENDING THE OFFICIAL ZONING MAP:

1. How is the rezoning consistent with the goals, policies and future land use map of the Genoa Township Master Plan, including any subareas or corridor studies. If not consistent, describe how conditions have changed since the Master Plan was adopted?

The subject parcel is Master Planned for Commercial Office. There is currently an existing office building on the site. The proposed climate controlled storage with sales office meets some of that criteria, as well. We have designed the exterior with a commercial office look, using flat roofs and high quality materials, commercial window patterns, etc.

8. Describe any deed restrictions which could potentially affect the use of the property.

NA

C. AFFIDAVIT

The undersigned says that they are the owner (owner, lessee, or other specified interest) involved in this petition and that the foregoing answers and statements herein contained and the information herewith submitted are in all respects true and correct to the best of his/her knowledge and belief.

BY: James Harte, Birkenstock Enterprises, LLC  1/25/19

ADDRESS: 2528 Harte Drive, Brighton, MI 48114

SIGNATURE

The following contact should also receive review letters and correspondence:

Name: James Pappas Email: jpappas@fsparch.com

Business Affiliation: Fusco, Shaffer & Pappas, Inc. - Architects

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

PROJECT NAME: Birkenstock Self Storage

PROJECT LOCATON & DESCRIPTION: Climate Control Storage with Sales Office on the South side of Grand River between S Hacker and Euler Road

SIGNATURE:  DATE: 1.21.19

PRINT NAME: James Pappas PHONE: 248-543-4100

COMPANY NAME & ADDRESS: Fusco, Shaffer & Pappas, Inc.
550 East Nine Mile Road, Ferndale, MI 48220



GENOA CHARTER TOWNSHIP APPLICATION
Planned Unit Development (PUD)

GENOA TOWNSHIP

JAN 29 2019

RECEIVED

APPLICANT NAME: James Pappas, President, Fusco, Shaffer & Pappas, Inc.

APPLICANT EMAIL: jpappas@fsparch.com
550 East Nine Mile Road

APPLICANT ADDRESS & PHONE: Ferndale, MI 48220 , (248) 543-4100

OWNER'S NAME: James Harte
2528 Harte Drive

OWNER ADDRESS & PHONE: Brighton, MI 48114 , (810) 499-7144

TAX CODE(S): 4711-13-300-009

QUALIFYING CONDITIONS (To be filled out by applicant)

1. A PUD zoning classification may be initiated only by a petition.
2. It is desired and requested that the foregoing property be rezoned to the following type of PUD designation:

- Residential Planned Unit Development (RPUD)
- Planned Industrial District (PID)
- Mixed Use Planned Unit Development (MUPUD)
- Redevelopment Planned Unit Development (RDPUD)
- Non-residential Planned Unit Development (NRPUD)
- Town Center Planned Unit Development (TCPUD)

3. The planned unit development site shall be under the control of one owner or group of owners and shall be capable of being planned and developed as one integral unit.

EXPLAIN The property will be owned by one entity:

Birkenstock Self-Storage, LLC

4. The site shall have a minimum area of twenty (20) acres of contiguous land, provided such minimum may be reduced by the Township Board as follows:
 - A. The minimum area requirement may be reduced to five (5) acres for sites served by both public water and public sewer.
 - B. The minimum lot area may be waived for sites zoned for commercial use (NSD, GCD or RCD) where the site is occupied by a nonconforming commercial, office or industrial building, all buildings on such site are proposed to be removed and a new use permitted within the underlying zoning district is to be established. The Township Board shall only permit the PUD on the smaller site where it finds that the flexibility in dimensional standards is necessary to allow for innovative design in redeveloping the site and an existing blighted situation will be eliminated. A parallel plan shall be provided showing how the site could be redeveloped without the use of the PUD to allow the Planning Commission to evaluate whether the modifications to dimensional standards are the

4. The apparent demand for the types of uses permitted in the PUD;

See Impact Assessment and Self Storage Development Feasibility Study
(10-15-18).

AFFIDAVIT

The undersigned says that they are the owner (owner, lessee, or other specified interest) involved in this petition and that the foregoing answers and statements herein contained and the information herewith submitted are in all respects true and correct to the best of his/her knowledge and belief.

BY: James Harte, Birkenstock Enterprises, LLC

James Harte 1/25/19

ADDRESS: 2528 Harte Drive, Brighton, MI 48114

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

James Pappas of Fusco, Shaffer & Pappas, Inc. at jpappas@fsparch.com
Name Business Affiliation E-mail



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As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

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PROJECT LOCATON & DESCRIPTION: Climate Control Storage with Sales Office
on the South side of Grand River between S Hacker and Euler Road

SIGNATURE:  DATE: 1.21.19

PRINT NAME: James Pappas PHONE: 248-543-4100

COMPANY NAME & ADDRESS: Fusco, Shaffer & Pappas, Inc.
550 East Nine Mile Road, Ferndale, MI 48220



GENOA CHARTER TOWNSHIP
Application for Site Plan Review

GENOA TOWNSHIP
JAN 29 2019
RECEIVED

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

James Pappas, Fusco, Shaffer & Pappas, Inc.

APPLICANT NAME & ADDRESS: 550 East Nine Mile Road, Ferndale, MI 48220

If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: Jim Harte, 2528 Harte Drive, Brighton, MI 48114

SITE ADDRESS: 2524 Harte Drive, Brighton, MI 48114, PARCEL #(s): 4711-13-300-009

APPLICANT PHONE: (248) 543-4100 OWNER PHONE: (810) 499-7144

OWNER EMAIL: birkenstockconstructionllc@gmail.com

LOCATION AND BRIEF DESCRIPTION OF SITE: South side of Grand River between S Hacker and Euler Road. 10.62 acre site with an existing 1-story office building at the north end and heavy topography at the central area. Site plateau area at rear of site.

BRIEF STATEMENT OF PROPOSED USE: We are seeking a PID to develop the south end of the site for a 67,596 SF climate control storage facility.

THE FOLLOWING BUILDINGS ARE PROPOSED: We are proposing a single, predominately 1-story climate control self storage building at 67,596 SF with a 100 SF sales office and a second floor 1,500 SF managers unit above the office.

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: James Pappas

ADDRESS: 550 East Nine Mile Road, Ferndale, MI 48220

STEP-BY-STEP INSTRUCTIONS FOR SITE PLAN REVIEW

SUBMIT ALL MATERIALS TO: Community Development Director, Genoa Township Hall,
2911 Dorr Road, Brighton, Michigan 48116.

STEP 1: Pre-Application Meeting (*Optional*)

Staff and consultants are available for this introductory meeting on the 2nd and 4th Monday of every month at the request of the applicant. See Application Meeting Request Form.

STEP 2: Submit Application

The Planning Commission will consider your application during their regularly scheduled meeting after consultant reviews. The meeting date is determined by the date you submit a complete application and will be strictly followed. See the Planning Commission Submittal Schedule for details. The following documents ***must*** go through the Township office before going to consultant review. *Submittal requirements include:*

1. This Site Plan Application (one copy)
2. Site Plan (four large copies, folded)
*The site plan *must* be sealed by an architect or engineer registered in the State of Michigan.*
3. Environmental Impact Assessment (four copies)
4. Related Details Specification, if necessary (lighting details, renderings, etc.)
5. Reduced-File-Size **collated/combined** pdf of all submittal materials (on disk)
6. Review Fees. These ***must*** be paid at time of submission. See Fee Schedule.

STEP 3: First Review of Your Application by Township Consultants

Your application is reviewed by fire, engineering, and community planning professionals. As the applicant, you will receive their comments approximately two weeks after your submittal.

STEP 4: Submit Revised Materials

Submit the following within one week after receipt of consultant comments:

1. Cover Letter, detailing changes (one copy)
2. Site Plan (four large copies, folded). *Large-scale projects or long/oversized items may require submittal of several additional hard copies.*
3. Two (2) 11 X 17 copies of Site Plan
4. Environmental Impact Assessment and other supporting information (four copies)
5. Reduced-File-Size **collated/combined** pdf of all submittal materials (on disk).

STEP 5: Second Review of Your Application by Township Consultants

Second Review comments from consultants will be discussed at the scheduled Planning Commission meeting. As the applicant, you will receive copies of their comments approximately three business days before the meeting. Your attendance is required at the meeting.

STEP 6: Planning Commission Review at Public Hearing

Held at Genoa Township Hall, the second Monday of each month at 6:30 p.m.

STEP 7: Submit Revised Materials for Genoa Township Board of Trustees

After Planning Commission approval, your case will go before the Board. The Board meets on the 1st and 3rd Monday of each month. To allow for the preparation of Planning Commission minutes and to allow the applicant time to address changes required by the Planning Commission, projects ***will not*** be reviewed by the Township Board on the Monday immediately following a Planning Commission meeting. (Board-agenda submittals are required the Monday *before* the Board meeting by 1:00 p.m.) *Submittals should reflect any changes required by the Planning Commission and include:*

1. Site Plan (one copy)
2. Environmental Impact Assessment (one copy)
3. Reduced-File-Size **collated/combined** pdf of all submittal materials (on disk)

REQUIRED SITE PLAN CONTENTS

Each site plan submitted to the Township Planning Commission shall be in accordance with the provisions of the Zoning Ordinance. No site plan shall be considered until reviewed by the Zoning Administrator. The following information shall be included in the site plan submittal packet:

<u>SUBMITTED</u>	<u>NOT APPLICABLE</u>	<u>ITEM</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Application form and fee: A completed application form and payment of a non-refundable application fee. (A separate escrow fee may be required for administrative charges to review the site plan submittal.)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Applicant information: The name and address of the property owner and applicant, interest of the applicant in the property, the name and address of the developer, and current proof of ownership of the land to be utilized or evidence of a contractual ability to acquire such land, such as an option or purchase agreement.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Scale: The site plan should be drawn at an engineers scale on sheets measuring 24x36 inches at the scale noted below.

<u>ACREAGE</u>	<u>SCALE</u>
160 or more	1" = 200'
5- 159.9	1" = 100'
2- 4.99	1" = 50'
1- 1.99	1" = 30'
0- .99	1" = 20'

COVER SHEET CONTAINING

<input checked="" type="checkbox"/>	<input type="checkbox"/>	The name and address of the project.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	The name, address and professional seal of the architect, engineer, surveyor or landscape architect responsible for preparation of the site plan.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	A complete and current legal description and size of property in acres and square feet. Where a metes and bound description is used, lot line angles or bearings shall be indicated on the plan. Lot line dimensions and angles or angles or bearings shall be based upon a boundary survey and shall correlate with the legal description.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	A small location sketch of sufficient size and scale to locate the property within the Township.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Title block with north arrow, date of preparation and any revisions.

EXISTING CONDITION SHEETS ILLUSTRATING

<input checked="" type="checkbox"/>	<input type="checkbox"/>	All existing lot lines and dimensions, including setback lines and existing or proposed easements.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Existing topography (minimum contour interval of two feet)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Existing natural features such as streams, marshes, ponds; wetlands labeled with size and type (upland, emergent, etc)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Existing woodlands shall be shown by an approximate outline of the total canopy; individual deciduous trees of eight inch caliper or larger and individual evergreen trees six feet in height or higher, where not a part of a group of trees, shall be accurately located and identified by species and size (caliper for deciduous, height for evergreen).

grades of all entrances and exits, location and typical detail of curbs, intersection radii), access points (including deceleration or passing lanes, distance from adjacent driveways or street intersection), sidewalks (width, pavement type and distance from street) and recreation areas. Written verification of any access easements or agreements for shared access or driveway curb return extending beyond the property line shall be required.

Utilities: Existing and proposed locations of utility services (with sizes), degrees of slope of sides of retention/detention ponds; calculations for size of storm drainage facilities; location of electricity and telephone poles and wires; location and size of surface mounted equipment for electricity and telephone services; location and size of underground tanks where applicable; location and size of outdoor incinerators; location and size of wells, septic tanks and drain fields; location of manholes, catch basins and fire hydrants; location, size, and inverts for storm and sanitary sewers, any public or private easements; notes shall be provided clearly indicating which existing services will remain and which will be removed.

Grading and drainage: A site grading plan for all developments where grading will occur, with existing and proposed topography at a minimum of two (2) foot contour intervals and with topography extending a minimum of twenty (20) feet beyond the site in all directions and a general description of grades within fifty (50) feet, and further where required to indicate stormwater runoff into an approved drain or detention/retention pond so as to clearly indicate cut and fill required. All finished contour lines are to be connected to existing contour lines at or before the property lines. A general description and location of the stormwater management system shall be shown on the grading plan. The Township Engineer may require detailed design information for any retention/detention ponds and stormwater outfall structures or basins. If MDEQ regulated wetlands are to be used, status of MDEQ permit application or copy of permit with attached conditions shall be provided.

Landscape and screening: A landscape plan indicating proposed ground cover and plant locations and with common plant name, number, and size at installation. For any trees over eight (8) inch caliper to be preserved. A detail shall be provided to illustrate protection around the tree's drip line. Berms, retaining walls or fences shall be shown with elevations or cross section from the surrounding average grade. The location, type and height of proposed fences shall be described.

Waste receptacles: Location of proposed outdoor trash container enclosures; size, typical elevation, and vertical section of enclosures; showing materials and dimensions in compliance with Zoning Ordinance Standards.

Signs: Locations of all signs including location, size, area type, height, and method of lighting. Note that all regulatory signs shall meet the standards from the Michigan Manual of Uniform Traffic Control Devices (MMUTCD).

Lighting: Details of exterior lighting including location, height, method of shielding and style of fixtures.

Parking: Parking, storage and loading/unloading areas, including the dimensions of typical space, aisle, and angle of spaces. The total number of parking and loading/unloading spaces to be provided and the method by which the required parking was calculated shall be noted.

The applicant shall erect flagged stakes at the perimeter points of the property to assist Township officials and staff in reviewing the site.

- i. **Impact on Traffic and Pedestrians:** A description of the traffic volumes to be generated based on national reference documents, such as the most recent edition of the *Institute of Transportation Engineers Trip Generation Manual*, other published studies or actual counts of similar uses in Michigan. A detailed traffic impact study shall be submitted for any site over ten (10) acres in size which would be expected to generate 100 directional vehicle trips (i.e. 100 inbound or 100 outbound trips) during the peak hour of traffic of the generator or on the adjacent streets. The contents of the detailed study shall include: **Not Applicable**
- Description of existing daily and peak hour traffic on adjacent street(s) and a description of any sight distance limitations along the right-of-way frontage of the site.
 - Forecasted trip generation of the proposed use for the a.m. and p.m. peak hour and average daily traffic generated.
 - For any project with a completion date beyond one year at the time of site plan approval, the analysis shall also include a scenario analyzing forecasted traffic at date of completion along the adjacent street network using a forecast based either on historic annual percentage increases and/or on expected development in the area.
 - Projected traffic generated shall be distributed (inbound v. outbound, left turn v. right turn) onto the existing street network to project turning movements at site driveways and nearby intersections. Rationale for the distribution shall be provided.
 - Capacity analysis at the proposed driveway(s) using the procedures outlined in the most recent edition of the *Highway Capacity Manual* published by the Transportation Research Board. Capacity analyses shall be provided for all street intersections where the expected traffic will comprise at least five-percent (5%) of the existing intersection capacity.
 - Accident data for the previous three (3) years for roadway sections and intersections experiencing congestion or a relatively high accident rate, as determined by the township or staff from the Livingston County Road Commission or Michigan Department of Transportation.
 - Analysis of any mitigation measures warranted by the anticipated traffic impacts. Where appropriate, documentation shall be provided from the appropriate road agency regarding time schedule for improvements and method of funding.
 - A map illustrating the location and design of proposed access, including any sight distance limitations, dimensions from adjacent driveways and intersections within 250 feet of the edge of the property frontage, and other data to demonstrate that the driveway(s) will provide safe and efficient traffic operation and be in accordance with Article 15.
- j. **Special Provisions:** General description of any deed restrictions, protective covenants, master deed or association bylaws.
- k. **A list of all sources shall be provided.**

Revised 04/11/2014, kasp

**TOWNSHIP OF GENOA
PLANNED INDUSTRIAL DISTRICT AGREEMENT
FOR
BIRKENSTOCK SELF-STORAGE**

THIS AGREEMENT is made as of the ___ day of _____, 2019, by and between the Genoa Charter Township, Livingston County, Michigan, (hereinafter called the "Township"), the offices of which are located at 2911 Dorr Road, Brighton, Michigan 48116 and Birkenstock Self-Storage, LLC, a Michigan limited liability company (hereinafter referred to as "Developer"), the address of which is 2528 Harte Drive, Brighton, Michigan 48114.

WITNESSETH:

WHEREAS, Developer is the owner and developer of certain land located in the Township of Genoa, County of Livingston, State of Michigan, more particularly described on Exhibit A hereto and incorporated herein by reference (sometimes hereinafter referred to as the "Property"); and

WHEREAS, Developer desires to develop the Property as a climate controlled storage facility and sales office under a comprehensive development plan as a planned industrial district ("PID" or "Planned Industrial District") to be known as "Birkenstock Self-Storage"; and

WHEREAS, the Township's Planning Commission, after giving proper notice, held a public hearing on _____, 2019, at which Developer's Application for a PID ("Application"), Conceptual PID Site Plan, Impact Statement and this PID Agreement was considered, comments and recommendations of the public were heard, and the Planning Commission recommendations were made to the Township Board; and

WHEREAS, on _____, 2019, the Township Board reviewed the Application, Conceptual PID Site Plan, Impact Statement and this PID Agreement and made recommendations to Developer concerning the proposed development; and

WHEREAS, on _____, 2019, Developer submitted to the Planning Commission an Application for Final Approval of the PID ("Final Application"), pursuant to the provisions of Article 10 of the Township's Zoning Ordinance ("Zoning Ordinance")' and

WHEREAS, the Planning Commission, after giving proper notice, held a public hearing on _____, 2019, as required by P.A. 184 of 1983, as amended, at which the Final Application was considered, comments and recommendations of the public were heard, and recommendations were made by the Planning Commission to the Township Board concerning the Final Application; and

WHEREAS, the uses permitted within a PID include uses permitted in the Industrial and Office-Service Districts and include a climate controlled storage facility and sales office; and

WHEREAS, the Township Planning Commission and the Township Board have reviewed the Final Site Development Plan, attached hereto as Exhibit B, and have approved the Final Site Development plan as to: (1) total acreage under consideration for the Planned Industrial District; (2) the general location and acreage therein for the proposed use in the specified zoning district (being climate controlled storage facility and sales office); and (3) the general site layout and infrastructure improvements; and

WHEREAS, the approved Final Site Development Plan for the PID is consistent with the purposes and objectives of the Township; and further, is consistent with the Township's Zoning Ordinance pertaining to permitted land uses, the intensity of such uses, site access and storm water management; and

WHEREAS, Developer has made its application for final approval of the PID to the Township Board pursuant to and in accordance with the provisions of Article 10 of the Township's zoning ordinance; and

WHEREAS, at a regular public meeting of the Township Board on _____ 2019, the Township Board approved the Final Application submitted by the Developer and rezoned the property to a PID Zoning District; and

WHEREAS, the Township's Zoning Ordinance requires the execution of a Planned Industrial District Agreement in connection with the approval of a PID which Agreement shall be binding on the Township and the Developer;

NOW, THEREFORE, the Developer and the Township, in consideration of the mutual covenants of the parties described herein, and with the express understanding that this Agreement (sometimes hereinafter and in other documents related to the proposed development as the "PID Agreement") contains important and essential terms as part of Final Approval of the Final Application, agree as follows:

I. GENERAL TERMS OF AGREEMENT

A. Township and Developer acknowledge and represent that the foregoing recitals are true and accurate and binding on the respective parties.

B. Township acknowledges and represents that the Property has been rezoned to a PID Zoning District. However, notwithstanding the approval of the PID rezoning and the approval of the proposed use of the Property herein as a climate controlled storage facility

with sales office, the following uses shall not be permitted on the Property: Conference centers; Funeral home or mortuary; Dry cleaning drop-off stations with drive-through service; Restaurants, taverns, bars, delicatessen, food carryout, coffee shops, and similar establishments serving food or beverages; Adult day care facilities; Banks, credit unions, savings and loan establishments and similar financial institutions; Hospitals; Medical urgent care facilities, medical centers and clinics; Veterinary hospitals; Veterinary clinics without boarding or overnight care; Dormitories or student apartments accessory to a college; Automotive assembly or manufacturing; Bottling and packaging except canning; Breweries, distilleries and wineries; Cement, concrete, gypsum, plaster and nonmetallic mineral products manufacturing; Cement and concrete product or ready-mix operations; Chemicals and allied products manufacturing; Extractive uses, such as sand and gravel mining; Food processing including canning, meat and dairy products processing; Foundry, smelting or refining of metals or ores, wrought iron, annealing or heat treating plants; Landfills; Lumber mills; Paper and allied products manufacturing; Petroleum refineries or storage facilities; Plastics manufacturing, molding and extrusion; Salvage yard or junk yard; Truck terminals; Any manufacturing use involving wet processes or the use of water in processing; Adult regulated uses; Central dry cleaning plants; Electric power stations and heating plants; and Accessory fuel storage or use of hazardous materials.

C. The PID shown and described in Exhibit A (legal description of the PID Site) and the Final Site Development Plan referenced herein as Exhibit B (and specifically captioned as "Construction Drawings for Birkenstock Self-Storage" consisting of Sheets C-1 through C-___, both inclusive, and Sheet ___) is hereby approved in accordance with the authority granted to and vested in the Township under and pursuant to Act 110 of 2006, being the Michigan Zoning Enabling Act, MCL 125.3101, et seq., and Act 33 of 2008, being the Michigan Planning Act, MCL 125.3801, et seq.; and in accordance with the Zoning Ordinance of Genoa Charter Township, enacted October 7, 1991, as amended, except as modified herein; subject to the terms of this Agreement and in compliance with Exhibit B, and all provisions of the Township Zoning Ordinance pertaining thereto (collectively referred to herein as the "Applicable Regulations"), according to the terms thereof as of the date of approval of the PID.

D. The Approved Plan for the PID ("Approved Plan") includes Exhibit A and Exhibit B. The Approved Plan was formulated by the Developer and approved by the Township based upon the material terms of the Impact Statement and Application materials, which were presented to the Township by the Developer.

E. The Developer and the Township acknowledge that the Approved Plan takes precedence over the terms of the foregoing documents.

E. Developer and Township acknowledge and agree that rezoning to PID of the Property described in Exhibit A constitutes approval of Exhibit B as it sets forth the general configuration of permitted land uses. Site plan review for the PID described in Exhibits A and B are not subject to any subsequent enactments or amendments to the Zoning ordinance or the Applicable Regulations and will be reviewed and approved in light of this Agreement including Exhibit B hereto, the Zoning Ordinance and Applicable Regulations as they exist at the date of this

Agreement. Developer shall comply with Article 13 of the Zoning Ordinance, as modified herein and as may be otherwise required, with respect to any site plan approved by Township at Developer's request. Any subsequent zoning action by the Township shall be in accordance with applicable constitutional law, the Michigan Zoning Enabling Act and the Zoning Ordinance.

F. The approval of the PID described herein and in Exhibit B, and the terms, provisions and conditions of this Agreement are and shall be deemed to be of benefit to the Property described on Exhibit A and shall run with and bind such Property and shall bind and inure to the benefit of the parties hereto and their successors and assigns.

II. SPECIFIC TERMS OF AGREEMENT REGARDING LAND USE AND LAND DEVELOPMENT

A. In all districts designated for planned industrial development, the permitted principal uses shall be consistent with Article 10 of the Genoa Township Zoning Ordinance, and Section 10.03.02 specifically, except as otherwise modified and approved herein.

B. Developer represents that it intends to develop the parcel of Property identified in the Final Site Development Plan as a climate controlled storage facility with sales office. The Final Site Development Plan (Exhibit B), including the exterior design, shall be constructed in a manner consistent with a commercial sales office, using a flat roof design, high quality building materials, commercial window patterns and site improvements consistent with the surrounding uses and aesthetic features both on and off site. A 20' landscape buffer, with existing trees, will be installed to screen the existing MHP – Manufactured Housing District use on the east, west and south sides of the property.

C. Developer shall be permitted to deviate from the specific requirements set forth in Article 12, Site Development Regulations, concerning Industrial District (IND) Exterior Building Wall Materials, and the Township hereby approves a variance from Sec. 12.01.03 for the minimum exterior building material percentage of brick on walls exposed to a public street, which shall be consistent with the brick, metal siding, composite siding and metal canopy percentages set forth in the Front Side Elevation (North) set forth in the submitted Architectural Design Package, Sheet 3 of 4, of the Final Site Development Plan as prepared by Fusco, Shaffer & Pappas, Inc.

F. In accordance with Article 10 of the Genoa Township Zoning Ordinance, the Genoa Township Planning Commission on _____, 2019 has determined that the proposed PID, as presented, may provide community benefits, including but not limited to, a means of secondary access to the adjacent Community Bible Church property and a safe route of pedestrian travel from the adjacent manufactured housing community to the designated public school bus stop at Grand River.

G. The storm water retention/detention system for the PUD shall meet the requirements of the Livingston County Drain Commission and all applicable laws and regulations.

H. All utilities required in connection with the development of Birkenstock Self-Storage shall be installed underground.

III. MISCELLANEOUS TERMS OF THIS AGREEMENT

A. Any violation of the terms of this Agreement shall be a violation of the Zoning Ordinance. The remedies of Township for a violation shall be such remedies as are provided by and for violation of the Zoning Ordinance.

B. The parties hereto make this Agreement on behalf of themselves, their successors and assigns and the signers hereby warrant that they have the authority and capacity to make this contract. All references to Developer herein shall include any successor to the Developer who or which may act as Developer of the Property or any part thereof. So long as Developer shall not violate any of the terms of this Agreement, it shall be relieved of further responsibilities hereunder upon conveyance by it of the Property or any part thereof to a successor developer. This Agreement shall be recorded with the Livingston County Register of Deeds and the benefits and burdens set forth herein shall run with the Property described in Exhibit A.

C. This Agreement may be amended only by a written instrument executed and recorded by the parties hereto and their successors and assigns.

D. This Agreement may be executed in counterparts, each and all of which together shall constitute one and the same document.

IN WITNESS WHEREOF, the parties hereto have set their hands as of the date set forth at the outset of this Agreement.

This Instrument Drafted By:

Roger L. Myers
MYERS & MYERS, PLLC
915 N. Michigan Ave.
Howell, Michigan 48843

When recorded return to Drafter



CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

Harte Birkenstock Storage Building Impact Assessment - NFE K362-01

January 2019

The following is the applicants impact statement for the referenced project.

18.07.01 Preparer

This statement was prepared by Michael D. Peterson, P.E., Civil Engineer, Nowak and Fraus Engineers, with input from Steve Roffi, RA, Architect, Fusco, Shaffer and Pappas. NFE has been doing business in SE Michigan for 50 years.

Nowak and Fraus Engineers

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18.07.02 Location

The plans submitted with this application contain larger scale and more detailed information of the existing site/location/proposed improvements. The site is located at 2528 Harte Drive, on the south side of Grand River Avenue. The site is located between Hubert and Bendix Road. The property tax ID is 4711-13-300-009.



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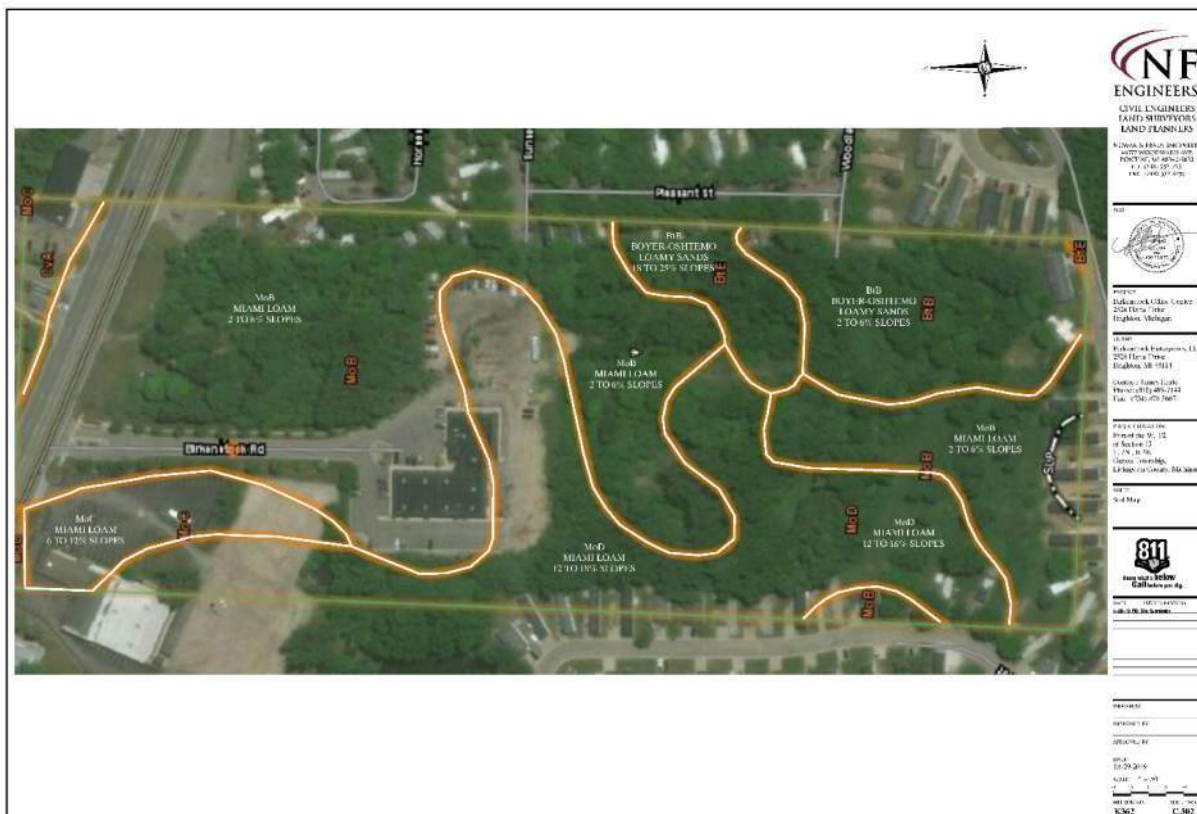
18.07.03 Impact on Natural Features

The site is approximately 10.61 acres in size. The front or north 1/3 to 1/2 of the site contains an office building with drive access from Grand River Avenue. The existing building is set back from Grand River approximately 500 feet.

The remainder of the property where the proposed improvements are to be made can be considered “rolling” with changes in elevation of approximately 20 feet. The Owners intent is to make improvements that will utilize this relief/natural feature and to work with the land as much as possible with the proposed project.

Where the proposed improvements are to be made on the site, the east, south and west sides are bounded by a pre-manufactured development. The northwest portion of the site is bounded on the west side by and existing church which has been approved for improvements as well. The church property is proposing to relocate an ingress/egress point from Grand River to the existing Harte Drive.

The soils specific to this site according to the USDA soils map are: MoB-Miami Loam, BtB-Boyer-Oshemo Loamy Sands, MoD-Miami Loam.



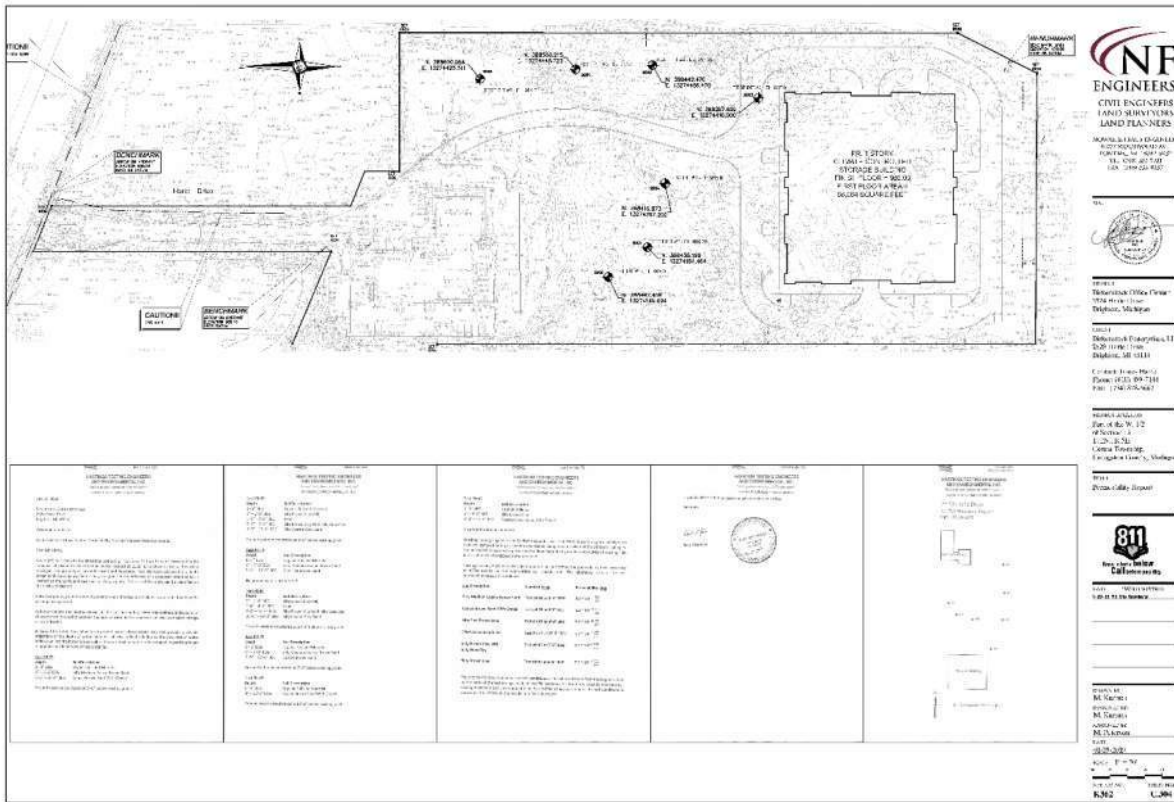
A larger depiction of this graphic can be found in the site plan documents submitted to the Township.

There is little wildlife on this site which has not been previously impacted by the other surrounding developments.

The plans submitted for this project contain a tree survey which identifies all of the trees 8" in caliper and larger. The majority of the trees on site are between 8" and 14" in diameter. The majority of the trees are in poor to fair condition. Most of the very large trees are in poor condition.

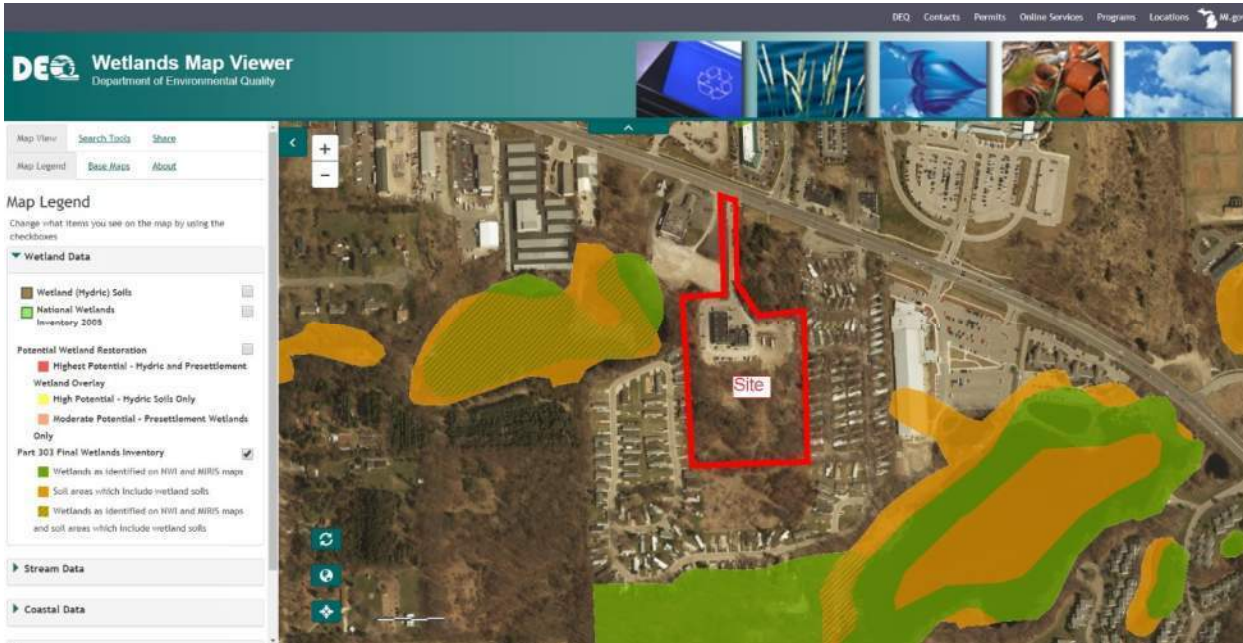
The table is a large data grid with approximately 100 columns and 100 rows. The columns are labeled with various identifiers, possibly tree IDs or coordinates. The rows contain numerical values and some text. The table is very dense and difficult to read. It is located in the center of the page, below the text and above the footer.

Test pits were dug on this site to assess the soil conditions and where the ground water may be located. The tests were performed by Hasting Testing Engineers and Environmental Inc. The test pits were dug in the areas of the proposed retention pond which will be area where there are existing low areas prior to development/improvement. No water has been observed to collect in this area and that is consistent with the soils found which is mainly medium to course sand. There are also some heavier/less permeable soils found in some areas/layers. The water table also varied in depth from the surface but is generally between elevation 947 and 950. This is approximately 10 feet or greater than the proposed pond bottom.



Water service to this property as well as the surrounding properties are provided by a City system. To our knowledge there are no wells in the area of this project/property.

There are no wetlands on this site. Below is a wetland map for the site and the area around the site.



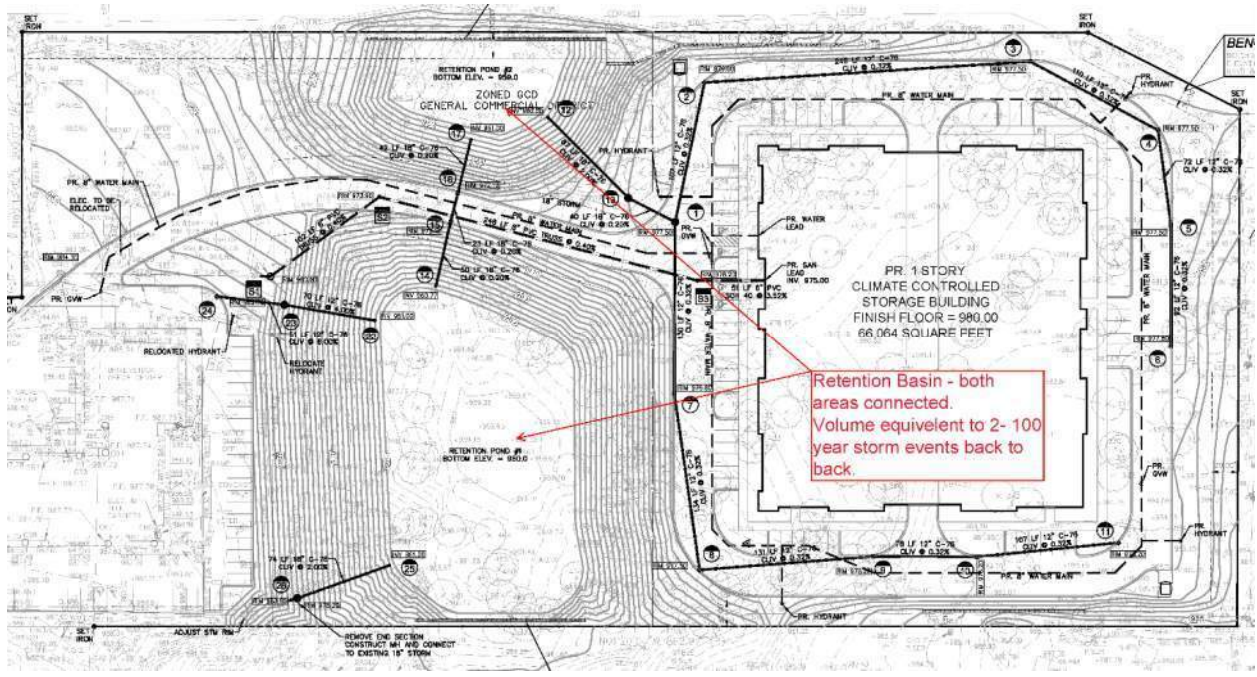
Storm water for this site percolates into the ground. There are a couple of low areas on the site that will be reshaped and used as a retention basin, (Retention, meaning no outlet). The basin has been designed to contain the volume of water that will be produced by 2 – 100 year back to back storms. This is in accordance with the requirements of the Township and the County Drain Commission. The frequency of a 100-year storm is once every 100 years.

There are no lakes, streams or ponds on the site. Therefore, none of these items will be affected by this development.

As discussed above, surface and ground water quality will not be affected with the proposed site improvements. The storm water in the ponds will be naturally filtered as it percolates into the ground. This is done in accordance with best management practices and the requirements of the Township and County.

18.07.04 Impact on Storm Water Management

As discussed, the storm water on this site either percolates into the ground and/or flows to the two low areas and percolates, evaporates and is picked up by vegetation. The intent is to continue this same practice, but, enlarge the low areas for more volume and a factor of safety (i.e. 2 – 100-year storm events back to back).



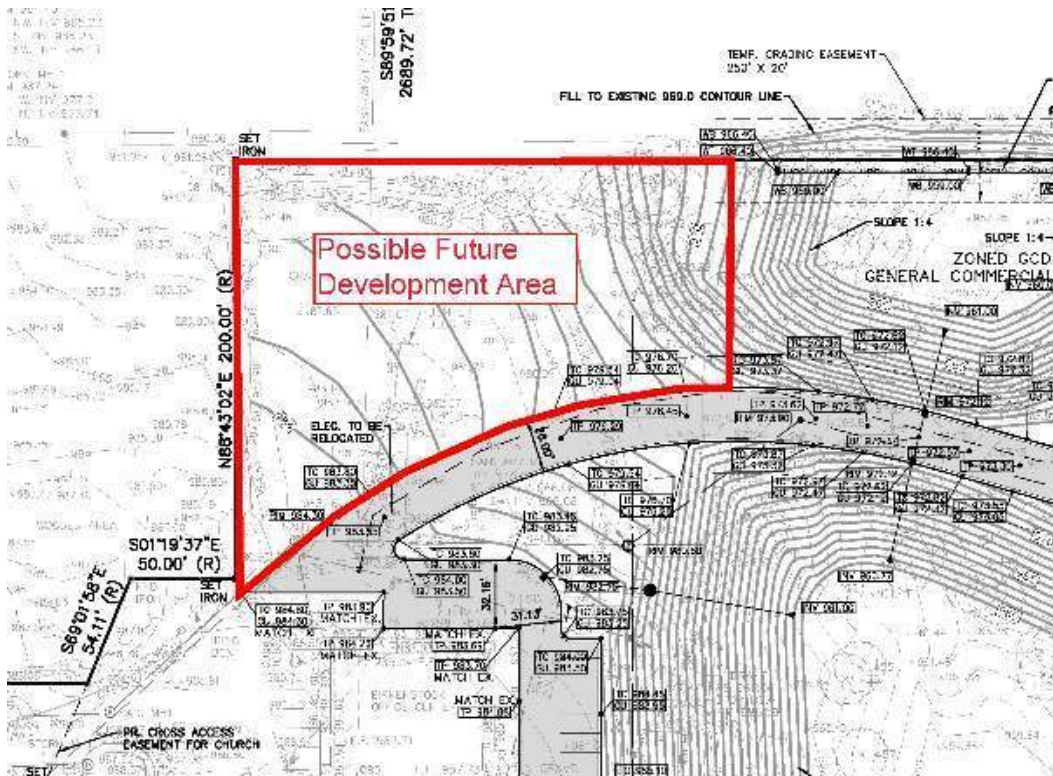
To reiterate, the volume of the pond is slightly greater than the volume of water that would be produced by 2 – 100-year storm events back to back. The probability of a 100-year storm is that such an event would occur once every 100 years. A retention pond is a pond that has no outlet and thus the requirement is to size it to handle 2 – 100-year storm events back to back. Water leaves the pond by percolating into the ground (soaking into the ground), by evaporation and by transpiration (water used by vegetation). No standing water has been observed in the existing depression areas and therefore it is assumed that the ground is adequate to allow the percolation of storm water.

County Drain Commissions throughout SE Michigan are now requiring that a portion if not all the storm water produced on a site be percolated back into the ground. This is part of evolving best management practices for dealing with storm water in areas where development occurs.

18.07.05 Impact on Surrounding Land Use

The subject parcel is Master Planned for commercial office. There is currently on site, an existing office building that will remain. This existing office is located in the front/northern 1/3 to 1/2 of the site. The proposed development/improvement will be a climate-controlled storage facility with a sales office. The project architect has designed the exterior of the new building with a commercial office look using flat roofs, high quality materials, window patterns, etc.

The proposed commercial use is compatible with the adjacent zoning/uses along Grand River Avenue. Low anticipated traffic volume (typical for this type of project) and negligible environmental effects, make for a low impact facility for the site and surrounding properties. Esthetics of the proposed design will blend and be harmonious with the adjacent properties. The existing MFP zoned areas along the East, South and West sides will be screened with a minimum 20-foot-wide buffer that will contain existing trees and planted vegetation.



No additional light impact is anticipated with the proposed project. No additional noise or air pollution is anticipated with this project.

It is anticipated that the site will be open for business between 8:00 AM and 6:00 PM. Outside lighting will be minimal as needed for security. Inside lighting will be subdued. A photometric plan will be prepared as part of the construction documents. These plans will be submitted to the Township and other applicable agencies having jurisdiction over the project for their review, approval and applicable permits. The lighting will conform to the Township's requirements.

