

Cascade Charter Township Planning Commission
Monday, November 14, 2016
7:00 pm
Cascade Library Wisner Center
2870 Jacksmith Ave. SE

- ARTICLE 1. **Call the meeting to order**
Record the attendance**
- ARTICLE 2. **Pledge of Allegiance to the flag****
- ARTICLE 3. **Approve the current Agenda****
- ARTICLE 4. **Approve the Minutes of the October 03, 2016 meeting****
- ARTICLE 5. **Acknowledge visitors and those wishing to speak to non-agenda items.**
(Comments are limited to five minutes per speaker.)**
- ARTICLE 6. **Case #16-3337 Karl Romence**
Public Hearing
Property Address: 5752 Hall St.
Requested Action: The applicant is requesting a Special Use Permit
to construct an accessory building in excess of 832 sq ft.**
- ARTICLE 7. **Case #16-3330 Cascade Lodging – Meijer PUD Amendments**
Public Hearing
Property Address: 5411 28th St Ct
Requested Action: The applicant is requesting preliminary
approval to amend the existing PUD to allow for a new hotel.**
- ARTICLE 8. **Case # 16-3341 Oak Harbor Preserve**
Property Address: 7901 48th St, 7735 48th St, 4580 Little Harbor Dr.
Requested Action: The applicant is requesting basic plan review to rezone
approximately 40 Acres to PUD to allow for 31 Site Condominium units.**
- ARTICLE 9. **Case # 16-3342 Paragon Die & Engineering**
Property Address: 5225 33rd St.
Requested Action: The applicant is requesting site plan approval for
a 17,000 sq ft addition.**
- ARTICLE 10. **Cascade Township****

Consider adoption of resolution for 2017 – 2022 Capital Improvement Plan.

ARTICLE 11. Kent County Road Commission 5 year plan (2017-2021).

ARTICLE 12. Any other business

ARTICLE 13. Adjournment

Meeting format

1. **Staff Presentation** *Staff report and recommendation*
2. **Project presentation-** *Applicant presentation and explanation of project*
 - a. **PUBLIC HEARINGS**
 - i. **Open Public Hearing.** *Comments are limited to five minutes per speaker; exception may be granted by the chair for representative speakers and applicants*
 - ii. **Close public hearing**
3. **Commission discussion –** *May ask for clarification from applicant, staff or public*
4. **Commission decision - Options**
 - a. *Table the decision*
 - b. *Deny*
 - c. *Approve*
 - d. *Approve with conditions*
 - e. *Recommendation to Township Board*

MINUTES
Cascade Charter Township
Planning Commission
Monday, October 3, 2016
7:00 P.M.

ARTICLE 1. Chairman Waalkes called the meeting to order at 7:00 P.M.
Members Present: Katsma, Lewis, Mead, Pennington, Rissi, Robinson and Williams
Members Absent: Sperla (E)
Others Present: Community Development Director, Steve Peterson and those listed on the sign in sheet.

ARTICLE 2. **Pledge of Allegiance.**

ARTICLE 3. **Approve the current Agenda.**

Motion was made by Member Lewis to approve the Agenda. Supported by Member Mead. Motion carried 8 to 0.

ARTICLE 4. **Approve the Minutes of the September 19, 2016 Meeting.**

Motion was made by Member Robinson to approve the Minutes as presented. Supported by Member Rissi. Motion carried 8 to 0.

ARTICLE 5. **Acknowledge visitors and those wishing to speak to non-agenda items.**

No visitors who were present wished to speak about non-agenda items.

ARTICLE 6. **Case #16:3321 Growney Mixed Use P.U.D. Amendment**
Public Hearing

Property Address: 2899 Thornapple River Drive

Requested Action: The Applicant is requesting to rezone property at 2899 Thornapple Drive from B-1 and add it to the Thornapple Hilltop P.U.D.

Director Peterson stated that the Applicant is requesting preliminary approval in order to construct a new mixed use building. This building would include about 5,000 sq. ft. of retail/restaurant space with 7 residential units. The B-1 zoning district allows for up to 9 units per acre, this would come to about 8 units per acre.

This is the second phase of the planned development of the Thornapple Hilltop development. The first phase was the small residential development off of Overlook Summit. This new phase would be added to the existing Thornapple Hilltop P.U.D.

The site has been planned for a restaurant, although a drive-through restaurant is not permitted. The project also included some small property line reconfigurations between the first and second phase. These changes allow for additional parking on this phase of the project, which does not impact the first phase in a negative way that would have altered their approval.

The applicant has designed the building at about 35 feet tall. This is an exception of 5 feet. The B-1 zone allows for 30 feet tall for mixed use projects that include residential. The developer has provided some perspective drawings to help show what the building would like. The reason for the P.U.D. change is due to the exception for height, to add it to the existing P.U.D. and to tie in the building elevations with the approval.

The project includes a path to the North connecting to the residential uses in the Thornapple Hilltop P.U.D. It also includes a sidewalk along Thornapple River Drive. This sidewalk would ultimately provide a connection to Cascade Road, consistent with the Master Plan.

The site plan has been reviewed and approved by the Township Engineer. Applicant will need to execute the storm water agreement.

Director Peterson recommends approval of the preliminary plan. If approved, the applicant will come back for a recommendation to the Township Board when the P.U.D. ordinance language is worked out with the Applicant. After your recommendation, the Township Board will consider the matter at the final public hearing.

Chairman Waalkes asked the Applicant to come forward with any comments.

Mr. Steve Witte of Nederveld came forward to give an overview of the project and to address parking, cross-access, drainage, dumpster enclosure, sidewalks, and parking for the residential units.

Motion was made by Member Lewis to open the public hearing. Supported by Member Rissi. Motion carried 8-0.

Mr. Ken Carey came forward. Mr. Carey is the nearest neighbor to the project and wanted to let the Planning Commission know he is in favor of this project.

Motion was made by Member Rissi to close the public hearing. Supported by Member Mead. Motion carried 8-0.

Motion was made by Member Rissi to approve the preliminary plan. Supported by Member Mead. Motion carried 8-0.

ARTICLE 7. Case #16:3305 Spruce Meadows P.U.D. Amendment
Property Address: 5375 28th Street Court SE
Requested Action: Recommendation of P.U.D. Amendment

Director Peterson presented the Commission with the draft ordinance amendment of the Spruce Meadows P.U.D. project.

Motion was made by Member Mead to approve the language of the P.U.D. amendment and forward to the Township Board. Supported by Member Robinson.

ARTICLE 8. Case #16:3334 Shaun Burkett – Suburban Landscapes

Property Address: 9500 Cascade Road

Requested Action: The Applicant is requesting site plan approval for a 3,800 sq. ft. addition.

Director Peterson stated that the Applicant wants to construct a new addition on to the building to accommodate additional vehicle storage. This property was awarded a special use permit and site plan approval I 2006 for this use. The have operated at this location since with no complaints. A recent inspection of the site showed that they are operating within the confines of the special use permit. The addition is in the middle of the site and meets setback requirements. In order to stay in compliance with the special use permit they must continue to comply with Section 17.07.2.j of the zoning ordinance. This project does not increase an impervious surface since it is already a gravel parking lot. The Applicant is already capturing storm water in containers in order to irrigate material at the site. They also have a 12 ft. wide drainage area around the south side of the site to help with drainage.

Director Peterson recommends approval of the site plan addition.

Motion was made by Member Robinson to approve the site plan addition. Supported by Member Lewis. Motion carried 8-0.

ARTICLE 9. Any other business.

The next meeting will be held November 14, 2016.

ARTICLE 10. Adjournment.

Motion was made by Member Rissi to adjourn. Supported by Member Mead. Motion carried 8 to 0. The meeting was adjourned at 7:50 p.m.

Respectfully submitted,
Scott Rissi, Secretary

STAFF REPORT: Case # 16-3337
REPORT DATE: October 14, 2016
PREPARED FOR: Cascade Charter Township Planning Commission
MEETING DATE: November 14, 2016
PREPARED BY: Steve Peterson, Community Development Director

APPLICANT:
Karl Romence
5752 Hall St
Cascade MI 49546

STATUS

OF APPLICANT: Property Owner

REQUESTED ACTION: The applicant is requesting a Special Use Permit to construct an accessory building in excess of 832 sq ft.

EXISTING ZONING OF
SUBJECT PARCEL(S): R1

GENERAL LOCATION: south side of Hall St east of Cascade Rd.

PARCEL SIZE: Approximately 1.7 acre.

EXISTING LAND USE
ON THE PROPERTY: Residential

ADJACENT AREA
LAND USES: Residential

ZONING ON
ADJOINING PARCELS: R1
R-2 in Ada Township

STAFF COMMENTS:

1. The applicant is requesting permission to construct a 30' x 40' accessory building (1,200 sq ft). The building will be 12 feet tall as measured to the midpoint.
2. They have indicated that they want the building for personal storage of lawn equipment, cars, etc.
3. They are planning to place the building in the rear yard and 10 feet from the side property line and 25 feet to the rear property line. This is our minimum required setbacks.
4. With less than 3 acres the property would only be allowed this one accessory building.
5. The building will have wood siding and asphalt shingles. A review of past accessory building in the R1 zone on lots of similar size shows that this is "normal" size.
6. Any outdoor lighting will have to meet our standards, requiring it to be shielded and downcast or at a level that is exempted.
7. It should be noted that accessory buildings cannot be used for living space or to run a business.

Upon review of a Type I Special Use Permit for an accessory building, Section 17.03(1)(a) of the Zoning Ordinance requires the Planning Commission to consider several factors. I have listed those items for your consideration followed by my comments for each.

<i>Factors</i>	<i>Comments</i>
The intended use of the building.	Residential storage.
The proposed location, type and kind of construction and general architectural character of the building.	The garage will be of similar materials to the homes in the area.
The size of the building in relation to the house, lot and zoning district.	The property is about 1.7 acres. The home has approximately 2,200 sq. ft. of finished living space.
The type and kind of principal and accessory buildings and structures located on properties which are adjoining and in the general area.	There are a few other detached buildings in the immediate area. This size building is larger than others in the immediate neighborhood but is

	consistent with others of similar size in the Township.
The topography and vegetation in the area.	Wooded, slope down from the road
Whether the proposed building will affect the light and air circulation of any adjoining properties.	No impact
Whether the proposed building will adversely affect the view of any adjoining property owner or occupant.	The location of the adjacent homes are a distance away and would make it difficult to see the building.
Points of access to the proposed building and their relationship to adjoining properties and the view from the adjacent streets.	No new access to the street will be created.

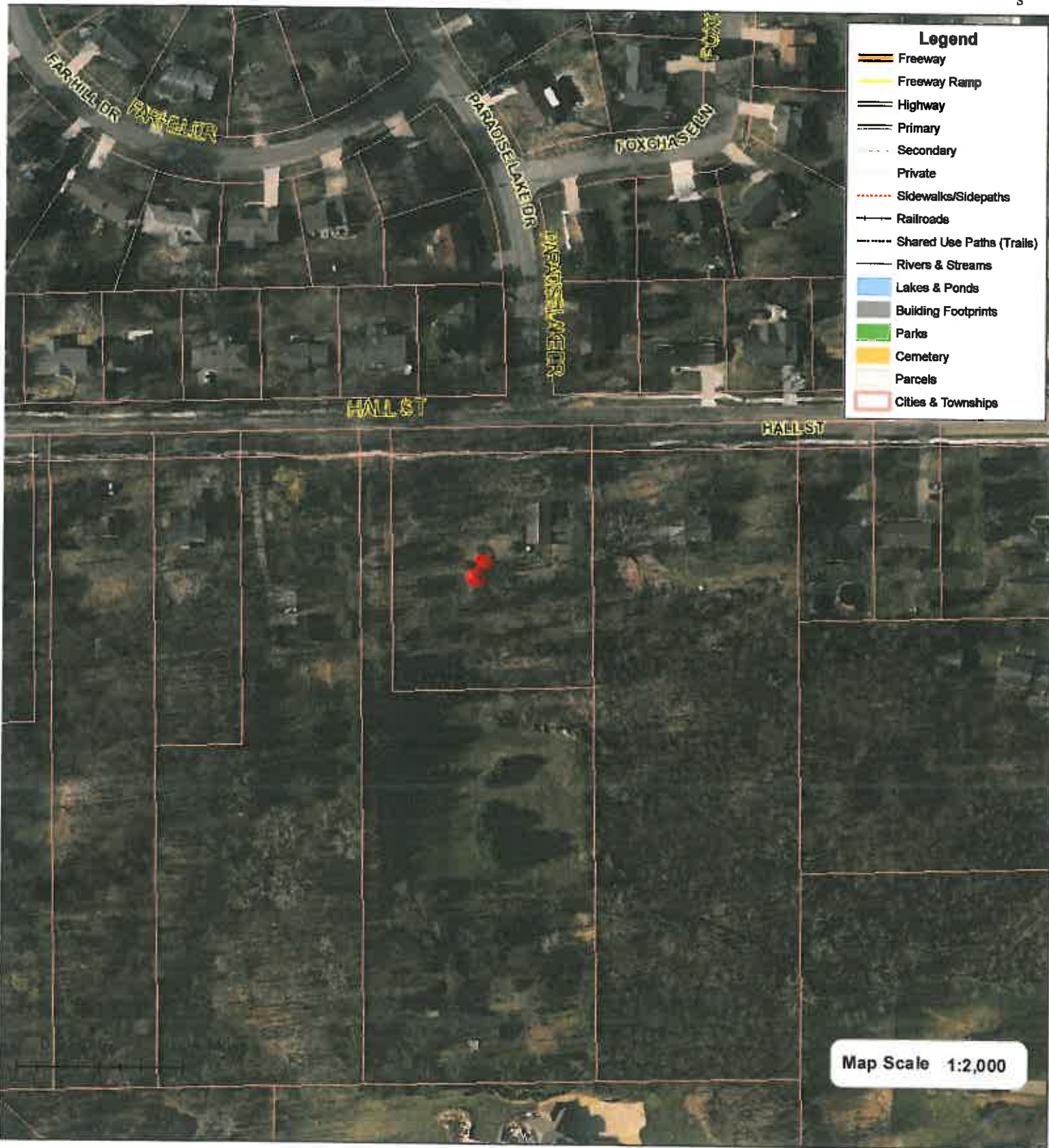
STAFF RECOMMENDATION

I would recommend that you approve the request to construct the new building under the following conditions;

1. The building is not used for living space or to run a business.
2. Any outdoor lighting meets our regulations.

Attachments: Application package

TITLE



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Printed 11/8/2016 8:29:41 AM



CASCADE CHARTER TOWNSHIP

2865 Thornhills SE Grand Rapids, Michigan 49546-7140

PLANNING & ZONING APPLICATION

APPLICANT: Name: Karl A. Romence
 Address: 5752 Hall Street S.E.
 City & Zip Code: Grand Rapids, MI 49546
 Telephone: (616) 329-5431
 Email Address: Karl.Romence@gmail.com

OWNER: * (If different from Applicant)

Name: _____
 Address: _____
 City & Zip Code: _____
 Telephone: _____
 Email Address: _____

NATURE OF THE REQUEST: (Please check the appropriate box or boxes)

<input type="checkbox"/> Administrative Appeal	<input type="checkbox"/> Administrative Site Plan Review
<input type="checkbox"/> Deferred Parking	<input type="checkbox"/> P.U.D. - Rezoning *
<input type="checkbox"/> P.U.D. - Site Condominium *	<input type="checkbox"/> Rezoning
<input type="checkbox"/> Site Plan Review *	<input type="checkbox"/> Sign Variance
<input checked="" type="checkbox"/> Special Use Permit	<input type="checkbox"/> Subdivision Plat Review *
<input type="checkbox"/> Zoning Variance	<input type="checkbox"/> Other: _____ *

** Requires an initial submission of 5 copies of the completed site plan*

BRIEFLY DESCRIBE YOUR REQUEST:**
Boat Storage, Lawn Equipment, Wood Work Shop

(** Use Attachments if Necessary)
 -SEE OTHER SIDE-

Assessing
949-6176

Building
949-3765

Buildings & Grounds
682-4836

Clerk
949-1508

ire
949-1320

Manager
949-1500

Planning
949-0224

Treasurer
949-6944

LEGAL DESCRIPTION OF PROPERTY:**

(**Use Attachments if Necessary)

PERMANENT PARCEL (TAX) NUMBER: 41-19 _____

ADDRESS OF PROPERTY: _____

PRESENT USE OF THE PROPERTY: _____

**NAME(S) & ADDRESS(ES) OF ALL OTHER PERSONS, CORPORATIONS, OR FIRMS HAVING A LEGAL OR
EQUITABLE INTEREST IN THE PROPERTY:**

Name(s)	Address(es)
_____	_____
_____	_____

SIGNATURES

I (we) the undersigned certify that the information contained on this application form and the required documents attached hereto are to the best of my (our) knowledge true and accurate. I (we) also agree to reimburse the Cascade Charter Township for all costs, including consultant costs, to review this request in a timely manner. I (we) understand that these costs may also include administrative reviews which may occur after the Township has taken action on my (our) request.