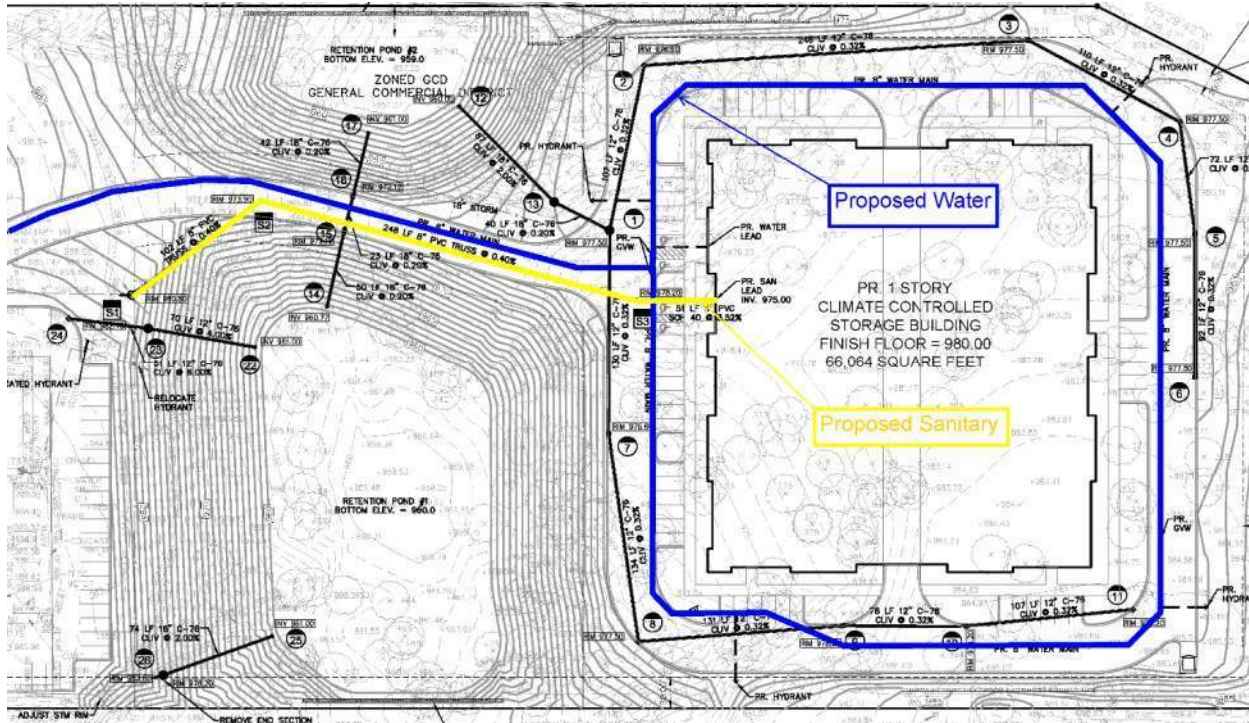
In regard to the performance standards as noted in Section 13.05 there shall be no: smoke, airborne solids, odor, gasses, vibration, noise, glare, radioactive materials, fire and safety hazards, underground storage tanks, above ground storage tanks, toxic or hazardous materials.

18.07.06 Impact on Public Facilities and Services

There will be no residents on site. There will be 3 employees on site. Visits to the site are anticipated to be 24 per day. There is no anticipated impact to schools and recreation facilities. There is no anticipated increase to police, fire and emergency services.

18.07.07 Impact Public Utilities

Water service will be provided through a connection to an existing water main located on site. Sanitary service will be provided through a connection to an existing sanitary sewer located on site. Use or volume of flow from and to the water and sanitary systems will be negligible. Calculations will be provided on the engineering construction documents at a later date and will conform to the requirements of the Township and the County.



As discussed previously, storm water will be collected (catch basins) and directed to the retention pond. The retention pond will have a volume equivalent to 2-100-yr storm events back to back.

During construction the runoff developed will be controlled as required by the Township and the County. The first construction activity on site will be to install the soil erosion and sedimentation control measures that will be depicted on the plans approved by the Township. The retention pond will be reshaped as the second item of construction and storm water directed to the area. Upon completion of the construction, the ponds and storm system will be cleaned, and vegetation established. Once the vegetation is established, the SESC measure will be removed.

As noted the site will be served with public water and sanitary service. Connection to those services will be on site. Calculations for use will be provided as part of the engineering/construction document submittal in accordance with the requirements of the Township. Franchise utilities serving the site will include: gas, electric, phone and data.

18.07.08 Storage and Handling of any Hazardous Materials

No hazardous materials are expected to be on site.

18.07.09 Traffic Impact Study

With the proposed low impact development and low trip generation for this type of use, the proposed project falls below the threshold for peak hour usage and below the threshold for a traffic impact study.

18.07.10 Historic and Cultural Resources

This project does not involve the alteration or demolition of historic structures.

18.07.11 Special Provisions

There are no deed restrictions or protective covenants on this property.



CUTTINGEDGE
SELF STORAGE DEVELOPMENT

FEASIBILITY STUDY

Client: James Harte, Birkenstock Enterprises

Project: RV Storage Feasibility: Brighton, MI

Date: September 2018

Prepared By: **Andrew S. Ross**

- 1. Self Storage Concept**
- 2. Comments and Conclusions**
- 3. Competition / Market Information**
- 4. Target Area Supply and Demand**
- 5. Unit Mix / Site Construction**
- 6. 5 Year Recap, Entrepreneurial Profit**
- 7. Explanation For Projections / Projections**
- 8. Demographics**
- 9. Articles**
- 10. Partners Information**

1

THE SELF-STORAGE CONCEPT

THE SELF-STORAGE CONCEPT

The self-Storage industry had its beginnings in Texas in 1954 and since the early 1970's the concept of storage as a true business began to emerge and it started to become a viable, worldwide business. Simply stated, the concept of self-Storage provides an attractive solution to the growing need for temporary additional space for the residential market and for both small and large businesses.

In the past, self-storage was most often thought of as an option for industrial businesses only. Today, self-storage is actually utilized more for retail or residential use, and is more accurately considered as a retail business. Why many assume that the daily management of a self storage facility is simple and the business itself a simple concept, it is also an industry full of unique nuances and how they are handled separate those facilities that are undermanaged and underperforming from those at the top of the industry that are well managed and highly profitable. It is understood industry-wide that today's self storage managers must be skilled professionals; gone is the caretaker role of the past. This type of manager has gone the way of first-generation facilities that served as a placeholder until the land could be used for some higher purpose. Additional income is generated at self-storage facilities by offering climate-controlled units, temperature-controlled units, tenants insurance, PO Boxes, locks and shipping boxes and packing supplies.

As with most commercial real estate, selecting the right location for a self-storage facility is very important. Choosing a self-storage site on a major arterial is beneficial to both residents and businesses in the immediate

neighborhood. High visibility to drive-by traffic also contributes significantly to the success of a self-storage facility with drive-by still being the number one reason people state as how they found a facility is Internet now being a close second.

Self-storage has proven to be a sound investment. There are approximately 41,000 self-storage facilities in the United States that are considered a Class C facility or better. Of these, only 14.96% are owned by the top ten operators in the nation. This lack of consolidation is one of the principal reasons the self-storage industry has become one of the most viable options of real estate investment.

Investors have been drawn to the self storage business because as a rule, consumers are willing to pay about as much on a per-square foot basis for self-storage as they pay for a rental apartment, according to Ryan Burke, an analyst with Green Street Advisors. At the same time, self-storage facilities are relatively cheap to build, ranging from roughly \$40 to \$45 a square foot for a one-story facility and from \$50 to \$65 a square foot for a multistory facility, according to Mako Steel, an engineering firm that specializes in self-storage. By contrast, apartments can cost between \$170 a square foot for a simple garden apartments in inexpensive cities to more than \$1,000 a square foot for high-rises in pricier cities, according to Alexander Goldfarb, an analyst at Sandler O'Neil I+ Partners LP.

A recent nationwide survey amply demonstrated how popular self-storage has become. The survey reported that 10% of the population is currently using some kind of self-storage, 22% have recently used self-storage, and another 15% have used self-storage at some time in the past. An additional 51% of the population is aware of what self-storage is, but has not yet had reason to use it. Only 3% of the survey did not know what self-storage was.

An article that appeared in a recent edition of the Storage Fact Book said that, “The Holy Grail of investments is their potential return. Sophisticated investors understand value is based not only on the *current cash flow* of a property, but also on its *future* or *residual value* when sold. Obviously, the returns in both categories must be measured against the actual investment made in the property.

“The best measure of total return is the overall capitalization rate (OCR) that is applied to properties recently sold in the marketplace. This number reflects the total annual return expected by the buyer when purchasing a property. The OCR encompasses both the *expected current return* plus the *residual value* of the property.

ADVANTAGES OF SELF-STORAGE

- Inherent with almost any other type of real estate investment, long-term leases carefully govern how rental rates can be increased over a given three to ten year period. With self-storage, however, tenants normally have a month-to-month lease which allows the landlord to increase (adjust?) rents more consistently with market trends instead of having to wait for long-term leases to expire.
- The average stay for self-storage tenants is 12.7 months for residential tenants and 21.7 months for commercial tenants. The rent roll of a self-storage facility turns over by an average of approximately 9%+per month. This turnover rate makes it easier for self-storage operators to react quickly to fluctuations in market conditions. This flexibility allows self-storage operators to easily adjust rental rates to new tenants when they move in and to raise rates to existing tenants every six to twelve months.
- Unlike office, retail, or multi-family real estate properties, a significant transaction for self-storage facility in a typical market usually does not exceed \$6 to \$7 million, with land cost a typical facility is averaging approximately \$4.5 million. This relatively small investment in a single asset makes self-storage extremely attractive to investors. They are able to spread their risk across a market in several properties rather than having all their risk associated with a single asset.
- Operating expenses in self-storage are easily managed. Real estate taxes usually comprise 15 to 20 per cent of the total expenses. Payroll, the largest single expense item, averages between 25 and 30 percent of the total expenses not including property taxes. The remaining expenses are spread over management fees, utilities, advertising, insurance premiums,

costs for repairs and maintenance and miscellaneous office expense. As long as real estate taxes and payroll costs are carefully managed, the impact of an increase over budgeted levels in one or two of the other expense categories would be minimal.

- Self-storage is counter-cyclical. In times of slow economic growth, both business and residential tenants tend to downsize, but self-storage business tends to remain constant because tenants will use their self-storage units to store inventories, furniture and personal goods. During periods of strong economic growth, tenants will characteristically increase inventories, move into or build larger homes and offices and utilize their self-storage space during this transition. Tenants will often rent on a permanent basis an extra unit for storage of inventory items or household goods such as holiday decorations and other seasonal, bulky possessions.

2

COMMENTS & CONCLUSIONS

BRIGHTON, MI

COMMENTS AND CONCLUSIONS

We propose to develop in 2 phases a “state-of-the-art” self-storage facility totaling 45,600 net rentable square feet on approximate 3 of the 10.5 acres, located in Brighton, MI based on the following.

DEMOGRAPHIC INFORMATION

1. There is currently a higher demand than supply for storage if using the “target area” which has been determined to be a 5
2. -mile radius.
3. In the “target” area the average household income is excellent at \$121,155 while the national average is \$86,278 which means when this property increases rates it will have a minimal impact to the occupancy. The current “Self-Storage Demand stated that renter’s income were as follows; 17% over \$125,000, 10% \$100,000 to \$125,000 and 13% \$75,000 to \$100,000, 9% \$60,000 to \$75,000, 7% \$50,000 to \$60,000, 10% \$40,000 to \$50,000, 8% \$30,000 to \$40,000, 13% \$20,000 to \$30,000 and 13% less than \$20,000.
4. The % of renters spending \$150 or more per month on storage has increased 8% since 2013.
5. The area's population in 2018 is 56,988 which was an increase of 5.41% from 2010 and is projected to increase another 2.55% in the next five years. The census bureau estimates nation growth of only 3.5% over the next five years.
6. Consumer self-storage penetration has increased since 2013 but has still not reached its 2007 level. However, due to population growth, the number of households renting self-storage units is at an all-time high of nearly 12 million. This is about 1.8 million more households than in 2005.
7. This is an area where the average household size of 2.56 people. Keep this in mind when building the apartment.

CONSTRUCTION INFORMATION

8. We propose to build Phase 1 on 3 acres and include the office and apartment with this phase.
9. We proposed to build Phase 2 on 2 additional acres.

10. We suggest building the rows of storage units parallel to the longest side of the building. This allows for more square footage and if the rows are perpendicular to the office gives the manager a view of every unit by walking down one side.
11. To stop water flow under the doors you should slope floors and have a 1 ½ inch step up into each unit.
12. You may want to consider moveable partitions to allow changing the unit mix for the demand.
13. When selecting latches for the doors, the optimum choice would be the use of cylinder locks as they enhance the look of the facility and requires that the tenant purchase a lock from you. You must train the manager on the benefits of the cylinder lock over the traditional lock to make this a success.
14. The unit mix is designed to include an average number of sizes since too many sizes tend to confuse the customer, clutter your layout and increase the complexity of construction.
15. In addition to an electronic gate install a monitored video surveillance system and door alarms. By having the bells and whistles it makes the property more desirable when selling if this becomes your exit strategy.
16. If you choose to install door alarms, it is much less expensive and simpler to do during construction rather than trying to retrofit them later.
17. When installing the key pad, it should be located with enough room to allow 3 cars bumper to bumper to line up. Also, it should be accessible from the vehicle window incase of incimate weather.
18. Make sure the facility has bright security lighting on the grounds, so tenants feel safe at night.
19. Install timers or motion sensors in all hallways and any units with lighting. This will reduce the utilities expenses and will discourage tenants from trying to install their own outlets in the units.
20. It is recommended to install asphalt driveways instead of concrete. Concrete is approximately 500% higher in cost. Also repairs on concrete, which will crack are much more expensive than asphalt.
21. The property will need to be constructed and operated in such a manner as to attract its successful share of the market, and probably capture and maintain a substantial portion of it's inferior competitions market share.
22. At the end of the buildings most fire departments require a 35' inside turning radius and a 55' outside turning radius.

23. Remember to install bollards at the corners of the building and around the touch pads for the gate. This will reduce the damage caused by vehicles running into your buildings or gate equipment.
24. If using a metal building you might want to consider using split brick on the outside and metal partitions for the inside. It is my understanding that the REITS and companies like Extra Space Storage consider this type of construction superior and will offer a better price. This is important if selling is part of your exit strategy. Remember to have the roofs insulated on the inside, as the metal building tends to sweat when the temperature changes.
25. Where zoning will allow use some type of a reader board on your sign. This provides space for posting specials along with changing the message weekly and keeps people looking at your facility.
26. 50% of current renter are renting drive up storage units, however this number has decreased 7% since 2013.
27. In this area because of the humidity you will need to use a central air conditioner to cool the air and keep the humidity down.
28. For every 1,200 to 1,500 square feet you will need a 1-ton air conditioning unit.
29. If you do build an on-site apartment, build it above the office this allows them to separate the office time from home time as access to the apartment is limited. If you connect the apartment to the office on the same level, managers tend to go in their apartment during office hours to watch TV, do laundry and cook among other things.
30. When planning the layout for the temperature-controlled building larger units should be built close to the access doors making it easier for people to move into them.
31. Installing panic alarm buttons in the temperature-controlled area gives your customer peace of mind. These areas are typically long, dim hallways that are usually vacant and may make your customers feel vulnerable. By installing alarm buttons, music, using white doors and panels along with good lighting in these areas you make the temperature-controlled building more inviting. Surveys by the storage industry show that after the initial move in, women are typically the ones who visit the facility. The more comfortable you make them the longer they will stay and less likely they are to move based solely on price.
32. When the humidity rises to 90% or above items stored in traditional storage units can become damaged, therefore we recommend building some temperature-controlled units. Keep the temperature-controlled units above 60 degrees and not over 85 degrees.

MISCELLANEOUS

33. Nationally even with the additional square footage being added to the self storage market nationally in 2005 the average occupancy was 83.0% and in 2015 the average was 90.2%.
34. Currently the REITS account for 18% of all storage facilities in the U.S., the other top operators accounting for an additional 8% leaving 74% for the rest of the self-storage product.
35. Printed materials for direct mailers along with coupons should be made available and widely distributed before Grand Opening to maximize rent up. The cost for this initial marketing campaign is not in the budget. The line item for direct mail is for the mailing lists and postage to be used during the rent-up process.
36. You will want to use at least the amount of money each month that is outlined in the marketing budget. A facility will need additional marketing up front to produce a faster rent up. Keep in mind the average stay in storage is 12.7-21.7 months with the average number of move outs being approximately 10% of what the facility starts the month occupied with. This means the faster you can rent up before experiencing high move outs the faster the facility will obtain maturity.
37. It is very important to have a good web site. in 2007 the number of customers who said they found a facility was less than 1% and in 2015 that number had risen to 23% nearly one-fourth of all customers and is second only to drive by with 32% of new customers.
38. According to the “Self-Storage Demand Study” approximately 10% of the current population is using storage, 22% have used storage in the past 5 years and 15% have used storage more than 5 years ago. This means 47% of current U.S. households have some self-storage experience or which only 3% of ex renters say they would never rent again under any circumstances.
39. Having the apartment above the office allows you to place signage up higher on the wall and provides you with additional visibility for the facility.
40. On the “Entrepreneurial Report” based on an 7% cap rate the “Entrepreneurial Profit” is 43% or \$1,717,740 after the 3rd year of operation. If this property was being appraised or sold in today’s market it would demand a 5 cap and would have a 100% profit or \$4,012,551.
41. Built into the projection cost is “Lease Up” interest to help the property cover the mortgage until the facility reaches maturity.
42. This property will break even and cover the debt service on phase 1 at 92% occupied and should be achieved by approximately the 7th month of operation. However once Phase 2 is built the property break even at 72% an should be achieved by approximately the 28th month of operation.

43. You should implement a program to accept credit cards along with monthly auto payment option for your tenants. Those tenants who automatically have their monthly payment charged to their credit cards stay longer. This is very useful because a substantial amount of your tenants will not live locally. The “Self-Storage Demand Study” states the means of payment as; 36% check or money order, 35% credit or debit card, 14% cash and 15% on-line or automatic deduction.
44. You should offer insurance programs for added peace-of-mind for prospective tenants.
45. Offering boxes and other packing materials can increase your monthly profit and provide another valuable service to your customers.
46. Retiring “baby boomers” tend to remain consumers who do not easily dispose of possessions; this increases the demand for self-storage.
47. The key to pricing is to have desirable pricing along with a move in special without driving the entire market pricing down.
48. The pricing has been based very conservatively and includes offering a move in special of ½ off the first month.

MANAGEMENT

49. In my experience it is easier to find managers when you have an on-site apartment. Most managers realize this is a great benefit if the apartment is built correctly. There is no commute time to work and they don't have to worry about paying rent or utilities. You can also typically hire a couple for little more than the cost for one full-time off-site manager. With two people the phone should always be answered instead of going to an answering machine. One person can show a unit and clean while one answers the phone. Normally \$12 to \$15 per hour per person is needed for a couple that lives on site.
50. Bear in mind that answering the phone is very important. Usually if a customer is calling for prices and they get an answering machine they will hang up and call the next number in the phone book. Most of the messages received are from current tenants. With the average stay in 2015 being 12.7 months and your average price per unit is \$172.40. This means each missed phone call could cost you \$2,189.48.
51. You need a good off site and on-site management team. Except for pricing which accounted for 83% of new rentals along with availability 69%, Location 34%, hours of operation 30%, Management/Features was the second reason someone stored at 26%.
52. It is VERY important to train the managers on the benefits of temperature-controlled storage.

53. Based on the good growth trends, high occupancy rates of the competition in the target area, the fact this facility should be built as a superior product compared to its competition and the fact the excess demand in this target area is 325,368 using the Michigan supply number and 321,948 using the US supply number of additional square feet needed as seen on the Demand calculations in section 4 of this report It is my belief that this location would be great for self-storage. The area should be able to support the addition of 45,600 square feet of storage.
54. This location is rated as a B+ to an A- with an excellent possibility of success.
55. I, Stephan Ross believe the proposed market area will support another self-storage facility. I believe by using the entire amount allocated for marketing, having the managers trained and promotional materials available for the Grand Opening along with utilizing the recommended move-in special, that the rent-up period for this location will be 31 months to reach 90% to 90% overall occupancy being built in 2 phases at which point the debt service coverage ratio will be a 1.31.

3

COMPETITION/ MARKET INFORMATION

COMPETITION

GENERAL

The population density in the target area determines how much square footage a market area needs,. How many competitors and how much square footage is already available, the class of competition in the area and the overall occupancies in the target area help determine what will be the impact of the subject facility being built in this market.

The success of a self-storage facility is based on the following factors: location (demographics and traffic count), visibility, management, security, and accessibility, curb appeal, appearance and building structure. A lacking in one area can be offset by strength in other areas. However, if there are weaknesses in a number of the factors or if the facility does not compare well with the competition, the project will be forced to use price as the main competing factor, thus potentially reducing the success of the facility. Bear in mind that having the highest count in one area does not always produce the optimum result, such as a traffic count at highway usage levels, of over 60,000 cars per day past the main entrance of a facility, particularly at high speeds, can actually discourage business. Most successful self-storage facilities are in areas either growing or stable economically and demographically. If you do not pick a stable area, you could have a lot of problems.

Also taken into consideration to determine the major competitors are any market barriers such as freeways, lakes, rivers, large open areas (airports, large recreation areas, landfills, etc), railways and any other hindrance that make the facility hard to reach or separates one facility from another by segregating their market area. The biggest barrier is if a property needs to be rezoned for any reason but if you take the time and get a property rezoned the probability of another competitor being built in your area is substantially less.

A personal visit and telephone call is made to each of the competitors being evaluated as having an impact on the proposed facility. The visit is to gather information on pricing, occupancy, unit mix (if possible), square footage available, security, and appearance of facility and to evaluate the managers. The telephone calls are used to evaluate the managers in their telephone techniques, which are critical to the success of a self-storage facility.

SPECIFICS

The following tables compare the major competitors on the major criteria for a successful self-storage facility. The scores are graded 1-10 with 10 being excellent. A table can be seen in this section.

MARKETING ATTRIBUTES

VISIBILITY

It is important that the facility can be seen from a high daily traffic count. The facility should be laid out so that it is recognizable as self-storage. Signage should be placed so as to be visible to the highest possible traffic count and clearly state that it is a self-storage facility.

TRAFFIC COUNT

A high traffic count is repetitive advertisement to the potential customers in your target area. When the need arises they will likely seek information from a location with which they are familiar, especially if it is within a close proximity of their residence or business. This is rated as a "type" of artery i.e. surface street, main artery, highway, not by actual traffic count.

MANAGEMENT

There are several levels of management in self-storage. On site managers are preferable and a professional property management company can provide optimal performance. There are professional property management companies, which specialize in self-storage facilities. Aggressiveness of manager to close a sale is also important.

DEMOGRAPHICS

When selling a service to people, you have to be where the people are. Being centrally located in a high-density population area reduces the distance from your customers. This makes your potential tenants easier to reach, reducing advertising and marketing costs. It is also important that there is a good mix of multi-family residences, commercial business and single family homes.

SECURITY

People want to know that their goods will be safe while stored at your facility. They also want to feel secure while they are at your facility. The objective of your security system should be that only tenants can access your facility and that the managers know who is in the facility at all times. The managers should be required to make timely rounds through their facility. The facility should be well lighted inside and out.

ACCESSIBILITY

The facility should be designed for and located in a position along the street to give easy ingress and egress. It should be in a location that will be easy to reach for your perspective tenants. Also it should be easy to give tenants directions to the facility.

CURB APPEARANCE

Good design, landscaping, color combinations, cleanliness and maintenance of the grounds contribute to the general overall appearance of your facility. A well maintained facility gives the tenant a feeling of security and peace of mind that their goods will be kept in a clean safe manner, perceived to be professional and competent.

CLASS GRADE

Is the property a grade A,B,C or less? Potential customers feel good about buildings that look safe, secure and well maintained. People tend to believe that buildings with concrete are more secure than metal buildings, and that metal buildings are more secure than wooden buildings, even though locks, latches and doors are identical.

DO NOT USE CLASS "D" OR LOWER AS COMPETITION:

- **Class "A" EXCELLENT:** These properties feature an above-average design and construction quality. Offer a retail area and have a security system along with computerized access. These sites typically have an on-site manager. Newer construction and well maintained with no deferred maintenance. These are clean and appealing. These also command a higher rental rate and have a superior location in terms of desirability or accessibility. Might have a high barrier to enter the market. Minimum size approximately 75,000 square feet.
- **Class "B" GOOD:** These properties usually have an adequate design and construction quality. Typically have no security but do have a computerized access along with an on-site manager. These properties have aging improvements but are well maintained and clean. These sites typically command average rental rates and are generally well maintained and desirable to most tenants. Minimum size of approximately 40,000 square feet.
- **Class "C" AVERAGE:** These properties offer adequate functionality but few amenities. The physical condition is acceptable but may have some deferred maintenance. Generally managed by the owner and may not have an on site office. These sites typically command below average rental rates and are in a less desirable location. Typically, inconsistent occupancy rates.

SITE: BRIGHTON, MI
COMPETITION COMPARISON

Date: AUGUST 2018

PHASE 1 & 2

Site Name	Proposed	Best Storage	My Space	Cedar Closet	U-Store	
Address	2528 Harte Dr.	7286 W Grand River Ave	306 N 4th St	5670 E Grand River Ave	5850 Whitmore Lake Rd	
City	Brighton	Brighton	Brighton	Brighton	Brighton	
Phone Number		810.227.7050	844.611.1069	810.225.8510		
Approx. Current Occupancy		92+%	99+%	99+%	92%	
Approx. Rentable Sq. Feet	45,600	57,929	14,595	36,800	80,000	
Approx. Number of Units	332	550	135	350	800	
Heated or CC Units	Yes	No	Yes	No	No	
Class of Facility (A,B or C)	A	B	B-	B+	B-	
Approx. Distance (In Miles)		2.2	2.75	3.65	4.26	
Merchandise Area	Yes	No	Yes	Yes	No	
Multi-Story	No	No	Yes	No	No	
Resident Manager	Yes	No	Yes	Yes	No	
Computerized Access	Yes	No	Yes	Yes	No	
Fenced / Walled Perimeter	Yes	Yes	Yes	Yes	Yes	
Cameras	Yes	Yes	Yes	Yes	No	
Door Alarms	Yes	No	No	No	No	
Truck Rentals	Yes	No	No	Yes	Yes	
Large Truck Access	Yes	No	Yes	Yes	Yes	
# Lanes of Traffic	4	4	2	4	2	
Access both directions	RIRO	Yes	Yes	Yes	Yes	
Visible 2 arteries	No	Yes	No	No	No	
Construction Material	Metal	Metal	Brick	Brick	Metal	
Access Hours (typical storage)	24 available	6:00-9:00	N/A	Same as the Office	6:00-10:00	
Access Hours (temperature controlled)	24 available	N/A	6:00-10:00	N/A	N/A	
Office Hours (M-F)	9:00-6:00	9:00-5:00	9:30-5:30	8:30-4:00	9:30-6:00	
Office Hours (Sat.)	9:00-6:00	9:00-12:00	9:30-5:30	8:30-12:00	8:30-5:00	
Office Hours (Sun.)	Closed	Closed	Closed	8:30-12:00	Closed	
Administrative Fee \$	10	\$0.00	\$0.00	\$14.00	\$0.00	
Deposit \$	0	\$0.00	1 month	1 month	\$0.00	
Require Insurance	Yes	No	No	Yes	Yes	
Pro Rate 1st Mth Rent	No	No	No	No	No	



PROPOSED PROPERTY ACCESS

PROPOSED

2528 Harte Dr
Brighton, MI

Visibility	10
Traffic Count	5
Management	10
Demographics	8
Security	10
Accessibility	10
Curb Appeal	10
Class Grade	10

Overall Average 9.125

Additional Information

Merchandise Area	Yes
Temperature Control Available	Yes
Drive Surface	Asphalt
Multi Story	No
Room For Expansion	No
Plans For Expansion	No



BEST STORAGE

7286 Grand River Ave
Brighton, MI

Visibility	10
Traffic Count	7
Management	8
Demographics	8
Security	6.5
Accessibility	8
Curb Appeal	8
Class Grade	6

Overall Average 7.6875

Additional Information

Merchandise Area	No
Temperature Control Available	No
Drive Surface	Asphalt
Multi Story	No
Room For Expansion	No
Plans For Expansion	No



MY SPACE

306 N 4th St
Brighton, MI

Visibility	10
Traffic Count	5
Management	6
Demographics	8
Security	9
Accessibility	8
Curb Appeal	6
Class Grade	5

Overall Average **7.125**

Additional Information

Merchandise Area	Yes
Temperature Control Available	Yes
Drive Surface	Asphalt
Multi Story	Yes
Room For Expansion	Yes
Plans For Expansion	No



CEDAR STORAGE

5670 E Grand River Ave
Brighton, MI

Visibility	10
Traffic Count	7
Management	10
Demographics	9
Security	9
Accessibility	10
Curb Appeal	8
Class Grade	7

Overall Average 8.75

Additional Information

Merchandise Area	Yes
Temperature Control Available	No
Drive Surface	Asphalt
Multi Story	No
Room For Expansion	No
Plans For Expansion	No



U-STORE

5850 Whitmore Lake Rd.
Brighton, MI

Visibility	8
Traffic Count	5
Management	5
Demographics	9
Security	5
Accessibility	9
Curb Appeal	6
Class Grade	5
Overall Average	6.5

Additional Information

Merchandise Area	No
Temperature Control Available	No
Drive Surface	Asphalt
Multi Story	No
Room For Expansion	No
Plans For Expansion	No



COMPARATIVE PRICING ANALYSIS						
SITE LOCATED: BRIGHTON, MI						
RECOMMENDED PRICING						
NAME:	Proposed	Best Storage	My Space	U-Store	Cedar Closet	
	Facility					
CITY:						
UNIT	Pricing In 2019					
SIZES	\$					
5X5		\$45				
5X10		\$65		\$56		
10X10		\$95		\$95		
10X15		\$105	\$117	\$127		
10X20		\$130		\$153	\$139	
10X25		\$160		\$169		
10X30	\$239	\$180		\$230		
TEMPERATURE OR CLIMATE						
CONTROLLED						
		None		None		
5X5	\$69		\$55			
5X10	\$89		\$75 - \$80			
5X12			\$90			
10X10	\$144		\$130		\$139	
10X15	\$184					
10X20	\$239				\$179	
10X25	\$289		\$240			
10X30						

4

DEMAND

TARGET AREA SUPPLY AND DEMAND

The self-storage industry has had numerous supply and demand studies completed over the past years. Most experienced and successful self storage developers have been able to determine supply and demand factors based on individual population, households, traffic counts, and rent-up history of competitors. Since self storage is a highly localized industry, conditions in the immediate market area surrounding the store can have a major impact on occupancy rates. Factors such as a depressed local economy or the opening of a new storage facility in the area can potentially lead to a decline in occupancy. On the other end of the spectrum, new home developments, an explosion in recruitment at local companies, and other dynamics are often met with sharp increases in occupancy rates.

Using the square feet per capita has become the industry standard to measure self-storage demand. This measurement along with the occupancy levels of a given market allows us to calculate future demand in an area and determine market equilibrium. When the average occupancy is lower than 80% in the market and continuing to drop the area is considered saturated. When average occupancy is in the range of 85% and up and neither increasing or decreasing, the market is at or nearing equilibrium. When the average occupancy is high steadily increasing, the market is considered a demand driven market.

The U.S. average is currently 7.06 square feet according to the 2018, 25th annual Self Storage Almanac.

SITE: BRIGHTON, MI

TARGET AREA DETERMINED TO BE A: 5 MILE RADIUS

DEMAND BASED ON POPULATION ONLY

The population in this area for the year	<u>2018</u>	<u>56,988</u>	Projected For	<u>2023</u>	<u>58,441</u>
The current U.S. supply of storage per person is		<u>7.06</u>			
In 2017 according to the 2018 Self-Storage Almanac the rentable sq. foot per person in the			Michigan	MSA	<u>7.12</u>

MARKET DEMAND IN 2017

Square Footage using the U.S. I	U.S.	Demand for population is	<u>402,335</u>
Square Footage using the	Michigan	Demand for population is	<u>405,755</u>
Number of business in Target area:		<u>1758</u>	
Number of business renters at 11.1% penetration.			195.138
Business national average is 2.1 units at 109 square feet average unit size.			44667.09

Total Square Footage Demand	Michigan	450,422
Total Square Footage Demand	U.S	447,002

ESTIMATED RENTABLE SQUARE FEET OF STORAGE MARKET SUPPLY

Competition	Square Feet Existing	Miles Away	% in Market	Square Feet In Market	Number Of Units	At % in Market
Best Storage	57,929	2.20	78%	45,185	550	429
My Space	14,595	2.75	73%	10,581	135	98
Cedar Closet	36,800	3.65	64%	23,368	350	222
U-Store	80,000	4.26	57%	45,920	800	459
Total:	<u>189,324</u>			125,054		1,208

Total Supply: 125,054 1,208

EXCESS DEMAND IN MARKET

	In 2018	In 2018
U.S. Average Using	7.06	Michigan Average Using
Total Demand in Market	447,002	450,422
Total Supply in Market	<u>125,054</u>	<u>125,054</u>

Excess Demand in Market Square Feet 321,948 Square Feet 325,368
 BASED ON POPULATION ONLY

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**UNIT MIX /
SITE CONSTRUCTION**

**BRIGHTON, MICHIGAN
UNIT MIX PRO-FORMA**

Unit Sizes	% Of Total Units Built	PHASE 1	# Of Units	Rentable Square Feet	Rent Per Unit	Gross Potential Monthly Rent	Gross Potential Annual Rent	Rent Per Square Foot
5X5T	5%		10	250	\$69.00	\$690	\$8,280	\$33.12
5X10T	11%		18	900	\$89.00	\$1,602	\$19,224	\$21.36
10X10T	29%		54	5,400	\$144.00	\$7,776	\$93,312	\$17.28
10X15T	22%		35	5,250	\$184.00	\$6,440	\$77,280	\$14.72
10X20T	23%		33	6,600	\$239.00	\$7,887	\$94,644	\$14.34
10X25T	5%		8	2,000	\$289.00	\$2,312	\$27,744	\$13.87
10X30	5%		8	2,400	\$239.00	\$1,912	\$22,944	\$9.56
	100%	Storage	166	22,800		\$28,619	\$343,428	\$15.06

STORAGE

**BRIGHTON, MICHIGAN
UNIT MIX PRO-FORMA**

Unit Sizes	% Of Total Units Built	PHASE 2		Rent Per Unit	Gross Potential Monthly Rent	Gross Potential Annual Rent	Rent Per Square Foot
		# Of Units	Rentable Square Feet				
5X5T	5%	10	250	\$69.00	\$690	\$8,280	\$33.12
5X10T	11%	18	900	\$89.00	\$1,602	\$19,224	\$21.36
10X10T	29%	54	5,400	\$144.00	\$7,776	\$93,312	\$17.28
10X15T	22%	35	5,250	\$184.00	\$6,440	\$77,280	\$14.72
10X20T	23%	33	6,600	\$239.00	\$7,887	\$94,644	\$14.34
10X25T	5%	8	2,000	\$289.00	\$2,312	\$27,744	\$13.87
10X30	5%	8	2,400	\$239.00	\$1,912	\$22,944	\$9.56
STORAGE	100%	Storage	166	22,800	\$28,619	\$343,428	\$15.06

SITE: BRIGHTON, MI

PHASE 1				30,044
TOTAL PROJECT COSTS				% of Total
		Net Square Footage	<u>Cost Per SF</u>	
	Typical Storage square footage			
	Temperature Controlled square footage	22800		
	Total Net Storage units	22800		
	Office and Apartment	2000		
		<u>24800</u>		
1	General Conditions		\$ 48,070	3.37%
	Direct costs associated with the GC. costs ie, Project manager, project engineer, superintendent, travel, tempory office clean up, job sign, etc.	\$ 48,070	\$ 1.60	
2	Site work		\$ 130,691	9.15%
	Site Work	\$ 130,691	\$ 4.35	
	Fencing, Paving, Landscaping			
	Site Fire Water, Utilities			
3	Concrete		\$ 150,220	10.52%
	Concrete	\$ 150,220	\$ 5.00	
4	Masonry		\$ 51,075	3.58%
	Masonry	\$ 51,075	\$ 1.70	
5	Steel		\$ 530,577	37.15%
	Steel	\$ 136,700	\$ 4.55	
	Building System	\$ 393,877	\$ 13.11	
6	Rough Carpentry/Millwork		\$ 9,013	0.63%
	Framing (wood and Plastics)	\$ 9,013	\$ 0.30	
7	Thermal & Moisture Protection		\$ 60,088	4.21%
	Waterproofing / Insulation	\$ 60,088	\$ 2.00	
8	Doors & Windows		\$ 12,018	0.84%
	Doors & Windows	\$ 12,018	\$ 0.40	
9	Finishes		\$ 44,465	3.11%
	Drywall, Painting, Stucco	\$ 44,465	\$ 1.48	
10	Specialties		\$ 3,004	0.21%
	Equipment	\$ 3,004	\$ 0.10	
11	Conveying System		\$ -	0.00%
	Elevators		\$ -	
12	Mechanical		\$ 96,330	6.74%
	Fire Protection, Plumbing & HVAC	\$ 96,330	\$ 3.25	
13	Electrical		\$ 99,145	6.94%
	Electrical	\$ 99,145	\$ 3.30	
14	Other		\$ 67,299	4.71%
	Geotech,Gas	\$ 67,299	\$ 2.24	
15	Contractor Overhead		\$ 126,185	8.84%
	Profit, Insurance, Contingency	\$ 126,185	\$ 4.20	
	SUB TOTAL		\$ 1,428,181	100.00%
16	Soft Costs		\$ 123,180	

	Permits, inspections, etc.	\$	123,180	\$	4.10
17	Design Agreement			\$ 84,123	
	Civil Design & Development Permit Prep	\$	84,123	\$	2.80
	Alta Survey & Topo, Final Plat				
	Soils Reports, Landscape Plan				
	Architectural Plans & Elevations				
	Photometric Plans				
	Civil Engineering, Architectural				
	Structural Engineering,				
	Utility Coordination & Oversight				
	HVAC, Plumbing & Electrical Design				
	square footage				
	or number of units				
18	Custom Building Costs			\$ 80,000	
	Outside Parking Costs	\$	-	\$	10.00 per sq. ft.
2,000	Office & Apartment EXTRA \$40 per foot	\$	80,000	\$	40.00 per sq. ft.
19	MISC. COSTS			\$ 78,057	
	Office Allowance	\$	9,013	\$	0.30
	Gate	\$	9,000	\$	0.30
	Sign and or flag pole	\$	30,000	\$	1.00
	Security System	\$	30,044	\$	1.00
	Development Fee	\$	-	\$	-
TOTAL CONSTRUCTION COSTS			\$ 1,793,541		
20	Land Cost (10.5 acres IS \$1,200,000)			\$ 342,857	\
	<i>using 3 acres so prorated value is \$342,857</i>				
21	Holding Fee			\$ 53,456	
	Short Fall During Construction	\$	(17,819)		
	First year short fall	\$	(35,637)		
	Second year short fall				
PROJCT COST			\$ 2,189,854		
22	Closing Costs (1 point)			\$ 21,899	
TOTAL PROJECT COST			\$ 2,211,752		

SITE: BRIGHTON, MI

PHASE 2				28,044
TOTAL PROJECT COSTS				<u>% of Total</u>
		Net Square Footage		
Typical Storage square footage				
Temperature Controlled square footage		22800		
Total Net Storage units		22800		
Office and Apartment		<u>22800</u>		
			<u>Cost Per SF</u>	
1	General Conditions			
	Direct costs associated with the GC. costs ie, Project manager, project engineer, superintendent, travel, tempory office clean up, job sign, etc.	\$ 44,870	\$ 1.60	3.35%
2	Site work			
	Site Work	\$ 121,991	\$ 4.35	9.11%
	Fencing, Paving, Landscaping			
	Site Fire Water, Utilities			
3	Concrete			
	Concrete	\$ 140,220	\$ 5.00	10.47%
4	Masonry			
	Masonry	\$ 47,675	\$ 1.70	3.56%
5	Steel			
	Steel	\$ 127,600	\$ 4.55	36.97%
	Building System	\$ 367,657	\$ 13.11	
6	Rough Carpentry/Millwork			
	Framing (wood and Plastics)	\$ 8,413	\$ 0.30	0.63%
7	Thermal & Moisture Protection			
	Waterproofing / Insulation	\$ 56,088	\$ 2.00	4.19%
8	Doors & Windows			
	Doors & Windows	\$ 11,218	\$ 0.40	0.84%
9	Finishes			
	Drywall, Painting, Stucco	\$ 41,505	\$ 1.48	3.10%
10	Specialties			
	Equipment	\$ 2,804	\$ 0.10	0.21%
11	Conveying System			
	Elevators	\$ -	\$ -	0.00%
12	Mechanical			
	Fire Protection, Plumbing & HVAC	\$ 96,330	\$ 3.25	7.19%
13	Electrical			
	Electrical	\$ 92,545	\$ 3.30	6.91%
14	Other			
	Geotech,Gas	\$ 62,819	\$ 2.24	4.69%
15	Contractor Overhead			
	Profit, Insurance, Contingency	\$ 117,785	\$ 4.20	8.79%
	SUB TOTAL		\$ 1,339,521	\$ 47.76
16	Soft Costs		\$ 114,980	100.00%

	Permits, inspections, etc.	\$	114,980	\$	4.10
17	Design Agreement			\$ 78,523	
	Civil Design & Development Permit Prep	\$	78,523	\$	2.80
	Alta Survey & Topo, Final Plat				
	Soils Reports, Landscape Plan				
	Architectural Plans & Elevations				
	Photometric Plans				
	Civil Engineering, Architectural				
	Structural Engineering,				
	Utility Coordination & Oversight				
	HVAC, Plumbing & Electrical Design				
	square footage				
	or number of units				
18	Custom Building Costs			\$ -	
	Outside Parking Costs	\$	-	\$	10.00 per sq. ft.
	- Office & Apartment EXTRA \$40 per foot	\$	-	\$	40.00 per sq. ft.
19	MISC. COSTS			\$ 28,044	
	Office Allowance	\$	-		
	Gate				
	Sign and or flag pole				
	Security System	\$	28,044	\$	1.00
	Development Fee	\$	-	\$	-
TOTAL CONSTRUCTION COSTS			\$ 1,561,068		
20	Land Cost (10.5 acres IS \$1,200,000)			\$ 228,571	\
	2 ADDITIONAL ACRES				
21	Holding Fee			\$ -	
	Short Fall During Construction	\$	-		
	First year short fall				
	Second year short fall				
PROJCT COST			\$ 1,789,639		
22	Closing Costs (1 point)			\$ 17,896	
TOTAL PROJECT COST			\$ 1,807,536		

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**5 YEAR VALUATION /
ENTREPRENEURIAL
PROFIT**

BRIGHTON, MI

5 YEAR RECAP WITH VALUATION

	PHASE 1 YEAR 1		PHASE 1 YEAR 2		PHASE 1 & 2 YEAR 3		PHASE 1 & 2 YEAR 4		PHASE 1 & 2 YEAR 5	
	96%	Month 12 Income	10% rate increase 96%	Month 24 Income	10% rate increase 90%	Month 36 Income	10% rate increase 90%	10% rate increase 90%	10% rate increase 90%	10% rate increase 90%
Occupancy										
Revenue	\$ 301,680	\$ 25,140	\$ 330,264	\$ 27,522	\$ 608,748	\$ 50,729	\$ 669,623	\$ 669,623	\$ 669,623	\$ 736,585
Expenses	\$ 147,072	Expenses \$ 12,256	7% expense Increase \$ 150,696	Expenses \$ 12,558	7% expense Increase \$ 207,156	Expenses \$ 17,263	7% expense Increase \$ 221,657	7% expense Increase \$ 221,657	7% expense Increase \$ 221,657	7% expense Increase \$ 237,173
Net Operating Income	\$ 154,608		\$ 179,568		\$ 401,592		\$ 447,966	\$ 447,966	\$ 447,966	\$ 499,412
ESTIMATED VALUE	8 CAP		\$ 2,244,600		\$ 5,019,900		\$ 5,599,574		\$ 5,599,574	\$ 6,242,652
	7.5 CAP		\$ 2,394,240		\$ 5,354,560		\$ 5,972,878		\$ 5,972,878	\$ 6,658,829
	7 CAP		\$ 2,565,257		\$ 5,737,029		\$ 6,399,513		\$ 6,399,513	\$ 7,134,460
	6.5 CAP		\$ 2,762,585		\$ 6,178,338		\$ 6,891,783		\$ 6,891,783	\$ 7,683,264
	6 CAP		\$ 2,992,800		\$ 6,693,200		\$ 7,466,098		\$ 7,466,098	\$ 8,323,536
	5.5 CAP		\$ 3,264,873		\$ 7,301,673		\$ 8,144,834		\$ 8,144,834	\$ 9,080,221
	5 CAP		\$ 3,591,360		\$ 8,031,840		\$ 8,959,318		\$ 8,959,318	\$ 9,988,244

I HAVE BASED ALL NUMBERS ON THIS REPORT PROJECTING AT THE END OF 3 YEARS OF OPERATIONS THE CAP RATE WILL BE A 7.

IF THIS PROPERTY WAS ALREADY BUILT AND OPEN YOU COULD EXPECT A 5 CAP OR A VALUE TODAY OF: \$ 8,031,840

ENTREPRENEURIAL PROFIT BRIGHTON, MI

The secret to a profitable development of any type is to provide amenities for which the market will pay more than actual cost. Therefore, this facility must meet the appropriate design criteria, while controlling costs. I have used the following numbers as estimated cost per square foot.

Storage Area
Land Cost PHASE 1 \$ 342,857

Total Gross Building **50,464**
Off Projected Costs

STORAGE AREA

		Total Building Cost	Plus Soft Cost	Plus Design Agreement	Plus Land Cost	Custom Building Cost	Misc. Cost	Closing Cost	Holding Fee	PHASE 2	Total Cost Of Facility
\$ 42.00	\$ 2,119,488	\$ 123,180	\$ 84,123	\$ 342,857	\$ 80,000	\$ 78,057	\$ 21,899	\$ 53,456	\$ 1,807,536	\$ 4,710,596	
\$ 45.00	\$ 2,270,880	\$ 123,180	\$ 84,123	\$ 342,857	\$ 80,000	\$ 78,057	\$ 21,899	\$ 53,456	\$ 1,807,536	\$ 4,861,988	
\$ 47.54	\$ 1,428,181	\$ 123,180	\$ 84,123	\$ 342,857	\$ 80,000	\$ 78,057	\$ 21,899	\$ 53,456	\$ 1,807,536	\$ 4,019,289	

Estimated Value at Stabilized Rates

At a 7 Cap \$ 5,737,029

	Estimated Value	Cost of Facility	Percentage Profit
The Entrepreneurial Profit is	\$5,737,029	\$ 4,019,289	43%

Created Value: \$1,717,740

At a 5 Cap \$ 8,031,840
at the end of 36 months

	Estimated Value	Cost of Facility	Percentage Profit
The Entrepreneurial Profit is	\$8,031,840	\$ 4,019,289	100%

Created Value: \$4,012,551

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PROJECTIONS

BRIGHTON, MI

EXPLANATION FOR PROJECTIONS

- **Units at facility:** Number of all units to be built according to Proposed Unit Mix.
- **Projected Units Rented:** Number of total occupied storage units.
- **Projected Parking Rented:** Number of total occupied parking spaces.
- **Total Number of Units Rented:** Total number of occupied units and parking spaces.
- **Projected % Occupancy:** Percent occupied by number of units.
- **Rental Income:** is the average amount charged per unit. We also take into consideration a 10% prior month vacancy and a move in special of ½ off the first months rent. The constant 10% off starting the 3rd month is for ongoing delinquencies.
- **Late Fees (1%):** 1% of rental income is the average amount collected per facility. I projected 0 for the first 2 months, as tenants will not have time to become delinquent.
- **Administrative Fees:** This is the \$10 per new rental. This also takes into consideration a 10% vacate rate from the previous month.
- **Truck Rental Commission:** Projected at \$500. This facility will rent U-Haul's.
- **Lock & Merchandise Sales:** This is a conservative projection of \$500 per month.
- **Insurance Commission Income:** Your site will offer insurance with their payment; the insurance company will pay you a commission.
- **Managers' Salary:** One full time managers at 40 hours per week at \$12 per hour.
- **Relief Manager One manager** 16 hours per week at \$15.00 per hour.
- **Performance Bonus:** Projected at \$0. This can be decided when a manager is hired.
- **Merchandise Commission:** Projected at \$0. If you decide to give the managers some type of commission, they will usually sell more merchandise. Typically, this is 25% of gross if over \$200 per month.
- **Group Medical Insurance:** Projected at \$0. If possible, you may want to consider this to compete with the R.E.I.T.S. in storage.
- **401k:** Projected at \$0. This is an additional benefit to your managers if they stay over 1 year. Typically, around 3% of gross income matched.
- **Auto Allowance:** Projected at \$35 per month for 1 manager. This is gas and maintenance money for the use of their vehicle for work related duties. (bank deposits, getting supplies)
- **Payroll & Burden:** This includes all taxes and workers compensation for payroll.
- **Management Fee:** Fee for a management company who specializes in self-storage. The typical rate for complete management is 6% of gross income or a minimum of between \$2,000 to \$2,500 per month along with a one time \$5,000 set up fee. Cutting Edge Management's charge for a facility this size is \$2,000 or 5% with a ceiling of \$5,000 per month and a ((\$5,000 set up fee (not on the monthly budget)).
- **Yellow Pages:** \$0 not planning on anything but the line entry.
- **Other Advertising:** Budget amount for the first two months open for a direct mail campaign.

- **Internet Advertising:** Projected at \$1,745 per month for pay per click and SEO with a \$3,500 fee to have a web site built.
- **Electricity and or Gas:** Based on like property.
- **Water & Sewer:** Based on a like property.
- **Office Supplies:** Daily supplies needed for the property. This does not include set up.
- **Postage/FedEx:** Needed for billing, late letters and mailing of reports to Management Company.
- **Bank Charges:** This assumes 30% of total revenue paying credit cards at 1.78% with an additional \$25 per month for service charges and NSF fees.
- **Legal & Professional:** Projected at \$0. This would be used for items like disputing the property taxes or when you need an attorney if a tenant sues the property.
- **Fees & Licenses:** This would be for items like the Business License or subscription to an industry publication.
- **Employee Relations/Training:** Used for recognition items such as movie passes, or paying for their dinner, uniforms or sending them to a seminar.
- **Telephone:** Based on a like property.
- **Computer Support:** Based on standard industry software.
- **Maintenance & Site Repairs:** Based on average of like properties.
- **Trash Removal:** Based on like property.
- **Elevator Maintenance:** Budget at \$0 as this facility is single story
- **Pest Control:** Based on like property.
- **Fire / Security Monitoring:** Projected at \$80. Zoning may require fire alarm to be monitored in the Temperature Controlled and Condo buildings.
- **Landscaping:** Based on the set backs (size of green area) that will be required. The manager could do this during the slow times if you use mostly ground cover with minimal grass area.
- **Kiosk Maintenance:** Projected at \$0.
- **Auction Expense:** The property will need to do auctions as it rents up. The higher the delinquency the more this line item will be.
- **Lock & Merchandise Purchase:** Based on a 100% mark up. If property sells \$500 per month the facility will need to purchase \$250 a month in merchandise.
- **Moving Truck Rental:** Projected at \$0.
- **Real Property Taxes:** This is an estimate of 1.5% of total construction cost.
- **Property & Casualty Insurance:** This is an estimate depending on your deductibles. This includes \$100,000 customer goods and wrongful sale and disposal, also 1 million general liabilities.
- **Total Operating Expenses:** Total of all expenses.
- **Net Operation Income:** Income minus expenses not including Capital Expenses or mortgage.
- **Debt Service:** Should be interest only for first 2 years.
- **Debt Service Coverage Ratio.** Ratio of coverage on the completed project.
- **Starting 2nd year expected 7% increase in expenses every year.**

BRIGHTON, MI

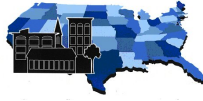
1/2 OFF FIRST MONTH

PHASE 2 BUILT

Month	TOTAL	25	26	27	28	29	30	31	32	33	34	35	36	
UNITS AT FACILITY	332													
PROJECTED UNITS RENTED	332	180	200	220	240	260	280	300	300	300	300	300	300	
PROJECTED % OCCUPANCY		54%	60%	66%	72%	78%	84%	90%	90%	90%	90%	90%	90%	
BANK & CREDIT CARD CHARGES		182	200	218	235	253	271	289	296	296	296	296	296	3,127
LEGAL & PROFESSIONAL		0	0	0	0	0	0	0	0	0	0	0	0	0
FEES & LICENSES		45	45	45	45	45	45	45	45	45	45	45	45	539
EMPLOYEE RELATIONS/TRAINING		0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL OFFICE EXPENSE		506	523	541	559	576	594	612	619	619	619	619	619	7,007
TELEPHONE		204	204	204	204	204	204	204	204	204	204	204	204	2,448
COMPUTER SUPPORT		102	102	102	102	102	102	102	102	102	102	102	102	1,224
MAINTENANCE & REPAIRS														
MAINTENANCE & SITE REPAIRS		421	421	421	421	421	421	421	421	421	421	421	421	5,050
TRASH REMOVAL		168	168	168	168	168	168	168	168	168	168	168	168	2,020
ELEVATOR MAINTENANCE		0	0	0	0	0	0	0	0	0	0	0	0	0
PEST CONTROL		168	168	168	168	168	168	168	168	168	168	168	168	2,020
FIRE PREVENTION		90	90	90	90	90	90	90	90	90	90	90	90	1,077
SECURITY SYSTEM		90	90	90	90	90	90	90	90	90	90	90	90	1,077
LANDSCAPING		0	0	0	0	0	0	0	0	0	0	0	0	0
KIOSK MAINTENANCE		0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL MAINT. & REPAIRS		937	937	937	937	937	937	937	937	937	937	937	937	11,244
OTHER EXPENSES														
AUCTION EXPENSE		50	50	50	50	50	50	50	50	50	50	50	50	600
LOCK & MERCHANDISE PURCHASES		250	250	250	250	250	250	250	250	250	250	250	250	3,000
MOVING TRUCK RENTAL		0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL OTHER EXPENSES		300	300	300	300	300	300	300	300	300	300	300	300	3,600
REAL PROPERTY TAXES		5,530	5,530	5,530	5,530	5,530	5,530	5,530	5,530	5,530	5,530	5,530	5,530	66,360
PROPERTY & CASUALTY INS		417	417	417	417	417	417	417	417	417	417	417	417	4,999
Total Operating Expense		16,613	16,630	16,648	16,666	16,684	16,701	16,719	16,726	16,726	16,726	17,263	17,263	201,367
Net Operating Income		12,829	16,095	19,448	22,746	26,043	29,341	32,639	34,003	34,003	34,003	33,466	33,466	328,081
CAPITAL EXPENDITURES @ .07			0	0	0	0	0	0	0	0	0	0	0	0
Budgeted Net Cash Flow		12,829	16,095	19,448	22,746	26,043	29,341	32,639	34,003	34,003	34,003	33,466	33,466	328,081
TOTAL CONSTRUCTION														
Debt Service 20% DOWN	\$3,574,652	(17,873)	(17,873)	(17,873)	(17,873)	(17,873)	(17,873)	(17,873)	(17,873)	(17,873)	(17,873)	(17,873)	(17,873)	(214,479)
Interest Only First 2 years	6.00%													
Ending Cash		(5,044)	(1,779)	1,575	4,873	8,170	11,468	14,765	16,129	16,129	16,129	15,593	15,593	113,602
Debt service Principal & Interest 25 year am		(23,032)	(23,032)	(23,032)	(23,032)	(23,032)	(23,032)	(23,032)	(23,032)	(23,032)	(23,032)	(23,032)	(23,032)	
Debt Service Coverage Ratio		0.56	0.70	0.84	0.99	1.13	1.27	1.42	1.48	1.48	1.48	1.45	1.45	

8

DEMOGRAPHICS

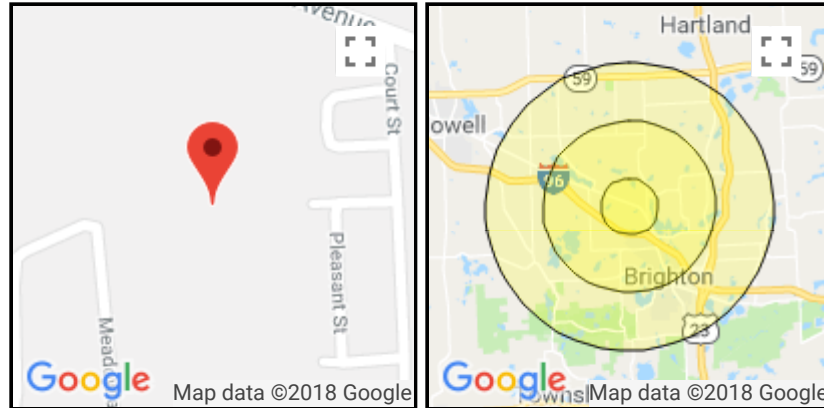


EASI Updated Site Selection Reports & Analysis Professional Complete Report

Address: 2528 Harte Dr, Brighton, MI 48114

Latitude: 42° : 33' : 54"

Longitude: -83° : 48' : 23"



Description	1 Miles	3 Miles	5 Miles
Square Miles	2.066132	29.689801	80.904651
Population Density	1,269.5	812.7	704.4
POPULATION BY YEAR			
Population (4/1/1990)	1,856	15,516	32,283
Population (4/1/2000)	3,014	20,938	45,434
Population (4/1/2010)	2,457	22,950	54,061
Population (1/1/2018)	2,623	24,128	56,988
Population (1/1/2023)	2,687	24,733	58,441
Population Growth (2018/2010)	6.76	5.13	5.41
Population Forecast (2023/2018)	2.44	2.51	2.55
HOUSEHOLDS BY YEAR			
Households (4/1/1990)	789	5,618	11,174
Households (4/1/2000)	1,297	7,890	16,573
Households (4/1/2010)	1,148	9,207	20,763
Households (1/1/2018)	1,240	9,794	22,132
Households (1/1/2023)	1,291	10,201	23,062
Households Growth (2018/2010)	8.01	6.38	6.59
Households Forecast (2023/2018)	4.11	4.16	4.20
GENERAL FAMILY AND POPULATION TOTALS			
Population (1/1/2018)	2,623	24,128	56,988
Family Population	1,948	20,231	48,907
Non-Family Population	672	3,780	7,857
Total Group Quarters Population	3	117	224
HOUSEHOLDS BY FAMILY TYPE			
Households (1/1/2018)	1,240	9,794	22,132
Total Families	674	6,625	15,679
Total Non Family Households	566	3,169	6,453

FAMILIES BY FAMILY TYPE				
Total Families	674	6,625	15,679	
Total Married Families	475	5,441	13,024	
Total Other Families	199	1,184	2,655	
MARRIED FAMILIES BY FAMILY TYPE				
Total Married Families	475	5,441	13,024	
Married Families Children Under 18	126	1,925	5,133	
Married Families No Children Under 18	349	3,516	7,891	
OTHER FAMILIES BY FAMILY TYPE				
Total Other Families	199	1,184	2,655	
Male Householder, No Wife Present	74	444	958	
Female Householder, No Husband Present	125	740	1,697	
OTHER MALE FAMILIES BY FAMILY TYPE				
Male Householder, No Wife Present	74	444	958	
Male Householder, No Wife Present with Children Under 18	44	276	591	
Male Householder, No Wife Present with No Children Under 18	30	168	367	
OTHER FEMALE FAMILIES BY FAMILY TYPE				
Female Householder, No Husband Present	125	740	1,697	
Female Householder, No Husband Present with Children Under 18	65	411	967	
Female Householder, No Husband Present with No Children Under 18	60	329	730	
NON FAMILY HOUSEHOLDS BY GENDER				
Total Non Family Households	566	3,169	6,453	
Non Family Male Householder, People Under 18 Present	4	17	59	
Non Family Male Householder, No People Under 18 Present	251	1,561	3,112	
Non Family Female Householder, People Under 18 Present	0	4	9	
Non Family Female Householder, No People Under 18 Present	311	1,587	3,273	
DETAILED POPULATION CHARACTERISTICS				
Urban	2,623	22,126	48,861	
Rural	0	2,002	8,127	
Gender				
Male	1,255	11,987	28,259	
Female	1,368	12,141	28,729	
Poverty				
Population, In Poverty	143	1,173	2,877	
Veterans				
Population, Veterans	184	1,636	3,345	
Age				
Median Age	50.2	45.4	42.3	
Aged 0 to 5 Years	131	1,341	3,640	
Aged 6 to 11 Years	156	1,904	4,886	
Aged 12 to 17 Years	170	2,078	5,226	
Aged 18 to 24 Years	147	1,524	3,668	
Aged 25 to 34 Years	263	2,058	5,588	
Aged 35 to 44 Years	250	3,024	7,516	
Aged 45 to 54 Years	374	3,800	8,884	
Aged 55 to 64 Years	465	4,017	8,541	
Aged 65 to 74 Years	399	2,778	5,733	

Aged 75 to 84 Years	200	1,075	2,278
Aged 85 Years and Older	68	529	1,028
Male Population By Age			
Median Age	48.0	44.4	41.5
Aged 0 to 5 Years	67	689	1,826
Aged 6 to 11 Years	80	973	2,498
Aged 12 to17 Years	84	1,056	2,670
Aged 18 to 24 Years	81	821	1,943
Aged 25 to 34 Years	133	1,041	2,819
Aged 35 to 44 Years	127	1,502	3,677
Aged 45 to 54 Years	188	1,874	4,410
Aged 55 to 64 Years	210	1,977	4,216
Aged 65 to 74 Years	175	1,397	2,822
Aged 75 to 84 Years	78	476	1,018
Aged 85 Years and Older	32	181	360
Female Population By Age			
Median Age	52.5	46.2	43.1
Aged 0 to 5 Years	64	652	1,814
Aged 6 to 11 Years	76	931	2,388
Aged 12 to17 Years	86	1,022	2,556
Aged 18 to 24 Years	66	703	1,725
Aged 25 to 34 Years	130	1,017	2,769
Aged 35 to 44 Years	123	1,522	3,839
Aged 45 to 54 Years	186	1,926	4,474
Aged 55 to 64 Years	255	2,040	4,325
Aged 65 to 74 Years	224	1,381	2,911
Aged 75 to 84 Years	122	599	1,260
Aged 85 Years and Older	36	348	668
POPULATION BY RACE			
White Alone	2,480	23,063	54,390
Black Alone	13	194	433
Asian Alone	19	272	749
American Indian and Alaska Native Alone	27	95	189
Other Race Alone	16	102	265
Two or More Races	68	402	962
POPULATION BY ETHNICITY			
Hispanic	60	478	1,344
White Non-Hispanic	2,441	22,759	53,462
Median Age by Race			
White Median Age	51.0	45.8	42.9
Black Median Age	32.5	43.8	36.4
Asian Median Age	53.8	42.4	37.3
American Indian and Alaska Native Median Age	0.0	0.0	0.0
Other Race Median Age	0.0	0.0	0.0
Two or More Races Median Age	61.2	72.8	69.6
Median Age by Ethnicity			
Hispanic Median Age	33.0	29.4	26.8
White Non Hispanic Median Age	51.1	46.1	43.3
Marital Status (Pop 15+)			
Males Never Married	306	2,523	6,305

Males Married	560	6,012	13,526
Males Widowed	27	224	651
Males Divorced	177	1,017	2,070
Females Never Married	205	2,000	5,180
Females Married	547	6,049	13,458
Females Widowed	165	941	1,876
Females Divorced	269	1,057	2,729
Males Currently Married (Pop 15+)			
Males Married	560	6,012	13,526
Males Married and Together	553	5,867	13,057
Males Married and Separated	6	59	145
Males Married and Absent	1	86	324
Females Currently Married (Pop 15+)			
Females Married	547	6,049	13,458
Females Married and Together	546	5,965	13,175
Females Married and Separated	0	19	117
Females Married and Absent	1	65	166
Primary Language (Pop 5+)			
Speaks English	2,467	22,177	51,938
Speaks Spanish	25	230	651
Speaks Other Indo-European Languages	24	429	929
Speaks Asian or Pacific Island Language	0	144	471
Speaks Other Language	0	89	104
Citizenship			
Native	2,539	23,286	54,539
Foreign Born - Naturalized	42	504	1,478
Foreign Born - Not a Citizen	42	338	971
Group Quarters			
Total Group Quarters	3	117	224
Institutional Group Quarters	3	93	188
Non-Institutional Group Quarters	0	24	36
DETAILED HOUSEHOLD CHARACTERISTICS			
Household, Average Size	2.11	2.45	2.56
HOUSEHOLDS BY RACE			
White	1,198	9,486	21,421
Black	3	74	146
Asian	9	80	211
American Indian and Alaska Native	7	30	67
Other Race	3	23	69
Two or More Races	20	101	218
HOUSEHOLDS BY ETHNICITY			
Hispanic	20	124	338
White Non-Hispanic	1,183	9,397	21,167
Household by Age of Head			
Median Age	58.9	55.6	53.8
Aged Under 25 Years	36	221	563
Aged 25 to 34 Years	103	808	2,227
Aged 35 to 44 Years	135	1,495	3,676

Aged 45 to 54 Years	230	2,225	5,215
Aged 55 to 64 Years	300	2,384	5,003
Aged 65 to 74 Years	222	1,514	3,109
Aged 75 to 84 Years	158	769	1,601
Aged 85 Years and Over	56	378	738
Household by Size			
Median Size	2.3	2.6	2.7
1 Person	484	2,697	5,377
2 Person	449	3,672	8,138
3 Person	148	1,422	3,532
4 Person	93	1,205	3,051
5 Person	45	534	1,368
6 Person	14	173	415
7 or More Person	7	91	251
Household by Vehicles			
Median Vehicles	2.2	2.4	2.5
No Vehicles	23	424	803
1 Vehicle	492	2,640	5,904
2 Vehicles	498	4,079	9,204
3 Vehicles	178	1,871	4,379
4+ Vehicles	49	780	1,842
HOUSING UNITS BY OCCUPANCY			
Total Units	1,330	10,481	23,443
Occupied Units	1,240	9,794	22,132
Vacant Units	90	687	1,311
HOUSING UNITS BY TENURE			
Housing, Occupied Units	1,240	9,794	22,132
Housing, Owner Occupied	1,099	7,941	17,801
Housing, Renter Occupied	141	1,853	4,331
HOUSING UNITS BY VACANCY TYPE			
Housing, Vacant Units	90	687	1,311
Housing, Vacant Units For Rent	9	158	328
Housing, Vacant Units Rented, Not Occupied	1	7	20
Housing, Vacant Units For Sale	32	129	252
Housing, Vacant Units Sold, Not Occupied	11	32	61
Housing, Vacant Units Seasonal, Recreational, or Occasional Use	21	199	337
Housing, Vacant Units For Migrant Workers	0	0	0
Housing, Vacant Units Vacant Other	16	162	313
OCCUPIED HOUSING STRUCTURES			
Housing, Occupied Units	1,240	9,794	22,132
Housing, Occupied Structure with 1 Unit Detached	426	7,209	16,539
Housing, Occupied Structure with 1 Unit Attached	109	653	1,755
Housing, Occupied Structure with 2 Units	0	74	193
Housing, Occupied Structure with 3-4 Units	0	62	276
Housing, Occupied Structure with 5-9 Units	23	196	838
Housing, Occupied Structure with 10-19 Units	0	424	991
Housing, Occupied Structure with 20-49 Units	0	37	209
Housing, Occupied Structure with 50+ Units	0	271	399
Housing, Occupied Structure Trailer	682	868	932
Housing, Occupied Structure Other	0	0	0

OWNER OCCUPIED HOUSEHOLDS BY MORTGAGE			
Housing, Owner Occupied	1,099	7,941	17,801
Housing, Owner Households, With Mortgage Any	555	5,832	13,553
Housing, Owner Households, With No Mortgage	544	2,109	4,248
OWNER OCCUPIED HOUSEHOLDS BY HOME VALUE			
Housing, Owner Occupied	1,099	7,941	17,801
Housing, Median Value Owner Households (\$)	55,278	203,908	205,389
Housing, Owner Households Valued Less than \$10,000	119	148	178
Housing, Owner Households Valued \$10,000-\$14,999	87	95	127
Housing, Owner Households Valued \$15,000-\$19,999	156	235	291
Housing, Owner Households Valued \$20,000-\$24,999	89	150	203
Housing, Owner Households Valued \$25,000-\$29,999	33	33	65
Housing, Owner Households Valued \$30,000-\$34,999	17	17	17
Housing, Owner Households Valued \$35,000-\$39,999	10	10	20
Housing, Owner Households Valued \$40,000-\$49,999	29	80	121
Housing, Owner Households Valued \$50,000-\$59,999	18	86	108
Housing, Owner Households Valued \$60,000-\$69,999	31	84	180
Housing, Owner Households Valued \$70,000-\$79,999	19	96	234
Housing, Owner Households Valued \$80,000-\$89,999	0	109	272
Housing, Owner Households Valued \$90,000-\$99,999	20	161	292
Housing, Owner Households Valued \$100,000-\$124,999	77	486	1,184
Housing, Owner Households Valued \$125,000-\$149,999	73	461	1,380
Housing, Owner Households Valued \$150,000-\$174,999	81	997	2,421
Housing, Owner Households Valued \$175,000-\$199,999	45	632	1,500
Housing, Owner Households Valued \$200,000-\$249,999	38	1,158	2,853
Housing, Owner Households Valued \$250,000-\$299,999	49	851	2,258
Housing, Owner Households Valued \$300,000-\$399,999	60	913	2,269
Housing, Owner Households Valued \$400,000-\$499,999	20	515	942
Housing, Owner Households Valued \$500,000-\$749,999	10	459	670
Housing, Owner Households Valued \$750,000-\$999,999	0	77	109
Housing, Owner Households Valued More than \$1,000,000	18	88	107
RENTER OCCUPIED HOUSEHOLDS BY RENT VALUE			
Housing, Renter Occupied	141	1,853	4,331
Housing, Median Rent (\$)	646	748	797
Housing, Rent less than \$250	15	24	52
Housing, Rent \$250-\$499	34	206	358
Housing, Rent \$500-\$749	30	668	1,415
Housing, Rent \$750-\$999	43	483	1,450
Housing, Rent \$1,000-\$1,249	4	188	449
Housing, Rent \$1,250-\$1,499	2	68	133
Housing, Rent \$1,500-\$1,999	3	107	194
Housing, Rent \$2,000+	2	39	143
Housing, No Cash Rent	8	70	137
HOUSING UNITS BY YEAR BUILD			
Total Housing Units	1,330	10,481	23,443
Housing, Median Year Built	1990	1990	1991
Housing, Built 2010 or Later	176	1,281	2,871
Housing, Built 2000 to 2009	107	1,962	5,037
Housing, Built 1990 to 1999	422	2,130	4,903
Housing, Built 1980 to 1989	190	1,160	2,656
Housing, Built 1970 to 1979	188	1,912	3,911
Housing, Built 1960 to 1969	131	709	1,447
Housing, Built 1950 to 1959	57	679	1,384
Housing, Built 1940 to 1949	8	257	485

Housing, Built 1939 or Earlier	51	391	749
Year Moved In			
Median Year Moved In	2005	2007	2008
Year Moved in 2010 or Later	516	4,449	10,309
Year Moved in 2000 to 2009	287	2,476	5,712
Year Moved in 1990 to 1999	284	1,844	3,711
Year Moved in 1980 to 1989	96	713	1,494
Year Moved in 1970 to 1979	51	248	761
Year Moved in 1969 or Earlier	6	64	145
HOUSEHOLDS BY TYPE OF HEATING FUEL USED			
Home Heating Fuel: Utility gas	1,123	8,800	19,258
Home Heating Fuel: Bottled, tank, or LP gas	37	345	1,084
Home Heating Fuel: Electricity	41	406	975
Home Heating Fuel: Fuel oil, kerosene, etc.	33	94	322
Home Heating Fuel: Coal or coke	0	0	0
Home Heating Fuel: Wood	6	94	306
Home Heating Fuel: Solar energy	0	0	0
Home Heating Fuel: Other fuel	0	47	170
Home Heating Fuel: No fuel used	0	8	17
DETAILED INCOME CHARACTERISTICS			
Total Personal Income (\$)	88,853,830	1,185,427,569	2,691,992,630
Total Household Income (\$)	88,500,376	1,181,834,309	2,681,400,475
Median Household Income (\$)	62,589	99,980	99,393
Average Household Income (\$)	71,371	120,669	121,155
Per Capita Household Income (\$)	33,875	49,131	47,238
Household High Income Average (\$)	245,754	290,726	307,778
Households By Income			
Less than \$15,000	76	479	930
\$15,000 to \$24,999	91	433	939
\$25,000 to \$34,999	117	530	1,208
\$35,000 to \$49,999	194	842	2,023
\$50,000 to \$74,999	282	1,343	3,114
\$75,000 to \$99,999	193	1,271	2,923
\$100,000 to \$124,999	141	1,251	2,866
\$125,000 to \$149,999	79	986	2,353
\$150,000 to \$199,999	31	1,020	2,416
\$200,000 and Over	36	1,639	3,360
DETAILED EMPLOYMENT CHARACTERISTICS			
Labor Force Characteristics (Pop 16+)			
Employment Potential	2,221	19,489	44,961
Civilian Total	1,264	11,116	26,676
Civilian Males	625	6,232	14,680
Civilian Females	639	4,884	11,996
Armed Forces Male	0	9	34
Armed Forces Female	0	0	0
Unemployed Male	21	207	487
Unemployed Female	21	162	396
Not in the Labor Force Male	367	3,207	6,895
Not in the Labor Force Female	548	4,788	10,473
Industry (Pop 16+)			
Total Civilian Employment	1,264	11,116	26,676

Employment, Agriculture, Forestry, Fishing and Hunting	21	53	84
Employment, Mining, Quarrying and Oil and Gas Extraction	0	13	13
Employment, Construction	49	473	1,494
Employment, Manufacturing	221	2,194	4,926
Employment, Wholesale Trade	30	538	1,061
Employment, Retail Trade(Pop 16+)	217	1,381	3,008
Employment, Transportation and Warehousing	2	175	564
Employment, Utilities	25	90	145
Employment, Information	12	144	397
Employment, Finance and Insurance	38	495	1,361
Employment, Real Estate and Rental and Leasing	53	244	496
Employment, Professional, Scientific, and Technical Services	20	917	1,966
Employment, Management of Companies and Enterprises	0	13	39
Employment, Administrative and Support and Waste Mgt. Services	87	291	894
Employment, Educational Services	108	980	2,285
Employment, Health Care and Social Assistance	113	1,188	3,038
Employment, Arts, Entertainment, and Recreation	28	234	479
Employment, Accommodation and Food Services, etc.	154	755	1,981
Employment, Other Services	22	494	1,314
Employment, Public Administration	64	444	1,131
Occupation (Pop 16+)			
Management, Business, and Financial Operations	162	2,193	5,188
Professional and Related	144	2,534	6,219
Service	351	1,599	4,073
Sales and Office	307	2,997	6,636
Farming, Fishing, and Forestry	1	20	37
Construction, Extraction, and Maintenance	62	613	1,818
Production, Transportation, and Material Moving	237	1,160	2,705
General Employment Characteristics (Pop 16+)			
Total Civilian Potential	1,264	11,116	26,676
White Collar	613	7,724	18,043
Blue Collar	299	1,773	4,523
Private for-Profit Wage and Salary Workers, Employee	927	7,866	19,072
Private for-Profit Wage and Salary Workers, Self	15	536	1,178
Private Not-for-Profit Wage and Salary Workers	92	800	1,856
Self-Employed Workers in Own Not Incorporated Business	78	686	1,676
Unpaid Family Workers	0	15	35
Local Government Workers	93	689	1,531
State Government Workers	59	368	1,016
Federal Government Workers	0	156	312
Transportation to Work (Empl 16+)			
Car, Truck, Van	1,202	10,237	24,777
Car, Truck, Van to Work Alone	1,108	9,586	22,952
Car, Truck, Van to Work Carpool	94	651	1,825
Public Transportation	0	9	35
Bus or Trolley Bus	0	0	26
Streetcar or Trolley Car	0	0	0
Subway or Elevated	0	0	0
Railroad	0	9	9
Ferry	0	0	0
Taxi	0	0	0
Motorcycle	0	13	51
Bicycle	4	4	34

Walked	1	114	217
Other Transportation	24	48	136
Travel Time to Work (Empl 16+)			
Less than 15 Min	319	2,564	5,999
15-29 Min	522	2,493	6,555
30-59 Min	286	4,190	9,903
60-89 Min	95	1,022	2,328
90+ Min	9	156	465
Work at Home	33	691	1,426
DETAILED EDUCATION CHARACTERISTICS			
Education Enrollment (Pop 3+)			
Education, Enrolled School (Pop 3+)	428	5,900	14,657
Education Male, Enrolled School (Pop 3+)	249	3,023	7,036
Education Female, Enrolled School (Pop 3+)	179	2,877	7,621
Enrolled Public School	364	4,845	12,391
Enrolled Private School	64	1,055	2,266
Enrolled Public Preprimary	0	140	340
Enrolled Private Preprimary	0	191	478
Enrolled Public Kindergarten	26	236	559
Enrolled Private Kindergarten	0	5	43
Enrolled Public Grades 1-4	24	1,075	2,741
Enrolled Private Grades 1-4	0	159	389
Enrolled Public Grades 5-8	104	1,316	2,851
Enrolled Private Grades 5-8	26	109	296
Enrolled Public Grades 9-12	119	1,223	3,020
Enrolled Private Grades 9-12	0	229	405
Enrolled Public Undergraduate College	91	791	2,549
Enrolled Private Undergraduate College	38	290	529
Enrolled Public Graduate or Professional School	0	64	331
Enrolled Private Graduate or Professional School	0	72	126
Not Enrolled in School	2,133	17,581	40,567
Education Attainment (Pop 25+)			
Less Than High School	195	662	1,584
High School	680	3,877	8,783
Some College	563	4,069	9,713
Associate's Degree	189	1,451	3,378
Bachelor's Degree	266	4,683	10,492
Master's Degree	126	1,957	4,423
Professional Degree	0	367	754
Doctorate Degree	0	215	441
DETAILED FAMILY CHARACTERISTICS			
Families By Size			
Median Size	2.90	3.04	3.18
1 Person	0	0	0
2 Person	373	3,259	7,212
3 Person	146	1,378	3,430
4 Person	89	1,190	3,008
5 Person	45	534	1,363
6 Person	14	173	415
7 or More Person	7	91	251
Families By Age			

Median Age	56.9	54.4	52.7
Aged Under 25 Years	19	79	218
Aged 25 to 34 Years	66	493	1,425
Aged 35 to 44 Years	85	1,152	3,002
Aged 45 to 54 Years	137	1,687	4,151
Aged 55 to 64 Years	154	1,703	3,703
Aged 65 to 74 Years	127	1,069	2,210
Aged 75 Years and Over	86	442	970
Family Income Characteristics			
Total Family Income(\$)	59,252,047	973,615,974	2,227,309,020
Median Income (\$)	80,690	124,626	119,785
Average Income (\$)	87,911	146,961	142,057
Per Capita Income (\$)	30,417	48,125	45,542
High Income Average (\$)	226,768	292,187	304,965
Families By Income			
Less than \$15,000	12	104	237
\$15,000 to \$24,999	33	87	263
\$25,000 to \$34,999	35	148	459
\$35,000 to \$49,999	62	372	1,067
\$50,000 to \$74,999	162	830	2,014
\$75,000 to \$99,999	145	882	2,098
\$100,000 to \$124,999	97	903	2,150
\$125,000 to \$149,999	64	829	2,008
\$150,000 to \$199,999	30	936	2,260
\$200,000 and Over	34	1,534	3,123
DETAILED NON-FAMILY CHARACTERISTICS			
Non-Families By Size			
Median Size	1.58	1.59	1.60
1 Person	484	2,697	5,377
2 Person	76	413	926
3 Person	2	44	102
4 Person	4	15	43
5 Person	0	0	5
6 Person	0	0	0
7 or More Person	0	0	0
Non-Families By Age			
Median Age	60.9	58.6	57.6
Aged Under 25 Years	17	142	345
Aged 25 to 34 Years	37	315	802
Aged 35 to 44 Years	50	343	674
Aged 45 to 54 Years	93	538	1,064
Aged 55 to 64 Years	146	681	1,300
Aged 65 to 74 Years	95	445	899
Aged 75 Years and Over	128	705	1,369
Non-Family Income Characteristics			
Total Income (\$)	29,248,329	208,329,658	454,851,562
Median Income (\$)	43,977	50,560	53,466
Average Income (\$)	51,675	65,740	70,487
Per Capita Income (\$)	43,524	55,114	57,891
High Income Average (\$)	568,515	270,448	348,054
Non-Families By Income			

Less than \$15,000	64	375	693
\$15,000 to \$24,999	58	346	676
\$25,000 to \$34,999	82	382	749
\$35,000 to \$49,999	132	470	956
\$50,000 to \$74,999	120	513	1,100
\$75,000 to \$99,999	48	389	825
\$100,000 to \$124,999	44	348	716
\$125,000 to \$149,999	15	157	345
\$150,000 to \$199,999	1	84	156
\$200,000 and Over	2	105	237
RETAIL SALES (\$000)			
Total Retail Sales (including Food Services)	90,559	639,106	1,335,904
Motor Vehicles Store Sales	76,991	221,365	394,879
Home Furnishings Store Sales	1,204	14,067	28,884
Electrical and Appliances Store Sales	276	24,490	51,283
Building Materials and Garden Store Sales	4,753	44,350	104,633
Food and Beverage Store Sales	575	27,704	66,671
Health and Personal Care Store Sales	715	18,810	46,286
Gasoline Stations Store Sales	801	39,751	87,919
Clothing and Accessories Store Sales	0	24,720	57,832
Sporting Goods Store Sales	549	19,417	38,457
General Merchandise Store Sales	132	101,310	238,141
Miscellaneous Store Sales	921	14,129	32,159
Nonstore Purchases Sales	1,974	39,590	80,395
Food Services	1,668	49,403	108,365
COST OF LIVING			
All Items - CPI (1982-84)	205.2	205.2	205.2
Apparel CPI	111.4	111.4	111.4
Education and Communications CPI	132.8	132.8	132.8
Food and Beverages CPI	198.8	198.8	198.8
Other Goods and Services CPI	350.1	350.1	350.1
Housing CPI	193.4	193.4	193.4
Medical Care CPI	351.6	351.6	351.6
Recreation CPI	117.7	117.7	117.7
Transportation CPI	211.1	211.1	211.1
EMPLOYMENT CHARACTERISTICS			
Employees, Total (by Place of Work)	1,362	10,947	22,756
Establishments, Total (by Place of Work)	140	858	1,758
Employees by Industry (Major)			
FORESTRY, FISHING, HUNTING, AND AGRICULTURE SUPPORT	0	0	0
MINING	0	0	2
UTILITIES	0	0	6
CONSTRUCTION	125	666	1,303
MANUFACTURING	150	1,737	3,151
WHOLESALE TRADE	60	576	990
RETAIL TRADE	166	1,662	3,938
TRANSPORTATION & WAREHOUSING	13	471	970
INFORMATION	10	96	205
FINANCE & INSURANCE	135	613	1,633
REAL ESTATE & RENTAL & LEASING	28	212	394
PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES	128	754	1,946
MANAGEMENT OF COMPANIES & ENTERPRISES	5	44	63
ADMIN, SUPPORT, WASTE MGT, REMEDIATION SERVICES	105	400	783

EDUCATIONAL SERVICES	20	62	213
HEALTH CARE AND SOCIAL ASSISTANCE	266	1,714	3,043
ARTS, ENTERTAINMENT & RECREATION	22	339	680
ACCOMMODATION & FOOD SERVICES	31	1,032	2,291
OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)	98	569	1,145
Establishments by Industry (Major)			
FORESTRY, FISHING, HUNTING, AND AGRICULTURE SUPPORT	0	0	0
MINING	0	0	1
UTILITIES	0	0	2
CONSTRUCTION	21	97	200
MANUFACTURING	3	44	94
WHOLESALE TRADE	10	61	117
RETAIL TRADE	14	119	257
TRANSPORTATION & WAREHOUSING	2	17	39
INFORMATION	2	12	24
FINANCE & INSURANCE	9	61	123
REAL ESTATE & RENTAL & LEASING	5	31	59
PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES	26	120	230
MANAGEMENT OF COMPANIES & ENTERPRISES	1	5	8
ADMIN, SUPPORT, WASTE MGT, REMEDIATION SERVICES	9	50	101
EDUCATIONAL SERVICES	3	13	27
HEALTH CARE AND SOCIAL ASSISTANCE	17	96	186
ARTS, ENTERTAINMENT & RECREATION	2	17	36
ACCOMMODATION & FOOD SERVICES	4	49	110
OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)	12	66	144
STANDARD OCCUPATION CLASSIFICATIONS			
SOC: All Occupations	1,340.60	10,270.41	22,099.68
SOC: Management Occupations	70.06	480.43	1,002.92
SOC: Business And Financial Operations Occupations	67.95	423.88	919.01
SOC: Computer And Mathematical Science Occupations	32.00	206.81	448.94
SOC: Architecture And Engineering Occupations	19.36	217.45	593.88
SOC: Life, Physical, And Social Science Occupations	18.39	54.41	115.43
SOC: Community And Social Services Occupations	9.89	157.72	258.84
SOC: Legal Occupations	9.82	44.27	82.92
SOC: Education, Training, And Library Occupations	80.65	131.88	673.71
SOC: Arts, Design, Entertainment, Sports, And Media Occupations	10.38	78.14	203.80
SOC: Healthcare Practitioners And Technical Occupations	82.44	418.97	832.88
SOC: Healthcare Support Occupations	60.71	313.32	634.56
SOC: Protective Service Occupations	3.79	30.19	88.06
SOC: Food Preparation And Serving Related Occupations	54.10	1,112.22	2,487.75
SOC: Building And Grounds Cleaning And Maintenance Occupations	58.22	274.87	551.68
SOC: Personal Care And Service Occupations	38.98	413.32	809.33
SOC: Sales And Related Occupations	147.25	1,515.48	3,601.77
SOC: Office And Administrative Support Occupations	240.99	1,585.62	3,445.58
SOC: Farming, Fishing, And Forestry Occupations	1.71	6.01	17.53
SOC: Construction And Extraction Occupations	91.32	511.11	1,018.00
SOC: Installation, Maintenance, And Repair Occupations	77.60	459.44	876.13
SOC: Production Occupations	86.02	1,076.47	1,967.26
SOC: Transportation And Material Moving Occupations	78.97	758.40	1,469.70
CONSUMER EXPENDITURES (\$000)			
Total Annual Expenditures	75,201.4	736,603.5	1,659,580.7
Food	9,397.1	87,430.0	197,862.9
Food at home	5,270.9	46,274.1	105,049.2
Cereals and bakery products	677.8	5,889.6	13,379.8

Dairy products	545.8	4,775.8	10,882.0
Fruits and vegetables	1,021.6	9,141.5	20,763.4
Nonalcoholic beverages	510.5	4,349.5	9,841.5
Food prep (consumed out of town)	77.6	769.7	1,734.6
Food away from home	4,112.6	41,195.9	92,904.3
Food on out-of-town trips	398.7	4,378.6	9,796.5
Alcoholic beverages	645.2	6,834.2	15,324.8
Housing	24,274.2	229,279.2	518,535.7
Household operations	1,847.6	19,072.6	44,031.2
Housekeeping services	186.3	2,542.4	5,566.0
Household furnishings and equip	2,488.5	24,733.6	55,690.3
Household textiles	132.0	1,171.9	2,661.8
Furniture	590.6	6,025.4	13,579.5
Floor coverings	26.4	286.9	642.8
Major appliances	387.0	3,696.1	8,306.7
Small appliances	49.6	446.4	1,012.9
Miscellaneous household equip	1,175.2	11,877.4	26,736.8
Apparel and services	2,233.3	22,252.9	50,348.4
Men and boys	530.8	5,246.5	11,914.0
Men, 16 and over	411.3	4,106.9	9,279.2
Boys, 2 to 15	113.8	1,085.0	2,541.3
Women's and girls	855.9	8,190.2	18,524.6
Women, 16 and over	744.6	7,126.2	16,077.9
Girls 2 to 15	107.3	1,031.2	2,386.6
Children under 2	89.8	1,005.4	2,511.3
Footwear	463.3	4,414.5	10,025.9
Other apparel products and services	298.0	3,747.3	8,245.0
Transportation	11,919.7	108,617.9	246,143.1
Vehicle purchases (net outlay)	4,766.9	43,151.7	97,874.1
Gasoline and motor oil	2,484.4	21,391.7	48,711.1
Other vehicle expenses	3,841.6	34,603.2	78,439.1
Public transportation	777.9	9,544.9	21,200.5
Health Care	6,502.3	55,711.3	125,458.0
Health insurance	4,430.5	37,537.8	84,526.9
Medical services	1,205.3	10,977.6	24,818.2
Drugs	669.5	5,375.5	11,992.3
Medical supplies	208.8	1,883.3	4,207.7
Entertainment	3,938.9	38,544.9	86,776.1
Fees and admissions	905.5	10,924.9	24,404.4
Television, radios, sound equip	1,398.2	12,178.6	27,473.7
Pets, toys, and playground equip	1,051.9	9,670.1	21,893.1
Other entertainment supplies	573.3	5,903.8	13,279.6
Personal care products, services	916.4	8,816.7	19,853.6
Reading	166.4	1,532.7	3,422.8
Education	1,552.9	19,146.1	42,649.2
Tobacco products, supplies	428.6	3,381.6	7,673.1
Cash contributions	2,710.7	31,283.0	68,616.3
Personal insurance and pensions	9,006.7	104,936.9	235,388.9
EASI DEMOGRAPHIC PROFILES			
Above Average Education	67	129	124
Apartments (20 or more units)	71	83	81
Available Renting Units	53	56	53
Pre-School Profile	38	57	79
Below Average Education	93	40	41
Blue Collar Profile	134	80	87
Born in America	141	142	132

Expensive Homes	43	117	120
Few Teens	140	76	63
House for Sale	179	108	92
In the Armed Forces	86	91	89
Large Families	51	77	84
Long Time Residents	51	58	55
Lots of Cars	114	142	140
Median Age Profile	179	143	125
Median Income Profile	89	150	152
No Cars	42	46	45
Not in Labor Force Profile	119	103	83
Old and Rich Households	54	96	87
Old Homes	92	82	75
New Homes	137	90	83
Recent Movers	101	69	67
Retired Workers Profile	157	96	81
Service Employment Profile	169	79	86
Subway or Bus to Work	54	59	58
Trailer Park City	196	95	84
Unattached and Available	114	77	79
Unemployed Workers Profile	60	51	53
Very Asian	57	82	90
Wealthiest Asian Households	110	109	104
Wealthiest Black Households	77	109	90
Wealthiest Families	54	116	121
Wealthiest Hispanic Households	106	93	93
Wealthiest Households	57	121	127
Wealthiest Non-Family Households	60	89	115
Wealthiest White Households	62	124	130
Very Spanish	50	50	55
Work at Home	92	128	122
Young and Rich Households	65	65	65
EASI SALES POTENTIALS			
Culture Index	97	97	97
Amusement Index	103	111	112
Restaurant Index	80	108	107
Medical Index	112	109	107
Religion Index	168	133	117
Education Index	157	123	104
Bargain Seekers Market	122	70	66
Higher Priced Product Market	97	150	153
Luxury Priced Product Market	76	155	149
Mortality Index (All Causes)	154	96	82
EASI QUALITY OF LIFE			
EASI Quality of Life Index (US Avg=100)	67	70	69
Crime			
EASI Total Crime Index (US Avg=100; A=High)	132	71	63
Murder Index (US Avg=100; A=High)	136	69	65
Forcible Rape Index (US Avg=100; A=High)	110	91	90
Forcible Robbery Index (US Avg=100; A=High)	66	75	74
Aggravated Assault Index (US Avg=100; A=High)	138	71	58
Burglary Index (US Avg=100; A=High)	193	88	69
Larceny Index (US Avg=100; A=High)	155	97	83
Motor Vehicle Theft Index (US Avg=100; A=High)	139	91	84

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ARTICLES

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Not Sexy, But Investors Should Consider The Simplicity Of Self-Storage



Brad Thomas, CONTRIBUTOR

I cover REIT investing. [FULL BIO](#) ▾

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TWEET THIS



So why purchase shares of a REIT that focuses on the self-storage industry?



We all need storage.



The interior of Shurgard Storage self-storage in Seattle, Wash. (AP Photo/Kevin P. Casey)


Recently, the boring world of self-storage somehow became one of the most sought-after ways to invest in real estate.

It doesn't sound sexy, but, like anything with a good return, it actually is.

In days past, it used to be that those looking to invest in real estate were mostly interested in apartment property, real estate investment's "gold standard."

There are many reasons to branch out, one of which is, you guessed it, millennials.


Millennials, one of the largest groups in history, can't afford single-family homes (which are going up in price), but they still want to move out of their parents' houses. This brings the demand for apartments up, setting off an excess supply of apartment construction, in part due to the slowing of job expansion.

So why purchase shares of a REIT that focuses on the self-storage industry? 

For one, it's recession-proof. This was proven by [Forbes](#) 400-member B. Wayne Hughes when he built a \$2.4 billion fortune on self-storage. He was clearly doing something right. You can't argue with that.

In a bad economy, people start trading in luxury goods for, well, less luxury goods. Apparently, storage units, are - ding ding! - not luxury! *Which turns out to be their appeal.*

In fact, during the 2008 economic downturn, self-storage was the only REIT sector that posted a positive return of five percent including dividends. We think that's kind of big deal.

We all need storage.  The demand for them is inelastic. Which is why, in 2015, self-storage was up 40 percent while other REIT sectors and stocks as a whole, were either flat or nothing to write home about. This year, self-storage is in third place among REITs in terms of returns. Again, we think this is kind of a big deal.

Storage facilities need little capital outlay or upkeep, their property taxes are modest, and net acquisitions in that sector have surged.

And so, in good times and in bad, kind of like marriage, good old storage units are like a trusty old spouse.

 They smell kind of bad, but they're not going anywhere.

In my newsletter, *Forbes Real Estate Investor*, I cover all of the self-storage REITs, including the big gorilla, **Public Storage** (PSA) that was cofounded by Wayne Hughes.

Self-storage REITs comprise roughly 8% of the REIT Index, i.e. the Vanguard REIT Index (VNQ). Within my self-storage index, I track these five REITs, which account for roughly \$60 billion in market value: **CubeSmart** (CUBE) **Extra Space Storage** (EXR), **Public Storage** (PSA), **Life Storage** (LSI), and **National Storage** (NSA).