I (we) the undersigned also acknowledge that the proposed project does not violate any known property restrictions (i.e. plat restrictions, deed restrictions, covenants, etc.)



Owner – Print or Type Name
(*If different from Applicant)

Applicant – Print or Type Name



Owner's Signature & Date
(*If different from Applicant)

Applicant's Signature & Date

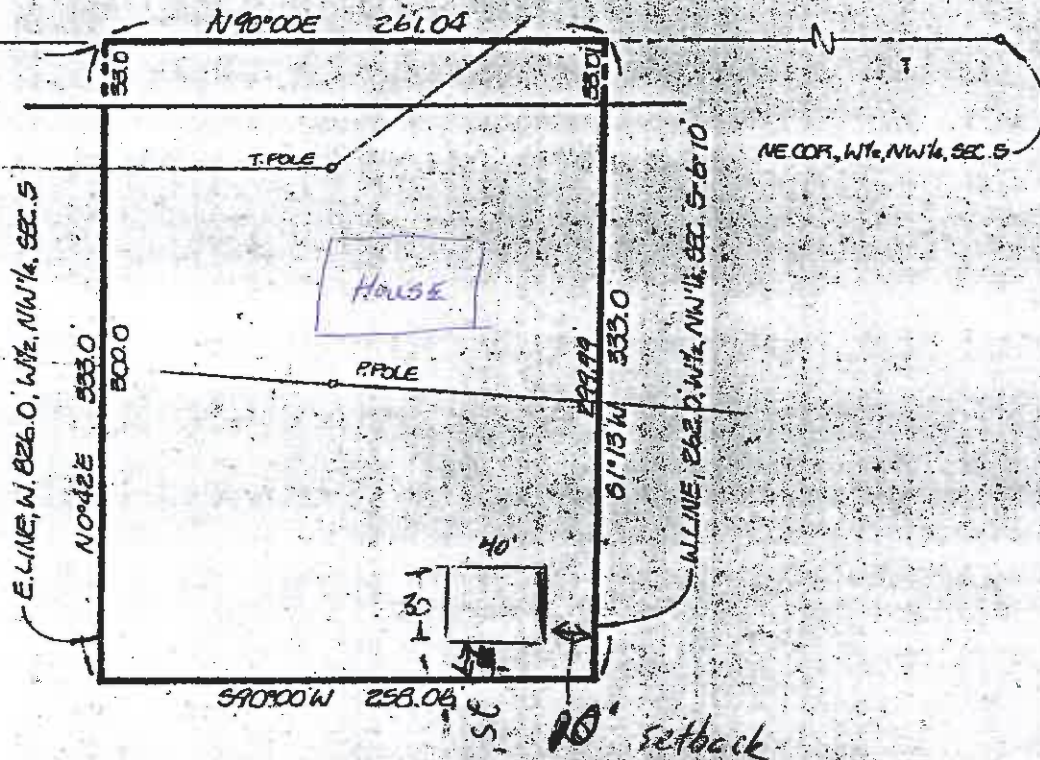
PLEASE ATTACH ALL REQUIRED DOCUMENTS NOTED IN THE PROCESS REVIEW SHEET – THANK YOU

Rev. 7/24/14

PROPERTY DESCRIPTION

That part of the West 1/2, NW 1/4, Section 5, T6N, R10W, Cascade Township, Kent County, Michigan, described as: Commencing at the Northwest corner of said Section 5; thence N90°00'E 826.0 feet along the North line of the NW 1/4 to the place of beginning; thence N90°00'E 261.04 feet; thence S1°13'W 333.0 feet along the West line of the East 262.0 feet of said West 1/2, NW 1/4; thence S90°00'W 258.06 feet; thence N0°42'E 333.0 feet along the East line of the West 826.0 feet of said West 1/2, NW 1/4, to the place of beginning. Subject to a right of way for highway purposes over the North 33.0 feet thereof.

LINE, SEC 5, T6N, R10W & 5 HALL ST



Sketch for: Mr. Arthur Romence
1058 Lake Grove, S.E.
Grand Rapids, Michigan 49506



Scale 1" = 100'

● Iron Stakes

- - - - Fence Line

MEDEMA VAN KOOTEN & ASSOCIATES

Consulting Engineers & Surveyors

252 State St., S.E.

Grand Rapids, Mich. 49502 Date 7-30-75

shown above. The description should be compared with the Abstract of for accuracy, easements and exceptions.



Self Serve Lumber - Lowell(3) Quotation Package



QUOTATION FOR:

Dustin Dejong
Hall St.
Lowell, MI 49331
616-262-8556

CONTACT:

Dan Powlus-3
925 West Main Street
Lowell, MI 49331
(616) 897-4857

QUOTATION DATE:

9/9/2016

ESTIMATE NUMBER:

5929

CONSTRUCTION:

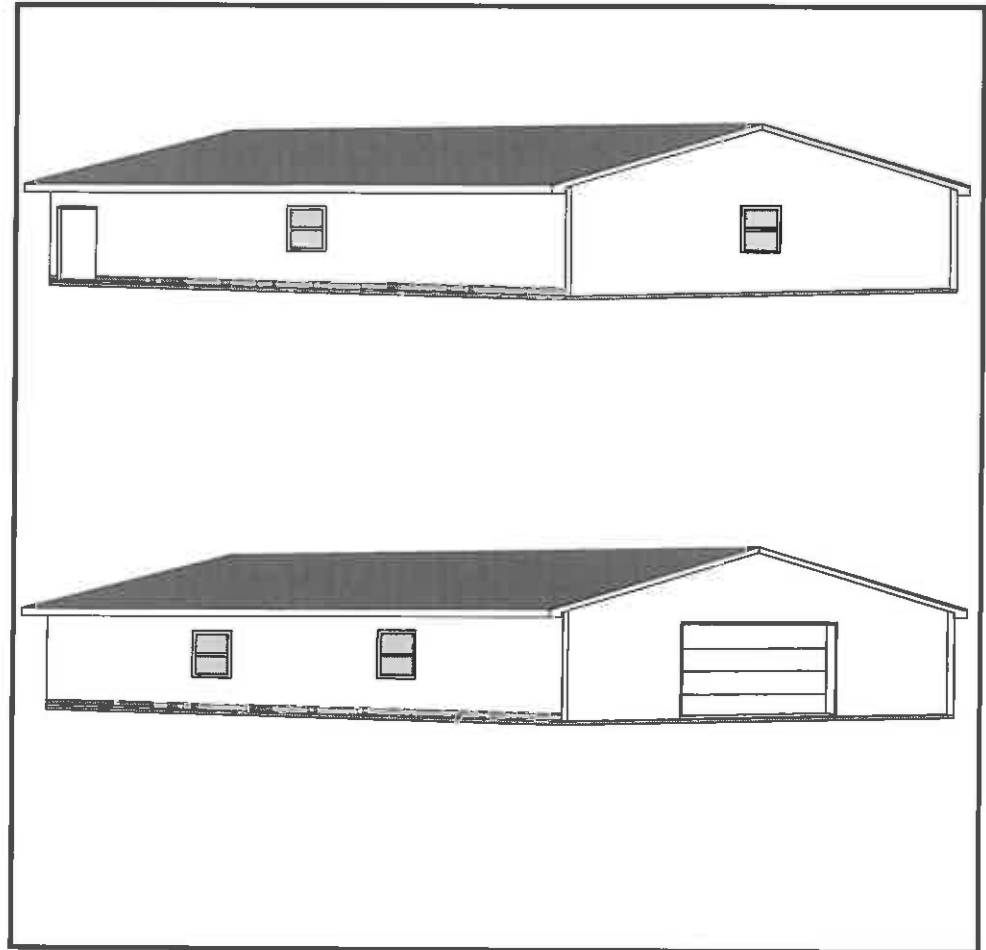
Post Frame

DIMENSIONS:

30' X 40' X 9'

SPECIFICATIONS FOR 30' X 40' X 9' POST FRAME PACKAGE:

- **MATERIAL PACKAGE**
 - Pre-Engineered Wood Trusses (4/12 Pitch, 2' O/C)
 - 4 x 6 Treated Eave Posts (8' O/C)
 - 4 x 6 Treated Gable Posts (10' O/C)
 - 6 x 6 Treated Corner Posts
 - 2 x 6 Treated T&G Skirt Boards (2 Rows)
 - 2 x 4 Wall Girts (24" O/C)
 - 2 x 12 Double Top Girt Truss Carrier
 - 1/2" OSB on Roof
 - Certainteed Dimensional (Eh) Landmark Architectural Cobblestone Gr
 - Two Bags of Concrete Mix per Post Hole
 - 1ea. 4" X 16" Cookie Per Post Hole
- **DOORS & WINDOWS**
 - One 12 X 8 Model 4200 N.Ins. Std. Trk. w/o Opener
 - One 3' Flush Entry Door
 - Four Generic 3' x 4' Single Hung Windows
- **12" OVERHANG ON ALL SIDES W/ VENTED ALUM. SOFFIT**
- **FASTENERS**
 - 1 1/4 In. Generic Coil Roofing for Shingles
 - 4 In Structural Screw - Verify Qty In Misc for Truss Carrier
 - 16D Spiral Galv. 5# for Skirt Board
 - Galvanized Steel Framing Nails
- **DETAILED BUILDING PLANS**



Subtotal	\$8,531.33
Tax	\$511.88
GRAND TOTAL	\$9,043.21

Prices are good for 14 days, until 9/23/2016

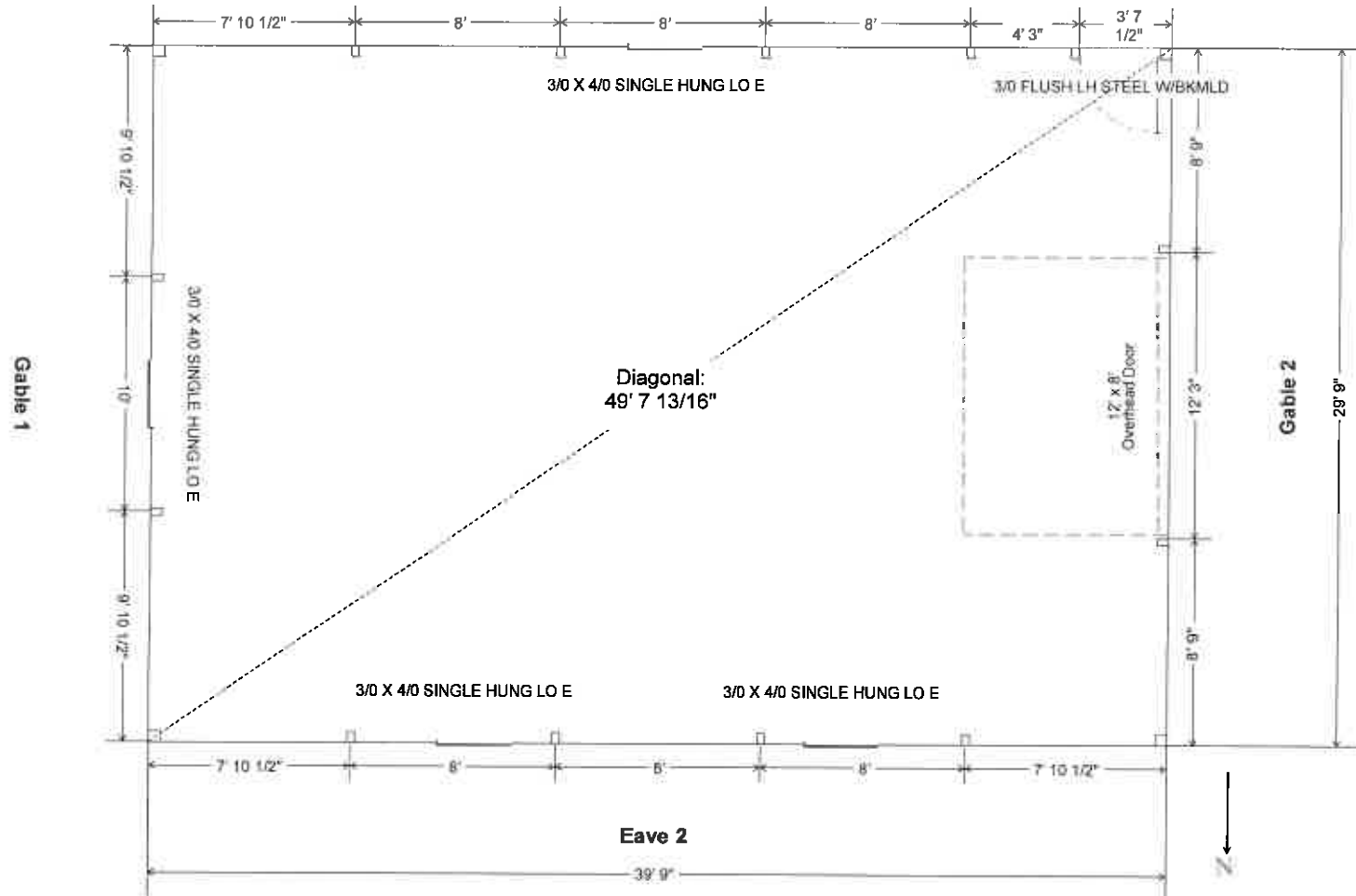


POLE LAYOUT

Personal Use, 1200 sq. ft.



Eave 1

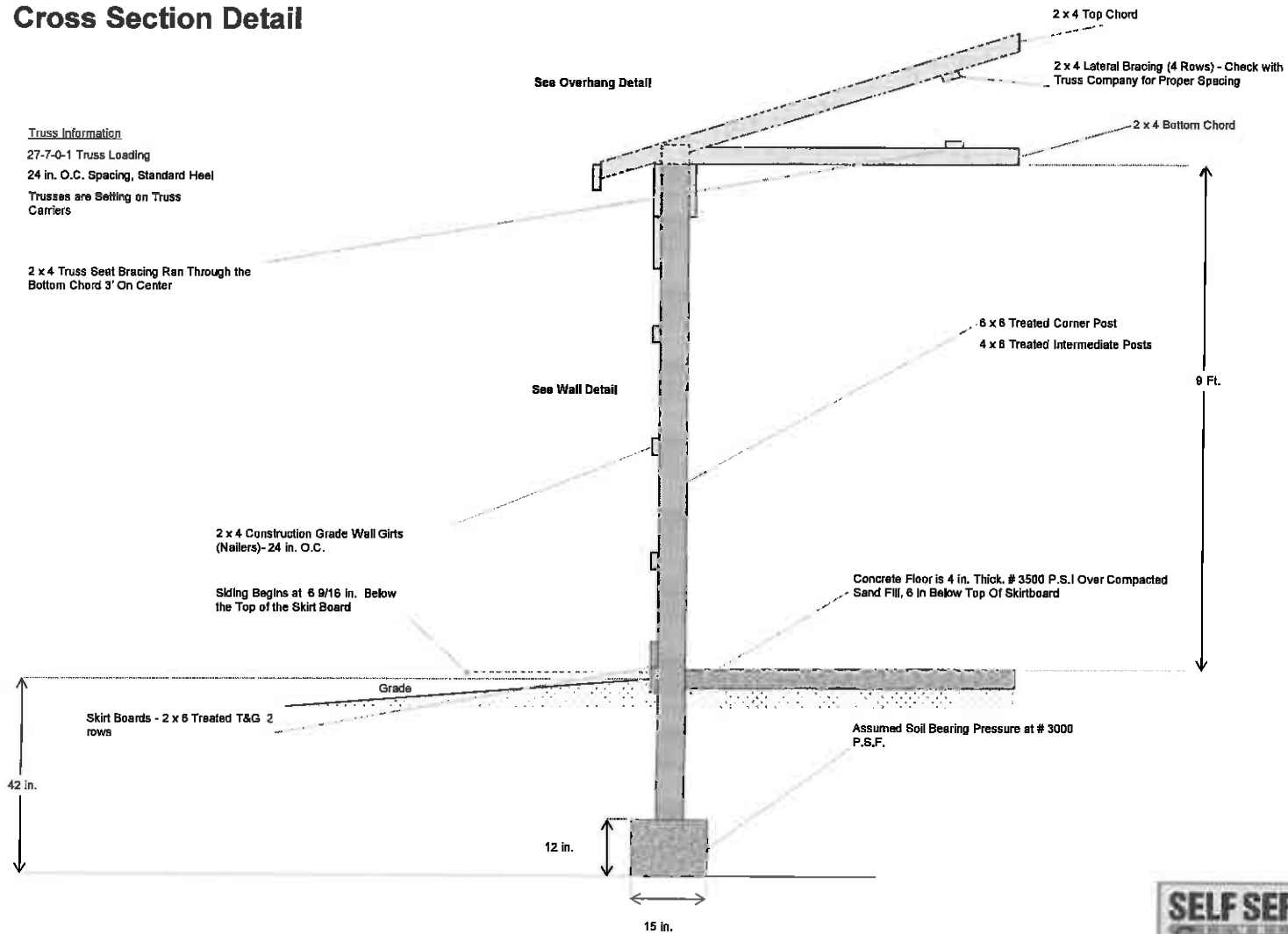


Cross Section Detail

Truss Information

27-7-0-1 Truss Loading
 24 in. O.C. Spacing, Standard Heel
 Trusses are Setting on Truss Carriers

2 x 4 Truss Seat Bracing Ran Through the Bottom Chord 3' On Center



5752 Hall Street

Pole Barn

Karl B. Romero

(616) 329-5431

30' W x 40' L

9' walls

4/12 pitch roof w/ 12" overhang

T1-11 siding with 1x12 frieze board / skirting

Certaineed architectural shingles

1 service door

4 windows

Main door opening 8' H x 10' W Double out swing doors

- Made on site

4x6 posts w/ Cookie & 2 80 lb bags concrete

TO: Cascade Charter Township Planning Commission
FROM: Steve Peterson, Community Development Director
REPORT DATE: October 20, 2016
MEETING DATE: November 14, 2016
CASE: #16-3330/Cascade Lodging – Meijer PUD Amendments

GENERAL INFORMATION

- A. **Applicant:** Cascade Lodging
6506 Hanna Lake Ave
Caledonia MI 49316
- B. **Status of Applicant:** Developer
- C. **General Location:** West side of the Meijer Store.
- D. **Requested Action:** Amend the existing PUD to allow for a new hotel.
- E. **Existing Zoning on Subject Parcels:** PUD 69
- F. **Zoning on Adjoining Parcels:**
N – PUD 26
S – PUD 69
E – PUD 69
W – ES, Expressway Service
- G. **Parcel Size:** Approximately 5 acres
- H. **Existing Land Use on Subject Parcel:** Vacant
- I. **Adjacent Area Land Uses:**
North - vacant
East - retail store
South - vacant
West - hotel

STAFF ANALYSIS

- A. The applicant is requesting Preliminary Plan Review in order to construct a new hotel on vacant property currently owned by Meijer.
- B. This new hotel is being located just to the west of the main Meijer truck docks. Between the location and the odd shape of the lot leaves little room to make adjustments.
- C. The Meijer property was put into a PUD in 2002 to accommodate the development along 28th St. The underlying zoning district is B2, general business. This designation requires a minimum of 3 acre parcels. With approximately 36 acres in total the development could accommodate as many as 12 parcels. This development would allow for parcels 8 and 9 to be created.
- D. The new hotel is seeking the PUD amendment not only to add the hotel use but because it does not meet several of the underlying zoning regulations. These deviations from the ordinance are:

	Underlying zoning	Proposed	Comments
Parcel Size	Minimum of 3 acres	2.57 acres	We have allowed the other outlots on smaller than 3 acres, if satisfied with the rest of the development.
Building height	35 feet or 3 stories whichever is less	60 feet and 4 stories	It's about 42 feet to the roof line and another 18 feet to the peak of the roof. The adjacent ES zone allows for 48 feet tall buildings.
North Front setback	100 feet	63 feet	The proposed north setback is similar to the north side of the Meijer store (58 feet). The proposed west front setback is similar to the front yard setback for the hotel to the west (55 feet).
West Front setback	100 feet	51 feet	
Bufferyards	20 feet	10 feet	They have provide a significant amount of plantings given the limited space.

- A. The Master Plan designation for this property is Highway commercial. This designation is in line with the ES zoning district.
- B. We did discuss whether or not to require a traffic study given the change in the project. In general for projects that are compliant with the master plan we have not required traffic studies, which is the case for this project, as we did not require a traffic study. The surrounding roads have the capacity to address the traffic from a hotel. The Township Board has already asked the KCRC to address the paving issues on Kraft ave and the KCRC is

already looking into possible changes to the timing of the lights at the Kraft and 28th St intersection.

- C. They have provided me with a document that indicates that they have access to all of the drives around them giving them access to Kraft and 28th St.
- D. The applicant has not indicated any signage deviations.
- E. The applicant has indicated that the storm water from the site will be addressed and improved to comply with our storm water ordinance. This area is handled by regional storm water system and has been approved by the Township and County engineers.

F. Standards

Section 16.03 of the Zoning Ordinance requires that a Planned Unit Development must demonstrate that:

Standard	Staff Comment
Granting of the Planned Unit Development rezoning will result in a recognizable and substantial benefit to the ultimate users of the project and to the community, where such benefit would otherwise be unfeasible or unlikely to be achieved.	The property is already zoned PUD. The changes they are asking for are consistent with the master plan.
In relation to underlying zoning, the proposed type and density of use shall not result in a material increase in the need for public services, facilities and utilities, and shall not place a material burden upon the subject or surrounding land or property owners and occupants or the natural environment	The type of use and density is consistent with the master plan would not result in a material increase in the need for public services.
The proposed development shall be compatible with the General Development Plan of the Township, and shall be consistent with the intent and spirit of this Chapter	The project is consistent with the master plan
In relation to underlying zoning, the proposed development shall not result in an unreasonable negative economic impact upon surrounding properties	The underlying zoning/use of the area is commercial and the amendment to allow the hotel with a few minimal exceptions would not result in an unreasonable negative economic impact
The proposed development shall contain at least as much green area and usable open space as would otherwise be required by this Ordinance with respect to the most dominant use in the development	Although some of the bufferyards are smaller than required by the underlying zoning and the original plan, they have been able to plant the same required plantings as would have been required.

<p>The proposed development shall be under single ownership or control such that there is a single person or entity having responsibility for completing the project in conformity with this Ordinance. This provision shall not prohibit a transfer of ownership or control, upon due notice to the Planning Director of the Township</p>	<p>Although there are other owners in the PUD, this project only involves one property in the PUD.</p>
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Staff Recommendation

Staff recommends approval of the plan. Once approved, we will put together the P.U.D. ordinance amendments with the applicant for your review so you can make a recommendation to the Township Board.

Attachments: Application
 Site plan
 Master plan excerpts



5411 28th St Ct

28TH ST

11

Exp 40



November 10, 2016
Project No. G080322

Mr. Steve Peterson
Cascade Charter Township
2865 Thornhills Avenue, SE
Grand Rapids, MI 49546-7192

Re: Towneplace Suites
Site Plan Review

Dear Steve:

We have reviewed the site plan for Towneplace Suites, located at 5449 28th Street Court, prepared by Bud Design and Engineering Services, Inc. The current site plan and the basis of this review are dated October 12, 2016. The proposed project is a new 4-story hotel.

Stormwater and Drainage

Flood Control

The proposed project is a new development, so all improvements shall comply with the requirements of the Cascade Charter Township (Township) Stormwater Ordinance (SWO). The site is located in Stormwater Management Zone B, which requires detention of the 25-year storm event. The SWO also requires the first 0.5 inch of stormwater runoff be detained and released over a 24-hour period.

Stormwater runoff from the site drains to the Kent County Drain Commissioner (KCDC) Patterson Drain and regional detention pond, located on the north side of I-96. The site ties into an existing storm sewer lateral located adjacent to the site and therefore, does not need to be reviewed and permitted again by the KCDC. The applicant provided correspondence with the KCDC confirming this. Onsite stormwater detention is not required because the site drains to the regional detention pond.

Water Quality Control

The SWO requires the first 0.5 inch of stormwater runoff be detained and infiltrated where conditions permit, or released over a 24-hour period. The applicant is proposing to install a mechanical vortex separator unit at the outlet from the site to capture and store sediment, trash, and debris. Calculations were provided showing the vortex unit is adequately sized for the site. This requirement has been satisfied.

Stormwater Runoff

The applicant provided stormwater calculations to size the onsite storm sewer system. All stormwater runoff from the impervious areas of the site will discharge to the Patterson Drain regional detention pond.



Drainage Plan

The applicant has submitted drawings, calculations, and additional documentation as required in the SWO Section 2.03, Drainage Plan. Please refer to the included checklist for items and comments on each item. Please note a maintenance agreement is required before construction begins. The agreement should be submitted to the Township for review. The maintenance agreement and plan should include at a minimum cleaning of catch basin sumps and the mechanical vortex separator unit.

Utilities

An 8-inch and 12-inch public water main and easement are proposed for the site. The water main is looped around the site and has two connection points at the existing water main in 28th Street Court. The proposed water main and easement are contained on the site, no other easements are required outside of the property. 4-inch domestic water service and 6-inch fire protection will service the building. A new 8-inch sanitary sewer lateral is proposed at the north end of the building off of 28th Street Court.

With the applicant proposing to loop the water main around the building on their property we do not anticipate significant changes required by the City of Grand Rapids that would potentially change the layout of the proposed site.

City permits will be required for the water and sanitary sewer connections prior to construction taking place.

Soil Erosion and Sedimentation Control

Soil Erosion and Sedimentation Control (SESC) measures are provided on the plan drawings. The applicant has included silt fence along the limits of disturbance, silt sacks in new catch basins, and a construction tracking mat at the entrance to the site. SESC falls under the review and approval of the Kent County Road Commission and a permit is required before construction can begin. The SESC measures indicated on the drawings appear appropriate given the expected work.

Summary

The proposed stormwater design meets the Township SWO requirements for new developments. The applicant will need to apply for and obtain a number of permits (SESC, water, and sanitary sewer from the City) prior to beginning construction. We recommend approval of the site plan from an engineering standpoint.

If you have any questions or require additional information, please contact me at 616.464.3786 or nrtorrey@ftch.com.

Sincerely,

FISHBECK, THOMPSON, CARR & HUBER, INC.

A handwritten signature in black ink, appearing to read "N. Torrey", is positioned above the name of the signatory.

Nathan R. Torrey, PE

jlk
Attachment
By email



Cascade Charter Township

Storm Water Ordinance, Ordinance 7 of 2002, as amended by Ordinance No. 2 of 2008, 5/14/2008

Reviewing Engineer Comments are Italicized

OK – Received and Acceptable

NA – Not Applicable

NR – Not Received, Needs Follow-up, See Comments

Towneplace Suites

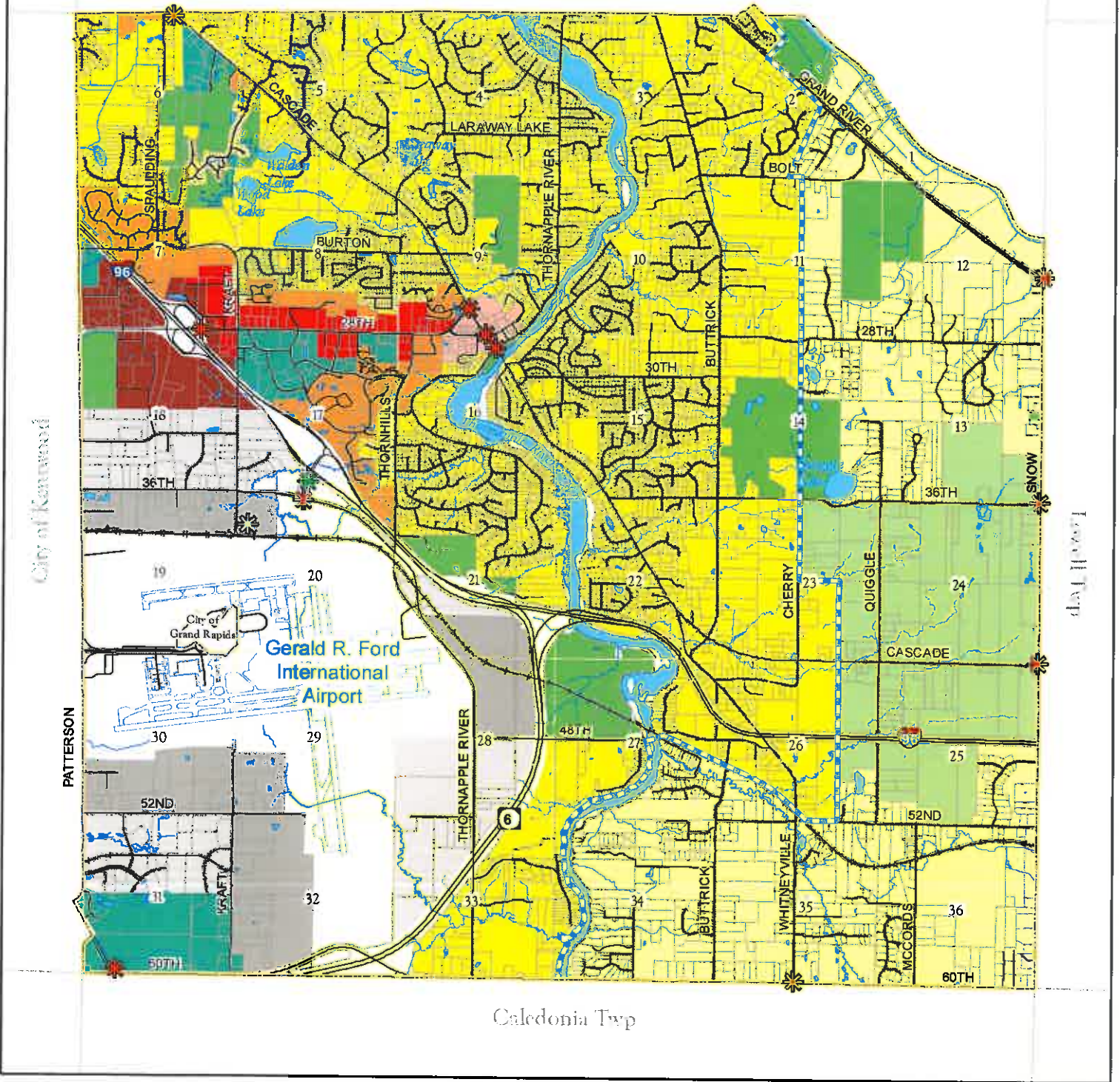
Drainage Plan Checklist

- OK (1) Location of the development site and water bodies that will receive storm water runoff
All stormwater runoff from the site discharges to the Kent County Drain Commissioner (KCDC) storm sewer (Patterson Drain) and regional detention pond.
- OK (2) Existing and proposed topography of the development site, including the alignment and boundary of the natural drainage courses, with contours having a maximum interval of one foot (using USGS datum). The information shall be superimposed on the pertinent Kent County soil map
Existing and proposed contours have been provided. Soil map information is not required for this project.
- OK (3) Development tributary area to each point of discharge from the development
A drainage plan showing tributary areas was provided.
- OK (4) Calculations for the final peak discharge rates
Applicant provided peak discharge rates for the onsite 10-year storm event.
- OK (5) Calculations for any facility or structure size and configuration
The applicant provided calculations for the onsite storm sewer system.
- OK (6) Drawing showing all proposed storm water runoff facilities with existing and final grades
The applicant provided calculations for the onsite storm sewer system.
- OK (7) The sizes and locations of upstream and downstream culverts serving the major drainage routes flowing into and out of the development site. Any significant off-site and on-site drainage outlet restrictions other than culverts should be noted on the drainage map
Significant offsite flows were not identified by the applicant.
- OK (8) An implementation plan for construction and inspection of all storm water runoff facilities necessary to the overall drainage plan, including a schedule of the estimated dates of completing construction of the storm water runoff facilities shown on the plan and an identification of the proposed inspection procedures to ensure that the storm water runoff facilities are constructed in accordance with the approved drainage plan
A construction schedule was included on the plans.
- OK (9) Plan to ensure the effective control of construction site storm water runoff and sediment track-out onto roadways
The SESC measures shown on the plan appear appropriate given the expected work. SESC falls under the review and approval of the KCRC and a permit is needed before construction can begin.



- OK (10) Drawings, profiles, and specifications for the construction of the storm water runoff facilities reasonably necessary to ensure that storm water runoff will be drained, stored, or otherwise controlled in accordance with this ordinance
The applicant provided calculations and design details for construction of the onsite storm sewer system.
- NR (11) Maintenance agreement, in form and substance acceptable to the Township, for ensuring maintenance of any privately owned storm water runoff facilities. The maintenance agreement shall include the developer's written commitment to provide routine, emergency, and long-term maintenance of the facilities and, in the event that the facilities are not maintained in accordance with the approved drainage plan, the agreement shall authorize the Township to maintain any on-site storm water runoff facility as reasonably necessary, at the developer's expense
Maintenance agreement was not provided and is required.
- OK (12) Name of the engineering firm and the registered professional engineer that designed the drainage plan and that will inspect final construction of the storm water runoff facilities
- NA (13) All design information must be compatible for conversion to Grand Valley Regional Geographic Information System (REGIS)
This is a privately owned system and will not be uploaded to REGIS.
- OK (14) Other information necessary for the Township to verify that the drainage plan complies with the Township's design and performance standards for drains and storm water management systems

Ada Twp



**Cascade Charter
Township**
Kent County, Michigan

Legend

- Gateway Feature
- Park 'n' Ride
- Rail Station
- Utility Service Area
- Farmland Preservation
- Rural Residential
- Suburban Residential
- Community Residential
- Village Commercial
- General Commercial
- Highway Commercial
- Mixed Use
- Heavy Industrial
- Light Industrial
- Community Facility / Golf Course



CREOS
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It is not intended to be used as a substitute
for a legal opinion or other professional
advice. It is not intended to be used as a
basis for any action or inaction. The
City of Kent County, Michigan, is not
responsible for any errors or omissions
in this document.