In the third quarter, earnings were better than anticipated: Extra Space Storage, CubeSmart and Life Storage beat funds from operations (FFO) expectations while Public Storage lagged. CUBE and EXR raised full-year guidance while LSI maintained guidance, and PSA does not provide guidance. Same-store metrics were slightly better than expected with average revenue growing 3.0% and net operating income growing 2.9%.

Is Ken Fisher Nuts?

Some Wall Streeters might think he is, because Ken, famous *Forbes* founder of Fisher Investments, is giving away his new Report to investors with \$500,000 or more portfolios. Is that you? You should have this terrific stock forecast you won't find anywhere else. You'll see quickly: Ken isn't nuts. He's the one with the brains.

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Retirement

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How Humdrum Self-Storage Became The Hottest Way To Invest In Real Estate



Joshua Rogers, CONTRIBUTOR

I explore novel and contrarian ways some smart, wealthy people invest. [FULL BIO](#) ✓

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TWEET THIS



Break-even for self-storage is just 45% occupancy, far below that of other sectors.



self-storage REITs don't look ready to slow down anytime soon. That makes them truly a store of value.

You've run out of room to stash that old cherrywood table, your high school sports trophies, Grandma's wedding dress and those bulging boxes of tax records. What to do? Rent a 10-by-15-

with an attic, you have one now.

As commercial property goes, self-storage has none of the sex appeal of a gleaming office building or a ritzy shopping mall. There are [more than 50,000 self-storage facilities](#) in the U.S. — nondescript warehouses filled with cubicles where Americans keep the belongings that don't fit into their homes. But even though self-storage is about as unassuming an industry as you can get, it turns out to be a pretty solid investment — often better than other kinds of [real estate](#).



Readers of this column know that I often take note when wealthy, savvy investors figure out new, unconventional ways to get a good investment return. For several years, their favorite kind of real estate investment was the apartment property. But in the last several months, they've shifted to self-storage, a property type that seems a little humdrum.

Why? It is recession-resistant. There are other interesting factors that I'll explain. But first, here's some good news.

Though some of the most exciting types



Annuities: Don't Believe the Hype

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investors can participate in the self-storage real estate market by purchasing shares of a real estate investment trust, or REIT, that concentrates on this industry. And even very wealthy investors can learn a lot about the sector by studying self-storage REITs and taking a cue from [Forbes 400 member B. Wayne Hughes](#), who built his \$2.4 billion fortune on self-storage.

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The biggest REITs own vast pools of commercial property, such as offices, shopping centers or, in some cases, self-

type we're talking about are called equity REITs.) Their publicly traded shares usually offer nice dividend yields, paid for by tenants' rent. Unlike buying and selling a building or a stake in a self-storage property partnership, a cumbersome process involving deeds and brokers and lawyers, trading in and out of REIT shares is as easy as buying and selling stock on a stock exchange.

Of course, nothing in the investing world is invulnerable. Like any other asset, real estate values can fall, particularly in a recession. That's true of your home: Housing values, as measured by the [S&P/Case-Shiller index](#), still haven't completely recovered from their plunge during the financial crisis. Back then, most REITs got walloped, too. The [FTSE NAREIT All Equity REIT index](#) lost almost 40% in 2008, even worse than the Standard & Poor's 500 index of stocks.

the guide by *Forbes* columnist and money manager Ken Fisher's firm. It's called ***The Definitive Guide to Retirement Income***. Even if you have something else in place right now, it *still* makes sense to request your guide!

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But not self-storage.

storage was the only REIT sector to post a positive total return of 5%, including dividends. That's quite a distinction, sort of like being the last contestant standing on *The Voice*.

the guide by *Forbes* columnist and money manager Ken Fisher's firm. It's called ***The Definitive Guide to Retirement Income***. Even if you have something else in place right now, it *still* makes sense to request your guide!

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Where To Invest In 2016

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The reason is that, in good times and bad, there is a need for these convenient repositories of clutter that no one can bear to toss out because, well, they might need it someday. In 2015, a flat year for stocks in general and a so-so one for REITs — equity REITs as a whole were up just 2.8% — self-storage had a boffo performance, up 40%, blowing away all other REIT sectors. This year, self-storage is in third place for returns among REITs.

In case you're wondering, as an investment class, equity REITs have done very well historically. Over five, 15, 20 and 25 years, equity **REITs have outdone the S&P 500**, the standard benchmark for stocks. Over 10 years, REITs trailed by a tiny amount, an annual 7.5%, compared to 7.7% for the S&P. So standing out in such a well-

Now, let's be clear: I'm not saying that self-storage is a magical wealth-creating machine. This is not a glamorous business, and occasionally self-storage REITs have a negative year. Just not often, and hardly ever in recession years. If they do dip amid a recession, historically it has been small and followed by a strong comeback.

Let's look at the largest self-storage REIT, **Public Storage** PSA +3.04% (PSA). Founded in 1972 by **B. Wayne Hughes**, the company has 2,200 locations in the U.S. and Europe, with 142 million square feet of rentable space. (Hughes still serves as the company's "chairman emeritus," and his two children serve on its board of directors.) Public Storage slumped 20% in 2008, when the entire world economic system almost collapsed. Then in early 2009, it exploded, up fivefold — far better than the S&P 500, for sure. It pays a 2.5% dividend yield, better than the 2% from the S&P.

Potential self-storage yields can range even higher, if you opt for a private REIT, which means its shares can't be purchased on an exchange. The goal of these nontraded REITs is to be bought, either by another REIT or by a private equity firm. Take SmartStop Self Storage, which pays out 6%. Extra Space Storage (EXT), a public REIT, purchased it last year for \$1.3 billion. SmartStop CEO H. Michael Schwartz

five years.


Publicly traded REITs are probably the safest bet for most investors. That's because analysts closely follow them and they're transparent. Plus, there's no up-front fee to purchase them. For wealthier investors, nontraded REITs, which do charge up-front loads (but not necessarily if your advisor is fee-based only), are potentially interesting. After all, they're smaller and can pick away in sharpshooter fashion at a niche in the market that a behemoth like Public Storage can't be bothered with. Later, once a well-managed small REIT has assembled a significant portfolio, it can sell itself to a bigger player at a hefty premium.

With a private REIT, you can't cash out your investment instantly, as you can with a public REIT. You typically are locked in for a set period, maybe up to 10 years, although some allow you to withdraw piecemeal after a while. That confers some meaningful advantages. For example, the REIT doesn't have to worry about having to sell off properties to cover redemptions in a market panic. So if you're a wealthy, patient investor who values the idea of being involved with others like you, there may be a play here for you.

The self-storage sector has a lot of good news around it. Its key demographic driver will be strong for some time: the

bedroom house, they want to hang on to their beloved possessions, maybe to give them to their kids or to ship to a vacation home once they buy one.

Another ramification is a large and continuing migration to the Sun Belt, for both workers and retirees, and moves always mean households find how much excess they have. Further, in the wake of the recession, small businesses have awakened to self-storage as a great place to house excess inventory for less money than maintaining a warehouse.

One of the advantages of self-storage is that it involves little capital outlay, as compared to other kinds of commercial real estate, such as malls or offices or apartments. It also needs precious little upkeep. When an occupant moves out, management doesn't have to repaint or fix the plumbing. All that's needed is to sweep out the now-empty unit. Break-even for self-storage is just 45% occupancy, far below that of other sectors. 

Self-storage is a classic mom-and-pop operation, owing to the low level of upkeep and capital spending required. That means it is ripe for consolidation by REITs. REITs bring economies of scale, with more money for marketing and thus better recruitment of space renters. Since 2012, NAREIT figures show that net acquisitions in the self-

The hot play among REITs lately has been in apartments, which benefit from their own demographic trend. Nevertheless, self-storage may be a superior investment for the long term. The reason is interesting.

The millennial generation is powering the surge in apartment REITs. Last year, this group became the most populous in the U.S., containing 75 million people. With single-family-home prices high and climbing, apartments are the habitat of choice for the young set. Hence, there's been a burst of growth for apartment REITs over the past five years. Once they can afford it, young adults leave their parents' place and head for apartments. And they keep renting for a long time. According to real estate site Zillow, first-time homebuyers these days rent for six years before buying; back in the 1970s, it was 2.6 years. That all suggests that more demand for apartments is coming.

Trouble is, all this crowding into rented housing has set off a boom in apartment construction. In 2016's first quarter, rents dipped 4% and vacancies nudged up. Thus, research firm Green Street Advisors projects a tapering of growth in revenue per available foot between now and 2020. It cites elevated supply and slowing of job expansion

While more self-storage units are also under construction, this is not a frenzy.

residential neighbors, who vote, self-storage seems tacky. Also, town councils rightfully see that a new self-storage locale won't be a job spur. The projects are easy to build, meaning no bonanza for local contractors, and only need a couple of guys to run the place. And they don't pay huge property taxes.

Could self-storage REITs be getting frothy, too? Sure. And there is some evidence that, at least with the top-tier self-storage REITs, valuations may be getting a bit rich. Green Street says that the biggest three self-storage REITs change hands at a 40% premium to net asset value.

The kingpin of self-storage REITs, Public Storage, with a \$47 billion market cap, has a price-earnings multiple of 28 (where earnings are defined as funds from operations, which adds in depreciation and amortization expenses). On the other hand, the company has an enormous cash position and its 2.5% yield, while not stellar, is well-protected, meaning it has the financial resources to keep paying the dividend.

In short, self-storage REITs don't look ready to slow down anytime soon. That makes them truly a store of value. 

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<http://www.wsj.com/articles/investors-gird-for-storage-wars-1434479932>

REAL ESTATE | DEAL OF THE WEEK

Investors Gird for Storage Wars

The self-storage industry is attracting REITs and others eager to lock in stable returns



Vista Self Storage, a storage facility in Orlando, Fla., sold for \$11.8 million after a bidding war among 18 potential buyers.
PHOTO: MARCUS & MILLICHAP

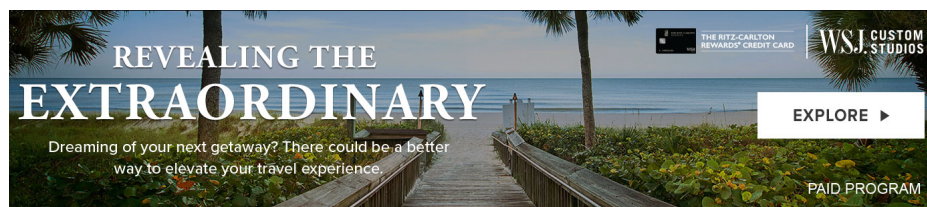
By **ROBYN A. FRIEDMAN**

June 16, 2015 2:38 p.m. ET

A new bidding war is breaking out in real estate. The targets of attention aren't luxury properties or waterfront land, but something far less fashionable: self-storage warehouses.

A 97,000-square-foot self-storage facility in Orlando, Fla., recently sold for \$11.8 million to Westport Properties Inc., a self-storage operator, after a bidding battle among 18 potential purchasers, including several real-estate investment trusts, or REITs.

The seller, Vista Self Storage Co., received a price of about \$121 a square foot, a significant premium over the \$100-a-square-foot average sales price commanded by storage properties in the Orlando market.



“This is a perfect example of how hot the self-storage market is,” said Michael Mele, senior director of the National Self-Storage Group at Marcus & Millichap, which brokered the deal. “I wouldn’t consider this an A-quality facility or location, but we cornered over 18 offers,” he said.

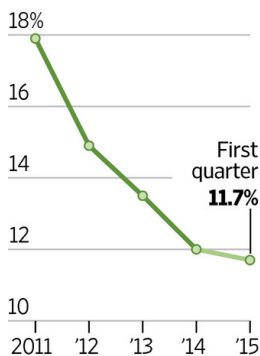
The self-storage sector differs from other types of commercial real estate because the market is fragmented, with 80% of the facilities owned by individuals or small investors, Mr. Mele said. While REITs would prefer to buy portfolios, “the reality is that most of the self-storage transactions are single-property deals,” he said.

The self-storage industry is benefiting from a number of trends, including a scarcity of new supply coupled with population growth and a strengthening economy, which energize the housing market. A strong economy creates demand for storage by commercial users, while a robust housing market means more people will be moving and storing personal belongings.

A Perfect Storm

Tight supply and a strengthening economy have caused vacancies to fall and rents to rise at self-storage facilities.

Average vacancy rate



Average rent*



*Rents based on 100-square-foot climate-controlled units

Source: REIS Services

THE WALL STREET JOURNAL.

Tight supply has led to increased occupancy at many properties, which fuels higher rents and attracts the interest of investors eager to lock in stable returns.

“From both an operations and investment perspective, self-storage is an exceptionally good investment,” said David Blum, a Coral Springs, Fla.-based consultant to the self-storage industry. “We have not built any new product in a long time, and over the next two years we need another 3,000 facilities to keep up with the shortfall.”

Also fueling demand for self-storage facilities by investors is the perception that the

sector is recession-resistant, with demand for storage strong in both good economic times and bad. According to the National Association of Real Estate Investment Trusts, at the height of the recession and financial crisis in 2008, self-storage REITs delivered a 5.1% total return, which comprises price appreciation and dividends. In comparison, the FTSE Nareit All Equity REIT Index, which tracks all REITs, posted a negative return of 38% that year.

In recent years, self-storage REITs have continued to outperform the broader stock market and other REITs, producing a total return of 31% last year compared with 28% for all equity REITs and 14% for the S&P 500 index.

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“Self-storage is the perfect storm of ideal investment qualities,” said Jim Berry, managing member of RRB Development LLC in Atlanta, who is developing two Class A self-storage facilities with CubeSmart. “It consistently performs, it is resilient to economic turmoil, it has a unique ability to

grow rents and thus returns, and it's safe.”

To be sure, if interest rates rise, that could affect the returns investors receive, said Mr. Blum, the industry consultant. But many in the sector said there is such a shortage of facilities they don't see oversaturation as being an issue.

Drew Hoeven, president of the real-estate group at Irvine, Calif.-based Westport Properties, which acquired the Vista facility in Orlando, said his company has been developing and acquiring individual properties across the U.S. since 1985 and owns or operates 85. While he said he is bullish on the sector as a whole, he worries about the volume of capital entering the market from institutions and large investors such as REITs.

These investors, he said, are bidding up prices and making it “difficult finding a diamond in the rough.” Plus, sellers are more likely to sign with buyers who have a track record in the industry and are more likely to fulfill the terms of the contract and close on time, he said.

“There is a laundry list of institutional guys trying to hop into our space, and the REITs have access to capital that is a lot cheaper than us,” said Mr. Hoeven.

Some investors are building instead of buying. Jay Massirman, managing partner of Miami City Self Storage LLC, recently closed on the purchase of six parcels and plans to develop one million square feet of state-of-the-art facilities in urban areas in South Florida. He expects to break ground on five buildings in the next 60 days and has an additional 10 development deals in the pipeline.

“We’re bullish on the industry, but we know there’s competition impending or that economic changes could take place,” he said. “So we’re trying to move this business plan as far as we can ahead to accomplish our mission.”

Mr. Massirman has a diversified exit strategy for his investments. If interest rates remain low, he said he might refinance his loans and hold the properties long term. If rates creep up, he would consider selling.

“The main thing for us right now is to secure the sites and build as quickly as possible,” Mr. Massirman said. “Once we get them built, we’re relatively comfortable that the sites we’ve chosen are good sites and that we’ll be OK.”

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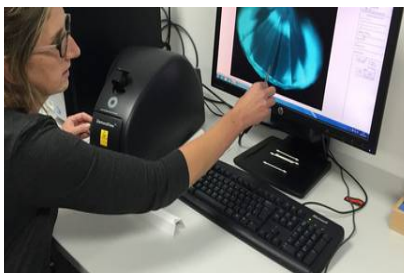


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NEW YORK TOP UNDERSUPPLIED, OKLAHOMA CITY TOP OVERSUPPLIED MARKETS FOR SELF-STORAGE FACILITIES

The CBRE Self-Storage Metro Market Report ranks market conditions overlaid with a scoring model based on occupancy, income and cap rate data.

KEY FINDINGS

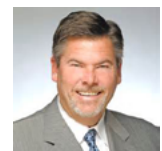
- The New York metropolitan area leads the list of top undersupplied markets with a score of 213.96 (average = 100 and is based on occupancy, income and cap rate) or 215% above the national average. San Jose, Los Angeles, San Diego and Baltimore round out the top-five undersupplied markets. Zoning regulations in some markets impact delivery of new construction.
- Oklahoma City is the top oversupplied market with a score below the national average. Based on occupancy, income and cap rate, Oklahoma City has an index of 61.0%. Memphis, Columbus, Kansas City and Salt Lake City round out the top-five oversupplied markets. Demand is affected by demographic variables, such as household income. There also are ancillary impacts on these rankings, such as low-density developments.
- Of 38 metro markets analyzed, 16 are characterized as undersupplied; 11 are at equilibrium; and 11 are oversupplied.

The charts on the following two pages list the results of the Metro Market Report first by ranking and then alphabetically. This analysis is a useful tool for comparing major metro market conditions in the U.S. However, it is critical to note that the best analytics for the self-storage sector is by local trade area. From our investor surveys and zip code studies of existing facilities, it is clear the trade area for self-storage is relatively small, or a 3-mile radius. The metrics presented here should not be relied upon for local trade area analysis because for example, within an undersupplied metro, there can be pockets of oversupplied trade areas due to zoning, overbuilding or demographic trends. Therefore, we have created this ranking tool for use from a national perspective.

For metrics on new construction starts nationally and by major metro, please refer to our updated construction report under Publications on the [CBRE Self-Storage Valuation website](#).

SELF-STORAGE VALUATION

has access to in-depth levels of market research such as this and real time data from our other lines of service. This market intelligence allows for the appraisers to employ the most current and detailed analysis of the market in our reports. Our self-storage specialists completed over 500 appraisals in 2015 and several self-storage portfolios across the country.



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METRO MARKET ANALYSIS - BY RANKING

Metro	Square Footage Per Person	Forecast Demand	Variance	Conclusion	Score	Index
New York Metro	3.52	3.24	-0.29	Undersupplied	213.96	215.0%
San Jose	4.46	5.17	0.71	Undersupplied	161.38	162.1%
Los Angeles	4.72	6.08	1.36	Undersupplied	158.43	159.2%
San Diego	6.22	7.55	1.33	Undersupplied	133.39	134.0%
Baltimore	4.90	5.43	0.53	Undersupplied	114.32	114.9%
Portland	5.50	7.16	1.66	Undersupplied	112.94	113.5%
Philadelphia	4.58	5.32	0.74	Undersupplied	101.88	102.4%
Minneapolis	5.04	5.49	0.45	Undersupplied	100.06	100.5%
Hartford	5.15	5.85	0.70	Undersupplied	89.86	90.3%
Orlando	7.00	7.95	0.95	Undersupplied	85.46	85.9%
Phoenix	6.12	7.12	1.01	Undersupplied	84.35	84.8%
Detroit	5.49	6.34	0.84	Undersupplied	84.04	84.4%
Cleveland	5.40	7.06	1.66	Undersupplied	79.28	79.7%
Charlotte	6.05	6.95	0.90	Undersupplied	74.81	75.2%
Cincinnati	3.99	6.86	2.88	Undersupplied	68.12	68.4%
Indianapolis	6.10	7.16	1.06	Undersupplied	67.77	68.1%
San Francisco	5.58	5.26	-0.31	Equilibrium	199.76	200.7%
Miami	6.65	6.92	0.27	Equilibrium	130.92	131.5%
Boston	4.73	5.10	0.37	Equilibrium	125.01	125.6%
Denver	6.57	6.19	-0.38	Equilibrium	116.27	116.8%
Chicago	5.71	5.16	-0.56	Equilibrium	97.59	98.1%
Sacramento	7.56	7.44	-0.13	Equilibrium	95.11	95.6%
San Bernardino/Riverside	7.42	8.20	0.78	Equilibrium	84.64	85.0%
Atlanta	7.06	6.40	-0.66	Equilibrium	78.36	78.7%
San Antonio	7.33	7.66	0.33	Equilibrium	78.22	78.6%
St. Louis	6.42	6.31	-0.11	Equilibrium	77.57	77.9%
Las Vegas	8.01	8.54	0.53	Equilibrium	75.33	75.7%
Seattle	7.05	5.87	-1.19	Oversupplied	123.18	123.8%
Tampa-St. Petersburg	7.61	7.12	-0.49	Oversupplied	94.03	94.5%
Dallas	7.88	6.27	-1.61	Oversupplied	88.91	89.3%
Austin	8.60	7.12	-1.48	Oversupplied	85.18	85.6%
Nashville	8.51	7.07	-1.43	Oversupplied	80.13	80.5%
Houston	8.98	6.38	-2.60	Oversupplied	78.22	78.6%
Salt Lake City	9.55	7.93	-1.62	Oversupplied	74.21	74.6%
Kansas City	7.87	6.68	-1.20	Oversupplied	72.62	73.0%
Columbus	8.75	7.13	-1.62	Oversupplied	72.44	72.8%
Memphis	8.87	8.04	-0.83	Oversupplied	63.57	63.9%
Oklahoma City	10.12	7.55	-2.57	Oversupplied	60.71	61.0%

METHODOLOGY

CBRE's Self-Storage Valuation Metro Market Report ranks current U.S. market conditions overlaid with a scoring model based on occupancy, income, and cap rate data in top metro markets. The result is a ranking of top metro markets for self-storage, segmented among top performers, market conditions (undersupply, oversupply or equilibrium).

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Compiled by CBRE / Source: Almanac 2016 & REIS



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Compiled by CBRE / Source: Almanac 2016 & REIS



10

**PARTNERS
INFORMATION**

- Cutting Edge Management has compiled the information within this evaluation from several sources including personal observations, competitive employee representations, verbal confirmations by city officials and information provided by the client. Cutting Edge Management cannot attest to the accuracy or validity of information provided by the client or verbal representations made by competitive employees or by city officials. Stephan A. Ross has attempted to conduct an independent evaluation based on the forgoing.
- It should be noted that the competitive information contained with this report can and does change on a daily basis in a competitive market, and this report represents only a snapshot in time.

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GENOA TOWNSHIP,

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LIST OF DRAWINGS

CIVIL ENGINEERING

C.001	BOUNDARY / TOPOGRAPHIC / TREE SURVEY
C.002	BOUNDARY / TOPOGRAPHIC / TREE SURVEY
C.003	BOUNDARY / TOPOGRAPHIC / TREE SURVEY
C.004	BOUNDARY / TOPOGRAPHIC / TREE SURVEY
C.102	SITE PLAN PAVING & GRADING
C.201	SITE PLAN UTILITIES
C.302	SOIL MAP
C.303	TRUCK TURN PLAN
C.304	PERMEABILITY REPORT
C.305	LOT SPLIT PLAN
C.306	LOT SPLIT UTILITY PLAN

LANDSCAPING

L.S.1	SITE LANDSCAPE PLAN
L.S.2	PLANTING DETAIL
LT.1	TREE REMOVAL PLAN
LT.2	TREE REMOVAL PLAN
L.901	SITE DETAILS

ARCHITECTURAL

A.S.101	CONCEPTUAL SITE PLAN
A.101	CONCEPTUAL FIRST FLOOR BUILDING PLAN & SIGNAGE
A.201	CONCEPTUAL FRONT & LEFT SIDE ELEVATIONS
A.202	CONCEPTUAL REAR & RIGHT ELEVATIONS

ELECTRICAL LIGHTING

EX.001	SITE PLAN - PHOTOMETRICS
EX.002	SITE PLAN - LIGHT FIXTURES

DEVELOPMENT TEAM

OWNER/DEVELOPER
BIRKENSTOCK ENTERPRISES, LLC
 2528 HARTE DR.
 BRIGHTON, MI 48114
 810.499.7144

ARCHITECT/AGENT
FUSCO, SHAFFER & PAPPAS, INC.
 550 E. NINE MILE RD
 FERNDALE, MI 48220
 248.543.4100

CIVIL ENGINEER
NOWAK & FRAUS ENGINEERS
 46777 WOODWARD AVE.
 PONTIAC, MI 48342
 248.332.7931

LANDSCAPE ARCHITECT
HAGENBUCH WEIKALL
 33203 BIDDESTONE
 FARMINGTON HILLS, MI 48334
 248.477.3600

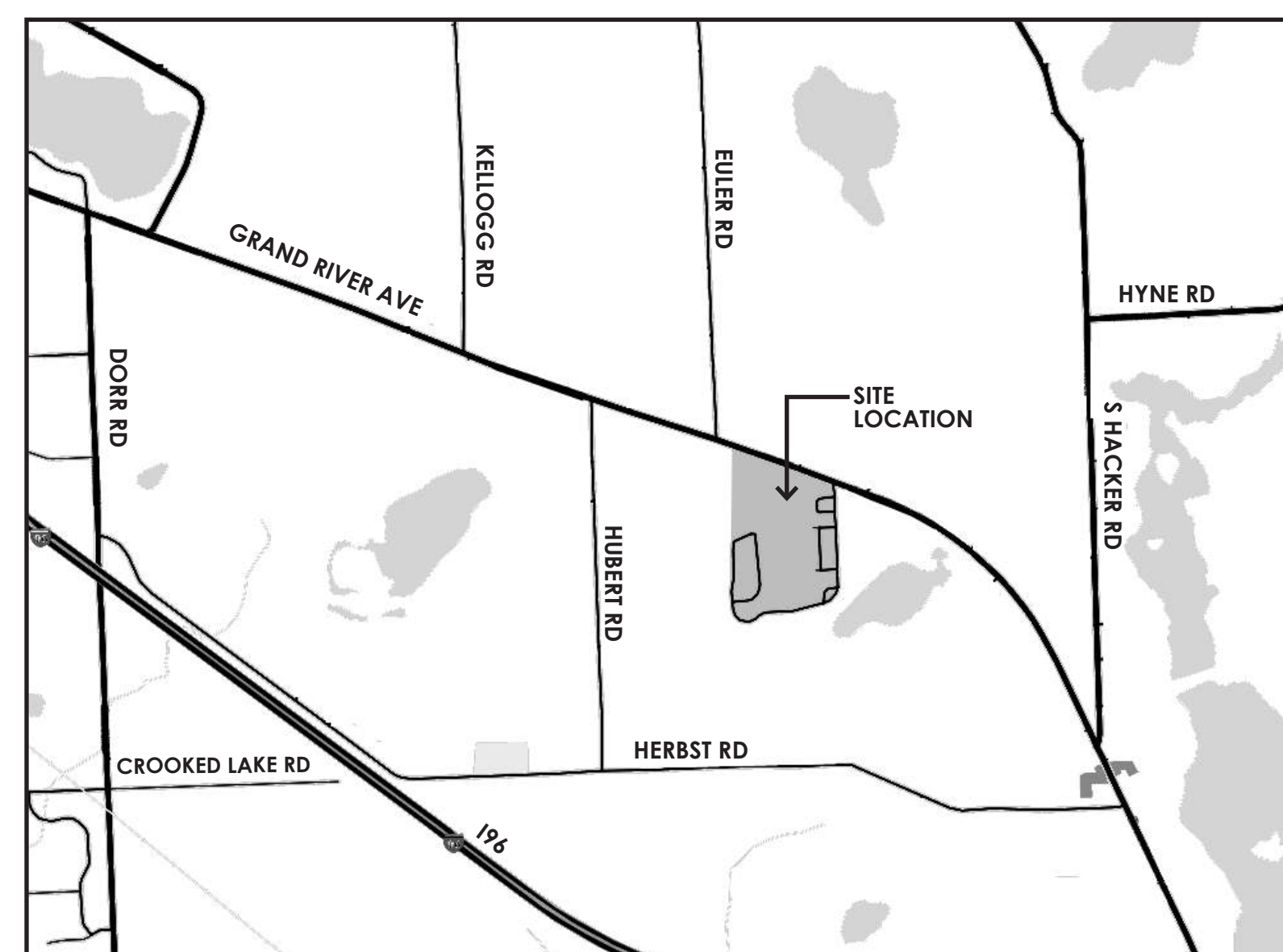
LIGHTING DESIGN
MEEC, PC
 1415 GOLDSMITH
 PLYMOUTH, MI 48170
 734.454.5516

SITE DATA

SITE AREA (GROSS)		
MINIMUM PROVIDED	3 AC	± 462,607 S.F. OR ± 10.62 AC
LOT WIDTH		
MINIMUM PROVIDED	150 FT.	450 FT.
ZONING		
EXISTING	GCD (GENERAL COMMERCIAL DISTRICT)	
PROPOSED	PID (PLANNED INDUSTRIAL DEVELOPMENT W/ IND BASE)	
TOTAL BUILDING FOOTPRINT AREA		
EXISTING	12,816 S.F.	
PROPOSED	66,064 S.F.	
TOTAL	78,880 S.F.	
LOT COVERAGE (BUILDINGS)		
MAXIMUM ALLOWED	185,042 S.F. (40%)	
EXISTING	12,816 S.F. (12.7%)	
PROPOSED (TOTAL INCL. EXIST'G.)	78,880 S.F. (17%)	
LOT COVERAGE (IMPERVIOUS SURFACE INCLUDING BUILDING)		
MAXIMUM ALLOWED	393,215 S.F. (85%)	
PROPOSED (TOTAL INCL. EXIST'G.)	208,921 S.F. (45.2%)	
BUILDING HEIGHT		
MAXIMUM ALLOWED	30 FEET - 2 STORY	
PROPOSED	27 FEET - 2 STORY	
BUILDING AREA (GROSS)		
EXISTING OFFICE BLDG.	12,816 S.F.	
PROPOSED STORAGE BLDG.		
STORAGE W/ SALES OFFICE (INCL. 1,000 S.F. SALES)	59,680 S.F.	
MANAGERS UNIT	1,500 S.F.	
TRUCK LOADING (ENCLOSED)	6,384 S.F.	
TOTAL PROPOSED STORAGE BLDG.	67,564 S.F.	
GRAND TOTAL (INCLUDING EXISTG.)		80,380 S.F.
STORAGE AREA (NET)		46,607 S.F.

PARKING		
REQUIRED - NEW BLDG.		
STORAGE (1 C/1,500 S.F.)	43 SPACES	
SALES OFFICE (1 C/300 S.F.)	4 SPACES	
MANAGERS UNIT (2/UNIT)	2 SPACES	
TOTAL	49 SPACES	
REQUIRED - EXISTING BLDG (1C/300 S.F.)	43 SPACES	
PROPOSED - NEW BLDG.		
STORAGE/SALES OFFICE (INCL. 4 P.H. SPACES)	49 SPACES	
PROPOSED - EXISTING BLDG	67 SPACES	

NOTES:
 1. ALL INTENSITY AND DIMENSIONAL DATA NOTES AS "REQUIRED" OR "ALLOWABLE" IS BASED ON THE IND BASE ZONING STANDARDS (AS AMENDED).
 2. THE BUILDING SHALL BE PROVIDED WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13.



LOCATION MAP

PROJECT ADDRESS: 2528 HARTE DRIVE
 NO SCALE

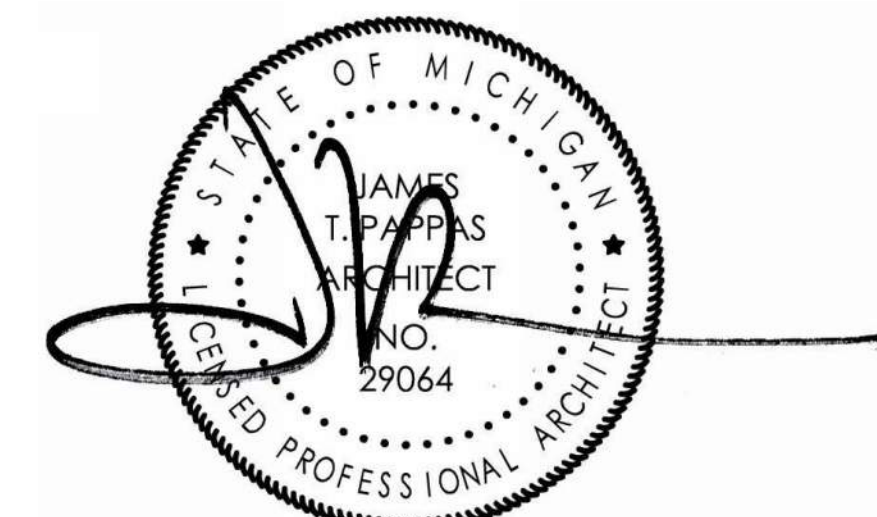


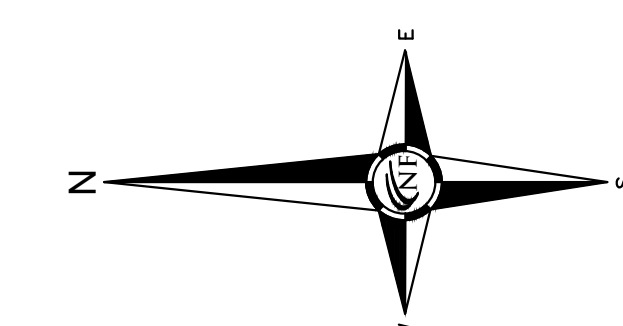
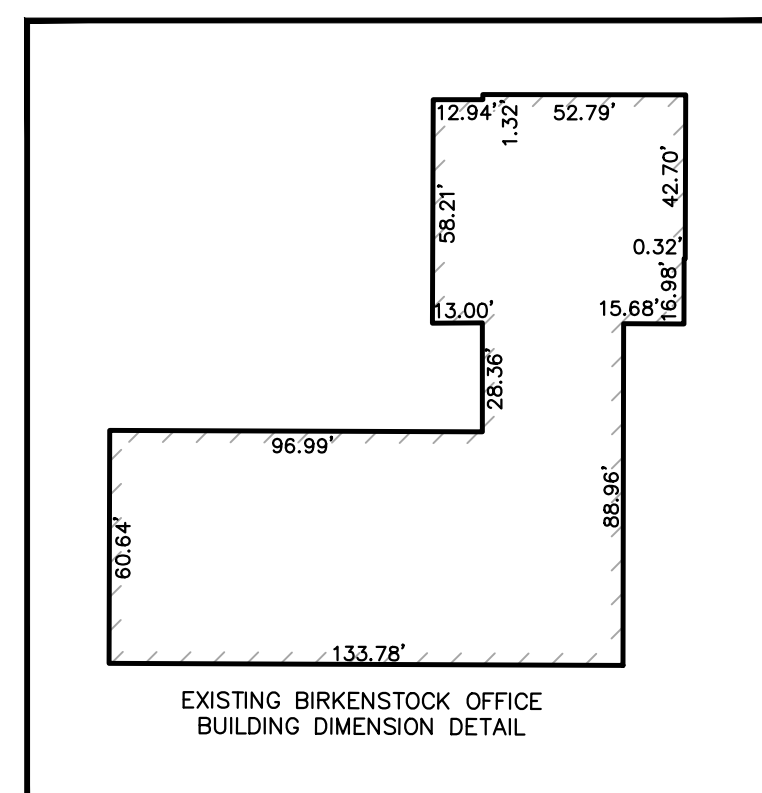
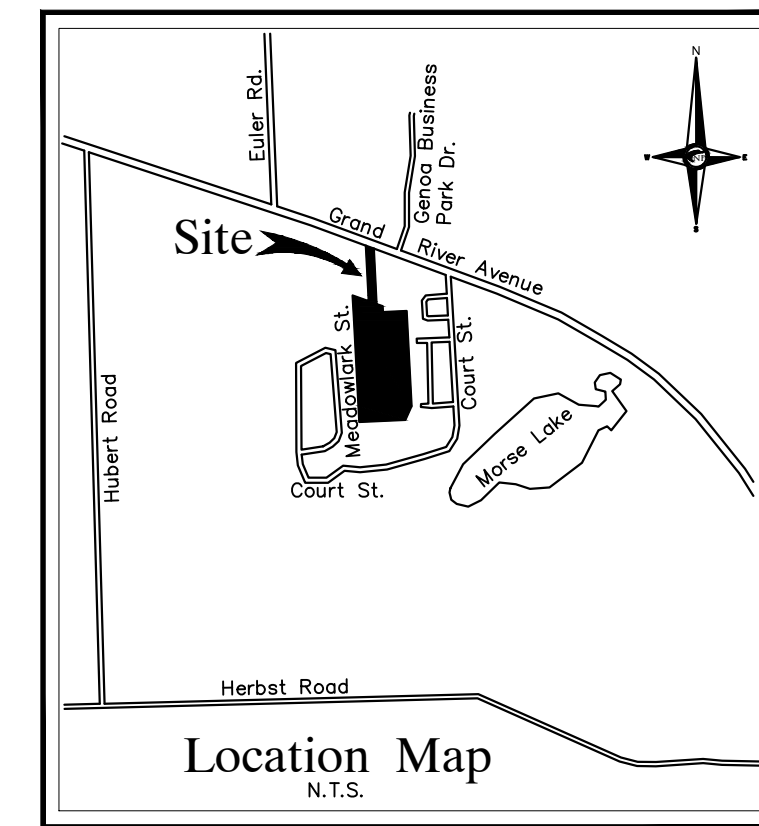
DATE	ISSUE
01.29.19	P.I.D. SITE SUBMISSION
02.22.19	P.I.D. RE-SUBMISSION



FUSCO, SHAFFER & PAPPAS, INC.
 ARCHITECTS AND PLANNERS

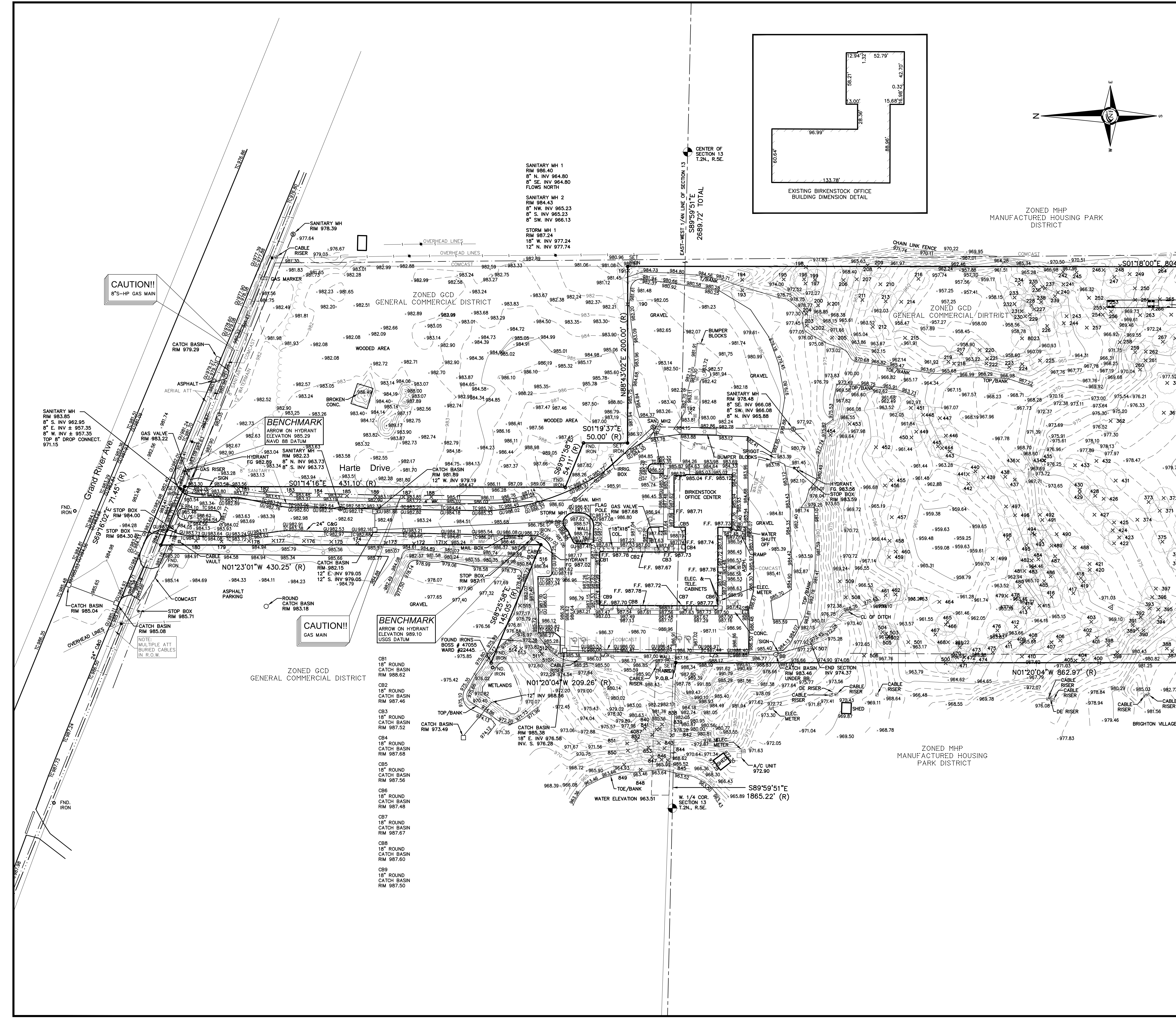
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CENTER OF SECTION 13
T.2N., R.5E.
S89°59'51"E
2689.72' TOTAL

ZONED MHP
MANUFACTURED HOUSING PARK DISTRICT



CAUTION!!
8" S-HP GAS MAIN

CAUTION!!
GAS MAIN

LEGAL DESCRIPTION

Part of the W. 1/2 of Section 13, T.2N., R.5E., Genoa Township, Livingston County, Michigan, being described as: Beginning at a point distant S. 89°59'51" E., 1965.22 feet along the East-West 1/4 line of said Section 13, from the intersection of said Section 13, thence N. 01° 20' 04" W., 209.26 feet; thence S. 68° 23' 58" E., 145.05 feet; thence N. 01° 23' 01" W., 430.25 feet; thence S. 69° 16' 02" E., 71.45 feet; thence S. 01° 14' 16" E., 431.10 feet; thence S. 69° 01' 58" E., 54.11 feet; thence S. 01° 19' 37" E., 50.00 feet; thence N. 88° 43' 02" E., 200.00 feet; thence S. 01° 18' 00" E., 804.87 feet; thence S. 25° 29' 42" W., 128.47 feet; thence S. 88° 58' 44" W., 390.33 feet; thence N. 01° 20' 04" W., 862.97 feet to the point of beginning. Containing 462.435 square feet or 10.618 acres, and subject to easements of record, if any.

Parcel Number: 4711-13-300-009

MISS DIG / UTILITY DISCLAIMER NOTE

A MISS DIG TICKET NUMBER A80860721-00A, PURSUANT TO MICHIGAN PUBLIC ACT 174 WAS ENTERED FOR THE SURVEYED PROPERTY. DUE TO THE EXTENDED REPORTING PERIOD FOR UNDERGROUND FACILITY OWNERS TO PROVIDE THEIR RECORDS, THE SURVEY MAY NOT REFLECT ALL THE UTILITIES AT THE TIME THE SURVEY WAS ISSUED ON 02-22-2019. THE SURVEY ONLY REFLECTS THOSE UTILITIES WHICH WERE OBSERVED BY THE SURVEYOR IN THE FIELD OR AS REPORTED BY THE UTILITY COMPANY RECORDS FURNISH PRIOR TO THE DATE THIS SURVEY WAS ISSUED. THE CLIENT AND/OR THEIR AUTHORIZED AGENT SHALL VERIFY WITH THE FACILITY OWNERS AND/OR THEIR AUTHORIZED AGENTS, THE COMPLETENESS AND EXACTNESS OF THE UTILITIES LOCATION.

TOPOGRAPHIC SURVEY NOTES

ALL ELEVATIONS ARE EXISTING ELEVATIONS, UNLESS OTHERWISE NOTED.
UTILITY LOCATIONS WERE OBTAINED FROM MUNICIPAL OFFICIALS AND RECORDS OF UTILITY COMPANIES, AND NO GUARANTEE CAN BE MADE TO THE COMPLETENESS, OR EXACTNESS OF LOCATION.
THIS SURVEY MAY NOT SHOW ALL EASEMENTS OF RECORD UNLESS AN UPDATED TITLE POLICY IS FURNISHED TO THE SURVEYOR BY THE OWNER.

LEGEND

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

SEAL



PROJECT
Birkenstock Office Center
2524 Harte Drive
Brighton, Michigan

CLIENT
Birkenstock Enterprises, LLC
2528 Harte Drive
Brighton, MI 48114

Contact: James Harte
Phone: (810) 499-7144
Fax: (734) 878-5667

PROJECT LOCATION
Part of the W. 1/2 of Section 13
T. 2N., R.5E.
Genoa Township,
Livingston County, Michigan

SHEET
Boundary / Topographic /
Tree Survey

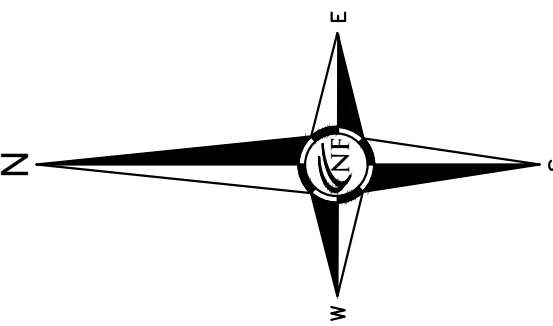
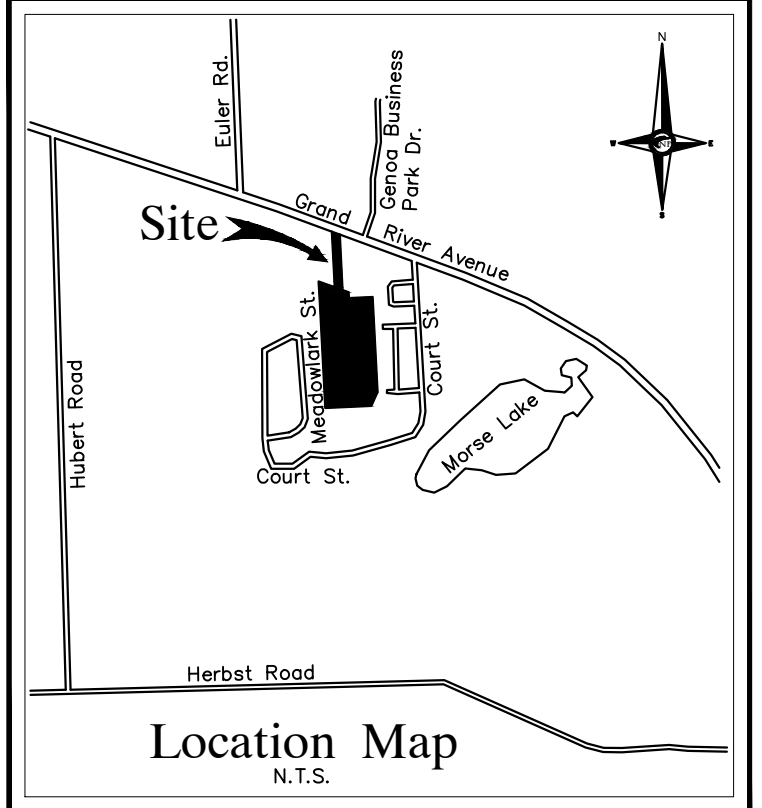
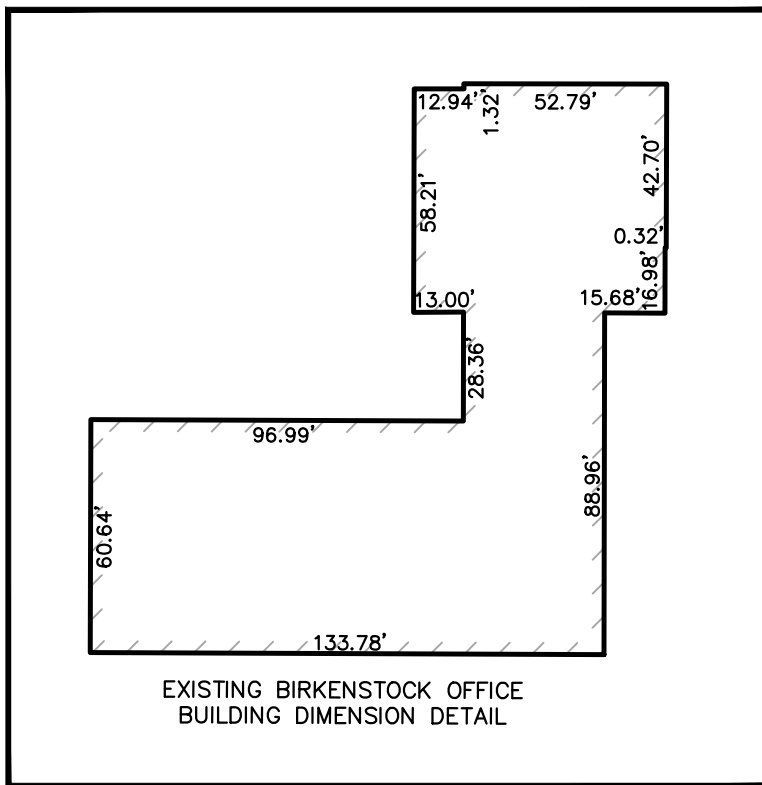
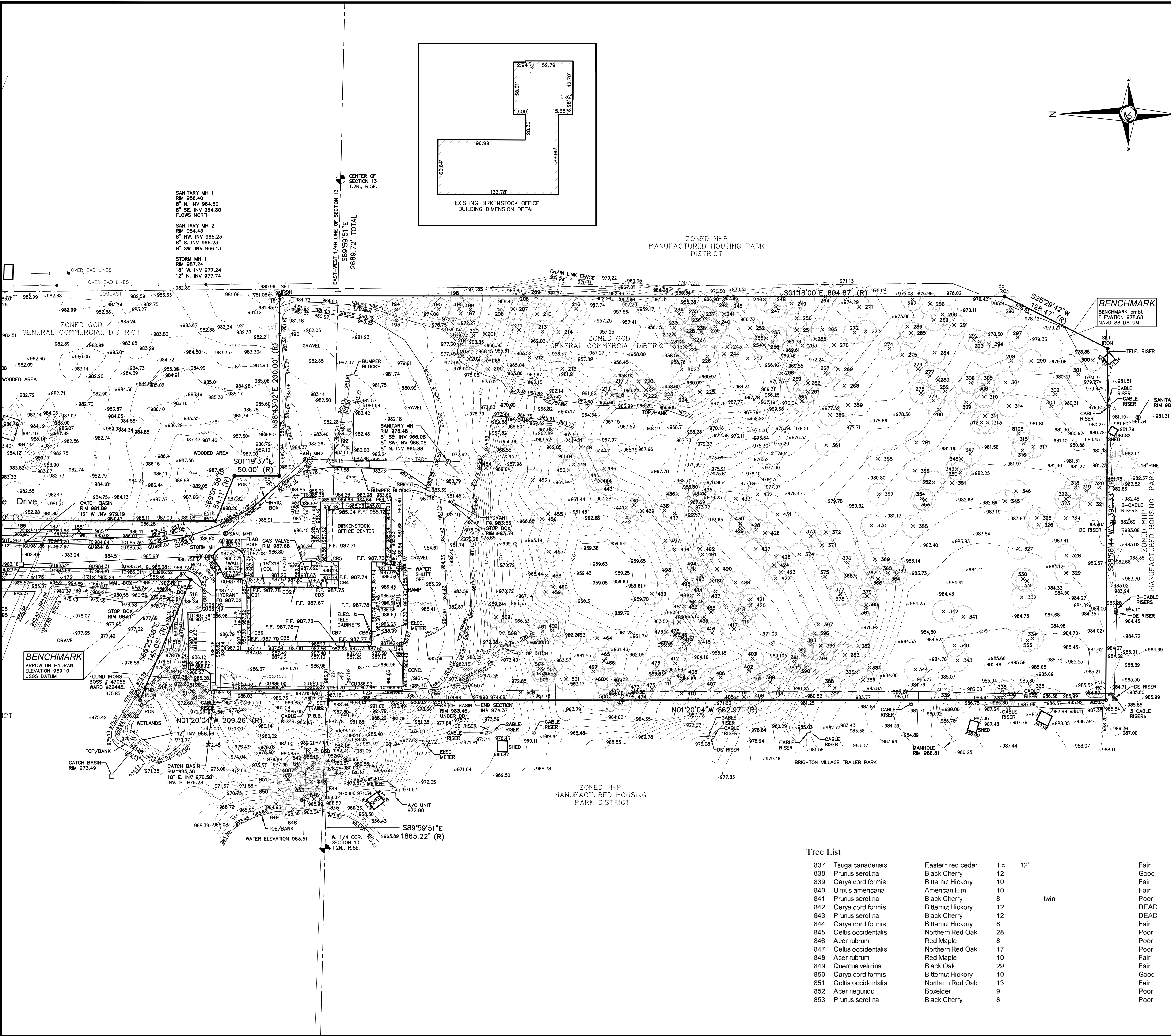


DATE ISSUED/REVISED
1-29-19 PID Site Submission
2-22-19 PID Re-submission

DRAWN BY:
N. Naoum
DESIGNED BY:

APPROVED BY:
K. Navaroli
DATE:
02-22-2019

SCALE: 1" = 50'
0 25 0 25 50 75
NFE JOB NO. SHEET NO.
K362 C.001



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



PROJECT
 Birkenstock Office Center
 2524 Harte Drive
 Brighton, Michigan

CLIENT
 Birkenstock Enterprises, LLC
 2528 Harte Drive
 Brighton, MI 48114

Contact: James Harte
 Phone: (810) 499-7144
 Fax: (734) 878-5667

PROJECT LOCATION
 Part of the W. 1/2
 of Section 13
 T. 2N., R. 5E.
 Genoa Township,
 Livingston County, Michigan

SHEET
 Boundary / Topographic /
 Tree Survey



LEGAL DESCRIPTION

Part of the W. 1/2 of Section 13, T. 2N., R. 5E., Genoa Township, Livingston County, Michigan, being described as: Beginning at a point distant S. 89°59'51" E., 1865.22 feet along the East-West 1/4 line of said Section 13, from the W. 1/4 corner of said Section 13; thence N. 01°20'04" W., 209.26 feet; thence S. 68°25'58" E., 145.05 feet; thence N. 01°23'01" W., 430.25 feet; thence S. 69°18'02" E., 71.45 feet; thence S. 01°14'16" E., 431.10 feet; thence S. 69°01'58" E., 54.11 feet; thence S. 01°19'37" E., 50.00 feet; thence N. 88°43'02" E., 200.00 feet; thence S. 01°18'00" E., 804.87 feet; thence S. 25°29'42" W., 128.47 feet; thence S. 88°58'44" W., 390.33 feet; thence N. 01°20'04" W., 862.97 feet to the point of beginning. Containing 462.435 square feet or 10.616 acres, and subject to easements of record, if any.

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

LEGEND

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

Tree List

837	Tsuga canadensis	Eastern red cedar	1.5	12'	Fair
838	Prunus serotina	Black Cherry	12		Good
839	Carya cordiformis	Bitternut Hickory	10		Fair
840	Ulmus americana	American Elm	10		Fair
841	Prunus serotina	Black Cherry	8	twin	Poor
842	Carya cordiformis	Bitternut Hickory	12		DEAD
843	Prunus serotina	Black Cherry	12		DEAD
844	Carya cordiformis	Bitternut Hickory	8		Fair
845	Celtis occidentalis	Northern Red Oak	28		Poor
846	Acer rubrum	Red Maple	8		Poor
847	Celtis occidentalis	Northern Red Oak	17		Poor
848	Acer rubrum	Red Maple	10		Fair
849	Quercus velutina	Black Oak	29		Fair
850	Carya cordiformis	Bitternut Hickory	10		Good
851	Celtis occidentalis	Northern Red Oak	13		Fair
852	Acer regundo	Bowlder	9		Poor
853	Prunus serotina	Black Cherry	8		Poor

DRAWN BY:
 N. Naoum

DESIGNED BY:

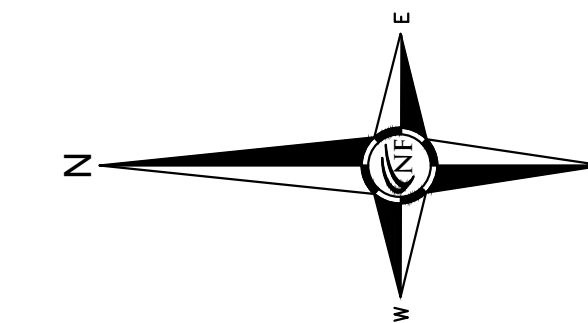
APPROVED BY:
 K. Navaroli

DATE:
 02-22-2019

SCALE: 1" = 50'

50 25 0 25 50 75

NFE JOB NO. **SHEET NO.**
K362 **C.002**



ENGINEERS

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

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

SEAL



PROJECT
Birkenstock Office Center
2524 Harte Drive
Brighton, Michigan

CLIENT
Birkenstock Enterprises, LLC
2528 Harte Drive
Brighton, MI 48114

Contact: James Harte
Phone: (810) 499-7144
Fax: (734) 878-5667

PROJECT LOCATION
Part of the W. 1/2
of Section 13
T. 2N., R. 5E.
Genoa Township,
Livingston County, Michigan

SHEET
Boundary / Topographic /
Aerial Overlay



Know what's below
Call before you dig.

DATE ISSUED/REVISED
1-29-19 PID Site Submission
2-22-19 PID Re-submission

DRAWN BY:
N. Naoum
DESIGNED BY:

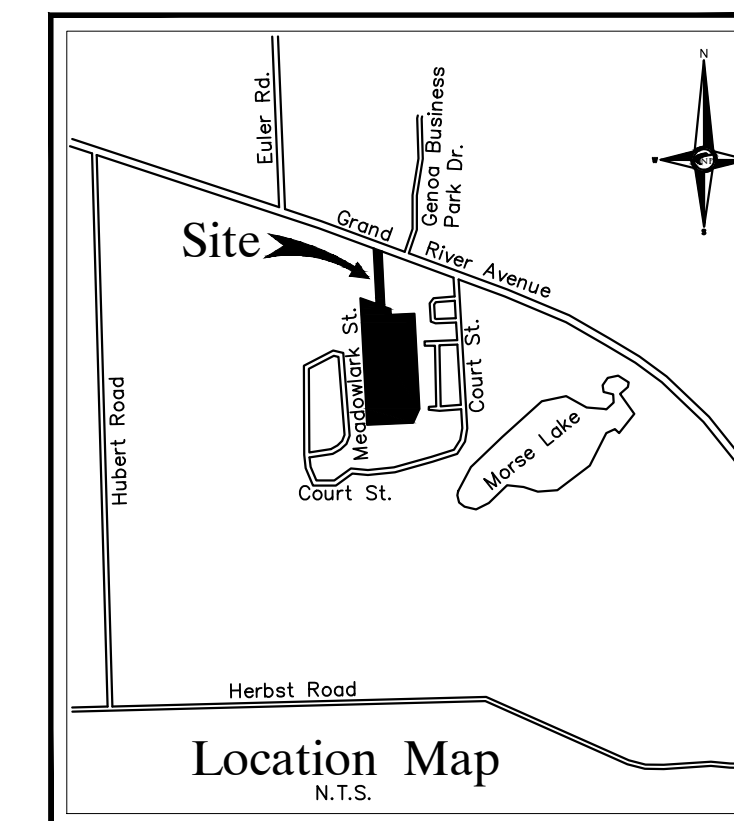
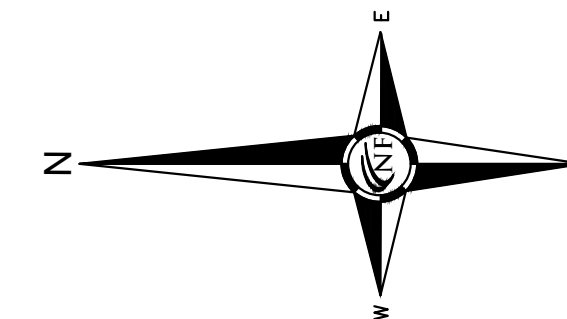
APPROVED BY:
K. Navaroli
DATE:
02-22-2019

SCALE: 1" = 50'
0 25 0 25 50 75

NFE JOB NO. SHEET NO.
K362 C.004

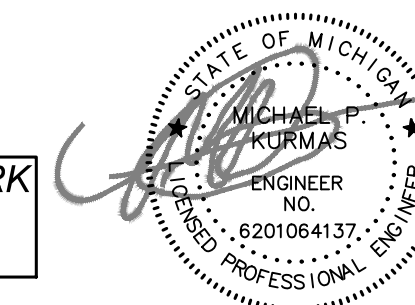


PRELIMINARY NOT FOR CONSTRUCTION



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

SEAL



PROJECT
Birkenstock Office Center
2524 Harte Drive
Brighton, Michigan

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Brighton, MI 48114

Contact: James Harte
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PROJECT LOCATION
Part of the W. 1/2
of Section 13
T. 2N., R. 5E.
Genoa Township,
Livingston County, Michigan

SHEET
Site Plan
Paving & Grading



Know what's below
Call before you dig.

DATE ISSUED/REVISED
1-29-19 PID Site Submission
2-22-19 PID Re-submission

DRAWN BY:
N. Naoum

DESIGNED BY:
M. Kurmas

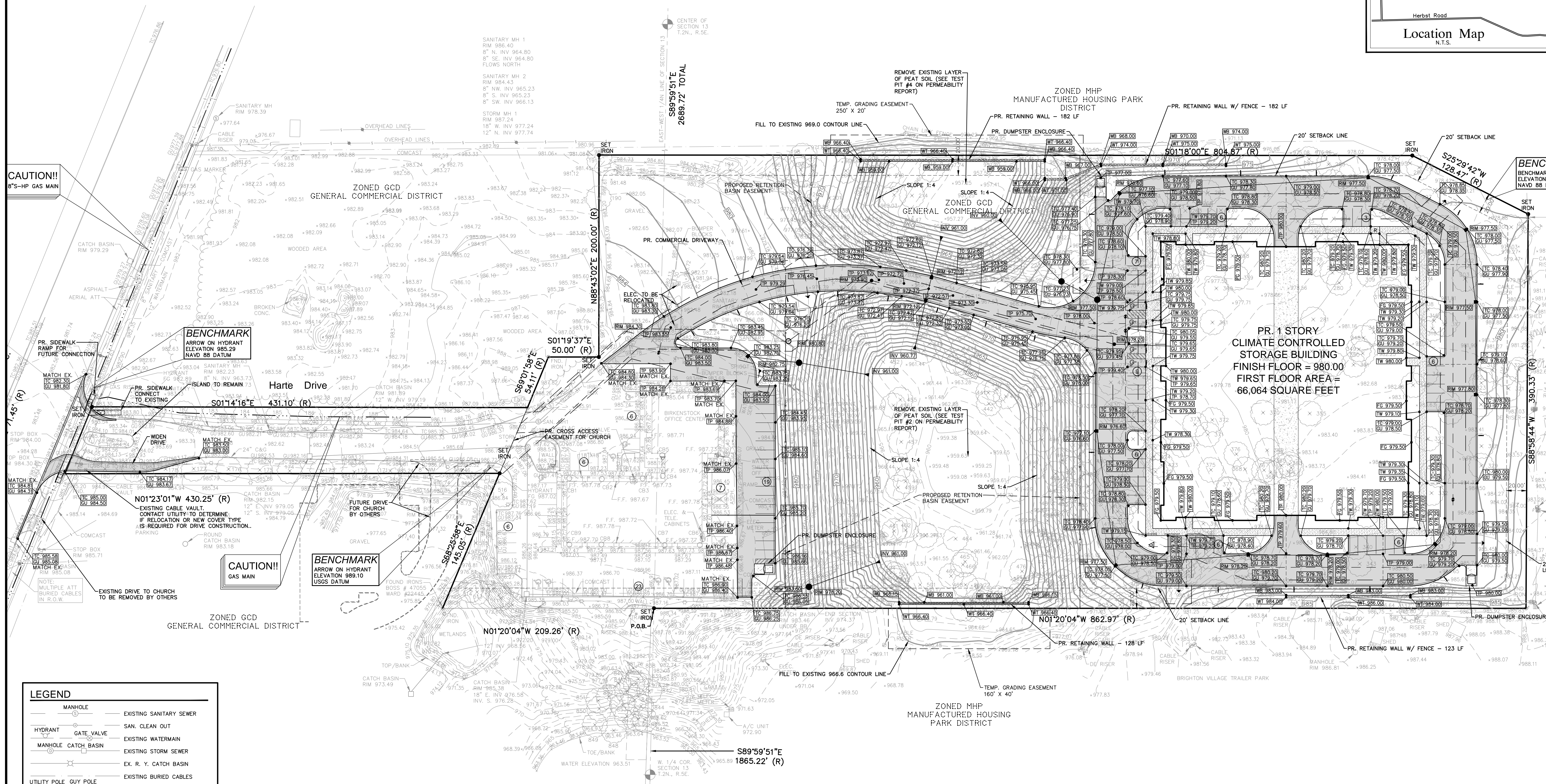
APPROVED BY:
M. Peterson

DATE:
02-22-2019

SCALE: 1" = 50'

50 25 0 25 50 75

NFE JOB NO. SHEET NO.
K362 C.102



CAUTION!!
8"-HP GAS MAIN

BENCHMARK
ARROW ON HYDRANT
ELEVATION 985.29
NAVD 88 DATUM

CAUTION!!
GAS MAIN

BENCHMARK
ARROW ON HYDRANT
ELEVATION 989.10
USGS DATUM

LEGEND

	MANHOLE		EXISTING SANITARY SEWER
	HYDRANT		SAN. CLEAN OUT
	MANHOLE CATCH BASIN		EXISTING WATERMAIN
	UTILITY POLE		EX. R. Y. CATCH BASIN
	GUY POLE		EXISTING BURIED CABLES
	GUY WIRE		OVERHEAD LINES
	LIGHT POLE		SIGN
	EXISTING GAS MAIN		PR. SANITARY SEWER
	C.O.		PR. WATER MAIN
	HYDRANT		PR. STORM SEWER
	INLET		PR. R. Y. CATCH BASIN
	MANHOLE		PROPOSED LIGHT POLE
	PROPOSED CONCRETE PAVEMENT		PR. TOP OF CURB ELEVATION
	PROPOSED ASPHALT PAVEMENT		PR. GUTTER ELEVATION
	PR. TOP OF WALK ELEVATION		PR. TOP OF P.V.M. ELEVATION
	PR. TOP OF P.V.M. ELEVATION		FINISH GRADE ELEVATION

PAVING LEGEND

	PROPOSED CONCRETE PAVEMENT
	PROPOSED ASPHALT PAVEMENT

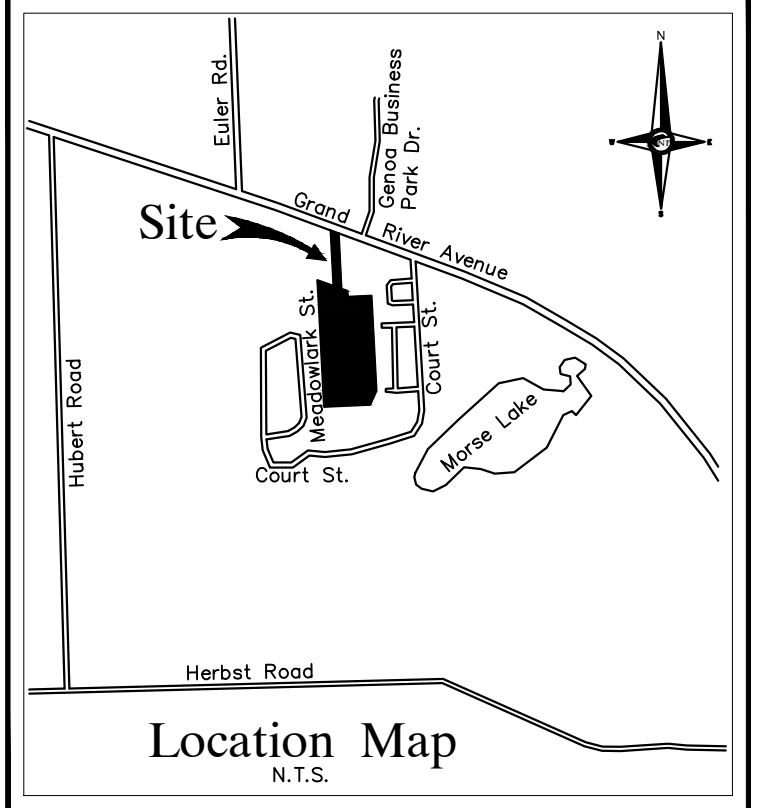
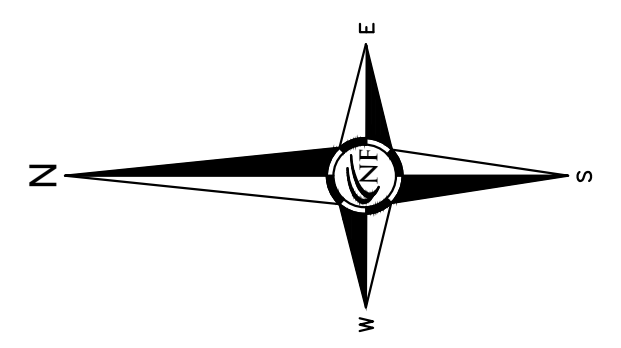
LEGEND

	TC 600.00
	GU 600.00
	TW 600.00
	TP 600.00
	FG 600.00

Storm Sewer Structure Schedule	
Structure Name	Structure Details
#1 4' DIA MH	PR. RIM 977.50 PR. 12" E. INV. 971.79 PR. 12" W. INV. 972.33 PR. 18" NE. INV. 971.45
#2 4' DIA CB	PR. RIM 976.60 PR. 12" S. INV. 972.13 PR. 12" W. INV. 972.13
#3 4' DIA CB	PR. RIM 977.50 PR. 12" SW. INV. 972.92 PR. 12" N. INV. 972.92
#4 4' DIA MH	PR. RIM 977.50 PR. 12" W. INV. 973.27 PR. 12" NE. INV. 973.27
#5 4' DIA CB	PR. RIM 977.50 PR. 12" W. INV. 973.51 PR. 12" E. INV. 973.50
#6 4' DIA CB	PR. RIM 977.80 PR. 12" E. INV. 973.80
#7 4' DIA CB	PR. RIM 976.60 PR. 12" W. INV. 972.75 PR. 12" E. INV. 972.75
#8 4' DIA CB	PR. RIM 977.50 PR. 12" S. INV. 973.18 PR. 12" N. INV. 973.18
#9 4' DIA CB	PR. RIM 978.20 PR. 12" S. INV. 973.60 PR. 12" N. INV. 973.60
#10 4' DIA CB	PR. RIM 978.20 PR. 12" S. INV. 973.85 PR. 12" N. INV. 973.85
#11 4' DIA CB	PR. RIM 978.20 PR. 12" N. INV. 974.20
#12 18" END SECT	PR. 18" SW. INV. 960.00
#13 4' DIA MH	PR. RIM 977.02 PR. 18" S. INV. 971.37 PR. 18" NE. INV. 961.73
#14 18" END SECT	PR. 18" E. INV. 960.77
#15 4' DIA CB	PR. RIM 972.12 PR. 18" S. INV. 960.87 PR. 18" W. INV. 960.87
#16 4' DIA CB	PR. RIM 972.12 PR. 18" W. INV. 960.92 PR. 18" W. INV. 960.92
#17 18" END SECT	PR. 18" W. INV. 961.00
#22 12" END SECT	PR. 12" N. INV. 961.00
#23 4' DIA MH	PR. RIM 978.19 PR. 12" N. INV. 975.00 PR. 12" S. INV. 963.80
#24 4' DIA CB	PR. RIM 982.75 PR. 12" S. INV. 978.07
#25 18" END SECT	PR. 18" N. INV. 961.00
#26 4' DIA MH	PR. RIM 978.20 PR. 18" N. INV. 974.37 PR. 18" S. INV. 962.49

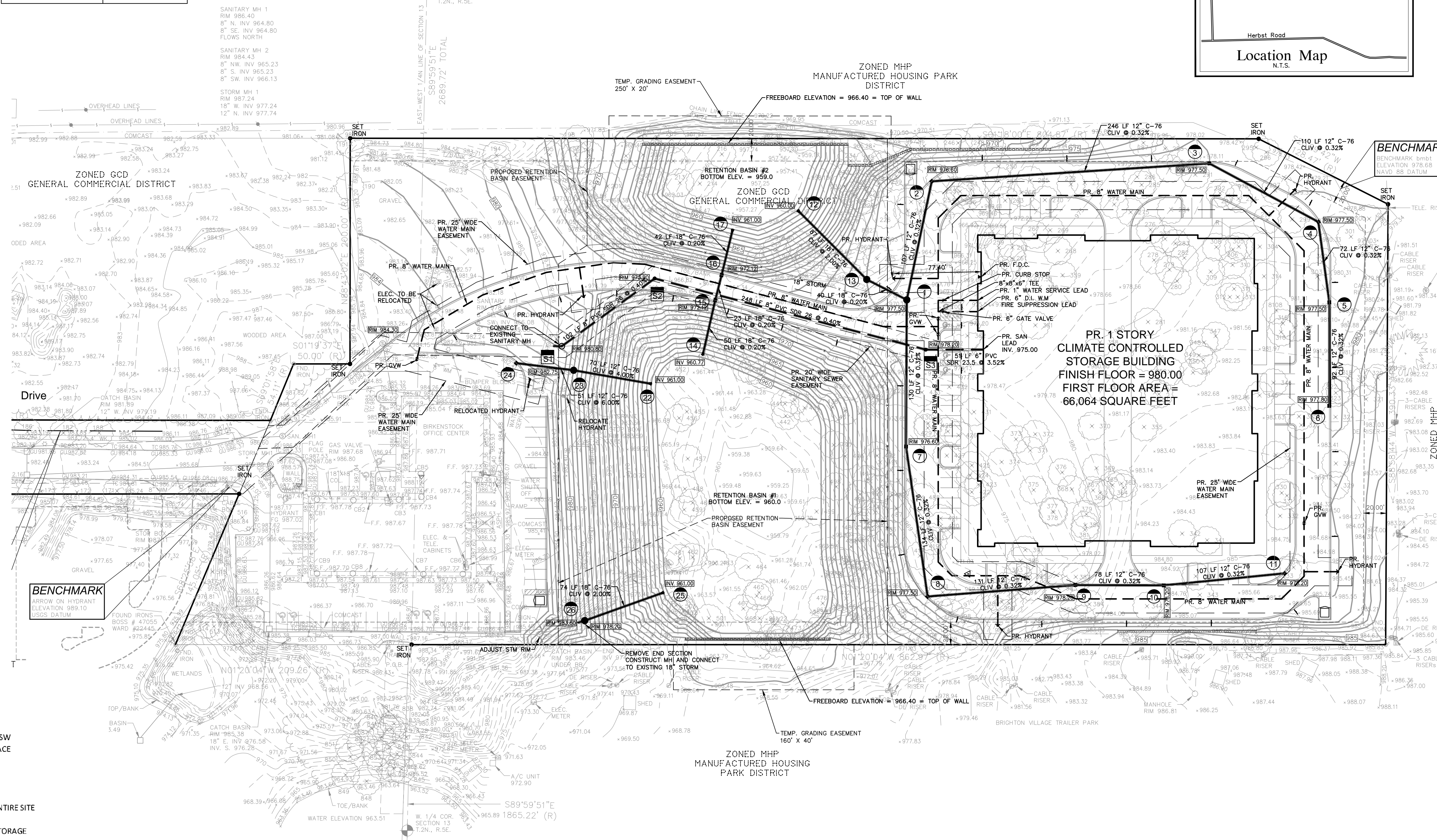
Sanitary Structure Schedule	
Structure Name	Structure Details
#S1 EXISTING SAN MH	PR. RIM 980.80 PR. 8" SE. INV. 966.00 PR. 8" N. INV. 965.88
#S2 4' DIA SAN MH	PR. RIM 973.90 PR. 8" S. INV. 966.41 PR. 8" NW. INV. 966.41
#S3 4' DIA SAN MH	PR. RIM 978.20 PR. 6" S. INV. 973.20 PR. 8" N. INV. 967.40

PRELIMINARY NOT FOR CONSTRUCTION



NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

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



BIRKENSTOCK RETENTION CALCULATIONS

AREA (ACRES)	IMPERVIOUS FACTOR	ACRE IMPERVIOUS	
3.46	0.20	0.69	LAWN
6.15	0.90	5.54	PVMT, BLDG, SW
1.00	1.00	1.00	WATER SURFACE

FACTORED C: 0.68
TOTAL DRAINAGE AREA: 10.61

REQUIRED RETENTION POND VOLUME PER GENOA TWP. STANDARDS = 2 INCHES OVER ENTIRE SITE

0.1666 FT x 10.61 AC x 43,560 SQ. FT. / AC = 76998 CUBIC FEET OF STORAGE

RETENTION POND #1 STORAGE PROVIDED

ELEV.	AREA (SQ FT)	DEPTH (FT)	VOLUME (FT ³)	TOTAL VOLUME (FT ³)
966	48622	1	47105	239901
965	45588	1	44126	192796
964	42663	1	41249	148670
963	39835	1	38469	107421
962	37103	1	35822	68952
961	34540	1	33131	33131
960	31721	1	0	0

RETENTION POND #2 STORAGE PROVIDED

ELEV.	AREA (SQ FT)	DEPTH (FT)	VOLUME (FT ³)	TOTAL VOLUME (FT ³)
966	15348	1	14717	78959
965	14086	1	13484	64242
964	12881	1	12305	50758
963	11728	1	11177	38454
962	10626	1	10101	27277
961	9575	1	9075	17176
960	8575	1	8101	8101
959	7627	1	0	0

STORAGE PROVIDED WITH 3 FEET OF FREEBOARD AT ELEV. 963.40 = 167296 CUBIC FEET

167,296 CUBIC FEET OF STORAGE = 4.345 INCHES OF RAINFALL OVER ENTIRE SITE

STORAGE PROVIDED AT ELEV. 966.0 (0.4 FEET BELOW FREEBOARD) = 318,859 CF OR 8.282 INCHES OVER ENTIRE SITE

COMBINED VOLUME PONDS #1 AND #2

ELEV.	TOTAL VOLUME (FT ³)
966	318859
965	257037
964	199428
963	145875
962	96229
961	50307
960	8101
959	0

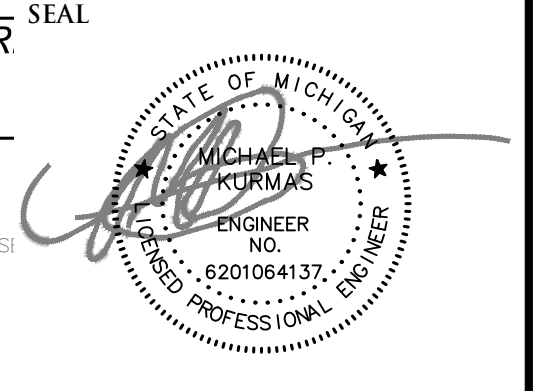
Storm Water Design Narrative:

Storm water storage for the proposed site is designed to be handled by use of 2 retention basins connected by equalizing pipes. Per Genoa Township requirements, retention basins shall be sized to accommodate two inches of runoff from the entire tributary area. Due to the lack of a natural overflow route to an off-site water body, the retention basins have been conservatively designed to accommodate 4.345 inches of water over the entire site before reaching the required 3 feet of freeboard. In the most extreme storm events, the retention basins are capable of handling 8.282 inches of water over the entire site before reaching a water elevation of 966.0 which is still 0.4 feet below proposed freeboard elevation.

The retention basins will drain through evaporation and infiltration over an extended period of time. Test hole locations and a corresponding permeability report completed by Hastings, Testing Engineers and Environmental Inc. are included as part of the site plan submittal (sheet C.304). Test holes #2 and #4 show a layer of peat starting at El. 957.75 and El. 955.75 respectively and extending 2.5 to 3.5 feet deep which are believed to be formed over many years of accumulated organic matter being deposited by storm water runoff to the natural low point. These pockets of peat soil appear to be isolated based on adjacent test pits showing sandy soils down to elevation 952.0 and will be called out to be removed as part of retention basin grading. The remainder of the test pits show sandy soils conducive to infiltration.

LEGEND

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



PROJECT
Birkenstock Office Center
2524 Harte Drive
Brighton, Michigan

CLIENT
Birkenstock Enterprises, LLC
2528 Harte Drive
Brighton, MI 48114

Contact: James Harte
Phone: (810) 499-7144
Fax: (734) 878-5667

PROJECT LOCATION
Part of the W. 1/2
of Section 13
T. 2N., R.5E.
Genoa Township,
Livingston County, Michigan

SHEET
Site Plan
Utilities



DATE ISSUED/REVISED
1-29-19 PID Site Submission
2-22-19 PID Re-submission

DRAWN BY:
M. Kurmas

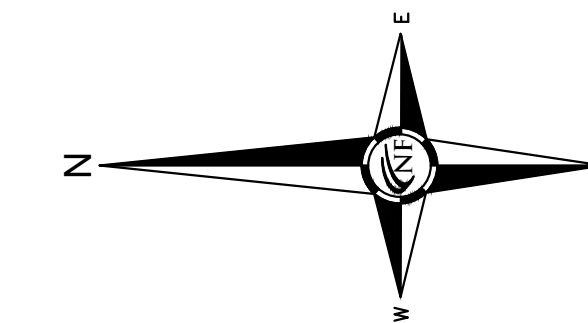
DESIGNED BY:
M. Kurmas

APPROVED BY:
M. Peterson

DATE:
02-22-2019

SCALE: 1" = 50'

NFE JOB NO. SHEET NO.
K362 C.201

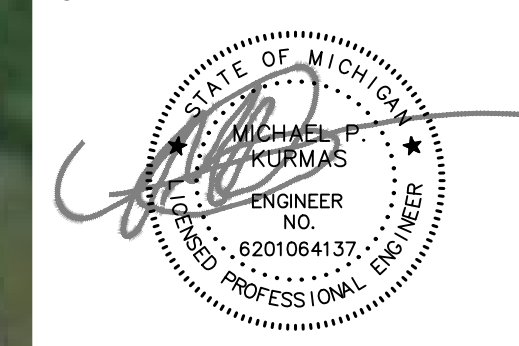


ENGINEERS

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

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

SEAL



PROJECT
Birkenstock Office Center
2524 Harte Drive
Brighton, Michigan

CLIENT
Birkenstock Enterprises, LLC
2528 Harte Drive
Brighton, MI 48114

Contact: James Harte
Phone: (810) 499-7144
Fax: (734) 878-5667

PROJECT LOCATION
Part of the W. 1/2
of Section 13
T. 2N., R.5E.
Genoa Township,
Livingston County, Michigan

SHEET
Soil Map



Know what's below
Call before you dig.

DATE	ISSUED/REVISED
1-29-19 PID Site Submission	
2-22-19 PID Re-submission	

DRAWN BY:
M. Kurmas

DESIGNED BY:
M. Kurmas

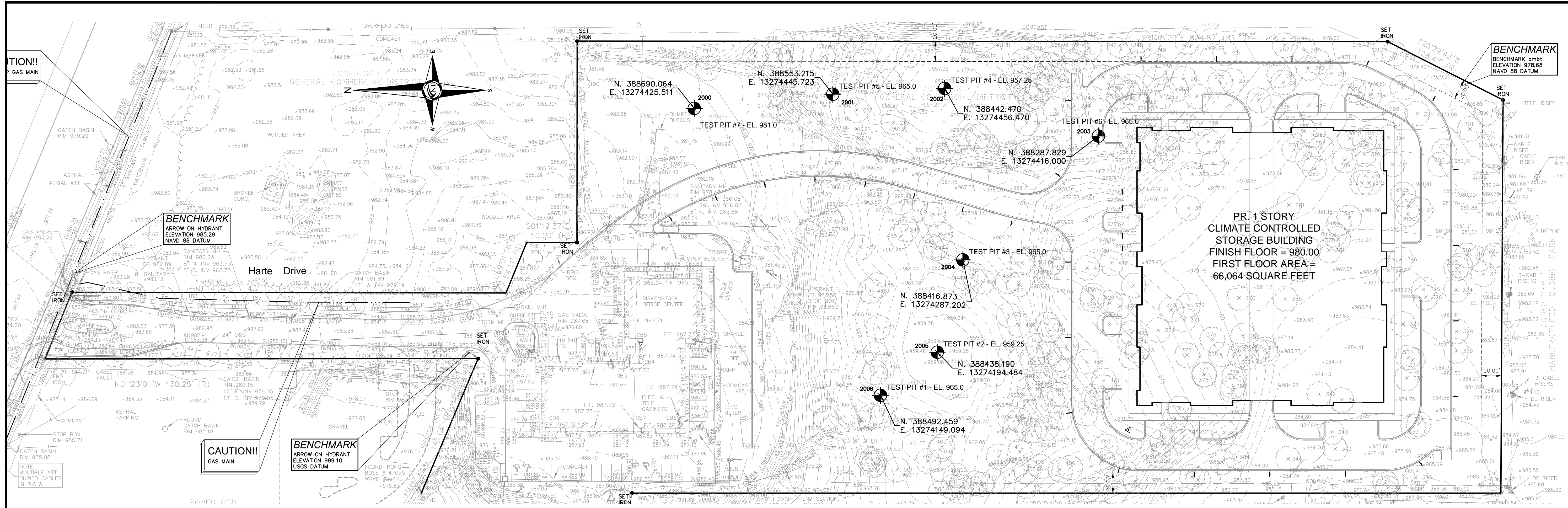
APPROVED BY:
M. Peterson

DATE:
02-22-2019

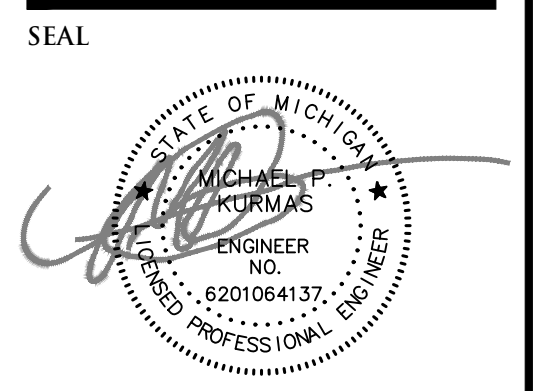
SCALE: 1" = 50'
50 25 0 25 50 75

NFE JOB NO. SHEET NO.
K362 C.302





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



PROJECT
 Birkenstock Office Center
 2524 Harte Drive
 Brighton, Michigan

CLIENT
 Birkenstock Enterprises, LLC
 2528 Harte Drive
 Brighton, MI 48114

Contact: James Harte
 Phone: (810) 499-7144
 Fax: (734) 878-5667

PROJECT LOCATION
 Part of the W. 1/2
 of Section 13
 T. 2N., R. 5E.
 Genoa Township,
 Livingston County, Michigan

SHEET
 Permeability Report



DATE	ISSUED/REVISED
1-29-19	PID Site Submission
2-22-19	PID Re-submission

DRAWN BY:
 M. Kurmas
DESIGNED BY:
 M. Kurmas
APPROVED BY:
 M. Peterson
DATE:
 02-22-2019

SCALE: 1" = 50'
 50 25 0 25 50 75
NFE JOB NO. SHEET NO.
K362 C.304

FAX (917) 546-1478
HASTINGS TESTING ENGINEERS AND ENVIRONMENTAL INC.
 "Testing to keep America on a firm foundation"
 4841 GOLF CLUB ROAD • HOWELL, MI 48843

July 16, 2018

Birkenstock Construction LLC
 2528 Harte Drive
 Brighton, MI 48114

Attention: Jim Harte

RE: Birkenstock Office Center - Permeability Testing Proposed Retention Ponds

Dear Mr. Harte,

Seven (7) soil test pits designated as soil test pit locations #1 thru #7 were excavated in the influence of planned new retention ponds located at 2528 Harte Drive in Genoa Township, Michigan. The property is currently vacant and vegetated. Test pits were advanced to a depth of ten to thirteen below the existing site grade in the influence of a proposed retention basin located on the north and east sides of the property. The test pit locations can be identified on the enclosed diagram.

Soil descriptions, ground water observations and the results of field tests are to be found on the accompanying report.

Soil descriptions and depths shown on the soil boring logs were approximate indications of changes from one soil to another and are not intended to represent an exact geological change or stratification.

It should be noted that short-term ground water observations may not provide a reliable indication of the depth of water table. In cohesive soils this is due to the slow rate of water infiltration into the bore hole as well as the potential for water to be trapped in overlying layers of granular soil in periods of heavy rain fall.

Test Pit #1
 Depth Soil Description
 0 - 8" BEG Organic Soil and Material
 8" - 3'-6" BEG Silty Medium Coarse Brown Sand
 3'-6" - 10'-0" BEG Coarse Brown Sand With Gravel
 Ground water encountered at 5'-0" below existing grade.

FAX (917) 546-1478
HASTINGS TESTING ENGINEERS AND ENVIRONMENTAL INC.
 "Testing to keep America on a firm foundation"
 4841 GOLF CLUB ROAD • HOWELL, MI 48843

Test Pit #2
 Depth Soil Description
 0 - 0" BEG Organic Soil and Material
 0" - 1'-6" BEG Silty Brown Clay (Fill)
 1'-6" - 5'-0" BEG Peat
 5'-0" - 9'-0" BEG Silty Brown Clay With Silty Gray Clay
 9'-0" - 13'-0" BEG Silty Coarse Gray Sand
 Ground water encountered at 9'-0" below existing grade.

Test Pit #3
 Depth Soil Description
 0 - 4" BEG Organic Soil and Material
 4" - 5'-0" BEG Silty Medium Coarse Brown Sand
 5'-0" - 13'-0" BEG Silty Fine Brown Sand
 No ground water encountered.

Test Pit #4
 Depth Soil Description
 0" - 1'-6" BEG Silty Brown Clay (Fill)
 1'-6" - 4'-0" BEG Peat
 4'-0" - 10'-0" BEG Silty Brown Clay With Silty Gray Clay
 10'-0" - 13'-0" BEG Silty Coarse Gray Sand
 Ground water encountered at 10'-0" below existing grade.

Test Pit #5
 Depth Soil Description
 0 - 6" BEG Organic Soil and Material
 6" - 2'-0" BEG Silty Medium Coarse Brown Sand
 2'-0" - 10'-0" BEG Coarse Brown Sand
 Ground water encountered at 6'-0" below existing grade.

Test Pit #6
 Depth Soil Description
 0 - 4" BEG Organic Soil and Material
 4" - 12'-6" BEG Coarse Brown Sand With Gravel
 Ground water encountered at 10'-0" below existing grade.

FAX (917) 546-1478
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 "Testing to keep America on a firm foundation"
 4841 GOLF CLUB ROAD • HOWELL, MI 48843

Test Pit #7
 Depth Soil Description
 0 - 6" BEG Asphalt Millings
 6" - 9'-0" BEG Silty Brown Clay
 9'-0" - 13'-0" BEG Coarse Brown Sand With Gravel
 No ground water encountered.

Hastings Testing Engineers and Environmental Inc. was requested to perform permeability tests from soil sampled during excavating operations. Samples were taken of the different soil types. The permeability tests were performed to determine the hydraulic conductivity of existing soils in the influence of proposed retention pond.

Hastings Testing Engineers and Environmental Inc. performed the permeability tests according to ASTM D2434 for the appropriate soil classification. The laboratory tests of the soil permeability rates are as follows:

Soil Description	Sampled Area	Permeability Rate
Silty Medium Coarse Brown Sand	Test pit #1 at 2'-0" BEG	8.8 * 10 ⁻³ cm/sec
Coarse Brown Sand With Gravel	Test pit #6 at 6'-0" BEG	1.2 * 10 ⁻¹ cm/sec
Silty Fine Brown Sand	Test pit #3 at 8'-0" BEG	5.2 * 10 ⁻⁵ cm/sec
Silty Coarse Gray Sand	Test pit #4 at 12'-0" BEG	1.7 * 10 ⁻⁴ cm/sec
Silty Brown Clay with Silty Gray Clay	Test pit #2 at 7'-0" BEG	2.1 * 10 ⁻⁸ cm/sec
Silty Brown Clay	Test pit #7 at 5'-0" BEG	7.3 * 10 ⁻⁷ cm/sec

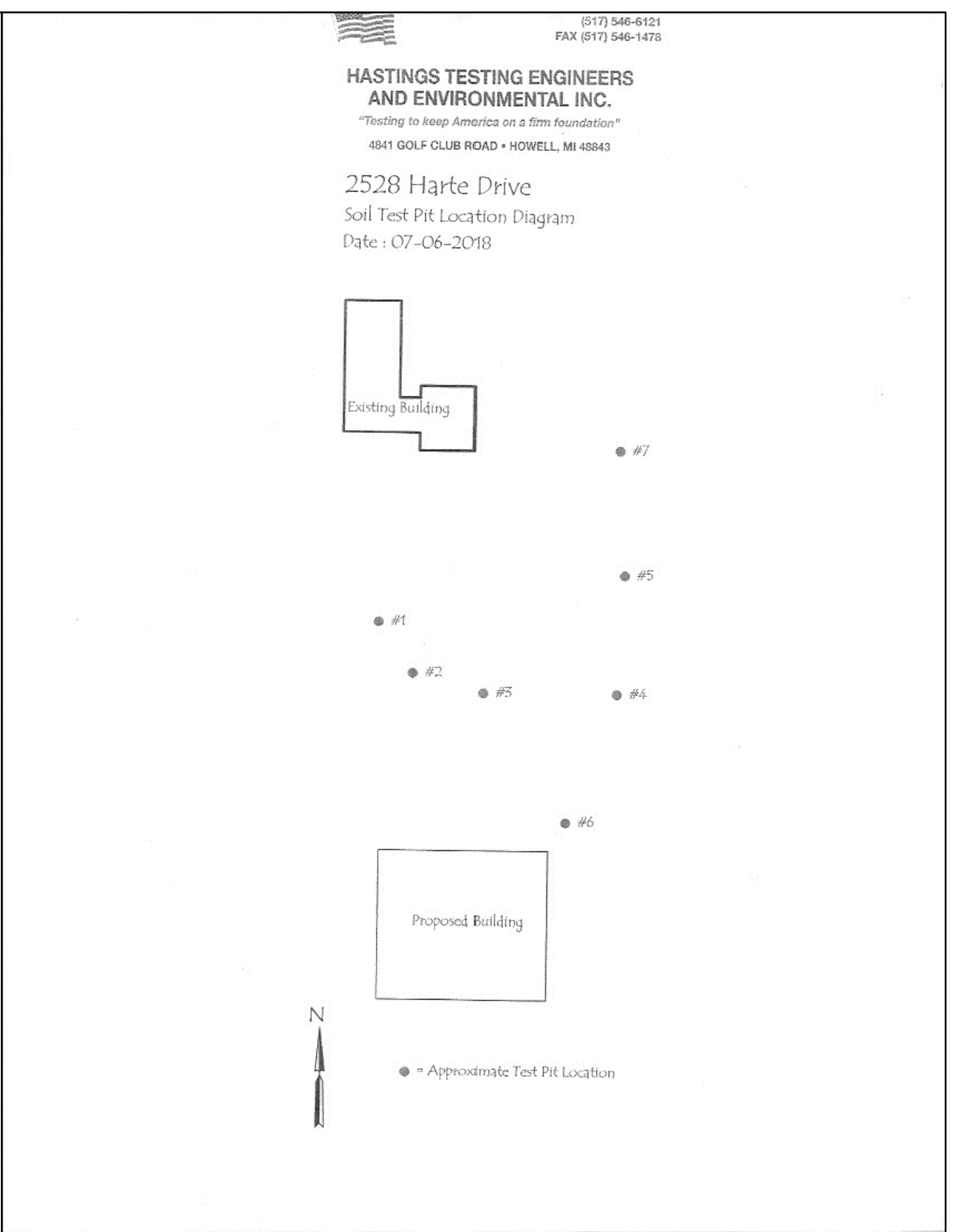
Experience indicates that actual subsoil conditions at the site could vary from those generalized on the basis of the test borings made at specific locations. It is therefore essential that Hastings Testing Engineers and Environmental Inc. be notified of any variation of the soil conditions to determine the effects on the results noted in this report.