Williams & Works
814.254.1888 phone • 814.254.1887 fax
410 Cherry Avenue SW • Grand Rapids, MI 49503

Map 15
Future Land Use

April 22, 2009

The village commercial area is intended to be a walkable commercial district, where architectural style is paramount, but not rigid. Low shrubbery, picket fences and other features should be in place along the roadway to delineate the use and create interest for pedestrians.

Location: The village commercial land use category is located at the heart of Cascade Charter Township where Cascade Road, 28th Street and the Thornapple River converge. It is not the intent of this land use category to expand beyond the current commercially-zoned properties along Cascade Road.

Desired Uses and Densities: Desired uses include retail commercial, personal service establishments, eating and drinking establishments, financial institutions, and convenience stores with or without fuel stations. Residential uses are also planned, including above retail or office uses. Townhome, retirement centers, assisted living, and other elderly care facilities are also recommended. Other uses should be phased out and encouraged to locate to a more automobile-oriented commercial corridor. Residential densities would be 6-8 dwelling units to the acre. Pedestrian/bicycle circulation plans should be prepared for new development that includes access from sidewalks and non-motorized paths to any building entry. Bicycle racks are encouraged. Traffic calming, crosswalk demarcations, countdown walk signs, plantings and signage are encouraged at 28th Street and Cascade Road at the Village to create a sense of place for shopping, strolling, biking, and walking. Water and sewer must be available for development in this land use category. Additionally, any natural features should be preserved and protected in projects located in the village commercial land use area. The Township hopes that the village commercial area is served by mass transit in the future.

GENERAL COMMERCIAL

Description: This land use designation is intended to provide goods and services to meet the needs of the immediate neighborhood and the larger region. Facilities will be developed in harmony with the area's natural features and in a scale and form to encourage pedestrian access and to minimize auto-pedestrian conflicts. Cross-access easements and access roads will be encouraged to reduce the proliferation of curb-cuts. In addition, landscape standards and signage limitations will be utilized to promote attractive and functional developments. The current three acre minimum lot area requirement may be reduced for projects that incorporate certain green/eco-friendly building technologies, or provide a specific amount of green space, such as 35%.

Location: The general commercial land use designation includes properties fronting 28th street from Cascade Village west to the Township boundary.

Desired Uses: Uses include retail, office, personal services, professional services, automobile repair, convenience stores with or without fuel pumps, drive-through establishments, eating and drinking establishments, fitness centers, financial institutions, automobile sales, and other similar uses. Water and sewer must be available for development in this land use category. Additionally, any natural features should be preserved and protected in projects located in the general commercial land use area. The Township hopes that the general commercial area is served by mass transit in the future.

HIGHWAY COMMERCIAL

Description: The highway commercial land use category calls for more intense land uses in terms of traffic generation and building height. This use would include hotels, eating and drinking establishments, and convenience shopping capturing consumers from the region. Multi-story development, up to 5-stories, may be permitted based on locational factors. Additional height in excess of 5-stories may be considered in areas with elevation differences along the highway, while less height may be appropriate in areas where the highway commercial land use abuts residential uses. Maximum floor area may also be restricted to encourage taller buildings.

Careful planning and design should occur with any new mixed use or large-scale commercial projects to ensure that traffic safety and on-site traffic flow is considered, appropriate access management techniques have been incorporated into site planning and building height would not interfere with Federal Aviation Administration requirements or other height requirements of the Gerald R. Ford International Airport. Minimum lot area requirements could be reduced for projects that incorporate certain green/eco-friendly building technologies at the time of site plan review, or provide a minimum amount of green space, such as 35%. Architectural standards are appropriate to ensure buildings over 3 stories incorporate step-backs, vertical and horizontal design elements, and varied building materials to minimize bulk and massing.

Location: This use is located west and east of the I-96 interchange along 28th street.

Desired Uses: Desired uses include hotels, eating and drinking establishments, convenience shopping, fitness centers, and offices. Water and sewer must be available for development in this land use

category. The Township hopes that the highway commercial area is served by mass transit in the future.

MIXED USE

Description and Desired Uses: The mixed use land use is intended to provide for offices, light industrial, townhome and other types of attached residential development, and retail/commercial uses. The intent is to allow for uses in a master-planned project, giving a greater potential for walkable neighborhoods. Mixed use residential areas are especially desirable where future mass transportation can serve the area.

Location: The mixed use land use category is planned for the northern portion of Centennial Park, the southern portion of Meadowbrooke and along the already developed office park on Cascade Road.

Densities: Within the mixed use category, residential densities would be 6-8 dwelling units to the acre. Density bonuses may be available for development that incorporates certain green/eco-friendly building technologies at the time of site plan review and approval. Building heights would be the lesser of 40' or 3 stories where surrounding uses and buildings are of comparable heights; however, along Cascade Road where the mixed use area is already developed, existing building heights would remain unchanged.

HEAVY INDUSTRIAL

Description and Desired Uses: This land use designation is intended to provide employment for area residents, manufacture goods and provide services to meet the needs of the larger West Michigan Region. Facilities will be developed with appropriate utility and transportation connections and in harmony with the area's natural features. Industrial uses may include warehousing, manufacturing and assembly, mini-storage, contractor's offices and yards, and shipping facilities. In the vicinity of the airport, industrial land uses should be compatible with the airport and aviation requirements. The Township supports industrial uses near the airport having direct access to the airport property to facilitate greater interconnectedness, growth of transportation-related industry, and limit off-site vehicular movement/trips. Truck traffic leaving industrial land uses will be directed efficiently to regional arterials without traversing residential areas. Landscape credits, credits for energy efficient design, or other types of credits may be offered that may reduce the current front yard setback requirements, landscaping requirements, and/or lot area requirements.

TOWNEPLACE SUITES

SITE PLAN APPROVAL

CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN



Bud Design & Engineering Services, Inc.
 Architecture | Engineering | Interior Design
 10775 S. Saginaw St., Suite B
 Grand Blanc, MI 48439
 (PH) 810.695.0793
 (FAX) 810.695.0569
 Web: www.buddesign.com

APPLICANT

CASCADE LODGING, INC.
 5401 28TH ST. CT. SE
 GRAND RAPIDS, MI 49546

CONTACT: HIKMAT PIOMARI
 PHONE: (616) 889-0127

ARCHITECT

BUD DESIGN & ENGINEERING SERVICES, INC.
 10755 S. SAGINAW ST., SUITE B
 GRAND BLANC, MI 48439

CONTACT: JEFF PELTIER, RA
 PHONE: (810) 695-0793
 FAX: (810) 695-0569

CIVIL ENGINEER

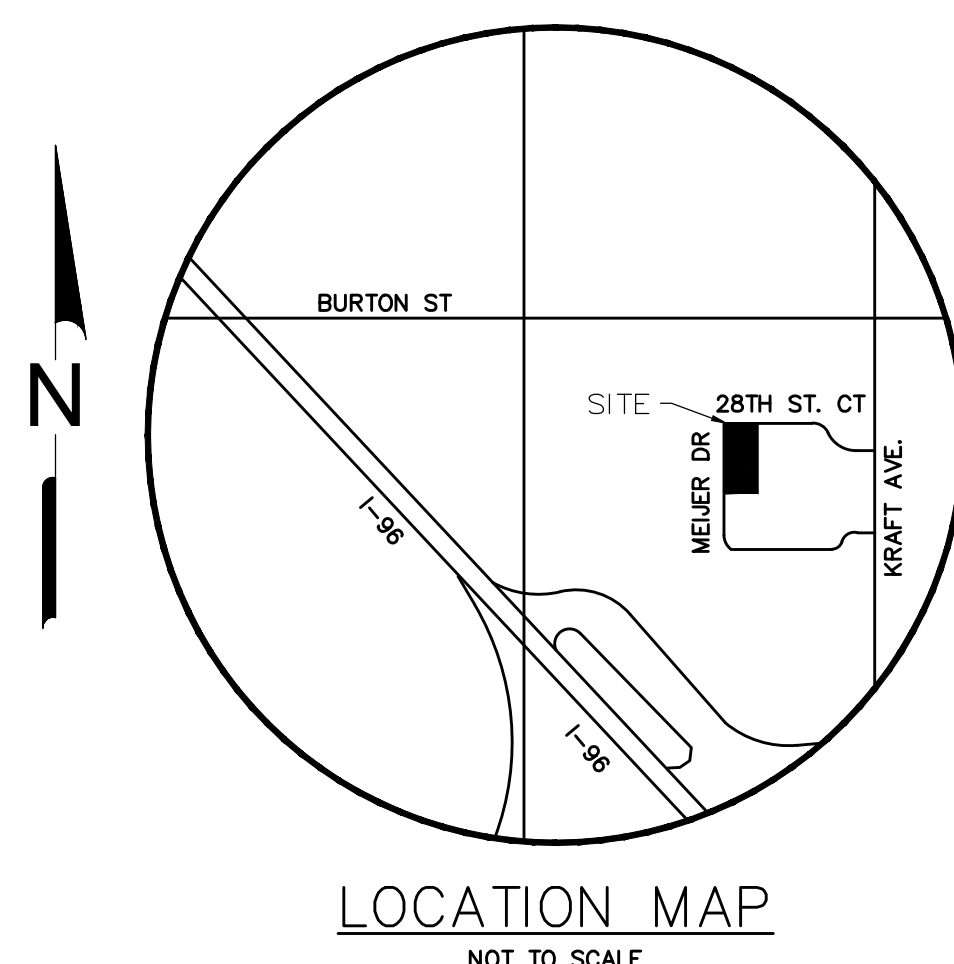
BUD DESIGN & ENGINEERING SERVICES, INC.
 10755 S. SAGINAW ST., SUITE B
 GRAND BLANC, MI 48439

CONTACT: ANDREW ANDRE, P.E.
 PHONE: (810) 695-0793
 FAX: (810) 695-0569



ANDREW ANDRE, P.E.
 MICHIGAN PE 47380
 BUD DESIGN & ENGINEERING SERVICES, INC.

STANDARD LEGEND		
DESCRIPTION	PROPOSED	EXISTING
BUILDING	[Symbol]	[Symbol]
STORM SEWER	[Symbol]	[Symbol]
SANITARY SEWER	[Symbol]	[Symbol]
WATER	[Symbol]	[Symbol]
GAS LINE	[Symbol]	[Symbol]
ELECTRIC LINE	[Symbol]	[Symbol]
TELEPHONE LINE	[Symbol]	[Symbol]
MANHOLE	[Symbol]	[Symbol]
CATCH BASIN	[Symbol]	[Symbol]
ENDSECTION	[Symbol]	[Symbol]
FIRE HYDRANT	[Symbol]	[Symbol]
GATE VALVE & WELL	[Symbol]	[Symbol]
UTILITY POLE	[Symbol]	[Symbol]
UTILITY RISER	[Symbol]	[Symbol]
SIGN	[Symbol]	[Symbol]
LIGHT POLE	[Symbol]	[Symbol]
CURB & GUTTER	[Symbol]	[Symbol]
FENCE	[Symbol]	[Symbol]
SILT FENCE	[Symbol]	[Symbol]
TREE - DECIDUOUS	AS NOTED ON PLANS	
TREE LINE	[Symbol]	[Symbol]
SPOT ELEVATION	[Symbol]	[Symbol]
CONTOUR LINE	[Symbol]	[Symbol]
SECTION CORNER	[Symbol]	[Symbol]
FOUND PROPERTY IRON	[Symbol]	[Symbol]
SET PROPERTY IRON	[Symbol]	[Symbol]
GAS METER	[Symbol]	[Symbol]
ELECTRICAL METER	[Symbol]	[Symbol]
TELEPHONE RISER	[Symbol]	[Symbol]
MAILBOX	[Symbol]	[Symbol]
SOIL BORING LOCATION	[Symbol]	[Symbol]



DRAWING INDEX

- C1.0 COVER SHEET
- C2.0 SURVEY PLAN
- C2.1 OVERALL DEVELOPMENT ACCESS PLAN
- C3.0 SITE LAYOUT AND PAVING PLAN
- C3.1 SITE LIGHTING AND PHOTOMETRIC PLAN
- C4.0 GRADING PLAN
- C4.1 ENLARGED GRADING PLAN
- C4.2 EROSION CONTROL PLAN
- C5.0 UTILITY PLAN
- C5.1 STORM MANAGEMENT PLAN
- C5.2 STORM MANAGEMENT DETAILS
- C6.0 SITE DETAILS
- L1.0 LANDSCAPE PLAN AND DETAILS
- A100 FIRST FLOOR PLAN
- A102 UPPER FLOOR PLAN (TYP)
- A200 EXTERIOR ELEVATIONS
- A201 EXTERIOR ELEVATIONS

BENCHMARKS	
B.M. #1 - SW BOLT ON TOP FLANGE ON HYDRANT ON SOUTH SIDE OF 28TH ST CT SE.	ELEV. 744.85 NAVD 88
B.M. #2 - ARROW OF HYDRANT WEST SIDE OF SITE EAST OF NORTHEAST CORNER COUNTRY INN.	ELEV. 744.88 NAVD 88

ZONING INFORMATION	
ZONED - PUDSITE DEVELOPMENT STANDARDS FOR SITE. (MEIJER / ROMANO #11 OF 2002)	
SETBACKS - FRONT: - 100' REAR: - 50' SIDE: - 25'	
MAXIMUM BUILDING HEIGHT = 35 FEET OR 3 STORIES	

SCHEDULE "B" EXCEPTIONS	
FIDELITY NATIONAL TITLE COMPANY COMMITMENT NO. 16-110048 COMMITMENT DATE: JANUARY 12, 2016 AT 08:00 AM	
8. NON-EXCLUSIVE STORM WATER DRAINAGE EASEMENT RECORDED IN LIBER 2418 AT PAGE 931. (BLANKET EASEMENT)	
9. NON-EXCLUSIVE EASEMENTS RECORDED IN LIBER 2418 AT PAGE 938. (OFF SITE EASEMENT)	
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20. NON EXCLUSIVE EASEMENT FOR ELECTRIC FACILITIES IN FAVOR OF CONSUMERS POWER COMPANY, A MICHIGAN CORPORATION RECORDED IN LIBER 2584, PAGE 1081. (AS SHOWN)	
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24. DECLARATION OF RESTRICTIONS RECORDED IN INSTRUMENT NO. 20080212-0011836. FIRST AMENDMENT TO DECLARATION OF RESTRICTIONS RECORDED IN INSTRUMENT NO. 20121002-0090550. (OFF SITE DECLARATION)	

FURNISHED LEGAL DESCRIPTION	
FIDELITY NATIONAL TITLE COMPANY COMMITMENT NO. 16-110048 COMMITMENT DATE: JANUARY 12, 2016 AT 08:00 AM	
LAND SITUATED IN THE TOWNSHIP OF CASCADE, COUNTY OF KENT, STATE OF MICHIGAN, DESCRIBED AS FOLLOWS:	
THAT PART OF THE SOUTHEAST 1/4 OF SECTION 7, TOWN 6 NORTH, RANGE 10 WEST, CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN, DESCRIBED AS: COMMENCING AT THE SOUTHEAST CORNER OF SECTION 7; THENCE SOUTH 88 DEG. 05' 02" WEST 1054.88 FEET ALONG THE SOUTH LINE OF SECTION 7; THENCE NORTH 1 DEG. 39' 55" WEST 282.76 FEET TO THE NORTHEASTERLY LINE OF HIGHWAY I-96; THENCE NORTH 47 DEG. 05' 25" WEST 382.36 FEET ALONG SAID NORTHEASTERLY LINE; THENCE NORTH 01 DEG. 25' 52" EAST 348.91 FEET ALONG THE WEST LINE OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 7 TO THE PLACE OF BEGINNING OF THIS DESCRIPTION; THENCE CONTINUING ALONG SAID WEST LINE NORTH 01 DEG. 25' 52" EAST 540.00 FEET; THENCE NORTH 88 DEG. 20' 05" EAST 263.00 FEET; THENCE SOUTH 01 DEG. 25' 52" EAST 189.33 FEET; THENCE ALONG THE ARC OF A CURVE TO THE RIGHT, AN ARC DISTANCE OF 80.04 FEET, SAID CURVE HAVING A RADIUS OF 88.54 FEET, CHORD BEARING AND DISTANCE OF SOUTH 24 DEG. 49' 16" WEST, 77.34 FEET AND CENTRAL ANGLE OF 51 DEG. 47' 43"; THENCE SOUTH 51 DEG. 24' 16" WEST 43.73 FEET; THENCE ALONG THE ARC OF A CURVE TO THE LEFT, AN ARC DISTANCE OF 104.99 FEET, SAID CURVE HAVING A RADIUS OF 110.00 FEET, CHORD BEARING AND DISTANCE OF SOUTH 25 DEG. 54' 45" WEST, 101.05 FEET AND CENTRAL ANGLE OF 54 DEG. 41' 13"; THENCE SOUTH 1 DEG. 25' 52" EAST 165.60 FEET; THENCE SOUTH 88 DEG. 20' 05" WEST 147.53 FEET TO THE WEST LINE OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 7 TO THE PLACE OF BEGINNING, BEING SUBJECT TO AND TOGETHER WITH EASEMENTS AND/OR RESTRICTIONS OF RECORD.	