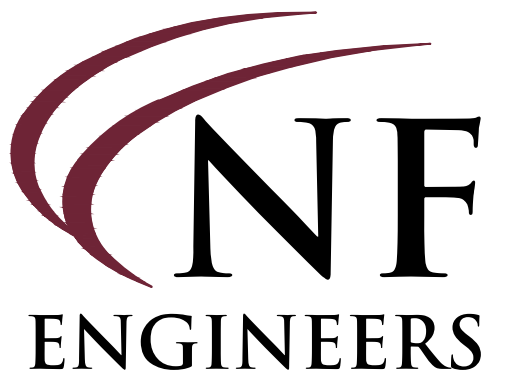
FAX (917) 546-1478
HASTINGS TESTING ENGINEERS AND ENVIRONMENTAL INC.
 "Testing to keep America on a firm foundation"
 4841 GOLF CLUB ROAD • HOWELL, MI 48843

If you should have further questions, please contact our office.

Sincerely,

 Gary J. Harris PE





CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

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



PROJECT
Birkenstock Office Center
2524 Harte Drive
Brighton, Michigan

CLIENT
Birkenstock Enterprises, LLC
2528 Harte Drive
Brighton, MI 48114

Contact: James Harte
Phone: (810) 499-7144
Fax: (734) 878-5667

PROJECT LOCATION
Part of the W. 1/2
of Section 13
T. 2N., R. 5E.
Genoa Township,
Livingston County, Michigan

SHEET
Parcel Split



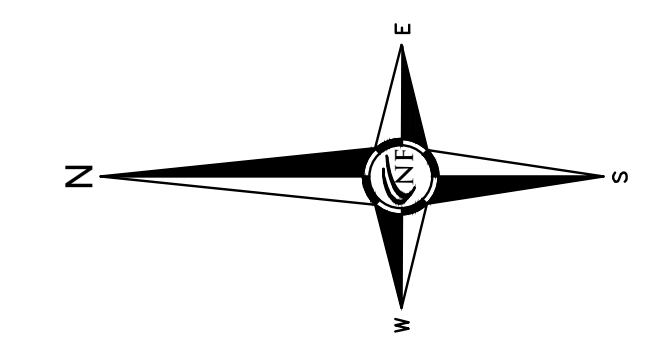
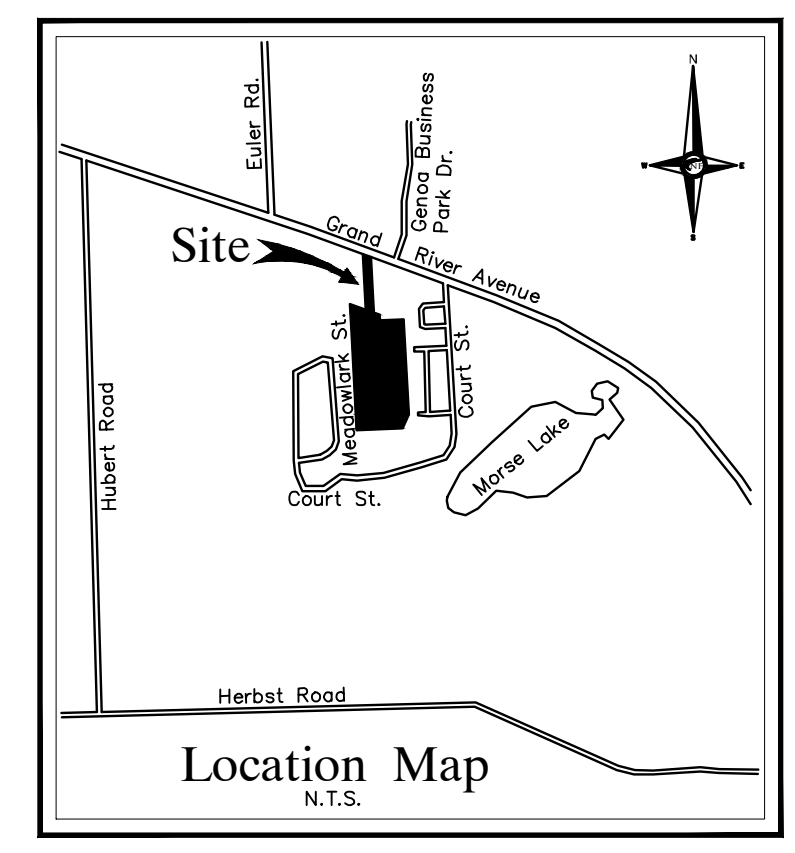
DATE ISSUED/REVISED
2-22-19 Submit for review

DRAWN BY:
N. Naoum
DESIGNED BY:

APPROVED BY:
K. Navaroli
DATE:
02-22-2019

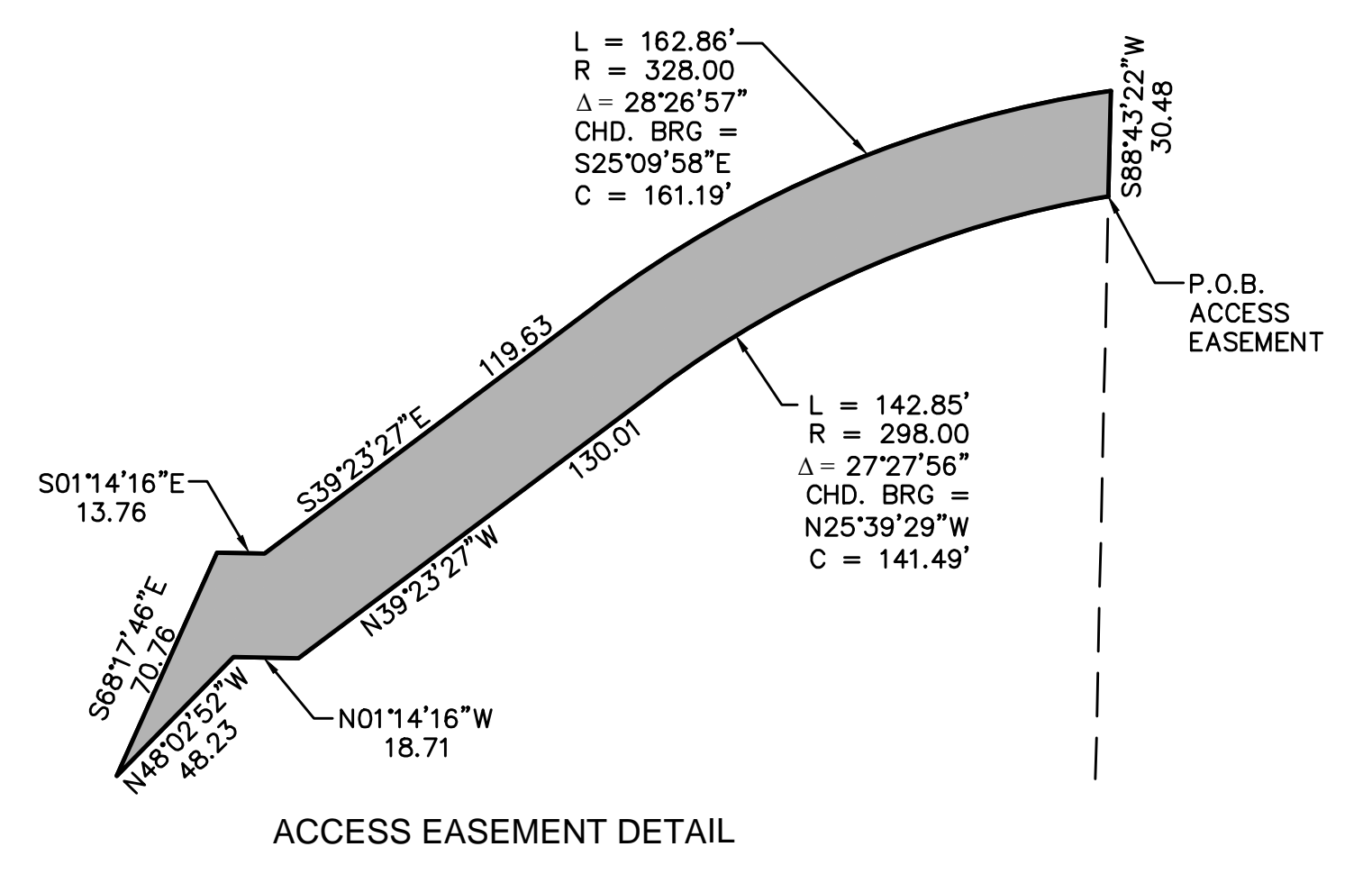
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NFE JOB NO. SHEET NO.
K362 C.305



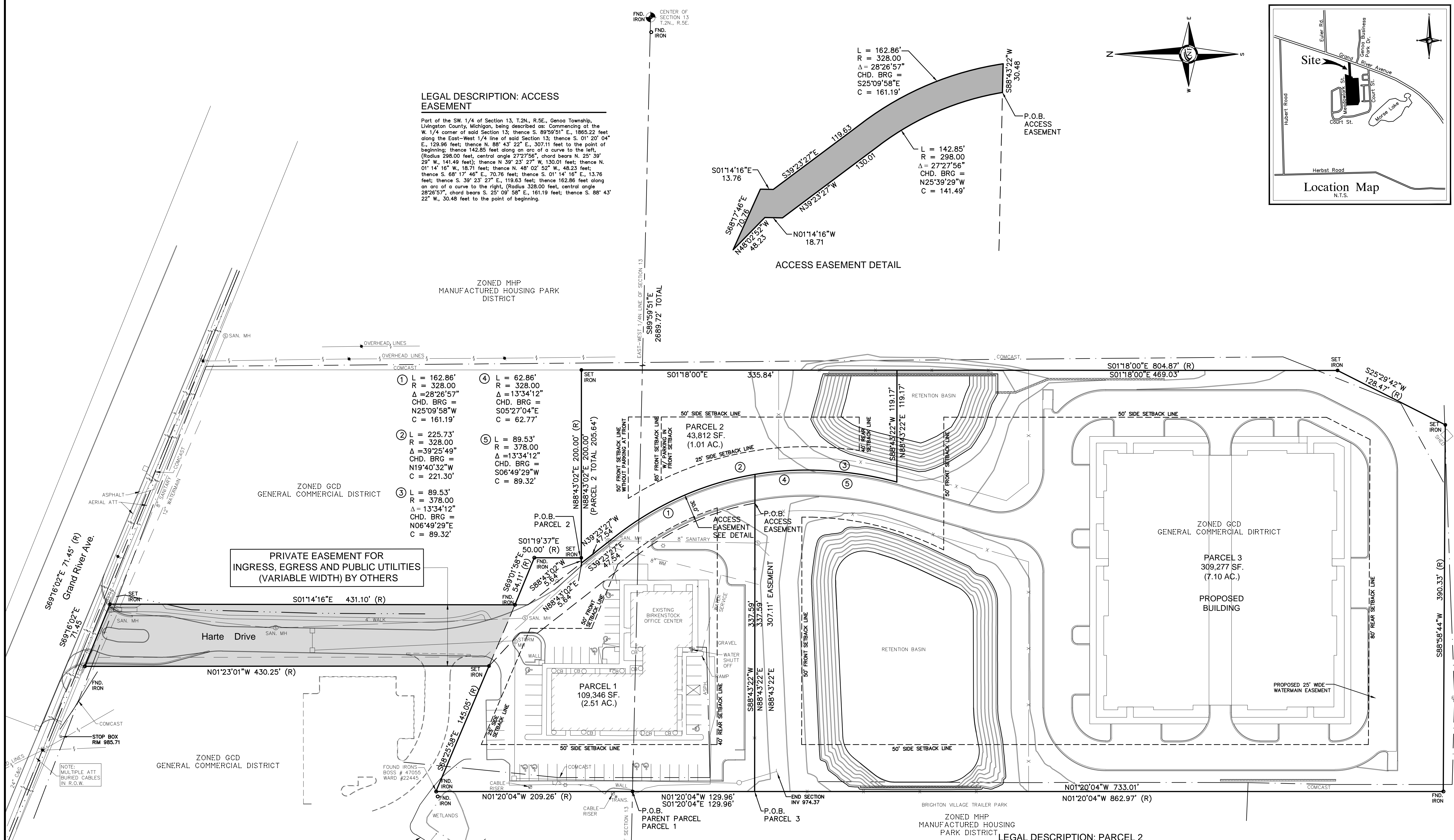
LEGAL DESCRIPTION: ACCESS EASEMENT

Part of the SW 1/4 of Section 13, T.2N., R.5E., Genoa Township, Livingston County, Michigan, being described as: Commencing at the W. 1/4 corner of said Section 13; thence S. 89°59'51" E., 1865.22 feet along the East-West 1/4 line of said Section 13; thence S. 01° 20' 04" E., 129.96 feet; thence N. 88° 43' 22" E., 307.11 feet to the point of beginning; thence 142.85 feet along an arc of a curve to the left, (Radius 298.00 feet, central angle 27°27'56", chord bears N. 25° 39' 29" W., 141.49 feet); thence N. 39° 23' 27" W., 130.01 feet; thence N. 01° 14' 16" W., 18.71 feet; thence N. 48° 02' 52" W., 48.23 feet; thence S. 68° 17' 46" E., 70.76 feet; thence S. 01° 14' 16" E., 13.76 feet; thence S. 39° 23' 27" E., 119.63 feet; thence 162.86 feet along an arc of a curve to the right, (Radius 328.00 feet, central angle 28°26'57", chord bears S. 25° 09' 58" E., 161.19 feet; thence S. 88° 43' 22" W., 30.48 feet to the point of beginning.



- 1 L = 162.86'
R = 328.00
Δ = 28°26'57"
CHD. BRG = N25°09'58"W
C = 161.19'
- 2 L = 225.73'
R = 378.00
Δ = 39°23'49"
CHD. BRG = N19°40'32"W
C = 221.30'
- 3 L = 89.53'
R = 378.00
Δ = 13°34'12"
CHD. BRG = N06°49'29"E
C = 89.32'
- 4 L = 62.86'
R = 328.00
Δ = 13°34'12"
CHD. BRG = S05°27'04"E
C = 62.77'
- 5 L = 89.53'
R = 378.00
Δ = 13°34'12"
CHD. BRG = S06°49'29"W
C = 89.32'

PRIVATE EASEMENT FOR INGRESS, EGRESS AND PUBLIC UTILITIES (VARIABLE WIDTH) BY OTHERS



LEGAL DESCRIPTION: PARENT PARCEL

Part of the W. 1/2 of Section 13, T.2N., R.5E., Genoa Township, Livingston County, Michigan, being described as: Beginning at a point distant S. 89°59'51" E., 1865.22 feet along the East-West 1/4 line of said Section 13, from the W. 1/4 corner of said Section 13; thence N. 01° 20' 04" W., 209.26 feet; thence S. 68° 25' 58" E., 145.05 feet; thence N. 01° 23' 01" W., 430.25 feet; thence S. 69° 16' 02" E., 71.45 feet; thence S. 01° 14' 16" E., 431.10 feet; thence S. 69° 01' 58" E., 54.11 feet; thence S. 01° 19' 37" E., 50.00 feet; thence N. 88° 43' 02" E., 200.00 feet; thence S. 01° 18' 00" E., 335.84 feet; thence S. 88° 43' 22" W., 119.17 feet; thence 89.53 feet along an arc of a curve to the left, (Radius 378.00 feet, central angle 13°34'12", chord bears N. 06° 49' 29" E., 89.32 feet); thence 225.73 feet along an arc of a curve to the right, (Radius 328.00 feet, central angle 39°23'49", chord bears N. 19° 40' 32" W., 221.30 feet; thence N. 39° 23' 27" W., 47.54 feet; thence N. 88° 43' 02" E., 5.84 feet to the point of beginning. Containing 462,435 square feet or 10.616 acres.

LEGAL DESCRIPTION: PARCEL 1

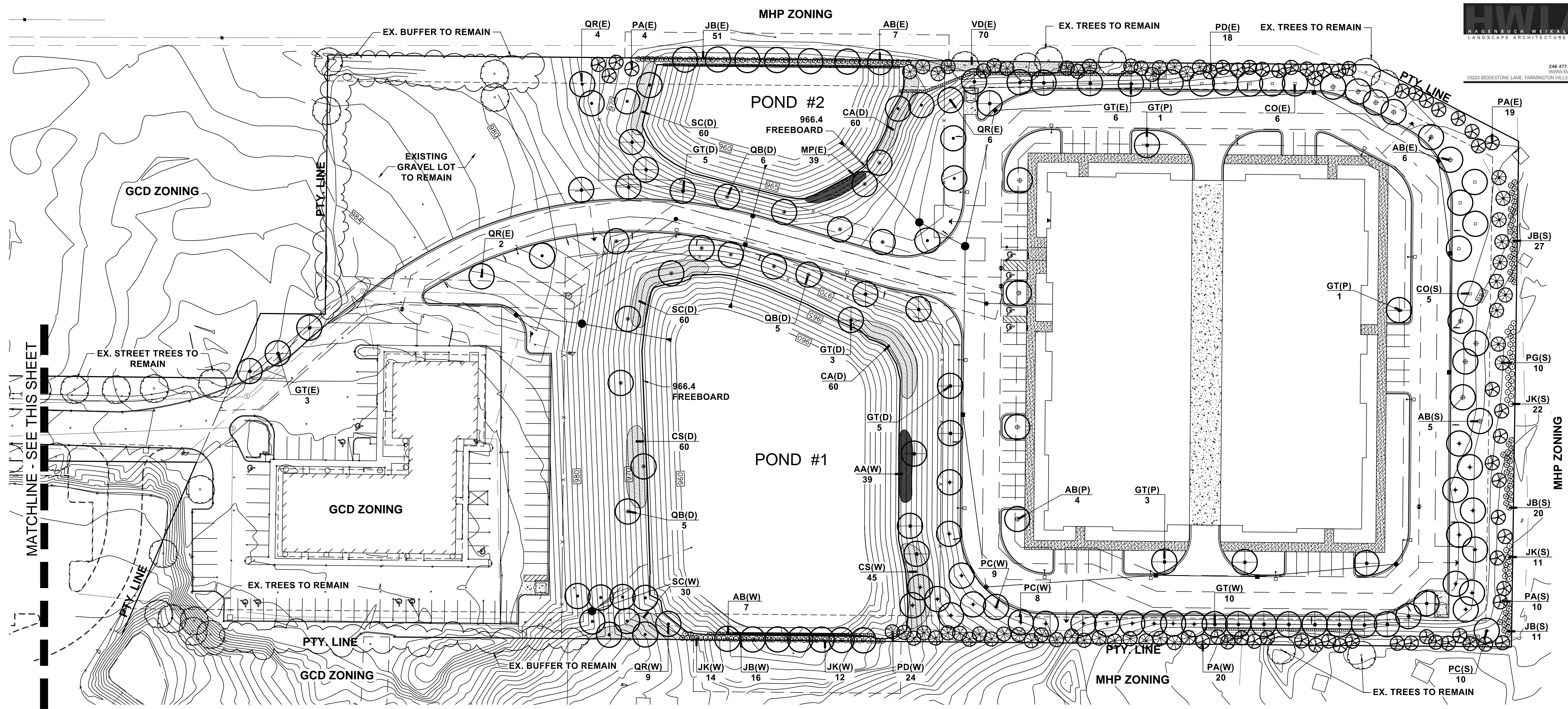
Part of the W. 1/2 of Section 13, T.2N., R.5E., Genoa Township, Livingston County, Michigan, being described as: Beginning at a point distant S. 89°59'51" E., 1865.22 feet along the East-West 1/4 line of said Section 13, from the W. 1/4 corner of said Section 13; thence N. 01° 20' 04" W., 209.26 feet; thence S. 68° 25' 58" E., 145.05 feet; thence N. 01° 23' 01" W., 430.25 feet; thence S. 69° 16' 02" E., 71.45 feet; thence S. 01° 14' 16" E., 431.10 feet; thence S. 69° 01' 58" E., 54.11 feet; thence S. 01° 19' 37" E., 50.00 feet; thence N. 88° 43' 02" W., 5.84 feet; thence S. 39° 23' 27" E., 47.54 feet; thence 162.86 feet along an arc of a curve to the right, (Radius 328.00 feet, central angle 28°26'57", chord bears S. 25° 09' 58" E., 161.19 feet); thence S. 88° 43' 22" W., 337.59 feet; thence N. 01° 20' 04" W., 129.96 feet to the point of beginning. Containing 109,346 square feet or 2.510 acres.

LEGAL DESCRIPTION: PARCEL 2

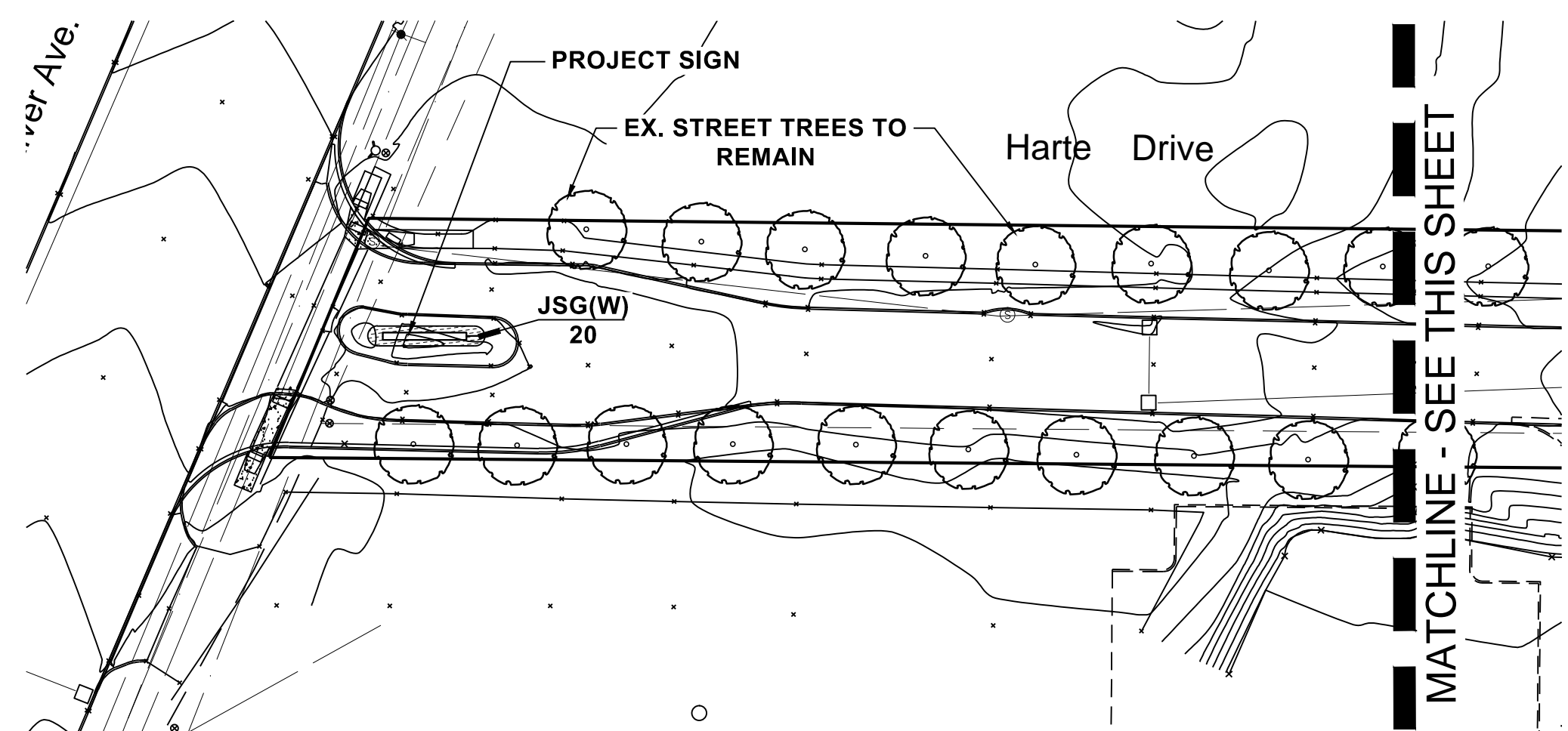
Part of the W. 1/2 of Section 13, T.2N., R.5E., Genoa Township, Livingston County, Michigan, being described as: Commencing at the W. 1/4 corner of said Section 13; thence S. 89°59'51" E., 1865.22 feet along the East-West 1/4 line of said Section 13; thence N. 01° 20' 04" W., 209.26 feet; thence S. 68° 25' 58" E., 145.05 feet; thence N. 01° 23' 01" W., 430.25 feet; thence S. 69° 16' 02" E., 71.45 feet; thence S. 01° 14' 16" E., 431.10 feet; thence S. 69° 01' 58" E., 54.11 feet; thence S. 01° 19' 37" E., 50.00 feet to the point of beginning; thence N. 88° 43' 02" E., 200.00 feet; thence S. 01° 18' 00" E., 335.84 feet; thence S. 88° 43' 22" W., 119.17 feet; thence 89.53 feet along an arc of a curve to the left, (Radius 378.00 feet, central angle 13°34'12", chord bears N. 06° 49' 29" E., 89.32 feet); thence 225.73 feet along an arc of a curve to the right, (Radius 328.00 feet, central angle 39°23'49", chord bears N. 19° 40' 32" W., 221.30 feet; thence N. 39° 23' 27" W., 47.54 feet; thence N. 88° 43' 02" E., 5.84 feet to the point of beginning. Containing 43,812 square feet or 1.005 acres.

LEGAL DESCRIPTION: PARCEL 3

Part of the SW 1/4 of Section 13, T.2N., R.5E., Genoa Township, Livingston County, Michigan, being described as: Beginning at a point distant S. 89°59'51" E., 1865.22 feet along the East-West 1/4 line of said Section 13, and S. 01° 20' 04" E., 129.96 feet from the W. 1/4 corner of said Section 13; thence N. 88° 43' 22" E., 337.59 feet; thence 62.86 feet along an arc of a curve to the right, (Radius 328.00 feet, central angle 28°26'57", chord bears S. 05° 27' 04" E., 62.77 feet); thence 89.53 feet along an arc of a curve to the right, (Radius 378.00 feet, central angle 13°34'12", chord bears S. 06° 49' 29" W., 89.32 feet); thence N. 88° 43' 22" E., 119.17 feet; thence S. 01° 18' 00" E., 469.03 feet; thence S. 25° 09' 58" E., 128.47 feet; thence S. 88° 58' 44" W., 390.33 feet; thence N. 01° 20' 04" W., 733.01 feet to the point of beginning. Containing 309,277 square feet or 7.100 acres.



SITE PLANTING PLAN
SCALE 1" = 40'
NORTH



SITE PLANTING PLAN
SCALE 1" = 40'
NORTH

PLANT MIX

- ALL PLANTING/PERENNIAL BEDS TO RECEIVE:
- (1) 6 CU FT. ORGANIC COMPOST
 - (1) 40LB BAG COMPOSTED POULTRY MANURE "CHICK MAGIC" 5-3-2 WWW.CHICKMAGIC.NET (262)495-6220
 - (1) 5 LB BAG SHEMINS 13-13-13 MULTI PURPOSE FERTILIZER PER 100 SQ FT BED AREA.

HAND TILL INTO SOIL TO A DEPTH OF 12" MINIMUM

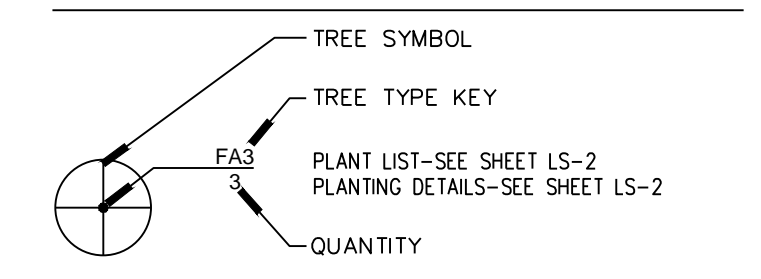
LAWNS:

ALL LAWNS TO BE IRRIGATED SEED LAWN

MULCH

MULCH IS DOUBLE SHREDDED HARDWOOD BARK MULCH
NO GROUND WOOD PALLETTE MULCH PERMITTED

PLANTING KEY:



GENERAL PLANTING NOTES:

- A ALL TREES TO HAVE CLAY OR LOAM BALLS. TREES WITH SAND BALLS WILL BE REJECTED.
- B ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
- C ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER, TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
- D ALL MULTI-STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
- E ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND. SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
- F NO MACHINERY IS TO BE USED WITHIN THE DRIFLINE OF EXISTING TREES. HAND GRADE ALL LAWN AREAS WITHIN DRIFLINE OF EXISTING TREES.
- G ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT MATERIAL.
- H IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS, WALKS AND PAVED AREAS.
- I ALL PLANTING BEDS SHALL RECEIVE SHREDDED BARK MULCH. SEE PLANTING DETAILS FOR DEPTH.
- J SEE SPECIFICATIONS FOR ADDITIONAL COMMENTS, REQUIREMENTS, PLANTING PROCEDURES AND WARRANTY STANDARDS.

PLANT BED PREPARATION

EXCAVATE PLANT BEDS TO DEPTH SHOWN ON DETAILS - DISPOSE OF SPOILS OFF SITE.

ALL PLANT BEDS TO RECEIVE CONTINUOUS PLANT MIX AS SPECIFIED (NOT INDIVIDUAL PLANT FITS)

PLANTING BEDS AND PLANT PITS TO RECEIVE:
A MIXTURE OF 70% LOAM TOPSOIL, 10% COMPOST, 20% SAND

DATE	ISSUE
02-22-2019	PID SITE RE-SUBMISSION
01-29-2019	PID SITE SUBMISSION

KEY PLAN

FSP PROJECT NO.
HAR17.032

DRAWING TITLE
SITE LANDSCAPE PLAN

DRAWING NUMBER
LS1

BIRKENSTOCK OFFICE / STORAGE BUILDING

GENOA TOWNSHIP MICHIGAN



02-22-2019	PID SITE RE-SUBMISSION
01-29-2019	PID SITE SUBMISSION
DATE	ISSUE

KEY PLAN

FSP PROJECT NO.
HAR17.032

DRAWING TITLE
PLANTING DETAIL

DRAWING NUMBER

LS2

PLANT LIST - PARKING (P)

QUAN.	KEY	COMMON/ BOTANICAL NAME	SIZE	SPEC.
4	AB	Autumn Blaze Maple <i>Acer x. fremanii 'Autumn Blaze'</i>	2.5" Cal.	B&B
5	GT	Thornless Honeylocust <i>Gleditsia 'Skyline'</i>	2.5" Cal.	B&B

PLANT LIST - DETENTION POND #1 (D)

QUAN.	KEY	COMMON/ BOTANICAL NAME	SIZE	SPEC.
8	GT	Thornless Honeylocust <i>Gleditsia 'Skyline'</i>	2.5" Cal.	B&B
10	QB	Swamp White Oak <i>Quercus bicolor</i>	2.5" Cal.	B&B
60	CA	Buttonbush <i>Cephalanthus occidentalis</i>	24" Ht.	Cont.
60	CS	Redtwig Dogwood <i>Cornus sericea</i>	24" Ht.	Cont.
60	SC	Common Elderberry <i>Sambucus canadensis</i>	24" Ht.	Cont.

PLANT LIST - DETENTION POND #2 (D)

QUAN.	KEY	COMMON/ BOTANICAL NAME	SIZE	SPEC.
5	GT	Thornless Honeylocust <i>Gleditsia 'Skyline'</i>	2.5" Cal.	B&B
6	QB	Swamp White Oak <i>Quercus bicolor</i>	2.5" Cal.	B&B
60	CA	Buttonbush <i>Cephalanthus occidentalis</i>	24" Ht.	Cont.
50	SC	Common Elderberry <i>Sambucus canadensis</i>	24" Ht.	Cont.

PLANT LIST - EAST BUFFER (E)

QUAN.	KEY	COMMON/ BOTANICAL NAME	SIZE	SPEC.
13	AB	Autumn Blaze Maple <i>Acer x. fremanii 'Autumn Blaze'</i>	2.5" Cal.	B&B
6	CO	Hackberry <i>Celtis occidentalis</i>	2.5" Cal.	B&B
9	GT	Thornless Honeylocust <i>Gleditsia 'Skyline'</i>	2.5" Cal.	B&B
12	QR	Northern Red Oak <i>Quercus rubra</i>	2.5" Cal.	B&B
22	PA	Norway Spruce <i>Picea Abies</i>	6' Ht.	B&B
18	PD	Black Hills Spruce <i>Picea g. 'Densata'</i>	6' Ht.	B&B
51	JB	Brodie Red Cedar <i>J. virginiana 'Brodie'</i>	4' Ht.	B&B
39	MP	Bayberry <i>Myrica pensylvanica</i>	24" ht.	Cont.
70	VD3	Arrowood Viburnum <i>Viburnum dentatum</i>	24" Ht.	Cont.

PLANT LIST - SOUTH BUFFER (S)

QUAN.	KEY	COMMON/ BOTANICAL NAME	SIZE	SPEC.
5	AB	Autumn Blaze Maple <i>Acer x. fremanii 'Autumn Blaze'</i>	2.5" Cal.	B&B
5	CO	Hackberry <i>Celtis occidentalis</i>	2.5" Cal.	B&B
0	GT	Thornless Honeylocust <i>Gleditsia 'Skyline'</i>	2.5" Cal.	B&B
10	PC	Columbia London Plane Tree <i>Platanus x. acerifolia 'Columbia'</i>	2.5" Cal.	B&B
10	PA	Norway Spruce <i>Picea Abies</i>	6' Ht.	B&B
10	PG	White Spruce <i>Picea glauca</i>	6' Ht.	B&B
33	JK	Ketler Juniper <i>J. 'Ketterii'</i>	4' Ht.	B&B
47	JB	Brodie Red Cedar <i>J. virginiana 'Brodie'</i>	4' Ht.	B&B

PLANT LIST - WEST BUFFER (W)

QUAN.	KEY	COMMON/ BOTANICAL NAME	SIZE	SPEC.
7	AB	Autumn Blaze Maple <i>Acer x. fremanii 'Autumn Blaze'</i>	2.5" Cal.	B&B
10	GT	Thornless Honeylocust <i>Gleditsia 'Skyline'</i>	2.5" Cal.	B&B
18	PC	Columbia London Plane Tree <i>Platanus x. acerifolia 'Columbia'</i>	2.5" Cal.	B&B
9	QR	Northern Red Oak <i>Quercus rubra</i>	2.5" Cal.	B&B
20	PA	Norway Spruce <i>Picea Abies</i>	6' Ht.	B&B
24	PD	Black Hills Spruce <i>Picea g. 'Densata'</i>	6' Ht.	B&B
39	AA	Red Chokeberry <i>Aronia arbutifolia 'Brilliantissima'</i>	24" Ht.	Cont.
45	CS	Redtwig Dogwood <i>Cornus sericea</i>	24" Ht.	Cont.
26	JK	Ketler Juniper <i>J. 'Ketterii'</i>	4' Ht.	B&B
16	JB	Brodie Red Cedar <i>J. virginiana 'Brodie'</i>	4' Ht.	B&B
30	SC	Common Elderberry <i>Sambucus canadensis</i>	24" Ht.	Cont.
20	JSG	Sea Green Juniper <i>J. 'Sea Green'</i>	24" Spr.	Cont.

LANDSCAPE REQUIREMENTS

A. BUFFERS
BUFFER TYPE B -
GRC ZONING ADJACENT TO RESIDENTIAL MHP

EAST BUFFER (E) - 800 LF

	REQUIRED	PROVIDED
DECIDUOUS TREES	40	40
EVERGREEN TREES	40	40
SHRUBS	160	160

SOUTH BUFFER (S) - 388 LF

	REQUIRED	PROVIDED
DECIDUOUS TREES	20	20
EVERGREEN TREES	20	20
SHRUBS	80	80

WEST BUFFER (W) - 870 LF

	REQUIRED	PROVIDED
DECIDUOUS TREES	44	44
EVERGREEN TREES	44	44
SHRUBS	176	176

B. PARKING (P) - 49 SPACES

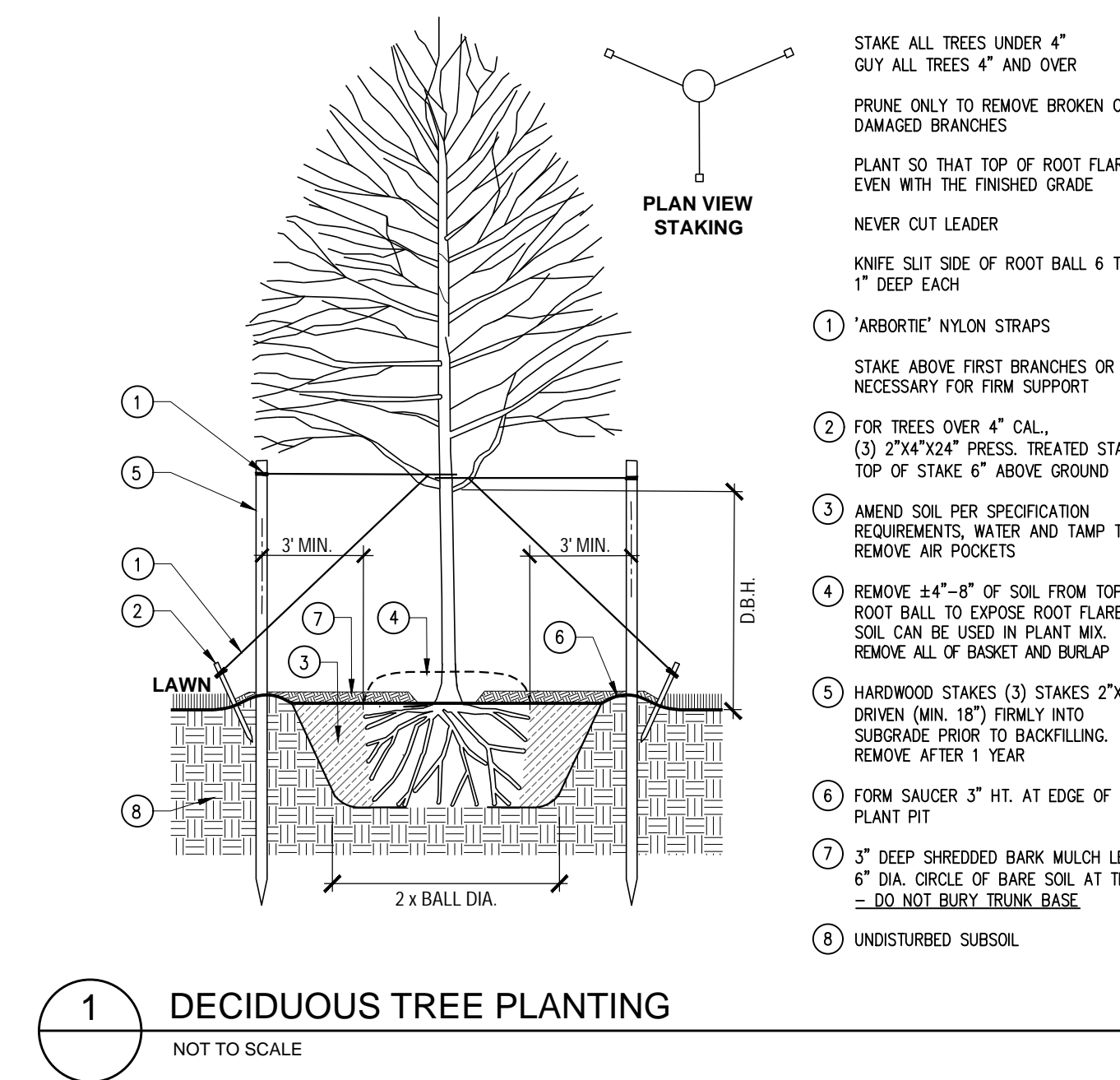
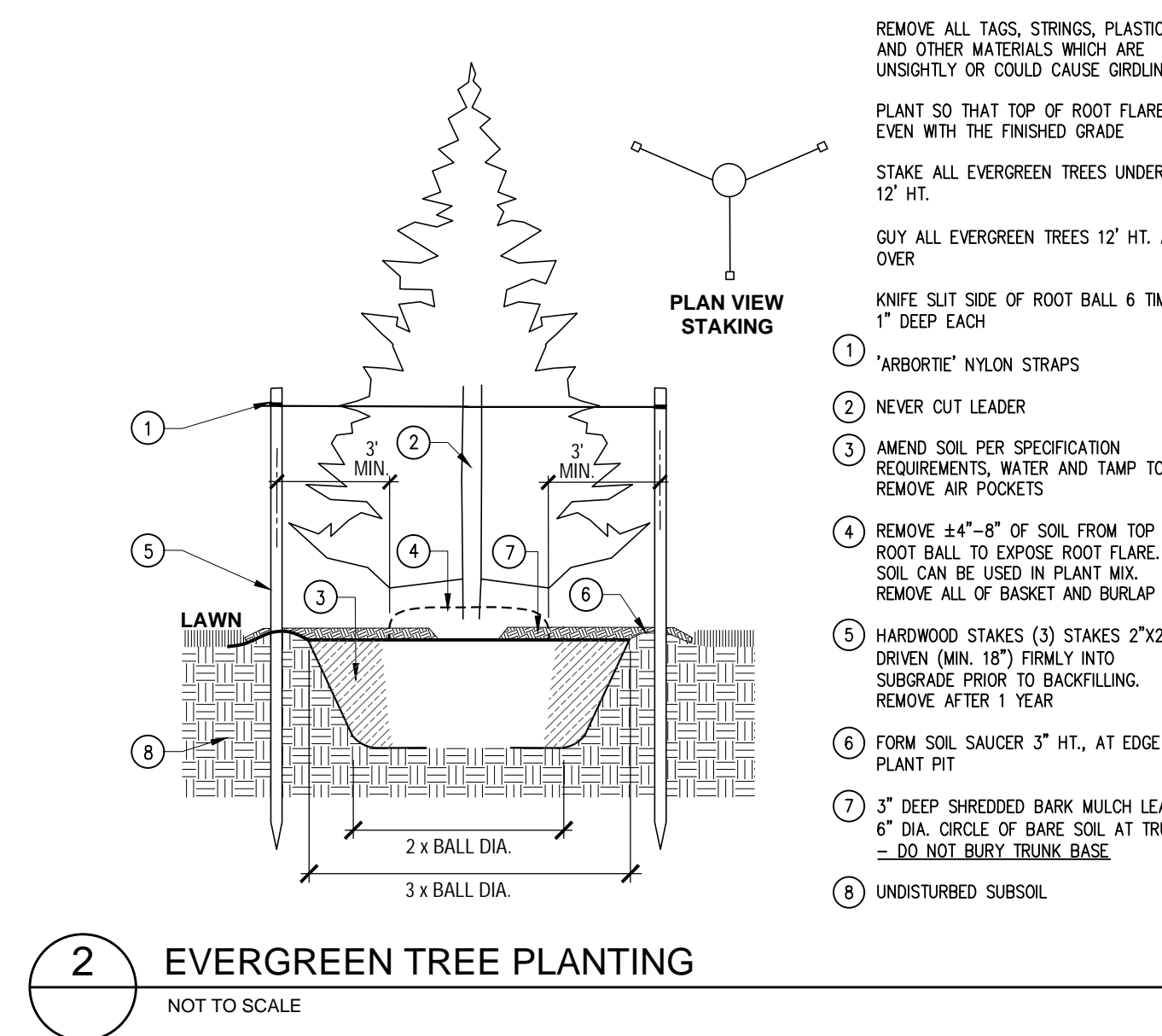
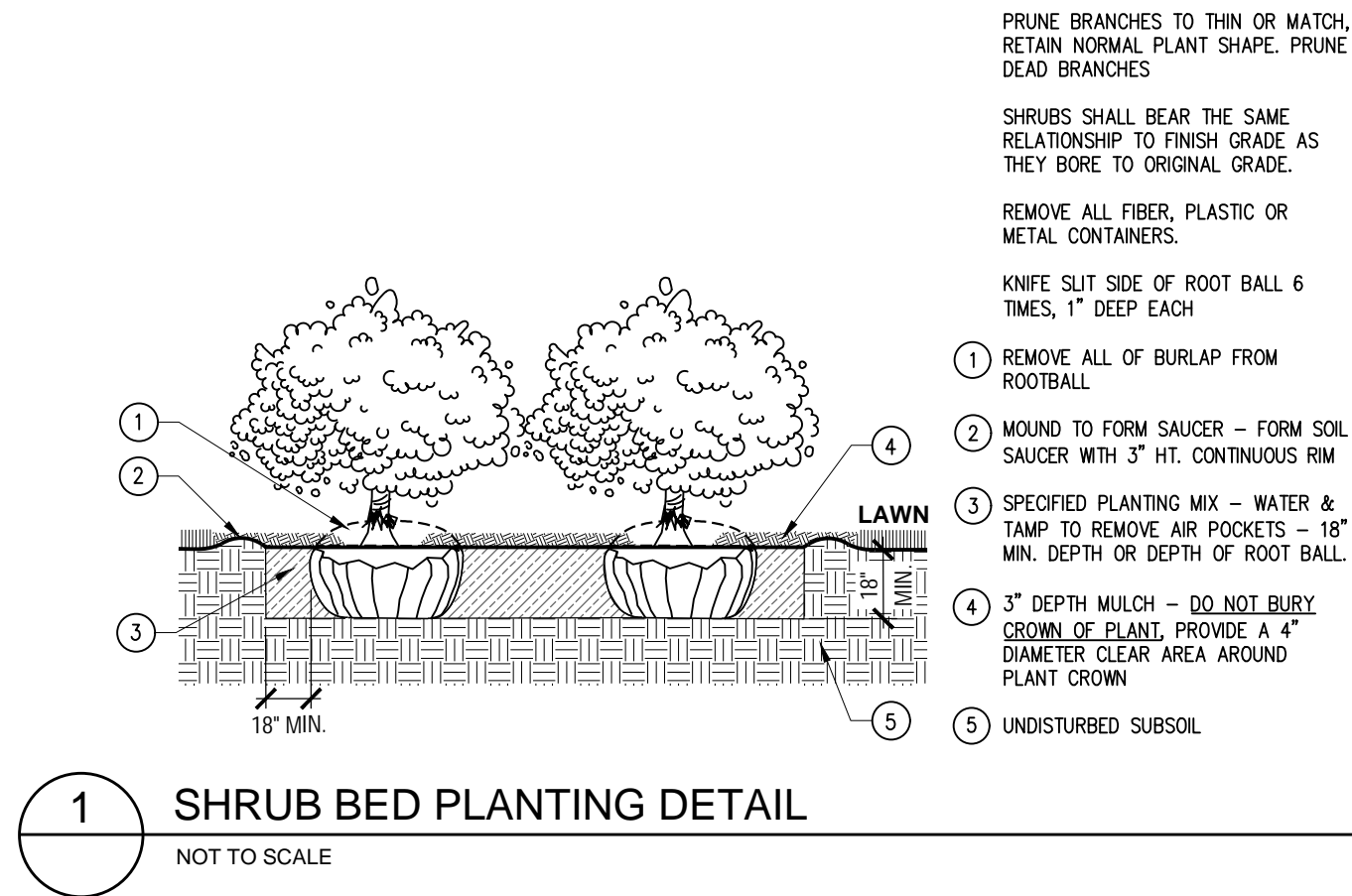
	REQUIRED	PROVIDED
DECIDUOUS TREES	5	9

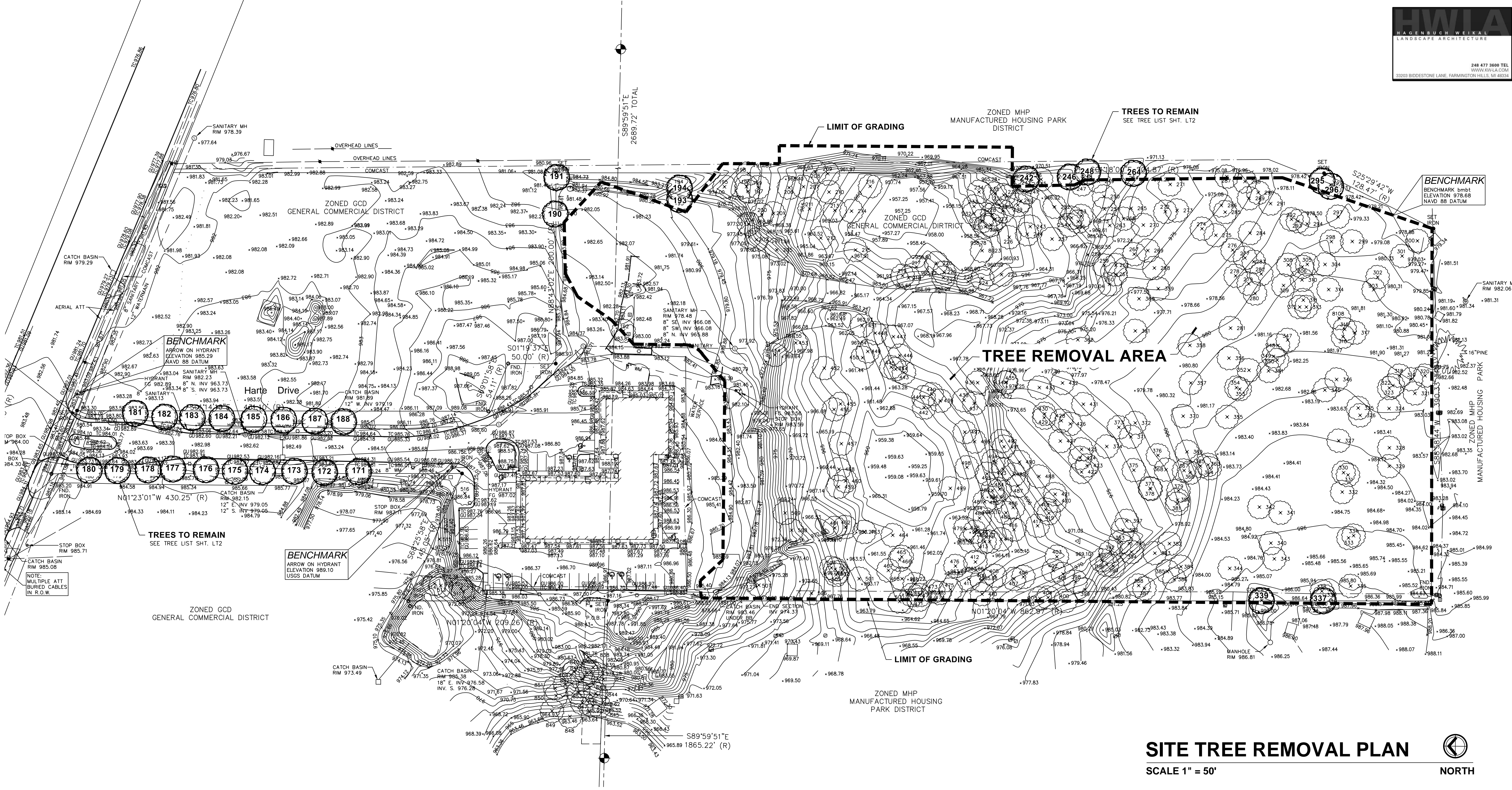
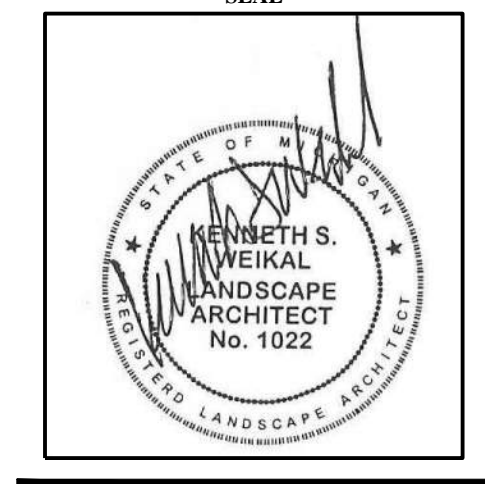
C. DETENTION (D) - POND #1 - 870 LF PERIMETER

	REQUIRED	PROVIDED
DECIDUOUS TREES	18	18
SHRUBS	180	180

DETENTION (D) - POND #2 - 520 LF PERIMETER

	REQUIRED	PROVIDED
DECIDUOUS TREES	11	11
SHRUBS	110	110





SITE TREE REMOVAL PLAN
SCALE 1" = 50'
NORTH

BIRKENSTOCK OFFICE / STORAGE BUILDING
 MICHIGAN
 GENOA TOWNSHIP

02-22-2019	PID SITE RE-SUBMISSION
01-29-2019	PID SITE SUBMISSION
DATE	ISSUE

KEY PLAN

TREE LIST				OFF SITE TREES NEAR SHED TO REMAIN			
837	Tsuga canadensis	Eastern red cedar	1.5	12'			Fair
838	Prunus serotina	Black Cherry	12				Good
839	Carya cordiformis	Bittemut Hickory	10				Fair
840	Ulmus americana	American Elm	10				Fair
841	Prunus serotina	Black Cherry	8		tw		Poor
842	Carya cordiformis	Bittemut Hickory	12				DEAD
843	Prunus serotina	Black Cherry	12				DEAD
844	Carya cordiformis	Bittemut Hickory	8				Fair
845	Celtis occidentalis	Northern Red Oak	28				Poor
846	Acer rubrum	Red Maple	8				Poor
847	Celtis occidentalis	Northern Red Oak	17				Poor
848	Acer rubrum	Red Maple	10				Fair
849	Quercus velutina	Black Oak	29				Fair
850	Carya cordiformis	Bittemut Hickory	10				Good
851	Celtis occidentalis	Northern Red Oak	13				Fair
852	Acer negundo	Boxelder	9				Poor
853	Prunus serotina	Black Cherry	8				Poor

FSP PROJECT NO.
HAR17.032

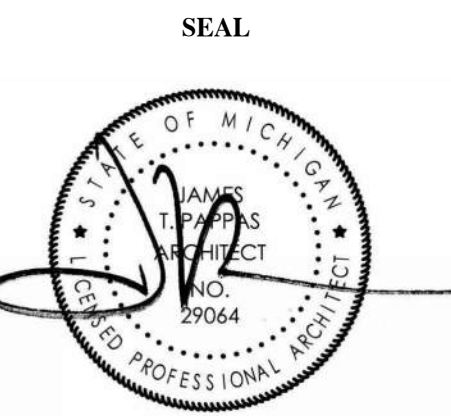
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TREE REMOVAL PLAN

DRAWING NUMBER
LT1

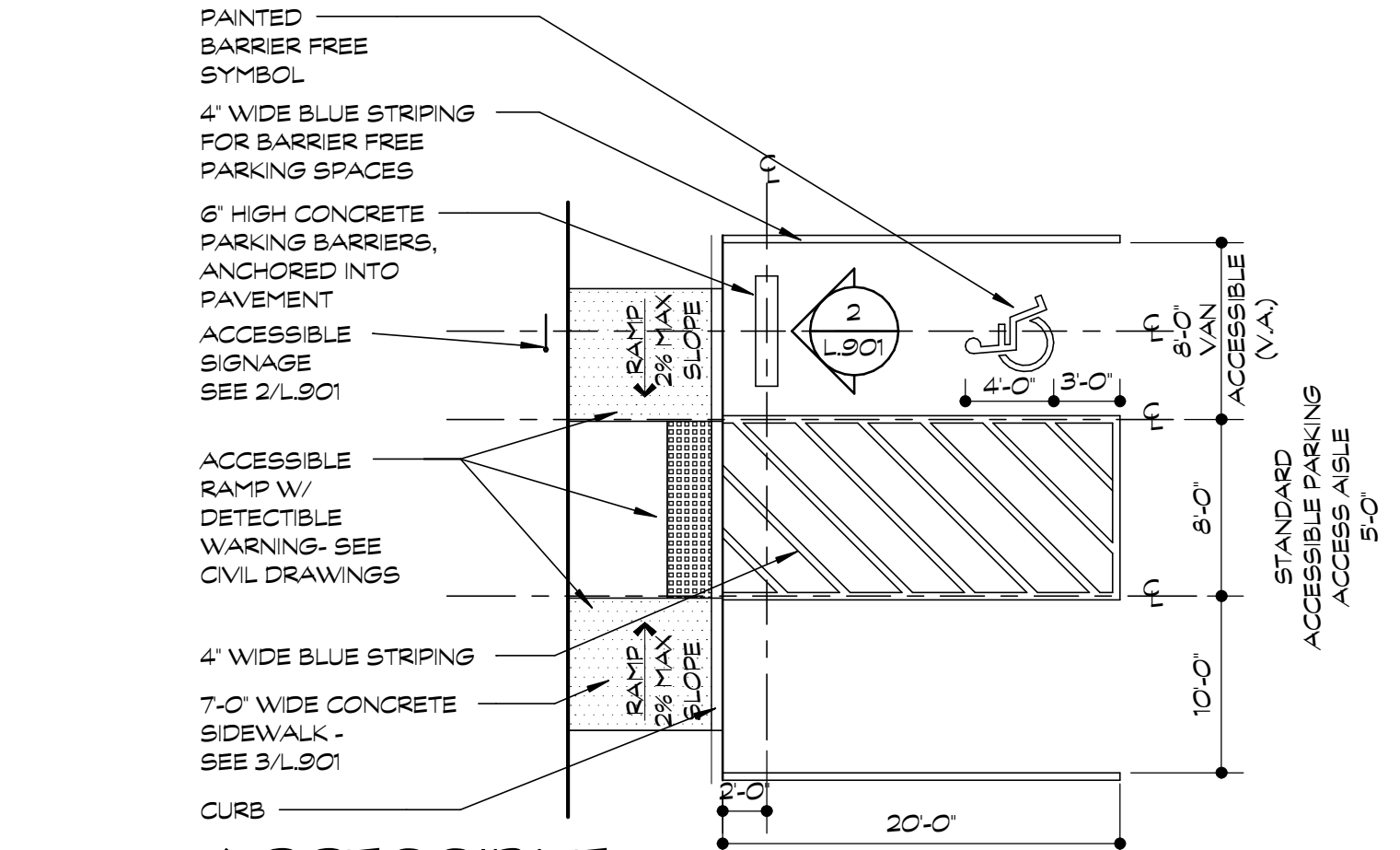
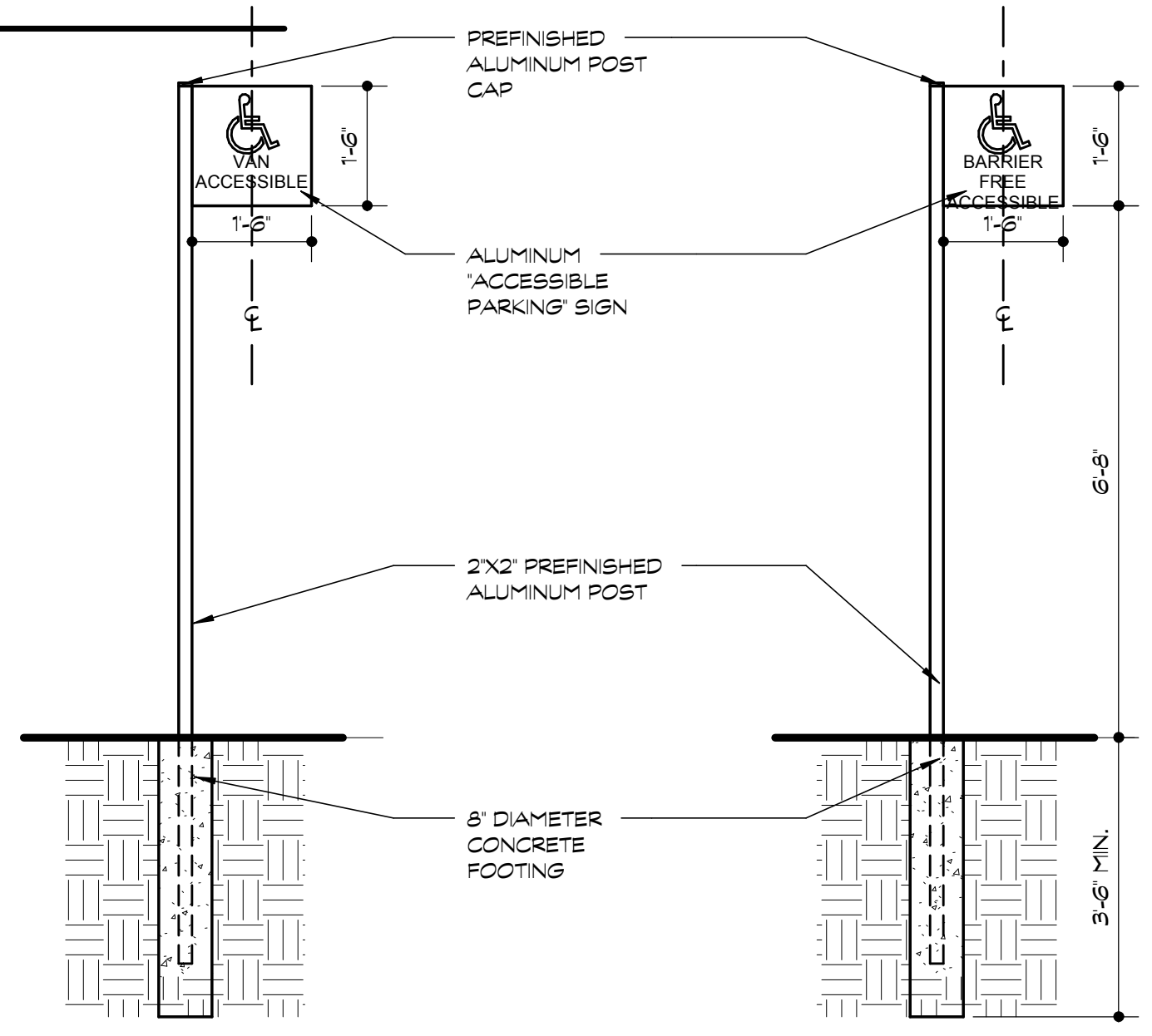
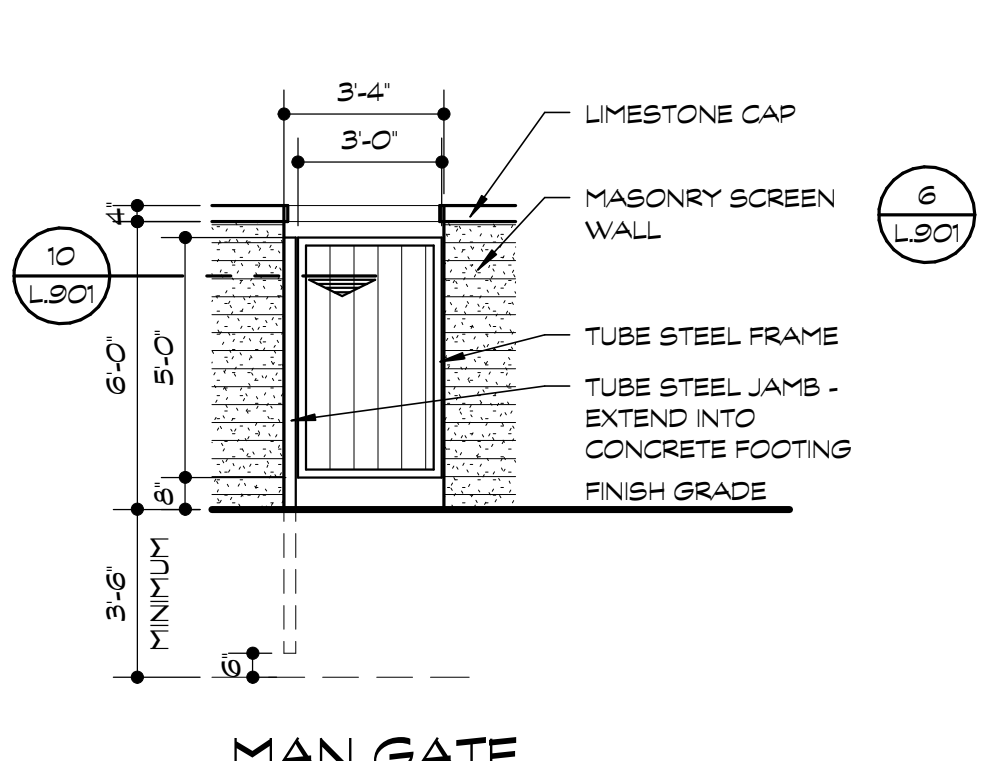
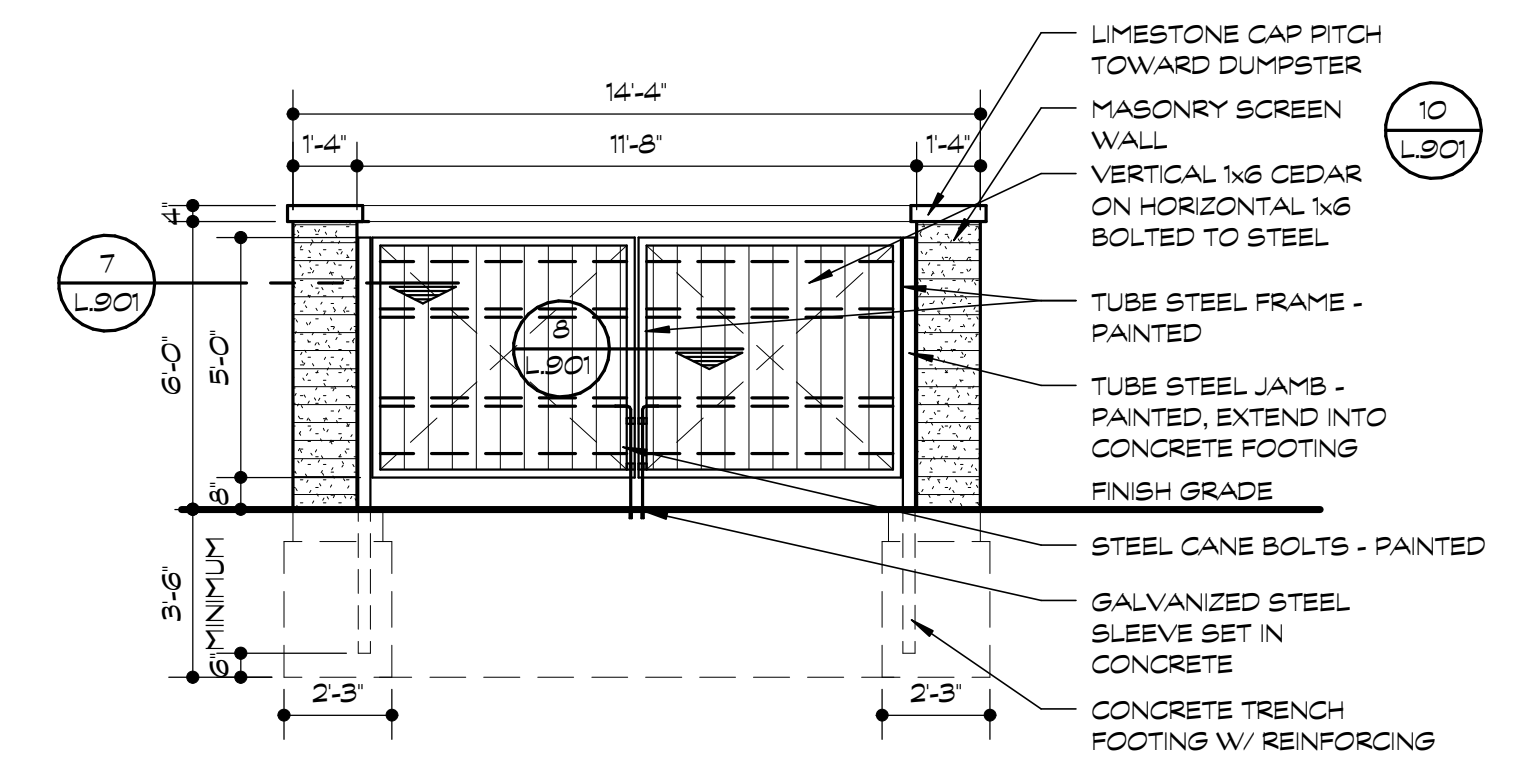
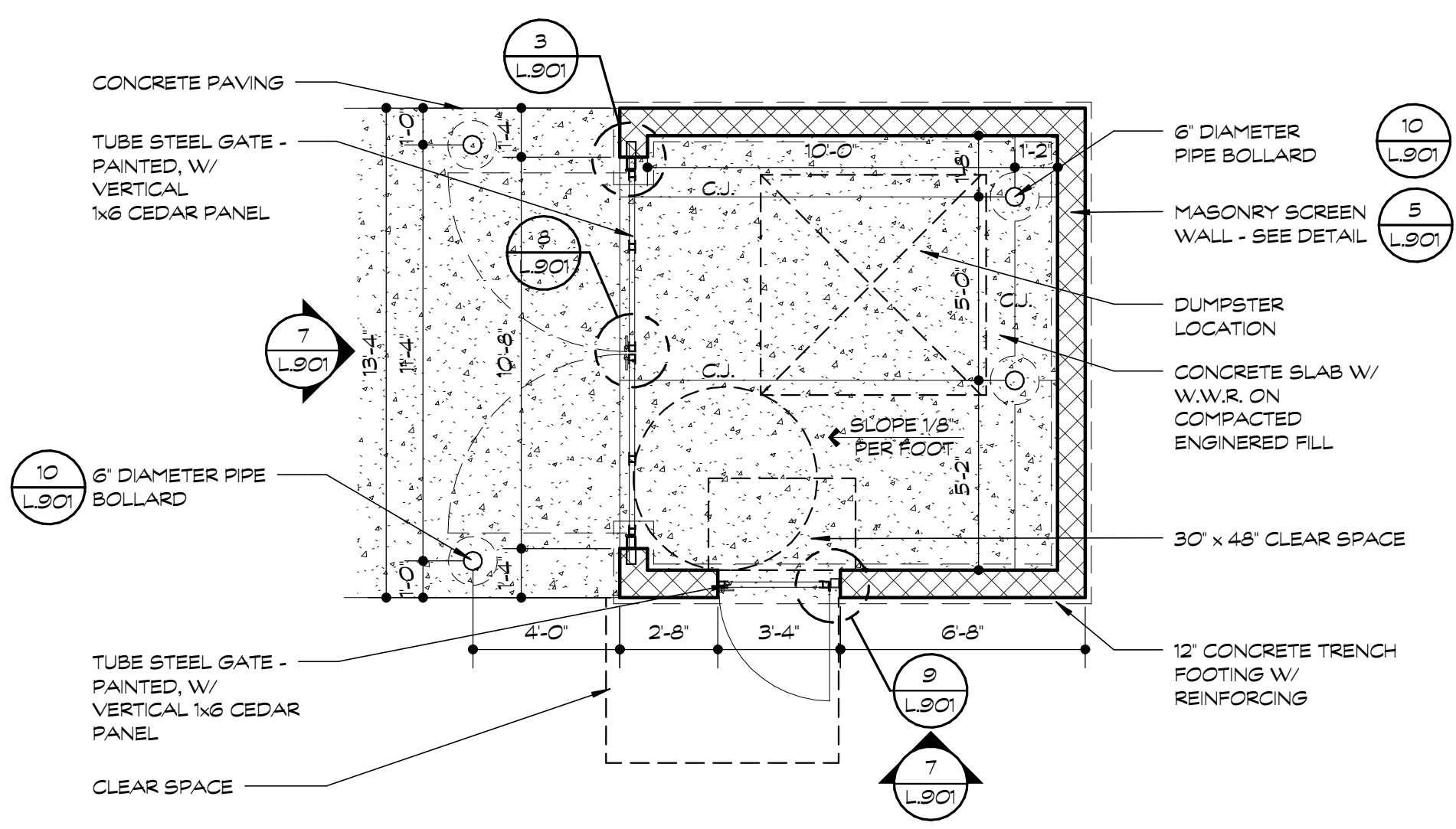
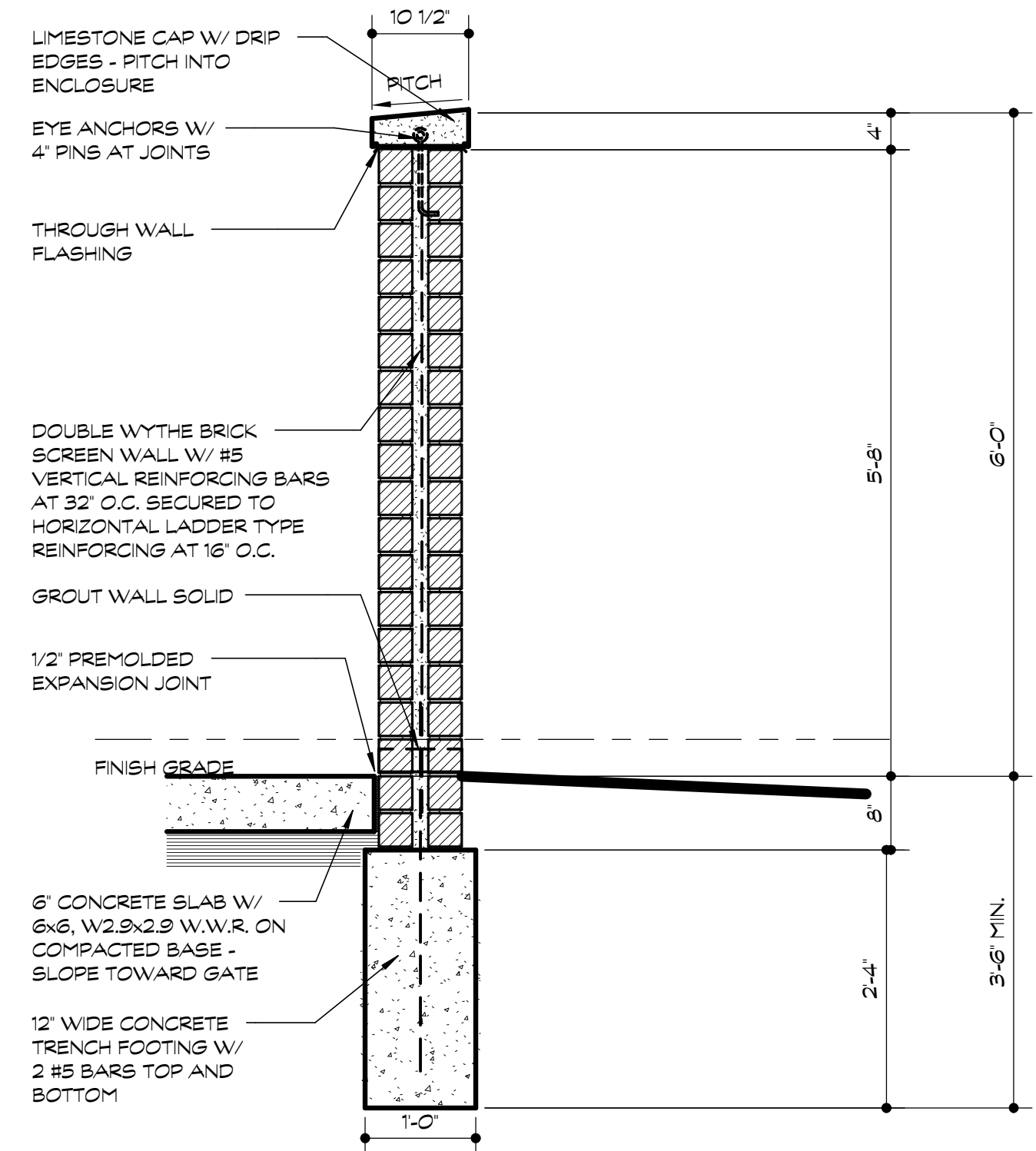
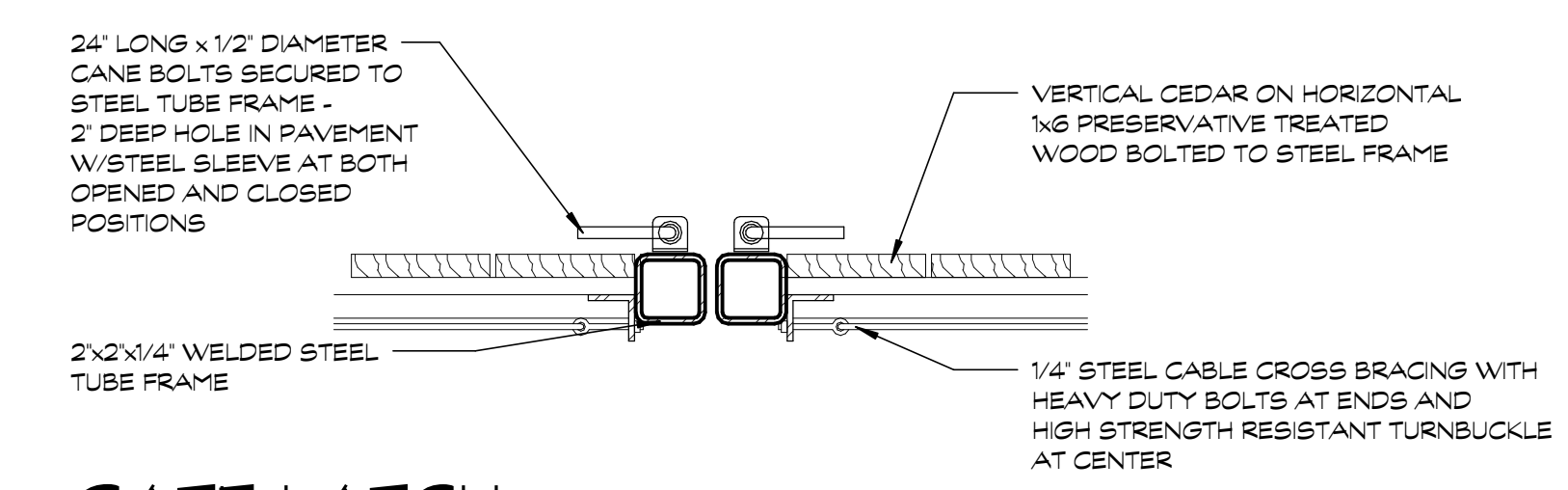
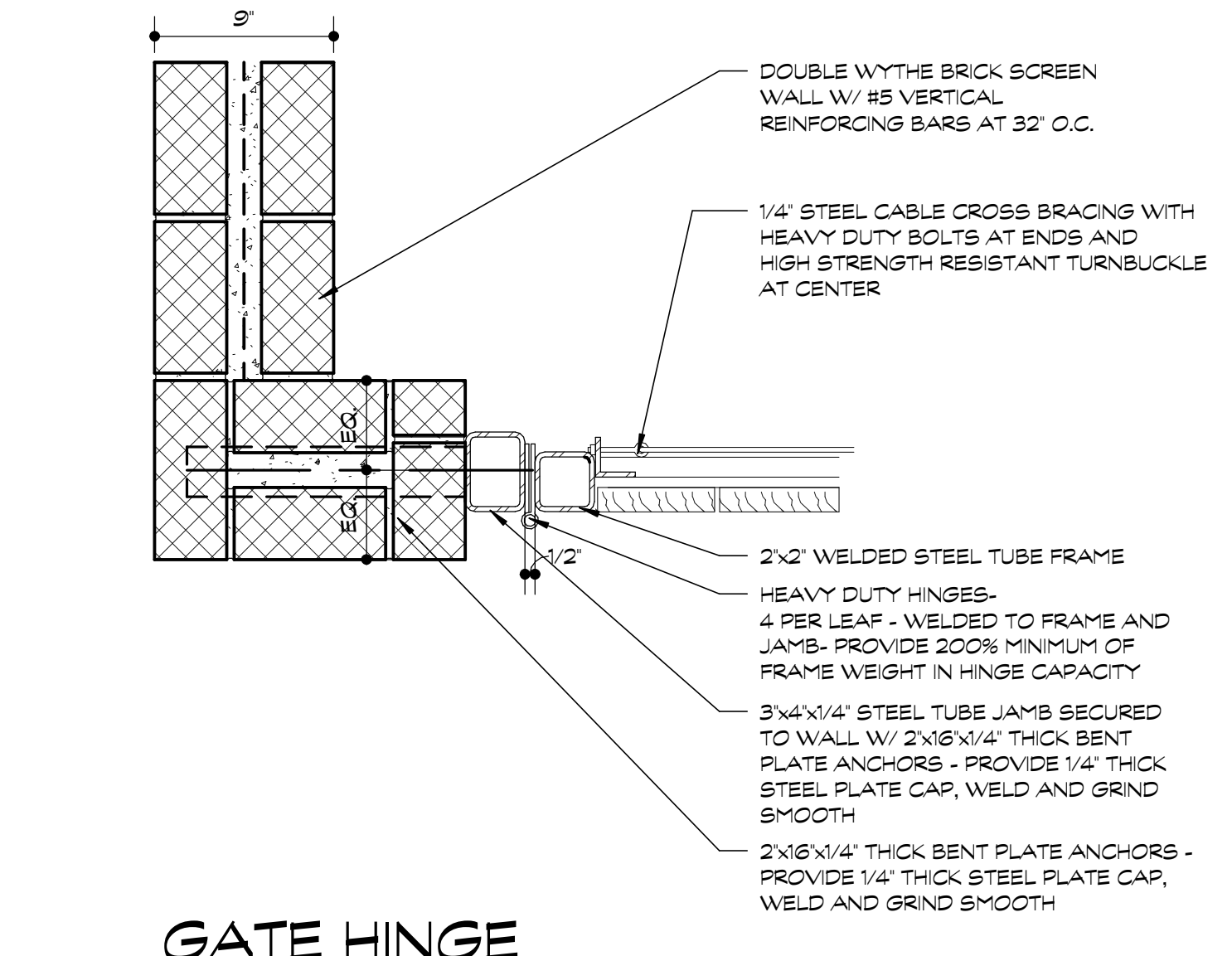
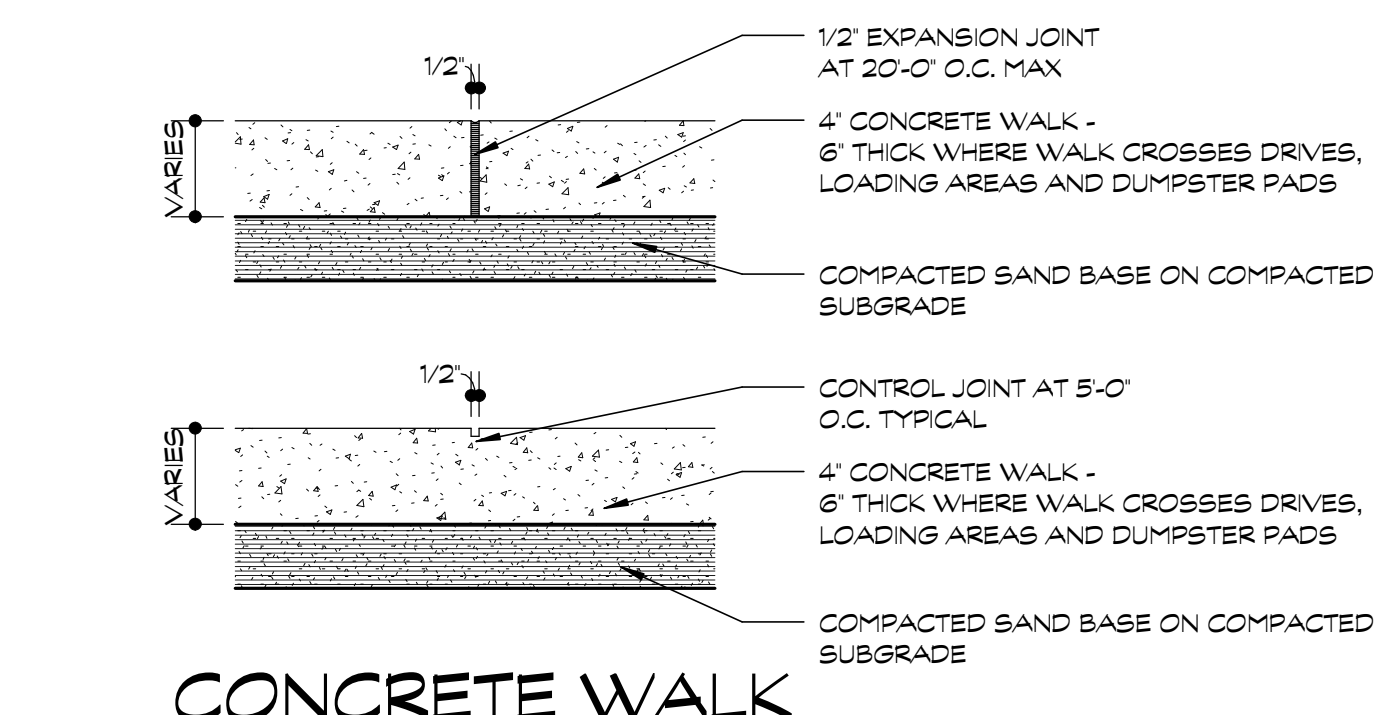
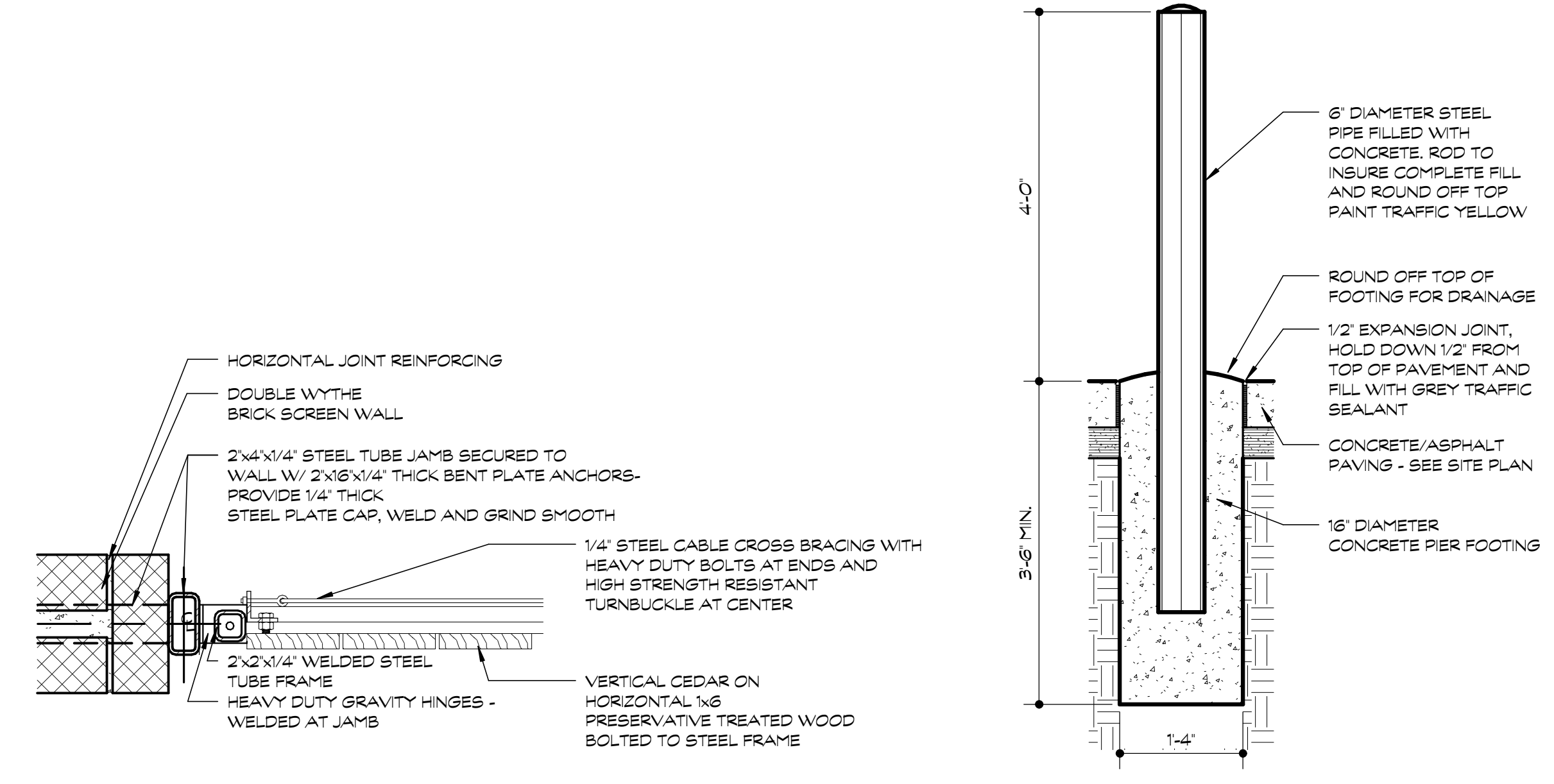
TREE LIST TREES TO BE REMOVED