UTILITY NOTE	
THE UTILITY LOCATIONS AS HEREON SHOWN ARE BASED ON FIELD OBSERVATIONS AND A CAREFUL REVIEW OF MUNICIPAL AND UTILITY RECORDS. HOWEVER, IT IS NOT POSSIBLE TO DETERMINE THE PRECISE SIZE, LOCATION, DEPTH, PRESSURE, OR ANY OTHER CHARACTERISTICS OF UNDERGROUND UTILITIES, TANKS OR SEPTIC FIELDS WITHOUT EXCAVATION. THEREFORE, WE CANNOT GUARANTEE THE ACCURACY OF COMPLETENESS OF THE BURIED UTILITY INFORMATION HEREON SHOWN. THE CONTRACTOR SHALL CALL MISS DIG (1-800-482-7171) A MINIMUM OF THREE WORKING DAYS PRIOR TO ANY EXCAVATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THESE UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND MAKE EVERY EFFORT TO PROTECT AND/OR RELOCATE THEM AS REQUIRED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER/SURVEYOR AS SOON AS POSSIBLE IN THE EVENT A DISCREPANCY IS FOUND.	

UTILITY CONTACTS	
TELEPHONE AT & T	GAS DTE ENERGY-MICHCON 3538 LAKE EASBROOK BLVD SE GRAND RAPIDS, MICHIGAN 49506 (800) 477-4747
	ELECTRIC CONSUMERS ENERGY 4000 CLAY AVE SW GRAND RAPIDS, MICHIGAN 49548 (800) 477-5050
ZONING CASCADE TOWNSHIP ZONING & PLANNING 2865 THORNHILLS AVE. SE GRAND RAPIDS, MI 49546 (616) 949-1500	WATER/SEWER CASCADE TOWNSHIP WATER AND SEWER SERVICES 2865 THORNHILLS AVE. SE GRAND RAPIDS, MI 49546 (616) 949-1500

FLOODPLAIN INFORMATION	
CASCADE TOWNSHIP KENT COUNTY, MICHIGAN MAP NUMBER: 260814 0025A EFFECTIVE DATE: NOVEMBER 6, 1991 FLOOD ZONE: X AREA OUTSIDE 500-YEAR FLOODPLAIN	

TOWNEPLACE SUITES
CASCADE TWP, KENT CO, MI

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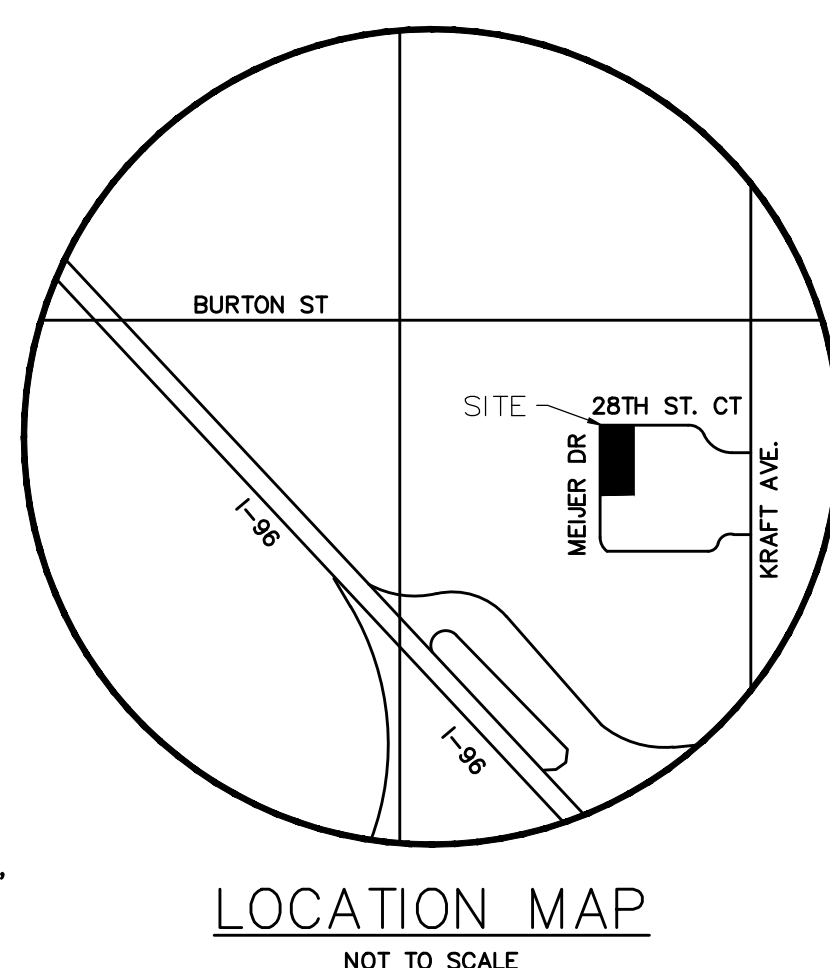
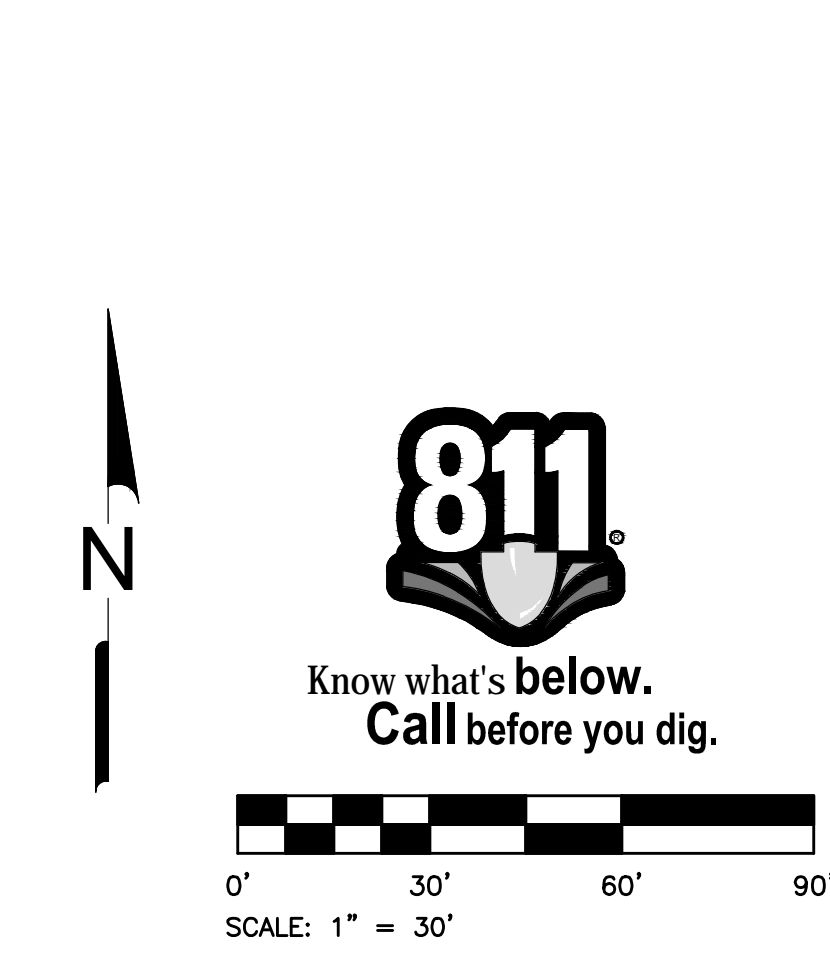
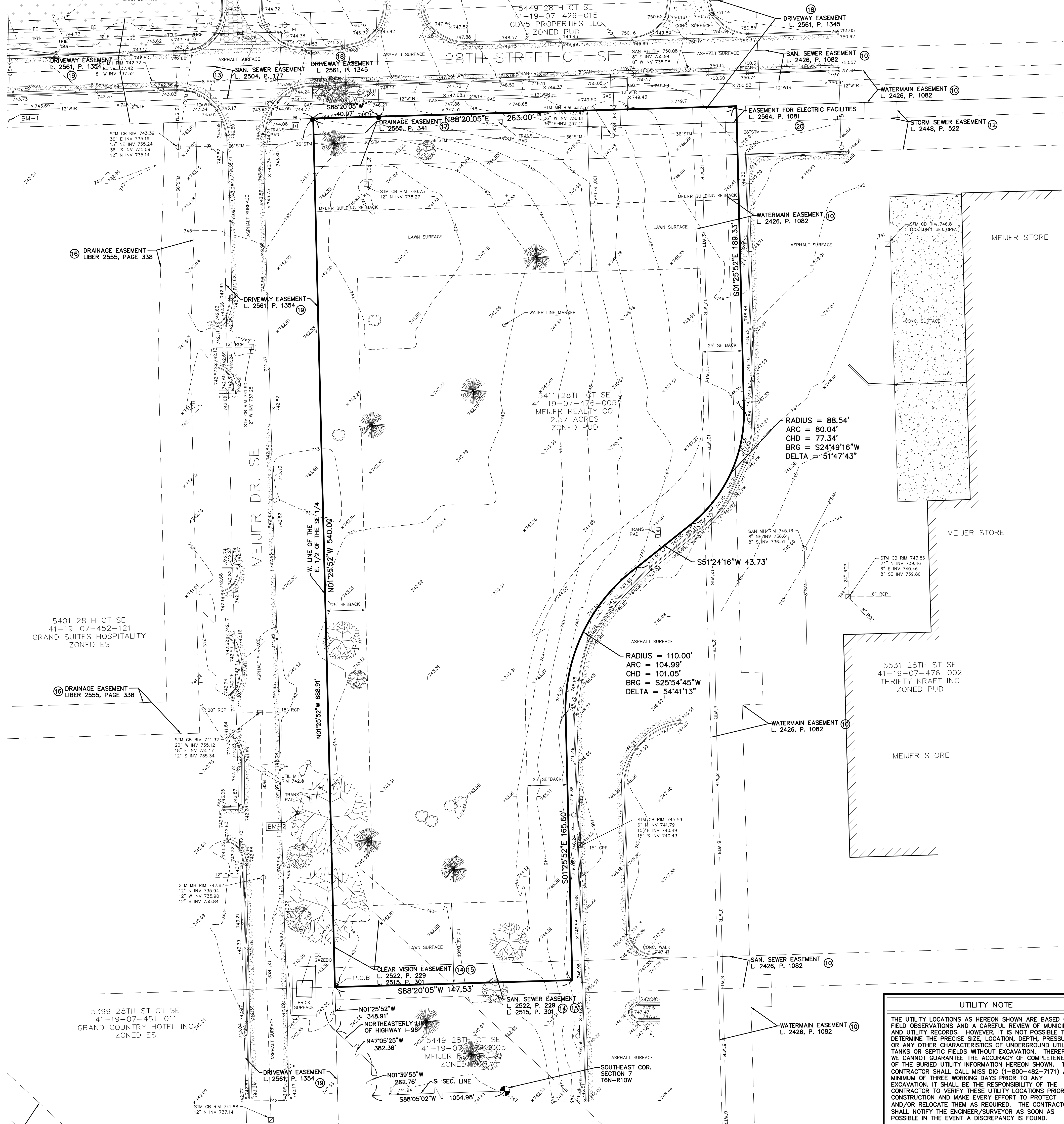
ISSUED FOR	DATE
SPA	08/17/16
SPA	10/12/16

DATE	DRAWN	JDT
	CHECKED	ACA
	SCALE	NA
	JOB NO.	BD-15-338
	SHEET TITLE	COVER SHEET

SHEET
C1.0



THE LOCATION OF ALL UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE BASED ON RECORDS PROVIDED BY THE UTILITY OWNERS AND VISIBLE EVIDENCE OBTAINED IN THE FIELD. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED TO THE COMPLETENESS OR ACCURACY THEREOF.



bde

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 Architects • Engineers • Planners • Interior Design

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UTILITY CONTACTS	
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	3538 LAKE EASBROOK BLVD SE
	GRAND RAPIDS, MICHIGAN 49506
	(800) 477-4747
	GAS
	CONSUMERS ENERGY
	4000 CLAY AVE SW
	GRAND RAPIDS, MICHIGAN 49548
	(800) 477-5050
ZONING	WATER/SEWER
CASCADE TOWNSHIP	CASCADE TOWNSHIP
ZONING & PLANNING	WATER AND SEWER SERVICES
2865 THORNHILLS AVE. SE	2865 THORNHILLS AVE. SE
GRAND RAPIDS, MI 49546	GRAND RAPIDS, MI 49546
(616) 949-1500	(616) 949-1500

ZONING INFORMATION	
ZONED- PUD SITE DEVELOPMENT STANDARDS FOR SITE. (MEIJER / ROMANO #1 OF 2002)	
SETBACKS-	
FRONT: - 100'	
REAR: - 50'	
SIDE: - 25'	
MAXIMUM BUILDING HEIGHT = 35 FEET OR 3 STORIES	

FLOODPLAIN INFORMATION	
CASCADE TOWNSHIP	
KENT COUNTY, MICHIGAN	
MAP NUMBER: 260814 0025A	
EFFECTIVE DATE: NOVEMBER 6, 1991	
FLOOD ZONE: X	
AREA OUTSIDE 500-YEAR FLOODPLAIN	

SCHEDULE "B" EXCEPTIONS	
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EXISTING LEGEND	
	MONUMENT / SECTION CORNER
	FOUND PROPERTY IRON
	SET PROPERTY IRON
	EXISTING CATCHBASIN
	EXISTING MANHOLE/CATCHBASIN
	EXISTING MANHOLE
	EXISTING HYDRANT
	EXISTING VALVE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING WATERMAIN
	EXISTING FENCE LINE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING UNDERGROUND GAS LINE
	EXISTING UNDERGROUND TELEPHONE LINE
	EXISTING CENTERLINE
	EXISTING OVERHEAD ELECTRICAL WIRES
	EXISTING MAILBOX / NEWSPAPER BOX
	EXISTING SIGN
	EXISTING DECIDUOUS TREES
	EXISTING CONIFEROUS TREES
	EXISTING UTILITY POWER POLE
	EXISTING TELEPHONE RISER

FURNISHED LEGAL DESCRIPTION	
FIDELITY NATIONAL TITLE COMPANY COMMITMENT NO. 16-110048 COMMITMENT DATE: JANUARY 12, 2016 AT 08:00 AM	
LAND SITUATED IN THE TOWNSHIP OF CASCADE, COUNTY OF KENT, STATE OF MICHIGAN, DESCRIBED AS FOLLOWS:	
THAT PART OF THE SOUTHEAST 1/4 OF SECTION 7, TOWN 6 NORTH, RANGE 10 WEST, CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN, DESCRIBED AS: COMMENCING AT THE SOUTHEAST CORNER OF SECTION 7; THENCE SOUTH 88 DEG. 05' 02" WEST 1054.98 FEET ALONG THE SOUTH LINE OF SECTION 7; THENCE NORTH 1 DEG. 39' 55" WEST 282.76 FEET TO THE NORTHEASTERLY LINE OF HIGHWAY I-96; THENCE NORTH 47 DEG. 05' 25" WEST 382.36 FEET ALONG SAID NORTHEASTERLY LINE; THENCE NORTH 01 DEG. 25' 52" EAST 348.91 FEET ALONG THE WEST LINE OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 7 TO THE PLACE OF BEGINNING OF THIS DESCRIPTION; THENCE CONTINUING ALONG SAID WEST LINE NORTH 01 DEG. 25' 52" EAST 540.00 FEET; THENCE NORTH 88 DEG. 20' 05" EAST 263.00 FEET; THENCE SOUTH 01 DEG. 25' 52" EAST 189.33 FEET; THENCE ALONG THE ARC OF A CURVE TO THE RIGHT, AN ARC DISTANCE OF 80.04 FEET, SAID CURVE HAVING A RADIUS OF 88.54 FEET, CHORD BEARING AND DISTANCE OF SOUTH 24 DEG. 49' 16" WEST, 77.34 FEET AND CENTRAL ANGLE OF 51 DEG. 47' 43"; THENCE SOUTH 51 DEG. 24' 16" WEST 43.73 FEET; THENCE ALONG THE ARC OF A CURVE TO THE LEFT, AN ARC DISTANCE OF 104.99 FEET, SAID CURVE HAVING A RADIUS OF 110.00 FEET, CHORD BEARING AND DISTANCE OF SOUTH 25 DEG. 54' 45" WEST, 101.05 FEET AND CENTRAL ANGLE OF 54 DEG. 41' 13"; THENCE SOUTH 1 DEG. 25' 52" EAST 165.60 FEET; THENCE SOUTH 88 DEG. 20' 05" WEST 147.53 FEET TO THE WEST LINE OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 7 TO THE PLACE OF BEGINNING, BEING SUBJECT TO AND TOGETHER WITH EASEMENTS AND/OR RESTRICTIONS OF RECORD.	

CERTIFICATION

TO: CASCADE LOGGING, INC., MEIJER REALTY COMPANY, A MICHIGAN CORPORATION, FIDELITY NATIONAL TITLE INSURANCE COMPANY.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6, 7(A)(B), 8, 9, 10, 11(A)(B), 12, 13, 14, 15, 16 AND 17 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON 03/29/2015.

DATE OF PLAT OR MAP: 02/12/2016

Brian D. Ferguson
 BRIAN D. FERGUSON PS #26454
 401 BALSAM STREET P.O. BOX 159
 CARROLLTON, MI 48724
 PHONE: (989) 752-6500

PROFESSIONAL SURVEYOR

BENCHMARKS	
B.M. #1 - SW BOLT ON TOP FLANGE ON HYDRANT ON SOUTH SIDE OF 28TH ST CT SE.	ELEV. 744.85 NAVD 88
B.M. #2 - ARROW OF HYDRANT WEST SIDE OF SITE EAST OF NORTHEAST CORNER COUNTRY INN.	ELEV. 744.88 NAVD 88

UTILITY NOTE

THE UTILITY LOCATIONS AS HEREON SHOWN ARE BASED ON FIELD OBSERVATIONS AND A CAREFUL REVIEW OF MUNICIPAL AND UTILITY RECORDS. HOWEVER, IT IS NOT POSSIBLE TO DETERMINE THE PRECISE SIZE, LOCATION, DEPTH, PRESSURE, OR ANY OTHER CHARACTERISTICS OF UNDERGROUND UTILITIES, TANKS OR SEPTIC FIELDS WITHOUT EXCAVATION. THEREFORE, WE CANNOT GUARANTEE THE ACCURACY OF COMPLETENESS OF THE BURIED UTILITY INFORMATION HEREON SHOWN. THE CONTRACTOR SHALL CALL MISS DIG (1-800-482-7171) A MINIMUM OF THREE WORKING DAYS PRIOR TO ANY EXCAVATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THESE UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND MAKE EVERY EFFORT TO PROTECT AND/OR RELOCATE THEM AS REQUIRED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER/SURVEYOR AS SOON AS POSSIBLE IN THE EVENT A DISCREPANCY IS FOUND.

**TOWNEPLACE SUITES
 CASCADE TWP, KENT CO, MI**

THIS SURVEY WAS MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6, 7(A)(B), 8, 9, 10, 11(A)(B), 12, 13, 14, 15, 16 AND 17 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON 03/29/2015.

DATE OF PLAT OR MAP: 02/12/2016

Brian D. Ferguson
 BRIAN D. FERGUSON PS #26454
 401 BALSAM STREET P.O. BOX 159
 CARROLLTON, MI 48724
 PHONE: (989) 752-6500

PROFESSIONAL SURVEYOR

ISSUED FOR	DATE
SPA	08/17/16
SPA	10/12/16

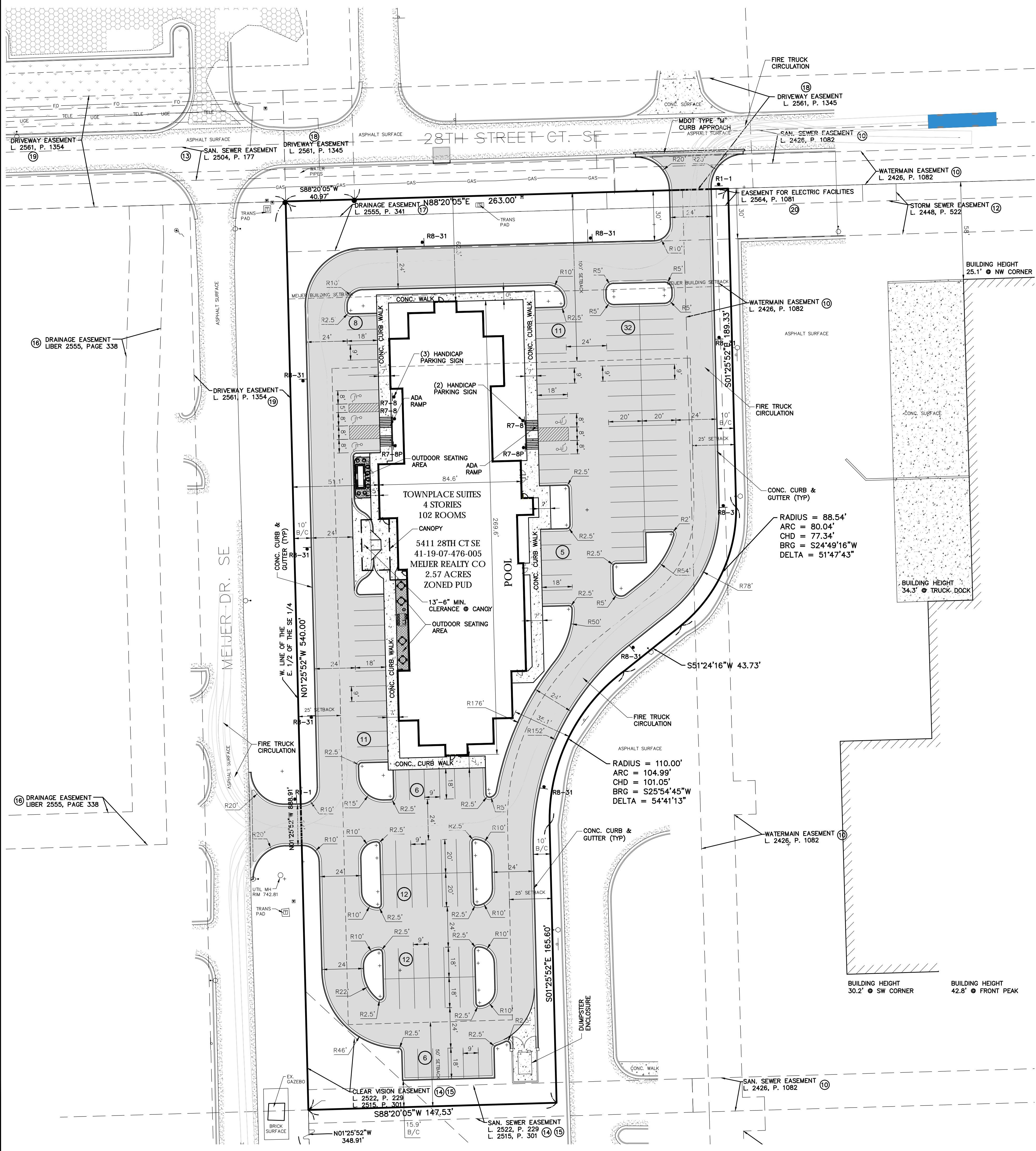
DATE	DRAWN	JDT
	CHECKED	ACA
	SCALE	1"=30'
	JOB NO.	BD-15-338
	SHEET TITLE	SURVEY PLAN

SURVEY COMPLETED BY:

D&M SITE INC.
 Surveying • Inspection • Testing • Engineering

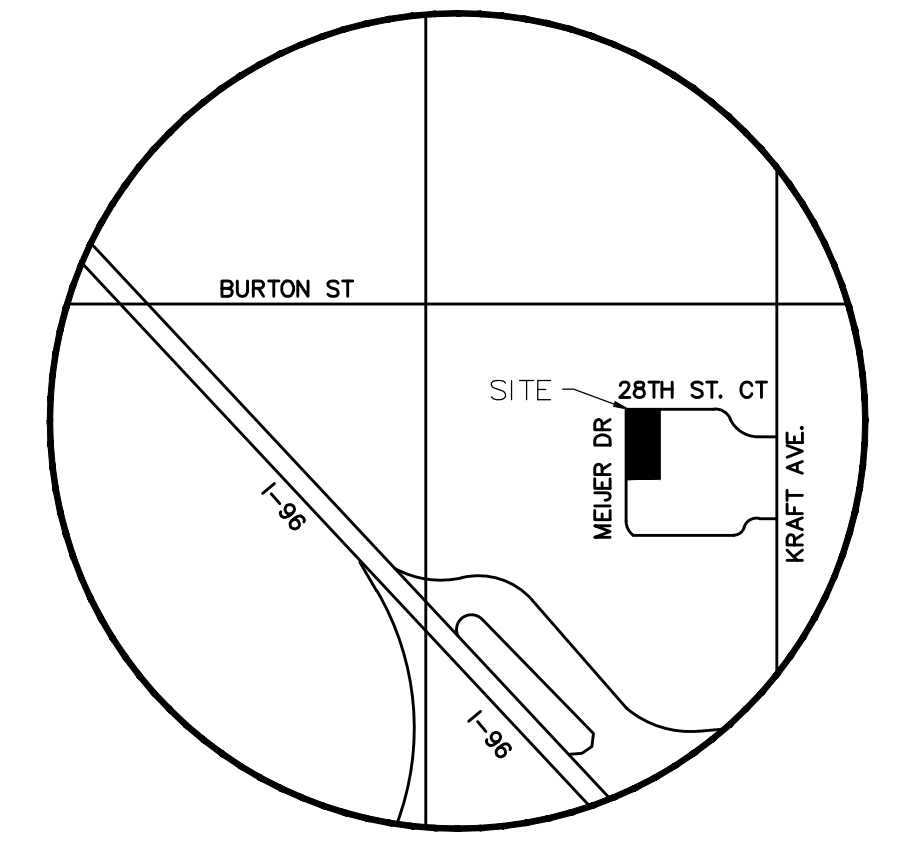
401 BALSAM STREET P.O. BOX 159, CARROLLTON, MICHIGAN 48724
 PHONE (989) 752-6500 • FAX (989) 752-6600

C2.0

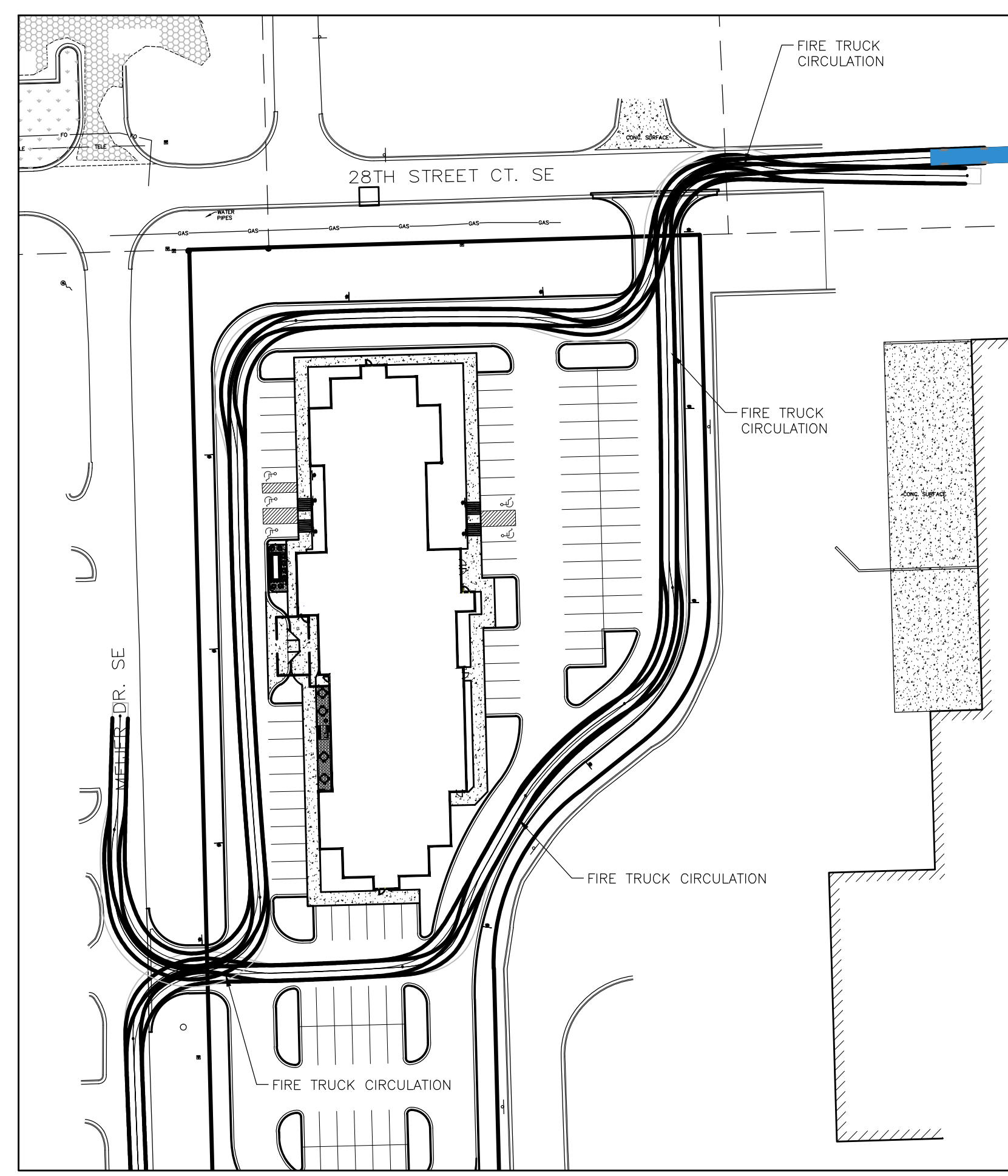


GENERAL NOTES

1. REFER TO ARCHITECTURAL PLANS TO VERIFY BUILDING DIMENSIONS.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS AND POST ALL BONDS PRIOR TO CONSTRUCTION, OR ENSURE THAT ALL REQUIRED PERMITS AND BONDS HAVE BEEN OBTAINED PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING MISS-DIG AT 1-800-482-7171 AT LEAST 3 WORKING DAYS PRIOR TO EXCAVATION.
4. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED WITH LIKE MATERIAL. THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE LOCATED BY HAND DIGGING.
5. DIMENSIONS ARE TO FACE OF CURB, OUTSIDE FACE OF BUILDING, EDGE OF PAVEMENT, CENTER OF STRUCTURE OR OTHERWISE INDICATED.
6. ALL PAVING MATERIALS AND OPERATIONS SHALL BE IN CONFORMANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION.
7. PARKING STALL SPACES TO BE 4" DOUBLE SOLID WHITE PAINT STRIPES. HANDICAP PARKING TO BE 4" DOUBLE SOLID BLUE PAINT STRIPES W/ BARRIER FREE STRIPPING OF 4" SOLID BLUE @ 2' O.C. ON 45° ANGLE.
8. ALL WORK SHALL CONFORM TO THE CASCADE TOWNSHIP STANDARDS AND SPECIFICATIONS.

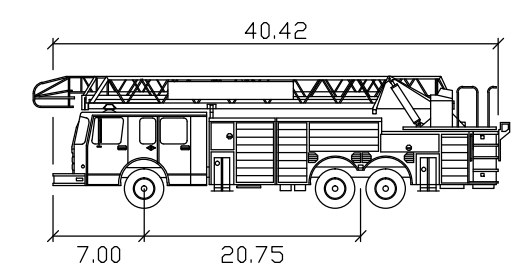
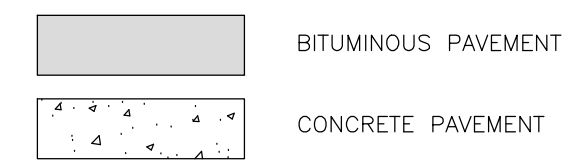


LOCATION MAP
NOT TO SCALE



FIRE TRUCK CIRCULATION
SCALE: 1" = 60'

PAVEMENT INFORMATION



FIRE TRUCK

SITE INFORMATION

ZONING: PUDSITE DEVELOPMENT STANDARDS FOR SITE (MEIJER/ROMANO #11 OF 2002).