Tree #	Botanical Name	Common Name	Dia.	Height	Type	Other Dia.	Condition
171	Pyrus calleryana	Bradford Pear	9		twin	6	Good
172	Pyrus calleryana	Bradford Pear	10				Good
173	Pyrus calleryana	Bradford Pear	11				Fair
174	Pyrus calleryana	Bradford Pear	9				Fair
175	Pyrus calleryana	Bradford Pear	10				Good
176	Pyrus calleryana	Bradford Pear	9				Good
177	Pyrus calleryana	Bradford Pear	10				Good
178	Pyrus calleryana	Bradford Pear	10				Good
179	Pyrus calleryana	Bradford Pear	9				Fair
180	Pyrus calleryana	Bradford Pear	10		multi		Fair
181	Pyrus calleryana	Bradford Pear	11				Fair
182	Pyrus calleryana	Bradford Pear	8				Good
183	Pyrus calleryana	Bradford Pear	6				Fair
184	Pyrus calleryana	Bradford Pear	7				Good
185	Pyrus calleryana	Bradford Pear	7				Good
186	Pyrus calleryana	Bradford Pear	9				Good
187	Pyrus calleryana	Bradford Pear	7				Good
188	Pyrus calleryana	Bradford Pear	7				Good
189	Populus deltoides	Eastern Cottonwood	14		twin	8	Poor
190	Prunus serotina	Black Cherry	13				Poor
191	Acer negundo	Boxelder	13		twin	8	Fair
192	Pyrus calleryana	Bradford Pear	7				Fair
193	Populus deltoides	Eastern Cottonwood	6				Poor
194	Acer negundo	Boxelder	7				Poor
195	Acer negundo	Boxelder	17				Poor
196	Prunus serotina	Black Cherry	9				Poor
197	Acer negundo	Boxelder	14		twin	12	Poor
198	Malus spp.	Apple	9				Poor
199	Acer negundo	Boxelder	8		multi		Poor
200	Malus spp.	Apple	7				Fair
201	Acer negundo	Boxelder	15				Poor
202	Populus deltoides	Eastern Cottonwood	8				Fair
203	Populus deltoides	Eastern Cottonwood	7				Fair
204	Populus deltoides	Eastern Cottonwood	8				Fair
205	Populus deltoides	Eastern Cottonwood	8				Fair
206	Acer negundo	Boxelder	6				Poor
207	Prunus serotina	Black Cherry	12				Good
208	Acer negundo	Boxelder	20				Poor
209	Prunus serotina	Black Cherry	11				Fair
210	Acer rubrum	Red Maple	26				Good
211	Quercus velutina	Black Oak	17				Fair
212	Quercus velutina	Black Oak	16				Fair
213	Acer negundo	Boxelder	16				Poor
214	Populus deltoides	Eastern Cottonwood	20				Fair
215	Populus deltoides	Eastern Cottonwood	30				Fair
216	Acer negundo	Boxelder	24				Poor
217	Populus deltoides	Eastern Cottonwood	26				Poor
218	Prunus serotina	Black Cherry	16		multi	12	Poor
219	Acer rubrum	Red Maple	11		twin	7	Fair
220	Acer negundo	Boxelder	6		twin		Fair
221	Prunus serotina	Black Cherry	8				Poor
222	Prunus serotina	Black Cherry	9		multi		Poor
223	Prunus serotina	Black Cherry	12				Poor
224	Prunus serotina	Black Cherry	15				Poor
225	Malus spp.	Apple	14				Poor
226	Populus deltoides	Eastern Cottonwood	22		twin	15	Good
227	Populus deltoides	Eastern Cottonwood	25				Good
228	Populus deltoides	Eastern Cottonwood	24		multi	23.15	Good
229	Acer negundo	Boxelder	6		twin		Poor
230	Prunus serotina	Black Cherry	6				Fair
231	Acer rubrum	Red Maple	12				Fair
232	Acer negundo	Boxelder	9				Poor
233	Acer negundo	Boxelder	11				Poor
234	Acer negundo	Boxelder	16		twin	8	Poor
235	Acer negundo	Boxelder	7				Poor
236	Celtis occidentalis	Northern Red Oak	6				Poor
237	Acer negundo	Boxelder	7				Fair
238	Acer negundo	Boxelder	8				Poor
239	Prunus serotina	Black Cherry	8				Good
240	Acer negundo	Boxelder	6				Poor
241	Quercus velutina	Black Oak	10				Good
242	Prunus serotina	Black Cherry	18				Poor
243	Prunus serotina	Black Cherry	8				Poor
244	Ulmus americana	American Elm	17				Fair
245	Acer rubrum	Red Maple	16				Poor
246	Quercus velutina	Black Oak	16				Fair
247	Acer rubrum	Red Maple	9				Fair
248	Prunus serotina	Black Cherry	16				Poor
249	Prunus serotina	Black Cherry	16		twin	8	Fair
250	Prunus serotina	Black Cherry	6				Fair
251	Prunus serotina	Black Cherry	12				Fair
252	Acer saccharum	Sugar Maple	15				Good
253	Celtis occidentalis	Northern Red Oak	9				Fair
254	Celtis occidentalis	Northern Red Oak	21				Fair
255	Celtis occidentalis	Northern Red Oak	10				Fair
256	Celtis occidentalis	Northern Red Oak	26				Good
257	Prunus serotina	Black Cherry	8				Poor
258	Malus spp.	Apple	8		twin		Poor
259	Pyrus spp.	Pear	12				Fair
260	Prunus serotina	Black Cherry	10		twin	10	Fair
261	Prunus serotina	Black Cherry	8		twin		Poor
262	Prunus serotina	Black Cherry	16		multi	10,8,8	Poor
263	Prunus serotina	Black Cherry	8				Fair
264	Acer rubrum	Red Maple	10		multi	8	Fair
265	Prunus serotina	Black Cherry	9		twin	9	Poor
266	Acer negundo	Boxelder	8				Fair
267	Quercus velutina	Black Oak	15				Good
268	Prunus serotina	Black Cherry	9				Fair
269	Prunus serotina	Black Cherry	8				Fair
270	Prunus serotina	Black Cherry	9				Poor
271	Celtis occidentalis	Northern Red Oak	27				Fair
272	Prunus serotina	Black Cherry	13		twin	12	Fair
273	Prunus serotina	Black Cherry	8		multi		Fair
274	Prunus serotina	Black Cherry	8				Good
275	Acer rubrum	Red Maple	14		twin	8	Fair
276	Acer saccharum	Sugar Maple	8				Good
277	Prunus serotina	Black Cherry	17				Fair
278	Acer rubrum	Red Maple	8		multi	8	Good
279	Prunus serotina	Black Cherry	14		twin	7	Good
280	Prunus serotina	Black Cherry	15				Poor
281	Celtis occidentalis	Northern White Cedar	4		20'		Poor
282	Prunus serotina	Black Cherry	8		twin	8	Fair
283	Acer rubrum	Red Maple	9				Good
284	Acer rubrum	Red Maple	8				Good
285	Prunus serotina	Black Cherry	9		multi	8	Fair
286	Acer rubrum	Red Maple	8				Fair
287	Quercus velutina	Black Oak	12				Fair
288	Prunus serotina	Black Cherry	13				Poor

289	Prunus serotina	Black Cherry	8				Fair
290	Prunus serotina	Black Cherry	8		twin	8	Poor
291	Prunus serotina	Black Cherry	12				Poor
292	Acer rubrum	Red Maple	8		multi		Good
293	Ulmus americana	American Elm	10				Fair
294	Prunus serotina	Black Cherry	8		twin	8	Poor
295	Quercus velutina	Black Oak	15				Fair
296	Quercus velutina	Black Oak	16				Poor
297	Prunus serotina	Black Cherry	10		multi	8,8	Fair
298	Acer rubrum	Red Maple	9				Fair
299	Prunus serotina	Black Cherry	8				Fair
300	Acer negundo	Boxelder	11				Fair
301	Prunus serotina	Black Cherry	16		twin	13	Fair
302	Prunus serotina	Black Cherry	14		twin	8	Poor
303	Prunus serotina	Black Cherry	15		multi	11,11,10,8	Poor
304	Prunus serotina	Black Cherry	13		multi	8,8	Poor
305	Acer rubrum	Red Maple	8				Poor
306	Acer rubrum	Red Maple	8				Good
307	Pyrus calleryana	Bradford Pear	8				Poor
308	Acer rubrum	Red Maple	8		multi		Poor
309	Acer rubrum	Red Maple	9		twin		Fair
310	Prunus serotina	Black Cherry	8		twin	8	Fair
311	Acer rubrum	Red Maple	11				Fair
312	Acer rubrum	Red Maple	8		multi		Fair
313	Prunus serotina	Black Cherry	9		twin		Fair
314	Prunus serotina	Black Cherry	9		multi		Poor
315	Prunus serotina	Black Cherry	9		twin	9	Poor
316	Prunus serotina	Black Cherry	18				Fair
317	Prunus serotina	Black Cherry	8				Poor
318	Populus deltoides	Eastern Cottonwood	11				Poor
319	Populus deltoides	Eastern Cottonwood	8				Good
320	Populus deltoides	Eastern Cottonwood	11				Poor
321	Acer negundo	Boxelder	9				Fair
322	Populus deltoides	Eastern Cottonwood	15				Good
323	Populus deltoides	Eastern Cottonwood	9				Fair
324	Populus deltoides	Eastern Cottonwood	11				Fair
325	Populus deltoides	Eastern Cottonwood	8				Good
326	Populus deltoides	Eastern Cottonwood	9		twin		Fair
327	Populus deltoides	Eastern Cottonwood	9				Fair
328	Populus deltoides	Eastern Cottonwood	11				Good
329	Populus deltoides	Eastern Cottonwood	8				Fair
330	Populus deltoides	Eastern Cottonwood	9				Fair
331	Populus deltoides	Eastern Cottonwood	9				Fair
332	Populus deltoides	Eastern Cottonwood	10		twin	10	Fair
333	Populus deltoides	Eastern Cottonwood	16				Good
334	Populus deltoides	Eastern Cottonwood	14				Fair
335	Populus deltoides	Eastern Cottonwood	18				Fair
336	Populus deltoides	Eastern Cottonwood	18				Fair
337	Ulmus pumila	Siberian Elm	8		multi		Fair
338	Populus deltoides	Eastern Cottonwood	16				Fair
339	Populus deltoides	Eastern Cottonwood	19				Fair
340	Populus deltoides	Eastern Cottonwood	9				Good
341	Populus deltoides	Eastern Cottonwood	11				Fair
342	Populus deltoides	Eastern Cottonwood	10		twin	7	Fair
343	Tsuga canadensis	Eastern red cedar	1		7'		Fair
344	Tsuga canadensis	Eastern red cedar	1		8'		Fair
345	Populus deltoides	Eastern Cottonwood	15				Fair
346	Populus deltoides	Eastern Cottonwood	8				Fair
347	Populus deltoides	Eastern Cottonwood	15				Fair
348	Populus deltoides	Eastern Cottonwood	10				Fair
349	Populus deltoides	Eastern Cottonwood	16				Fair
350	Populus deltoides	Eastern Cottonwood	9				Fair
351	Acer negundo	Boxelder	11		twin	11	Fair
352	Acer rubrum	Red Maple	13				Fair
353	Acer negundo	Boxelder	10				Poor
354	Populus deltoides	Eastern Cottonwood	12				Fair
355	Populus deltoides	Eastern Cottonwood	10				Poor
356	Prunus serotina	Black Cherry	10				Poor
357	Prunus serotina	Black Cherry	14		multi	13,12	Poor
358	Prunus serotina	Black Cherry	11				Fair
359	Prunus serotina	Black Cherry	11				Fair
360	Acer rubrum	Red Maple	10				Fair
361	Prunus serotina	Black Cherry	8		multi		Poor
362	Pinus sylvestris	Scotch Pine	1		15'		Fair
363	Populus deltoides	Eastern Cottonwood	16				Poor
364	Populus deltoides	Eastern Cottonwood	16				Fair
365	Prunus serotina	Black Cherry	12		multi		Fair
366	Prunus serotina	Black Cherry	9				Fair
367	Prunus serotina	Black Cherry	12				Good
368	Acer rubrum	Red Maple	15				Fair
369	Prunus serotina	Black Cherry	10		twin		Poor
370	Prunus serotina	Black Cherry	15		twin	14	Poor
371	Prunus serotina	Black Cherry	12		multi	10	Poor
372	Prunus serotina	Black Cherry	8		twin	8	Fair
373	Quercus velutina	Black Oak	17				Fair
374	Prunus serotina	Black Cherry	8				Poor
375	Quercus velutina	Black Oak	14				Fair
376	Prunus serotina	Black Cherry	9		twin	9	Fair
377	Prunus serotina	Black Cherry	9				Fair
378	Acer rubrum	Red Maple	9				Good
379	Acer rubrum	Red Maple	9		twin		Fair
380	Prunus serotina	Black Cherry	8				Fair
381	Prunus serotina	Black Cherry	14				Poor
382	Malus spp.	Apple	10				Poor
383	Quercus velutina	Black Oak	8				Fair
384	Populus deltoides	Eastern Cottonwood	15				Fair
385	Ulmus americana	American Elm	8				Fair
386	Acer rubrum	Red Maple	10				Good
387	Prunus serotina	Black Cherry	14		multi	9	Fair
388	Prunus serotina	Black Cherry	14		twin	8	Poor
389	Acer rub						

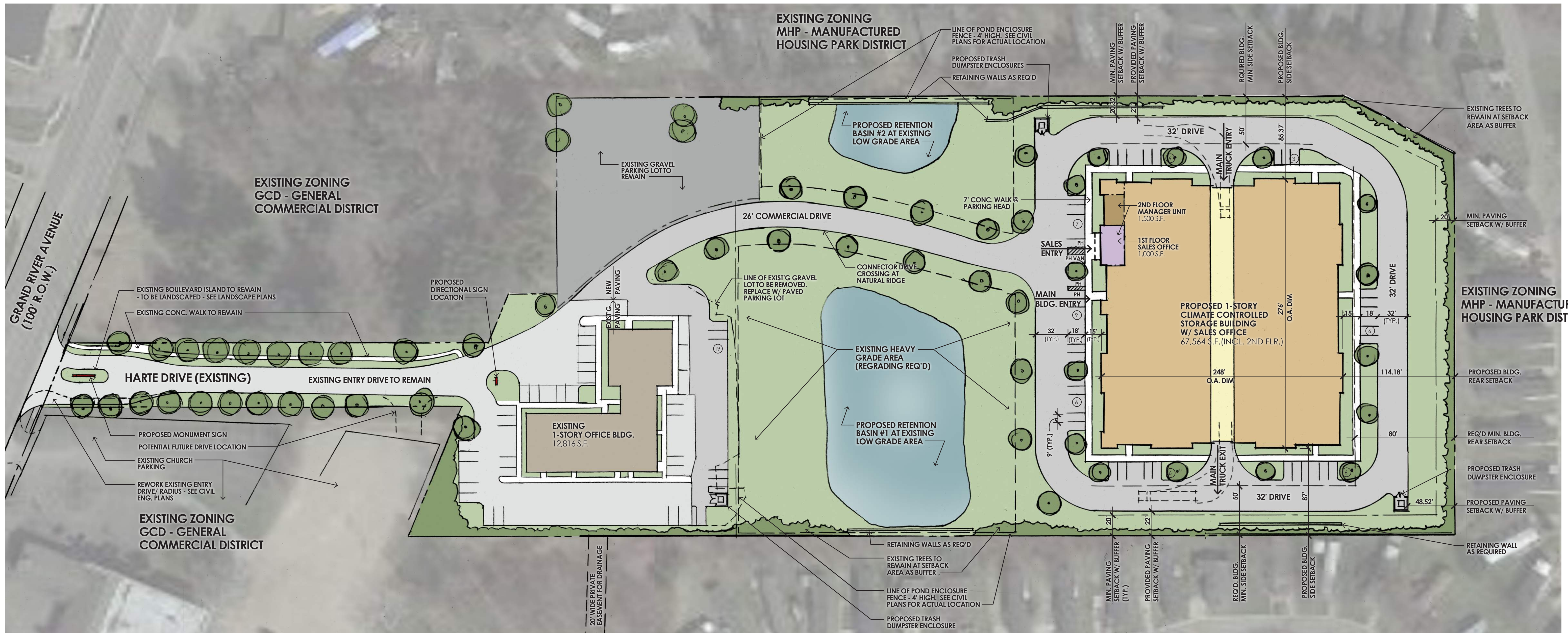


BIRKENSTOCK OFFICE/STORAGE BUILDING



DATE	ISSUE
02.22.19	PID RE-SUBMISSION
01.29.19	PID SITE SUBMISSION

DRAWING TITLE	DRAWING NUMBER
KEY PLAN	
FSP PROJECT NO. HARI7.032	
SITE DETAILS	



CONCEPTUAL SITE PLAN

SCALE: 1" = 50'-0"



SITE DATA

SITE AREA (GROSS)		
MINIMUM PROVIDED	3 AC	
	± 462,607 S.F. OR ± 10.62 AC	
LOT WIDTH		
MINIMUM PROVIDED	150 FT.	
	450 FT.	
ZONING		
EXISTING	GCD (GENERAL COMMERCIAL DISTRICT)	
PROPOSED	PID (PLANNED INDUSTRIAL DEVELOPMENT W/ IND BASE)	
TOTAL BUILDING FOOTPRINT AREA		
EXISTING	12,816 S.F.	
PROPOSED	66,064 S.F.	
TOTAL	78,880 S.F.	
LOT COVERAGE (BUILDINGS)		
MAXIMUM ALLOWED	185,042 S.F. (40%)	
EXISTING	12,816 S.F. (2.7%)	
PROPOSED (TOTAL INCL. EXIST'G.)	78,880 S.F. (17%)	
LOT COVERAGE (IMPERVIOUS SURFACE INCLUDING BUILDING)		
MAXIMUM ALLOWED	393,215 S.F. (85%)	
PROPOSED (TOTAL INCL. EXIST'G.)	208,921 S.F. (45.2%)	
BUILDING HEIGHT		
MAXIMUM ALLOWED	30 FEET - 2 STORY	
PROPOSED	27 FEET - 2 STORY	

BUILDING AREA (GROSS)		
EXISTING OFFICE BLDG.	12,816 S.F.	
PROPOSED STORAGE BLDG.		
STORAGE W/ SALES OFFICE (INCL. 1,000 S.F. SALES)	59,680 S.F.	
MANAGERS UNIT	1,500 S.F.	
TRUCK LOADING (ENCLOSED)	6,384 S.F.	
TOTAL PROPOSED STORAGE BLDG.	67,564 S.F.	
GRAND TOTAL (INCLUDING EXIST'G.)		80,380 S.F.
STORAGE AREA (NET)		46,607 S.F.

PARKING		
REQUIRED - NEW BLDG.		
STORAGE (1 C/1,500 S.F.)	43 SPACES	
SALES OFFICE (1 C/300 S.F.)	4 SPACES	
MANAGERS UNIT (2/UNIT)	2 SPACES	
TOTAL	49 SPACES	
REQUIRED - EXISTING BLDG (1C/300 S.F.)	43 SPACES	
PROPOSED - NEW BLDG.		
STORAGE/SALES OFFICE (INCL. 4 P.H. SPACES)	49 SPACES	
PROPOSED - EXISTING BLDG	67 SPACES	

NOTES:

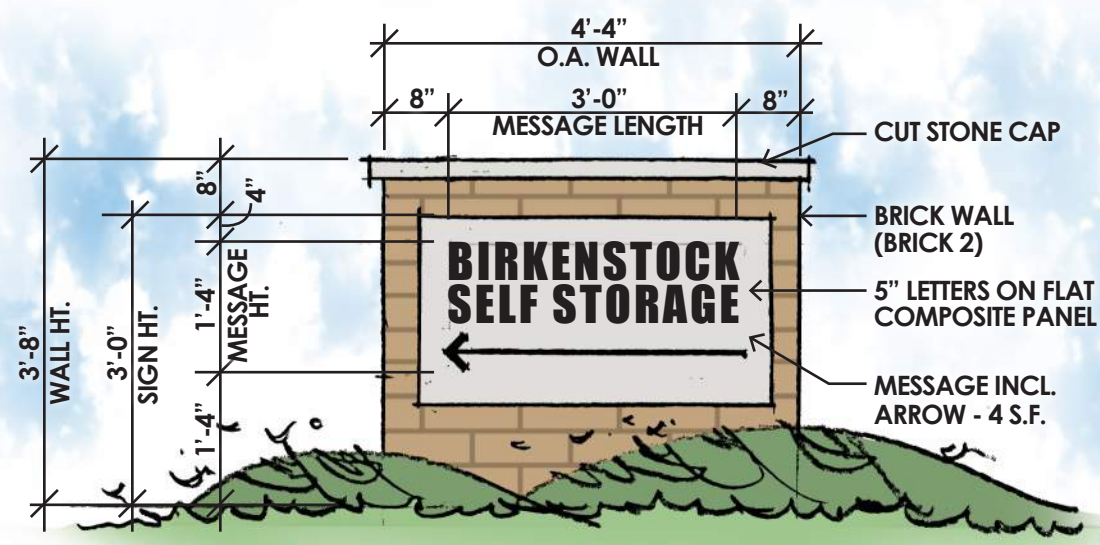
- ALL INTENSITY AND DIMENSIONAL DATA NOTES AS "REQUIRED" OR "ALLOWABLE" IS BASED ON THE IND BASE ZONING STANDARDS (AS AMENDED).
- THE BUILDING SHALL BE PROVIDED WITH ALL AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13.

EXISTING ZONING
MHP - MANUFACTURED
HOUSING PARK DISTRICT

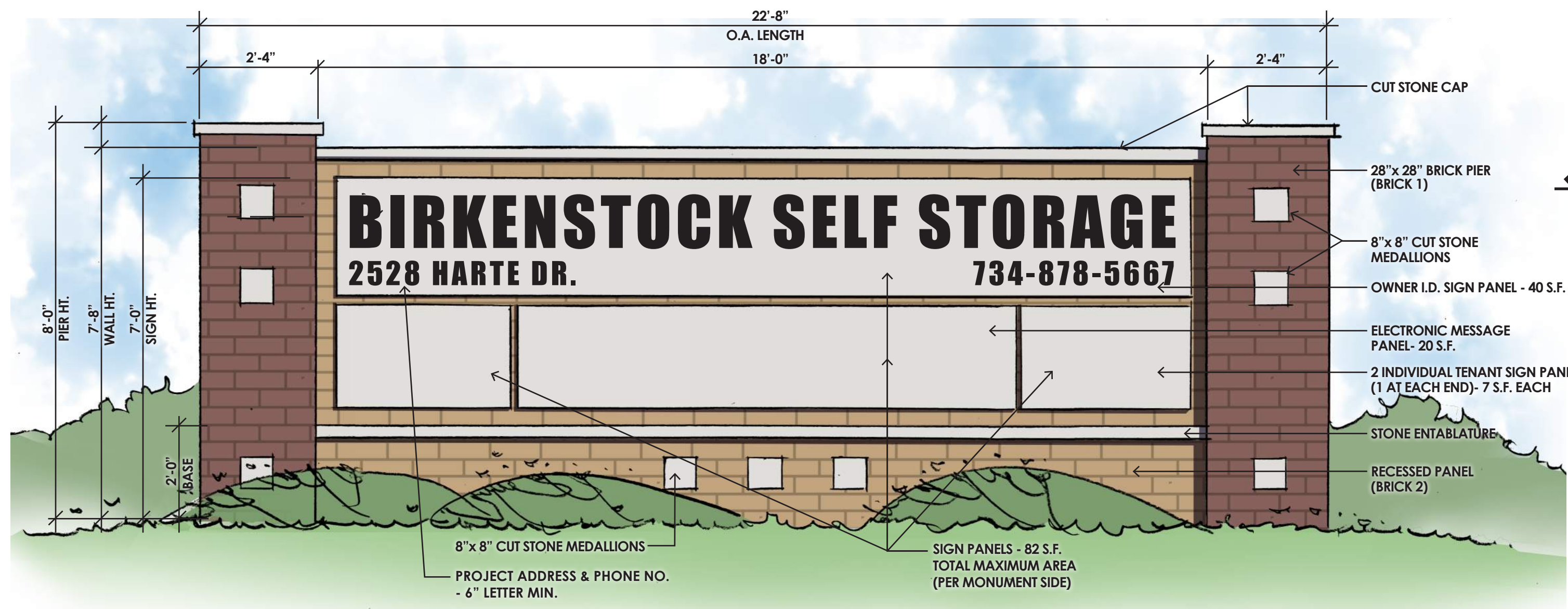
BIRKENSTOCK
OFFICE/STORAGE BUILDING
GENOA TOWNSHIP, MICHIGAN

FSP FUSCO, SHAFER & PAPPAS, INC.
ARCHITECTS & PLANNERS
550 E. NINE MILE RD.
FERNDALE, MICHIGAN 48220
PHONE 248.543.4100 FAX 248.543.4141
www.fsparchitects.com

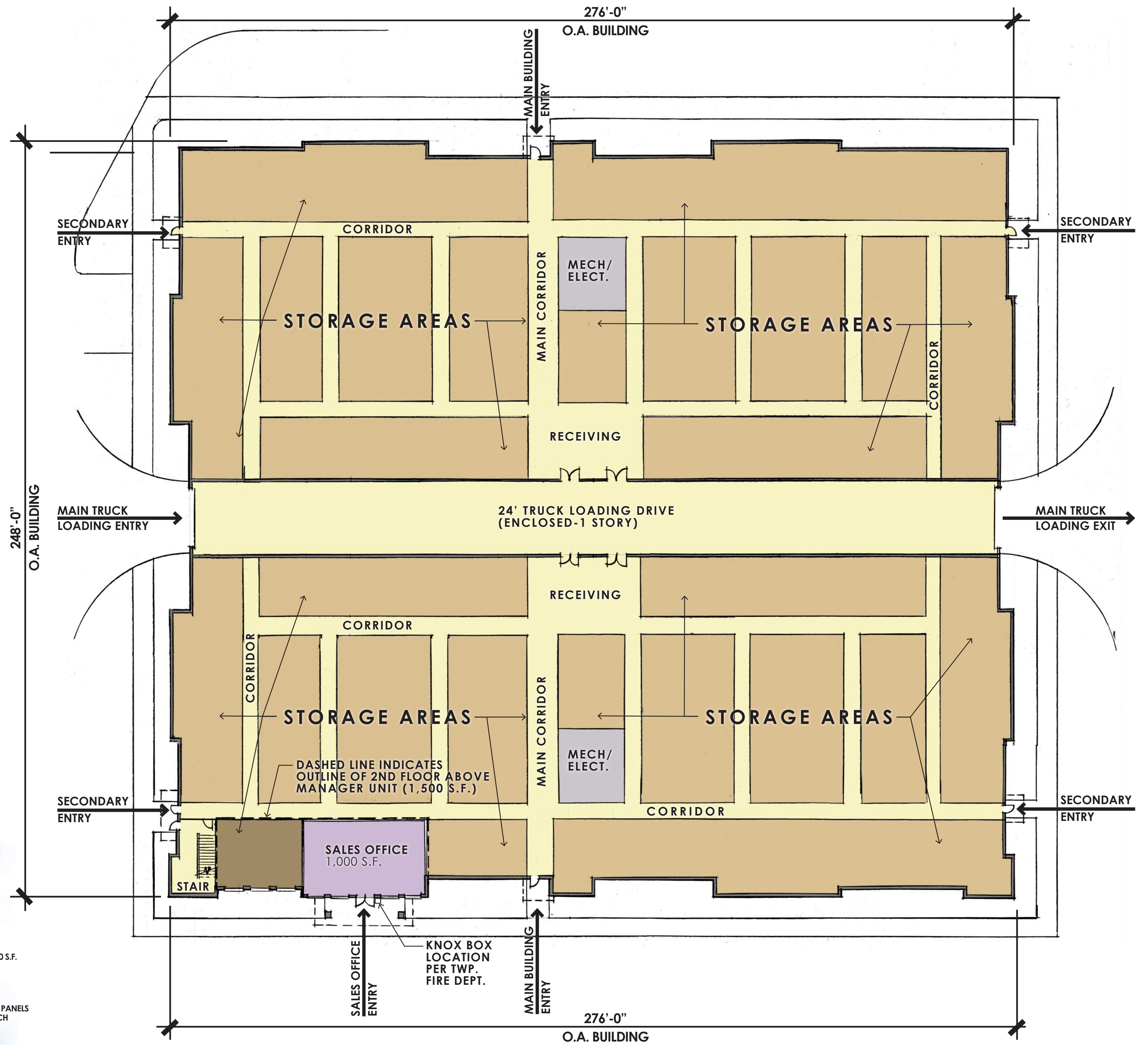
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JANUARY 25, 2019
P.I.D. SITE SUBMISSION
JANUARY 29, 2019
P.I.D. RE-SUBMISSION
FEBRUARY 22, 2019



DIRECTIONAL SIGN ELEVATION SCALE: 1/2" = 1'-0"
ONE-SIDED SIGN



CONCEPTUAL ENTRY MONUMENT SIGN ELEVATION SCALE: 1/2" = 1'-0"
OPPOSITE SIDE SIMILAR

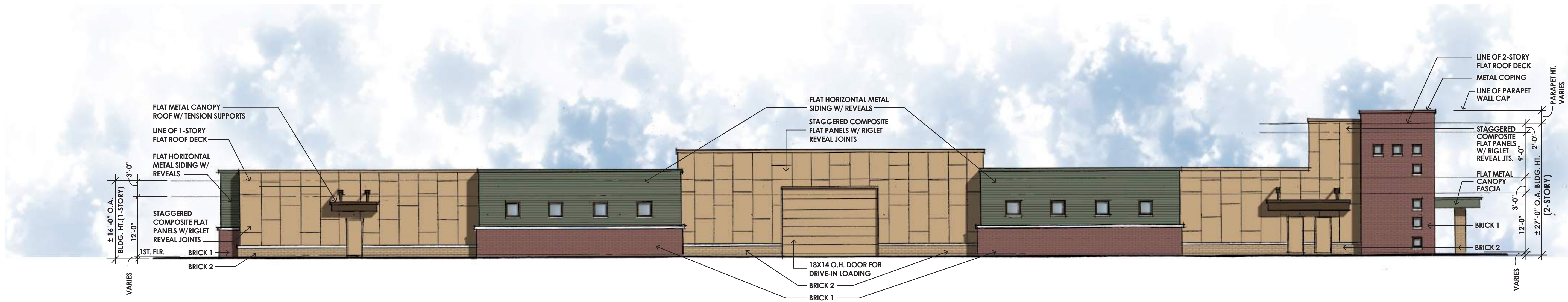


CONCEPTUAL FIRST FLOOR BUILDING PLAN SCALE: 1" = 20'-0"
NORTH
67,596 S.F. TOTAL
46,607 S.F. STORAGE AREA

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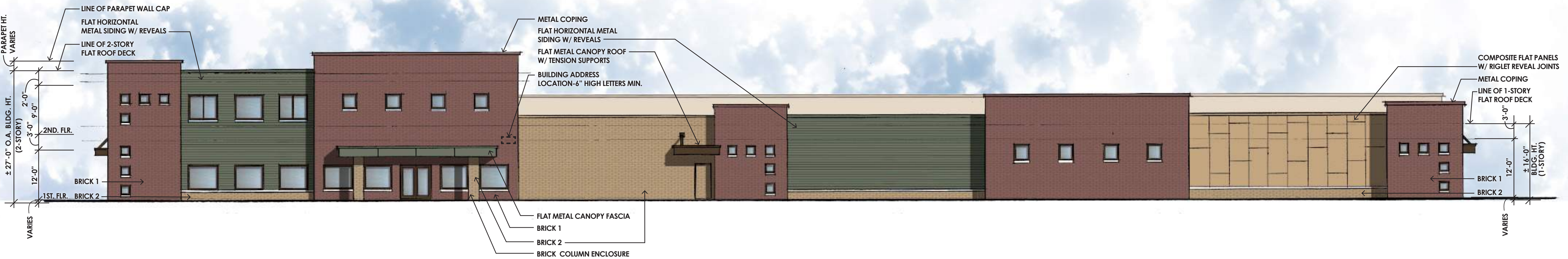


CONCEPTUAL LEFT SIDE ELEVATION(EAST)

SCALE: 3/32" = 1'-0"
 0 5 10 20

EXTERIOR BUILDING MATERIAL % - EAST SIDE (LEFT)

MATERIAL	MAX % ALLOWED	PROVIDED %
BRICK	100%(MIN. 50%)	28.7%
METAL SIDING	25%	21.3%
COMPOSITE SIDING	25%	48.9%
METAL CANOPY	25%	1.1%
TOTAL		100%



CONCEPTUAL FRONT SIDE ELEVATION(NORTH)

SCALE: 3/32" = 1'-0"
 0 5 10 20

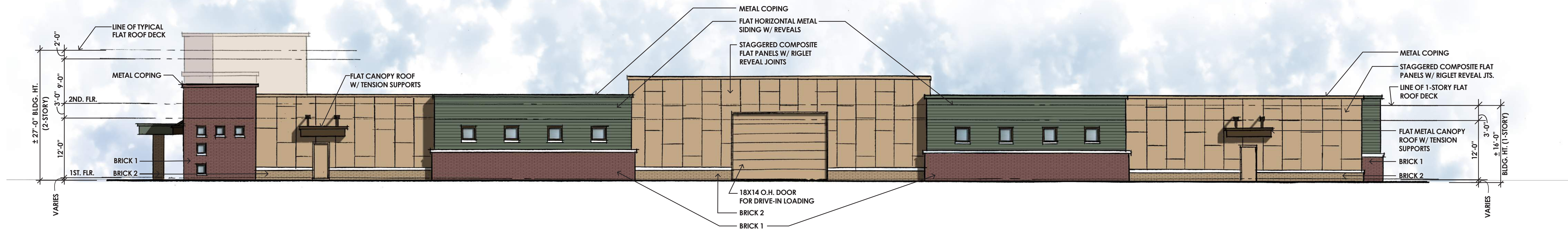
EXTERIOR BUILDING MATERIAL % - NORTH SIDE (FRONT)

MATERIAL	MAX % ALLOWED	PROVIDED %
BRICK	100%(MIN. 50%)	71.6%
METAL SIDING	25%	17.2%
COMPOSITE SIDING	25%	9.6%
METAL CANOPY	25%	1.6%
TOTAL		100%

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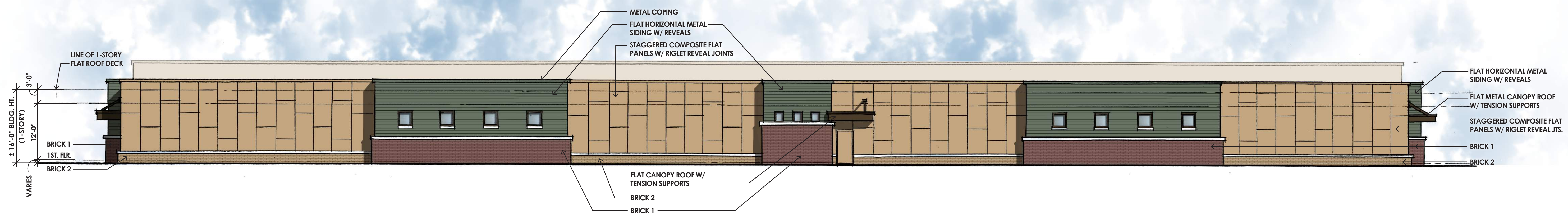
CONCEPTUAL RIGHT SIDE ELEVATION(WEST)

SCALE: 3/32" = 1'-0"



EXTERIOR BUILDING MATERIAL % - WEST SIDE (RIGHT)

MATERIAL	MAX % ALLOWED	PROVIDED %
BRICK	100%(MIN. 50%)	27.6%
METAL SIDING	25%	23.4%
COMPOSITE SIDING	25%	48.2%
METAL CANOPY	25%	0.8%
TOTAL		100%



CONCEPTUAL REAR SIDE ELEVATION(SOUTH)

SCALE: 3/32" = 1'-0"



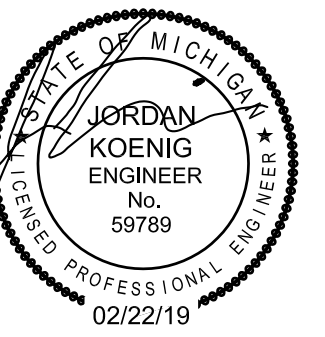
EXTERIOR BUILDING MATERIAL % - SOUTH SIDE (REAR)

MATERIAL	MAX % ALLOWED	PROVIDED %
BRICK	100%(MIN. 50%)	24%
METAL SIDING	25%	24.3%
COMPOSITE SIDING	25%	51.3%
METAL CANOPY	25%	0.4%
TOTAL		100%

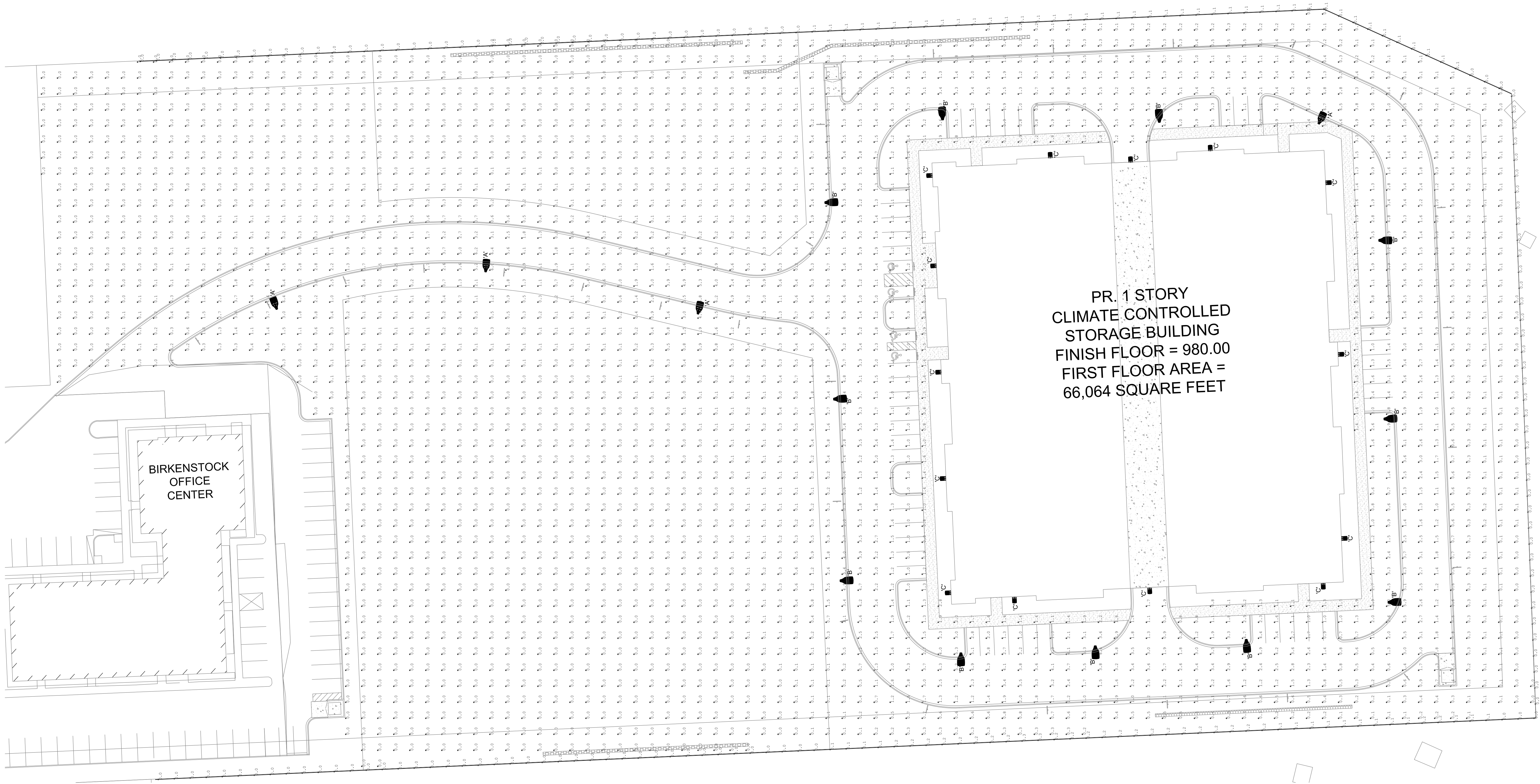
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FEBRUARY 22, 2019



**BIRKENSTOCK
 OFFICE / STORAGE BUILDING**



PR. 1 STORY
 CLIMATE CONTROLLED
 STORAGE BUILDING
 FINISH FLOOR = 980.00
 FIRST FLOOR AREA =
 66,064 SQUARE FEET

SITE PLAN - PHOTOMETRICS
 SCALE 1" = 30'-0"

Calculation Summary						
Label	Catc/Type	Units	Avg	Max	Min	Avg/Min
CatcPts_1	Illuminance	Fc	0.76	6.8	0.0	N.A.
PROPERTY LINE	Illuminance	Fc	0.05	0.3	0.0	N.A.
Entry Drive	Illuminance	Fc	1.98	6.8	0.2	9.90
Parking Drive	Illuminance	Fc	2.09	6.7	0.2	10.45

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description	Total Watts	BUG Rating	Lum. Watts
	4	A	SINGLE	N.A.	0.950	VISIONAIRE VSX-1-T2-15L-4K-VOLT SINGLE @ 20' MTG. HT.	408	B3-U0-G3	102
	11	B	SINGLE	N.A.	0.950	VISIONAIRE VSX-1-T3-15L-4K-VOLT SINGLE @ 20' MTG. HT.	1122	B3-U0-G3	102
	14	C	SINGLE	N.A.	0.950	VISIONAIRE VSC-1-T3-16LC-3-4K-VOLT WM @ 15' MTG. HT.	252	B1-U0-G1	18

02-22-19	PID Re-submission
01-29-19	PID Site submission
DATE	ISSUE

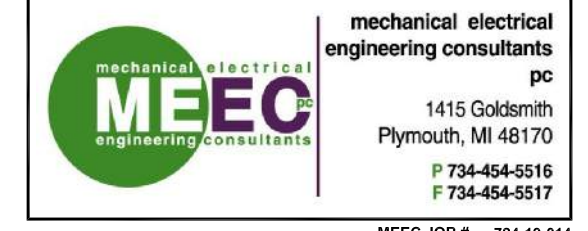
KEY PLAN

FSP PROJECT NO.

DRAWING TITLE

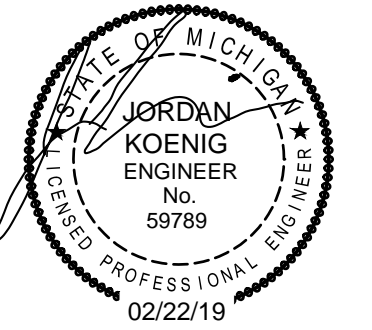
SITE PLAN - PHOTOMETRICS

DRAWING NUMBER



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EX.001



VSX LED Specifications



Project Name: _____
 Catalog Number: _____
 Type: _____

The VSX LED Series offers clean, functional styling that is defined by its sleek low profile design and rugged construction. It combines LED performance and advanced LED thermal management technology and provides outdoor lighting that is both energy efficient and aesthetically pleasing.

The LED's performance and the driver's life are maximized by enclosing them in two separate cast aluminum housings. Easy access screw covers for mounting and maintenance.

The LED light assemblies come with 16 to 48 LEDs. Eight optical distribution patterns are available. Choose between 3000, 4000 or 5000 Kelvin temperature of the LEDs.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The VSX LED series is an exceptional choice for commercial parking lots, office complexes, architectural projects, and other general lighting projects.

Ordering Information

MODEL	OPTICS	LEDs	CURRENT	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS	OPTIONS
VSX-1	T1	16LC	3	3K	UNV	AM	BZ	PCR-120	RPP3
	T2	32LC	5	3000K	8	WM	BK	PCR-208	RPP4
	T3	48LC	5	4K		WB	BK	PCR-208	RPP4
	T4		7	4000K	5	WH	BK	PCR-277	RPP5
	T5		10	5K		SWH	BK	PCR-277	RPP5
	T5W		10	5000K	5	GP	SBK	PCR-450	RPP5
	TSWR		10	5000K		GY	SBK	PCR-450	RPP5
							SL	UPMA-R	UPMA-R
							CC	UPMA-R	UPMA-R
								UPMA-R	UPMA-R

VSC LED Specifications



Project Name: _____
 Catalog Number: _____
 Type: _____

The VSC LED well mount Series continues the unique contemporary design that is inspired by the VCollection light series. It combines LED performance and advanced LED thermal management technology and provides lighting that is energy efficient and aesthetically pleasing.

The LED performance and the driver's life are maximized by enclosing them in two separate cast aluminum housings. Easy access for mounting and maintenance.

The LED light assemblies come with 16, 32, or 48 LEDs.

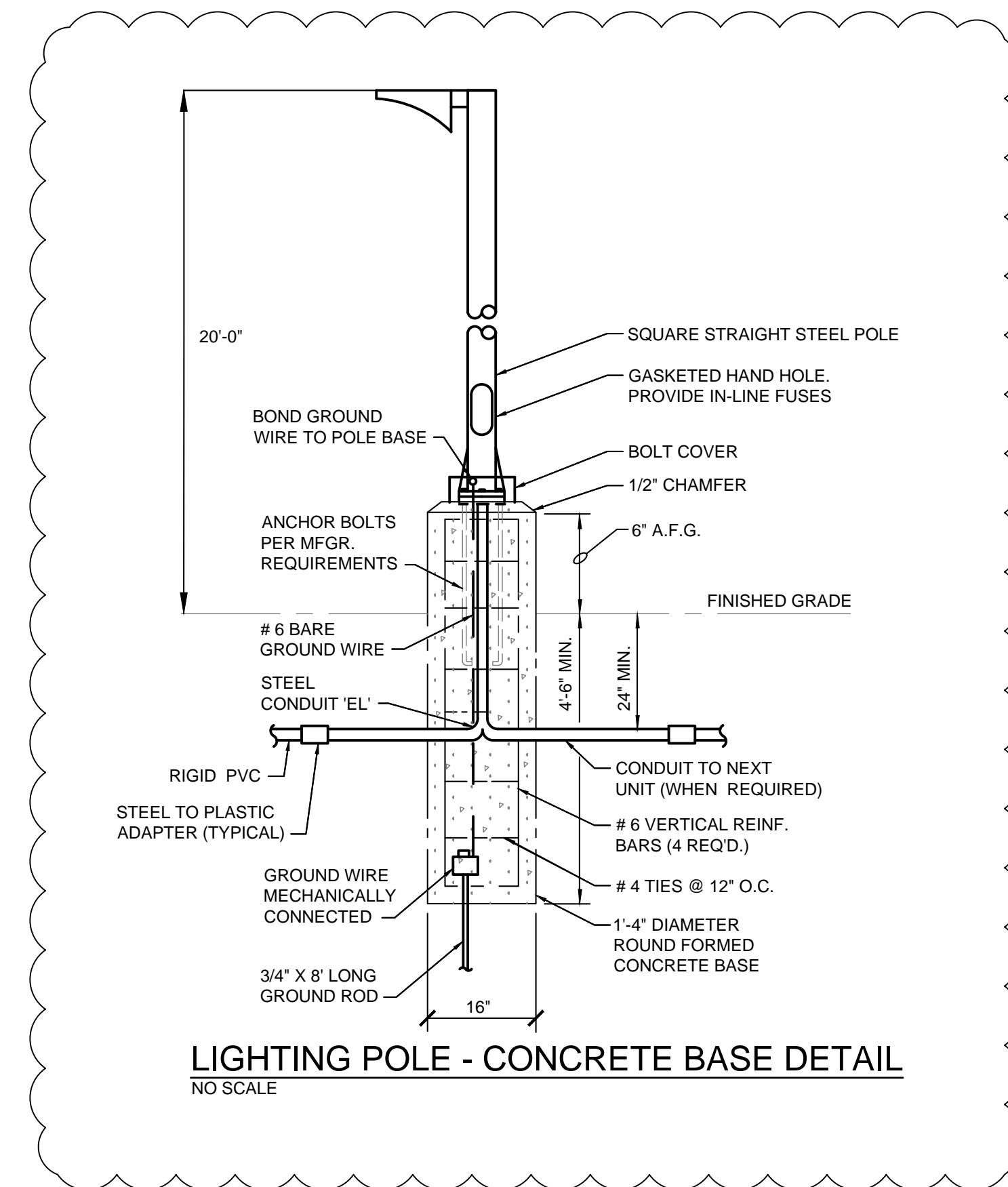
Six optical distribution patterns are available. Choose between 3000, 4000 or 5000 Kelvin temperature for the LEDs.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The VSC Series is an exceptional choice for office complexes, schools, commercial buildings, and many architectural projects.

Ordering Information

MODEL	OPTICS	SOURCE	CURRENT	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS
VSC-1	T1	16LC	3	3K	UNV	WM	BZ	PC-120
	T2	32LC	5	3000K	8	VCB	BK	PC-208
	T3	48LC	5	4K		VCB	BK	PC-208
	T4		7	4000K	5	VCB	BK	PC-240
	T5		10	5K		VCB	BK	PC-240
T5W		10	5000K	5	VCB	BK	PC-277	



LIGHTING POLE - CONCRETE BASE DETAIL
NO SCALE

MICHIGAN
BIRKENSTOCK
 OFFICE / STORAGE BUILDING
 GENOA TOWNSHIP

02-22-19	PID Re-submission
01-29-19	PID Site submission
DATE	ISSUE

KEY PLAN

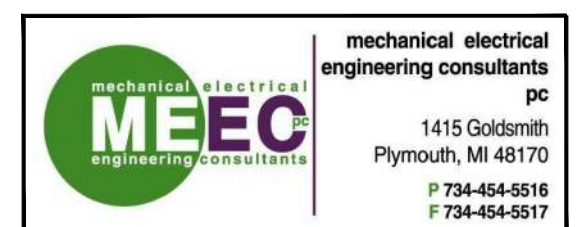
FSP PROJECT NO.

DRAWING TITLE

SITE PLAN - LIGHT FIXTURES

DRAWING NUMBER

EX.002



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