PROPERTY: 2.57 AC, 41-19-07-476-005, 5411 28TH ST. CT. SE

PARKING DATA: REQUIRED 1 SPACE PER ROOM, REQUIRED = 102 ROOMS / 1 = 102 SPACES, TOTAL REQUIRED = 102 SPACES, PROVIDED ACCESSIBLE SPACES = 5, STANDARD SPACES = 98, TOTAL = 103 SPACES

BUILDING: USE GROUP: MIXED USE, SEPARATED; A-2, A-3, B, R-2, CONSTRUCTION TYPE: VA (FULLY SUPPRESSED PER NFPA 13)

GROSS AREA: 1ST FLOOR 17,739 S.F., 2ND FLOOR 14,538 S.F., 3RD FLOOR 14,538 S.F., 4TH FLOOR 14,538 S.F., TOTAL 61,353 S.F.

FIRE DEPARTMENT NOTES

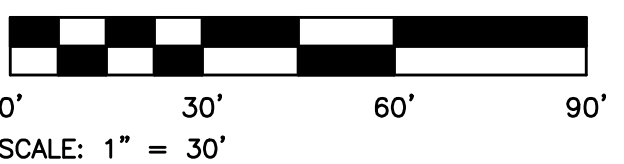
1. ACCESS TO THE SITE PROVIDED AT ALL TIMES ONCE CONSTRUCTION BEGINS.
2. BUILDING ADDRESS SHALL BE POSTED AND VISIBLE FROM THE ROAD.
3. FIRE DEPARTMENT CONNECTION SHALL BE 5-INCH STORZ WITH 30-DEGREE ELBOW.
4. "SUPRA BOX" SHALL BE PROVIDED IN LOCATION AS DIRECTED BY FIRE DEPARTMENT.

TRAFFIC CONTROL SIGN TABLE	
DESCRIPTION	MMUTCD
HANDICAP	R7-8
HANDICAP (VAN)	R7-BP
STOP SIGN	R1-1
NO PARKING FIRE LANE	R8-31

ALL TRAFFIC SIGNAGE SHALL COMPLY WITH THE CURRENT MMUTCD STANDARDS



Know what's below.
Call before you dig.



SCALE: 1" = 30'



Bud Design & Engineering Services, Inc.
10775 S. Saginaw St., Suite B
Grand Blanc, MI 48439
PH: 810.695.0793
FAX: 810.695.0569
Web: www.buddesigns.com

**TOWNEPLACE SUITES
CASCADE TWP, KENT CO, MI**

THIS DRAWING HAS BEEN PREPARED BY THE ENGINEER OR ARCHITECT AND IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. THE ENGINEER OR ARCHITECT DOES NOT WARRANT OR GUARANTEE THE ACCURACY OF THE INFORMATION PROVIDED HEREIN. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR VERIFYING ALL INFORMATION AND CONDITIONS PRIOR TO CONSTRUCTION. THE ENGINEER OR ARCHITECT SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PERSONS OR PROPERTY CAUSED BY THE USE OF THIS DRAWING. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND BONDS PRIOR TO CONSTRUCTION.

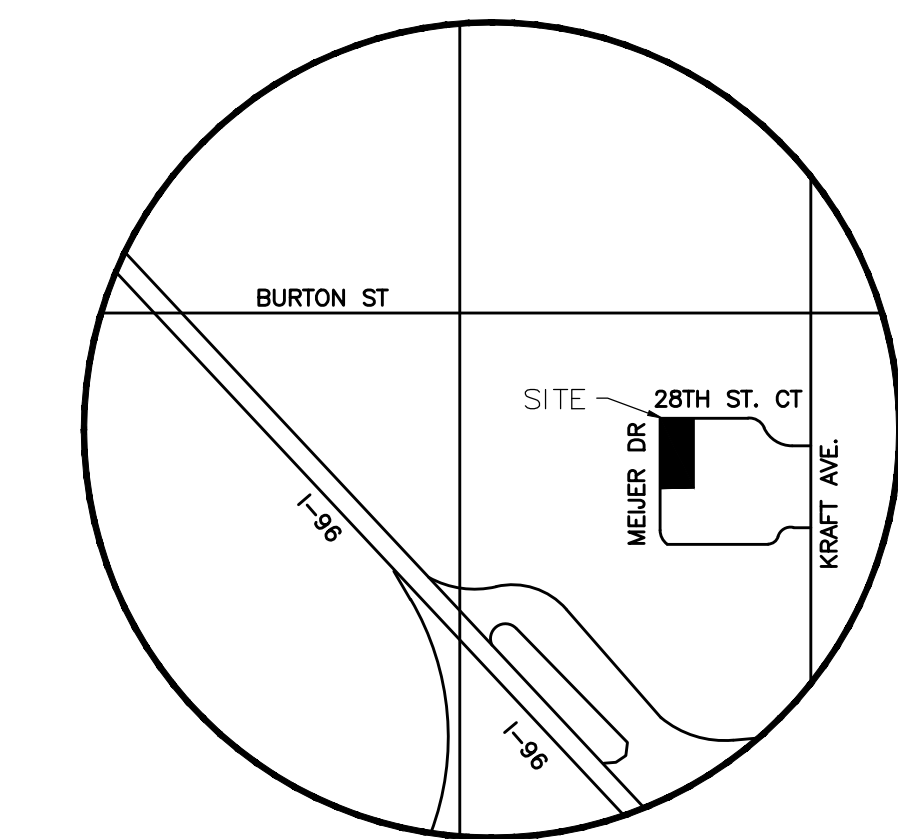
ISSUED FOR	DATE
PRELIMINARY	08/23/16
MARRIOTT 30%	08/30/16
CONCEPTUAL	07/13/16
SPA	08/17/16
SPA	10/12/16

DATE	DRAWN	JDT
	CHECKED	ACA
	SCALE	1"=30'
	JOB NO.	BD-15-338
	SHEET TITLE	SITE LAYOUT AND PAVING PLAN
	SHEET	

C3.0



Bud Design & Engineering Services, Inc.
 Architects | Engineers | Interior Design
 10775 S. Saginaw St., Suite B
 Grand Blanc, MI 48439
 (PH) 810.695.0793
 (FAX) 810.695.0569
 Web: www.buddesigns.com



LOCATION MAP
NOT TO SCALE

RESPONSIBLE PARTY
 CASCADE LODGING, INC.
 5401 28TH ST. CT. SE
 GRAND RAPIDS, MI 49546

FURNISHED LEGAL DESCRIPTION
 FIDELITY NATIONAL TITLE COMPANY
 COMMITMENT NO. 16-110048
 COMMITMENT DATE: JANUARY 12, 2016 AT 08:00 AM
 LAND SITUATED IN THE TOWNSHIP OF CASCADE, COUNTY OF KENT, STATE OF MICHIGAN, DESCRIBED AS FOLLOWS:
 THAT PART OF THE SOUTHEAST 1/4 OF SECTION 7, TOWN 6 NORTH, RANGE 10 WEST, CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN, DESCRIBED AS: COMMENCING AT THE SOUTHEAST CORNER OF SECTION 7; THENCE SOUTH 88 DEG. 05' 02" WEST 1054.98 FEET ALONG THE SOUTH LINE OF SECTION 7; THENCE NORTH 1 DEG. 39' 55" WEST 262.76 FEET TO THE NORTHEASTERLY LINE OF HIGHWAY I-96; THENCE NORTH 47 DEG. 05' 25" WEST 382.36 FEET ALONG NORTHEASTERLY LINE; THENCE NORTH 01 DEG. 25' 52" EAST 348.91 FEET ALONG THE WEST LINE OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 7 TO THE PLACE OF BEGINNING OF THIS DESCRIPTION; THENCE CONTINUING ALONG SAID WEST LINE NORTH 01 DEG. 25' 52" EAST 540.00 FEET; THENCE NORTH 88 DEG. 20' 05" EAST 263.00 FEET, THENCE SOUTH 01 DEG. 25' 52" EAST 189.33 FEET; THENCE ALONG THE ARC OF A CURVE TO THE RIGHT, AN ARC DISTANCE OF 80.04 FEET, SAID CURVE HAVING A RADIUS OF 88.54 FEET, CHORD BEARING AND DISTANCE OF SOUTH 24 DEG. 49' 16" WEST, 77.34 FEET AND CENTRAL ANGLE OF 51 DEG. 47' 43"; THENCE SOUTH 51 DEG. 24' 16" WEST 43.73 FEET; THENCE ALONG THE ARC OF A CURVE TO THE LEFT, AN ARC DISTANCE OF 104.99 FEET, SAID CURVE HAVING A RADIUS OF 110.00 FEET, CHORD BEARING AND DISTANCE OF SOUTH 25 DEG. 54' 45" WEST, 101.05 FEET AND CENTRAL ANGLE OF 54 DEG. 41' 13"; THENCE SOUTH 1 DEG. 25' 52" EAST 165.60 FEET; THENCE SOUTH 88 DEG. 20' 05" WEST 147.53 FEET TO THE WEST LINE OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 7 TO THE PLACE OF BEGINNING, BEING SUBJECT TO AND TOGETHER WITH EASEMENTS AND/OR RESTRICTIONS OF RECORD.

SOIL EROSION & SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

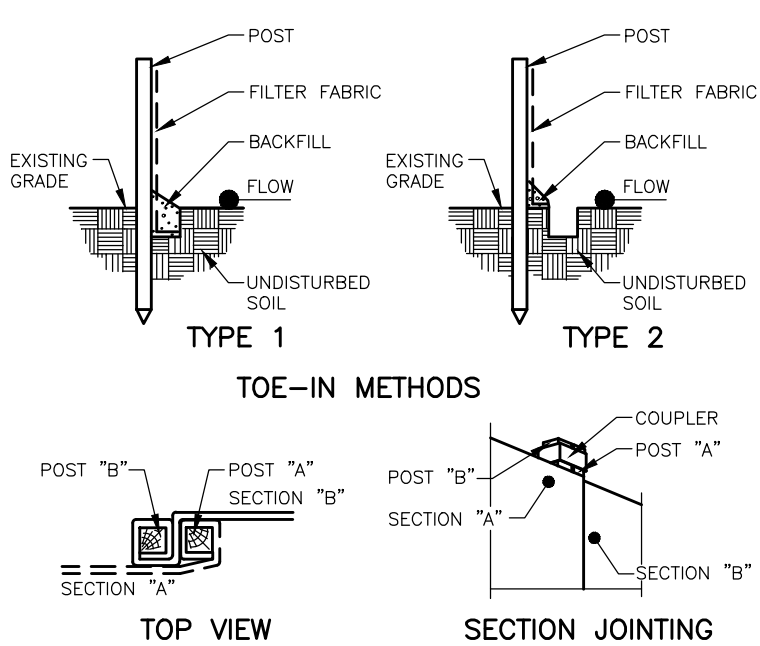
CONSTRUCTION SEQUENCE	DEC 2016	JAN 2017	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TEMPORARY EROSION CONTROL MEASURES													
STRIP & STOCKPILE TOPSOIL / ROUGH GRADE													
STORM SEWER													
FOUNDATION / BLDG. CONSTRUCTION													
SANITARY SEWER & WATER													
INSTALL ALL OTHER UTILITIES													
SITE CONSTRUCTION & PAVEMENT													
PERMANENT EROSION CONTROL MEASURES													
FINISH GRADING													
LANDSCAPING													

DISTURBED AREA = 2.4± ACRES

SOIL EROSION CONTROL MEASURES

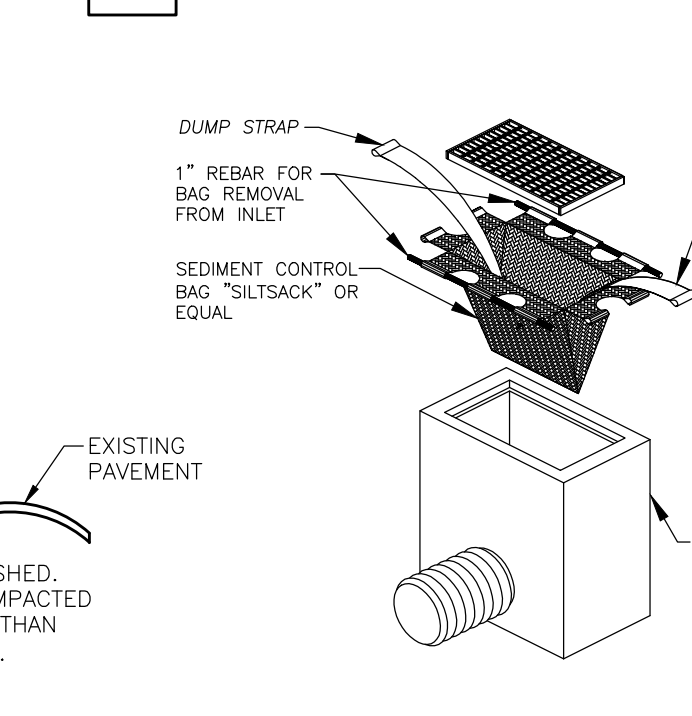
REFERENCE: MICHIGAN UNIFIED KEYING SYSTEM FOR EROSION AND SEDIMENT CONTROL MEASURES

2	SELECTIVE GRADING & SHAPING	WATER CAN BE DIVERTED TO MINIMIZE EROSION FLATTER SLOPES EASE EROSION PROBLEMS
5	SEEDING	INEXPENSIVE AND VERY EFFECTIVE STABILIZES SOIL, THIS MINIMIZES EROSION PERMITS RUNOFF TO INFILTRATE SOIL, REDUCING RUNOFF VOLUME SHOULD INCLUDE PREPARED TOPSOIL BED
14	AGGREGATE COVER	STABILIZES SOIL SURFACES, THIS MINIMIZES EROSION PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS
40	FILTER BAG	SILT/SACK (TERRAFIX OR OTHERWISE APPROVED EQUAL) FILTER BAG FILTERS SEDIMENT FROM RUNOFF
54	SILT FENCE	USES GEOTEXTILE FABRIC AND POSTS OR POLES. EASY TO CONSTRUCT AND LOCATE AS NECESSARY.



TOP VIEW SECTION JOINING

54 SILT FENCE
NO SCALE



40 FILTER BAG
NO SCALE

SOIL CONDITIONS
 USDA NRCS
 WEB SOIL SURVEY
 KENT COUNTY, MICHIGAN (M081)
 25B: OAKVILLE FINE SAND, 0 TO 6 PERCENT SLOPES
 76: UDIPSAMENTS, NEARLY LEVEL TO STEEP

MAINTENANCE NOTES

1. **SOIL STOCKPILES**
 PERIODIC INSPECTIONS SHOULD BE DONE TO ENSURE EXCESSIVE EROSION HAS NOT OCCURRED. IF RUNOFF OR WIND EROSION HAS OCCURRED, REDUCE THE SIDE SLOPES OF THE SPOIL PILE, OR RE-STABILIZE THE STOCKPILE BY PROVIDING TEMPORARY SEEDING.
 WHEN FILTER FENCING IS USED AROUND A SPOIL PILE, PERIODIC CHECKS SHOULD BE MADE TO ENSURE THAT PILING HAS NOT OCCURRED UNDER THE FENCING, AND TO ENSURE THE FENCE HAS NOT COLLAPSED DUE TO SOIL SWELLAGE OR ACCESS BY CONSTRUCTION EQUIPMENT. REPAIR ANY DAMAGED FENCING IMMEDIATELY.

BERMS AT THE BASE OF THE SPOIL PILE WHICH BECOME DAMAGED SHOULD BE REPLACED.

2. **DUST CONTROL**
 TO PREVENT DUST FROM BECOMING A PUBLIC NUISANCE AND CAUSING OFF-SITE DAMAGES, DUST CONTROL SHOULD BE ONGOING DURING EARTH CHANGE ACTIVITIES.

3. **SILT FENCE**
 SILT FENCE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 SILT FENCES SHOULD BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND SEVERAL TIMES DURING PROLONGED RAINFALLS.

IF THE FENCE IS SAGGING OR THE SOIL HAS REACHED ONE HALF (1/2) THE HEIGHT OF THE FABRIC, THE SOIL BEHIND THE FABRIC MUST BE REMOVED AND DISPOSED OF IN A STABLE UPLAND SITE. THE SOIL CAN BE ADDED TO THE SOIL STOCKPILE.

IF THE FABRIC IS BEING UNDERCUT (I.E. IF WATER IS SEEPING UNDER THE FENCE), THE FENCE SHOULD BE REMOVED AND REINSTALLED FOLLOWING THE PROCEDURES GIVEN ABOVE.

FABRIC WHICH DECOMPOSES OR OTHERWISE BECOMES INEFFECTIVE SHOULD BE REMOVED AND REPLACED WITH NEW FILTER FABRIC IMMEDIATELY.

4. **SEEDING**
 NEWLY SEEDED AREAS NEED TO BE INSPECTED FREQUENTLY FOR THE FIRST FEW MONTHS TO ENSURE THE GRASS IS GROWING. IF THE SEEDED AREA IS DAMAGED DUE TO RUNOFF, ADDITIONAL STORMWATER MEASURES MAY BE NEEDED. SPOT SEEDING CAN BE DONE ON SMALL AREAS TO FILL IN BARE SPOTS WHERE GRASS DIDN'T GROW PROPERLY.

5. **MULCHING**
 MULCHED AREAS SHOULD BE CHECKED FOLLOWING EACH RAIN TO ENSURE THE MULCH IS STAYING IN PLACE. ADDITIONAL TACKING MATERIALS OR NETTING MAY NEED TO BE APPLIED TO HOLD THE MULCH IN PLACE.

6. **CONSTRUCTION ENTRANCE**
 PROPER MAINTENANCE MAY INCLUDE ADDING ADDITIONAL LAYERS OF STONE WHEN THE ORIGINAL STONE BECOMES COVERED WITH MUD. AFTER EACH STORM EVENT, INSPECT THE ROAD FOR EROSION AND MAKE ANY NECESSARY REPAIRS. ALL SEDIMENT DROPPED OR ERODED ONTO PUBLIC RIGHT-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY SWEEPING.

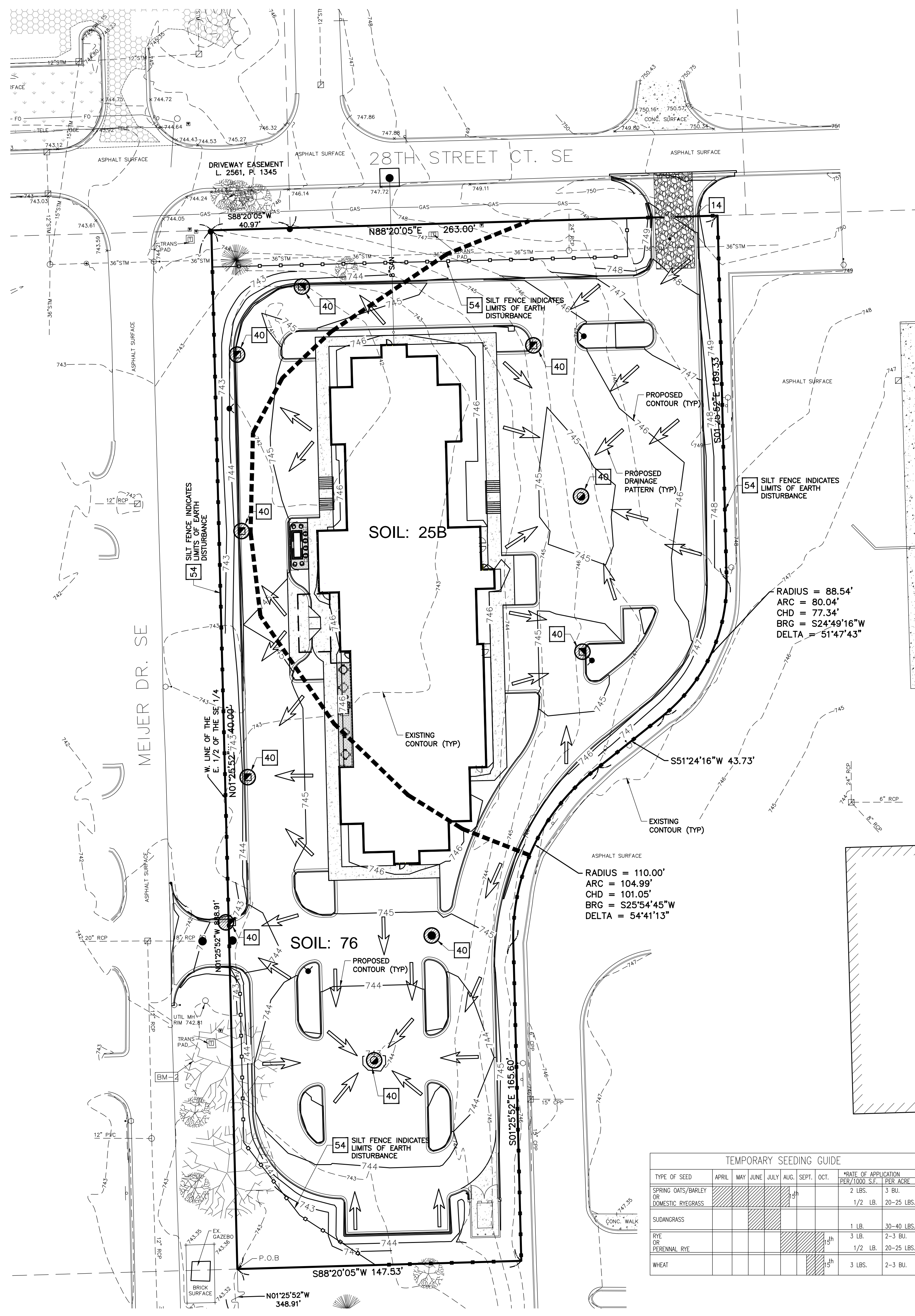
SOIL EROSION & SEDIMENTATION CONTROL NOTES

- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH CASCADE CHARTER TOWNSHIP AND KENT COUNTY STANDARDS AND SPECIFICATIONS.
- DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES. ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
- ANY EROSION OR SEDIMENT FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MANMADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
- CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED AND AS DIRECTED ON THESE PLANS. CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES AND OTHER EARTH CHANGES HAVE BEEN ESTABLISHED.
- AFTER ALL TEMPORARY EROSION CONTROL MEASURES HAVE BEEN INSTALLED, THE CONTRACTOR SHALL CONTACT CITY OF SOUTHGATE FOR AN INSTALLATION INSPECTION.
- DUST CONTROL SHALL BE EXERCISED AT ALL TIMES WITHIN THE PROJECT BY THE CONTRACTOR.
- ALL MUD, DIRT AND DEBRIS TRACKED ONTO EXISTING ROADS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR NO LESS THAN ON A DAILY BASIS. ALL MUD, DIRT AND DEBRIS TRACKED OR SPILLED ONTO PAVED SURFACES WITHIN THIS SITE SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
- PERMANENT EROSION CONTROL MEASURES SHALL BE COMPLETED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING OR EARTH MOVING ACTIVITY HAS BEEN COMPLETED. A FINAL INSPECTION SHALL BE SCHEDULED BY THE CONTRACTOR.
- UPON THE DIRECTION OF THE INSPECTING AGENCY, ADDITIONAL MEASURES SHALL BE CONSTRUCTED AND MAINTENANCE WORK SHALL BE PERFORMED TO ENSURE COMPLIANCE WITH ALL PERMIT REQUIREMENTS.

FLOODPLAIN INFORMATION
 CASCADE TOWNSHIP
 KENT COUNTY, MICHIGAN
 MAP NUMBER: 260814 0025A
 EFFECTIVE DATE: NOVEMBER 6, 1991
 FLOOD ZONE: X
 AREA OUTSIDE 500-YEAR FLOODPLAIN

TEMPORARY SEEDING GUIDE

TYPE OF SEED	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	RATE OF APPLICATION PER/1000 S.F. PER ACRE
SPRING OATS/BARLEY OR DOMESTIC RYEGRASS								2 LBS. 3 BU. 1/2 LB. 20-25 LBS.
SUDANGRASS								1 LB. 30-40 LBS.
RYE OR PERENNIAL RYE								3 LB. 2-3 BU. 1/2 LB. 20-25 LBS.
WHEAT								3 LBS. 2-3 BU.



**TOWNEPLACE SUITES
CASCADE TWP, KENT CO, MI**

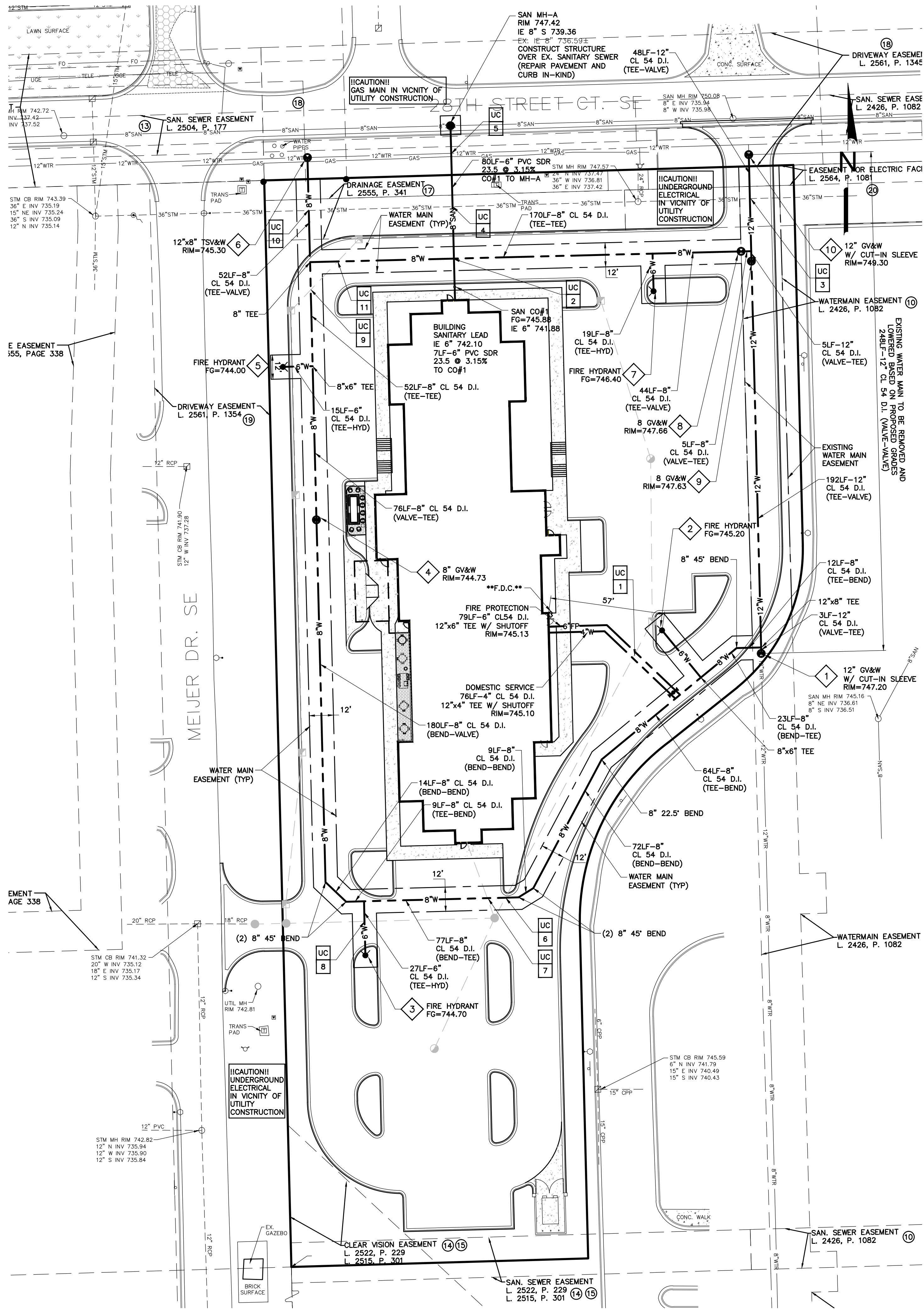
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ISSUED FOR	DATE
SPA	09/17/16
SPA	10/12/16

DATE: _____
 DRAWN: JDT
 CHECKED: ACA
 SCALE: 1"=30'
 JOB NO: BD-15-338
 SHEET TITLE: EROSION CONTROL PLAN

SHEET
C4.2

811
 Know what's below.
 Call before you dig.
 SCALE: 1" = 30'



GENERAL NOTES

1. ALL WORK MUST BE DONE IN ACCORDANCE WITH CURRENT STANDARDS, SPECIFICATIONS AND GENERAL CONDITIONS OF CASCADE CHARTER TOWNSHIP.
2. SHOP DRAWINGS SHALL BE SUBMITTED BY THE UNDERGROUND CONTRACTOR FOR ALL SANITARY, WATER AND STORM INSTALLATION.
3. CONTRACTOR SHALL SUBMIT RECORD "AS-BUILT" PLANS AFTER CONSTRUCTION.
4. MAINTAIN A MINIMUM HORIZONTAL SEPARATION BETWEEN WATER SERVICE AND ANY OTHER UTILITY OF 10'-FEET. THE MINIMUM VERTICAL CLEARANCE BETWEEN A WATER MAIN AND A SEWER SHALL BE 18-INCHES.
5. NO GROUNDWATER, STORM WATER, CONSTRUCTION WATER, DOWNSPOUT DRAINAGE OR WEEP TILE DRAINAGE SHALL BE ALLOWED TO ENTER ANY SANITARY SEWER INSTALLATION.
6. REFER TO PLUMBING PLANS TO VERIFY BUILDING UTILITY CONNECTION LOCATIONS. SITE UTILITY LOCATIONS TO TERMINATE 5' OUTSIDE OF BUILDING.
7. SANITARY CLEANOUT ASSEMBLIES TO BE ZURN 1402-HD, OR OTHERWISE APPROVED EQUAL.
8. THE LOCATION AND SIZE OF THE FRANCHISE UTILITY SERVICES SHALL BE DESIGNED AND INSTALLED BY THE UTILITY COMPANY.
9. MAINTAIN 6' MIN. DEPTH OF BURY TO FINISHED GRADE FOR WATER MAIN AND WATER SERVICE.
10. CONTRACTOR RESPONSIBLE FOR ALL REPAIRS TO EXISTING ROADWAYS AS A RESULT OF CONSTRUCTION ACTIVITIES.
11. CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION AND REPORT ALL FINDINGS TO THE ENGINEER.

FIRE DEPARTMENT NOTES

1. ACCESS TO THE SITE PROVIDED AT ALL TIMES ONCE CONSTRUCTION BEGINS.
2. BUILDING ADDRESS SHALL BE POSTED AND VISIBLE FROM THE ROAD.
3. FIRE DEPARTMENT CONNECTION SHALL BE 5-INCH STORZ WITH 30-DEGREE ELBOW.
4. "SUPRA BOX" SHALL BE PROVIDED IN LOCATION AS DIRECTED BY FIRE DEPARTMENT.

UTILITY CROSSING SCHEDULE

UC 1	BOTTOM OF STORM = 738.70 TOP OF WATER = 737.20 (DEFLECT WATER MAIN) (18" MIN VERTICAL CLEARANCE)
UC 2	BOTTOM OF SANITARY = 741.41 TOP OF WATER = 739.02 (6' COVER TO TOP OF PIPE)
UC 3	BOTTOM OF WATER = 741.39 TOP OF EX. STORM = 741.08± (VERIFY EX. CONDITIONS) (ENCASE CROSSING IN STEEL CASING)
UC 4	BOTTOM OF SANITARY = 740.61 TOP OF EX. STORM = 739.59± (VERIFY EX. CONDITIONS) (ENCASE CROSSING IN STEEL CASING)
UC 5	BOTTOM OF EX. WATER = 740.90± (ASSUME 6' COVER - VERIFY EX. CONDITIONS) TOP OF SANITARY = 740.48 (VERIFY EX. CONDITIONS) (ENCASE CROSSING IN STEEL CASING)
UC 6	BOTTOM OF STORM = 738.14 TOP OF WATER = 736.64 (DEFLECT WATER MAIN) (18" MIN VERTICAL CLEARANCE)
UC 7	BOTTOM OF STORM = 739.78 TOP OF WATER = 738.28 (DEFLECT WATER MAIN) (18" MIN VERTICAL CLEARANCE)
UC 8	BOTTOM OF STORM = 736.65 TOP OF WATER = 735.15 (DEFLECT WATER MAIN) (18" MIN VERTICAL CLEARANCE)
UC 9	BOTTOM OF STORM = 739.82 TOP OF WATER = 738.32 (DEFLECT WATER MAIN) (18" MIN VERTICAL CLEARANCE)
UC 10	BOTTOM OF EX. STORM = 735.50± TOP OF WATER = 734.00 (DEFLECT WATER MAIN) (18" MIN VERTICAL CLEARANCE)
UC 11	BOTTOM OF STORM = 739.88 TOP OF WATER = 738.38 (DEFLECT WATER MAIN) (18" MIN VERTICAL CLEARANCE)

SANITARY USE CALCULATIONS

PROPOSED BUILDINGS

USAGE	AREA	UNIT FACTOR	R.E.U.
Hotel	102 rooms	0.25 units per room	25.50
Pool	544 sf	3 units / 1000 sf	1.63
			25.50
			Rounded= 26.00

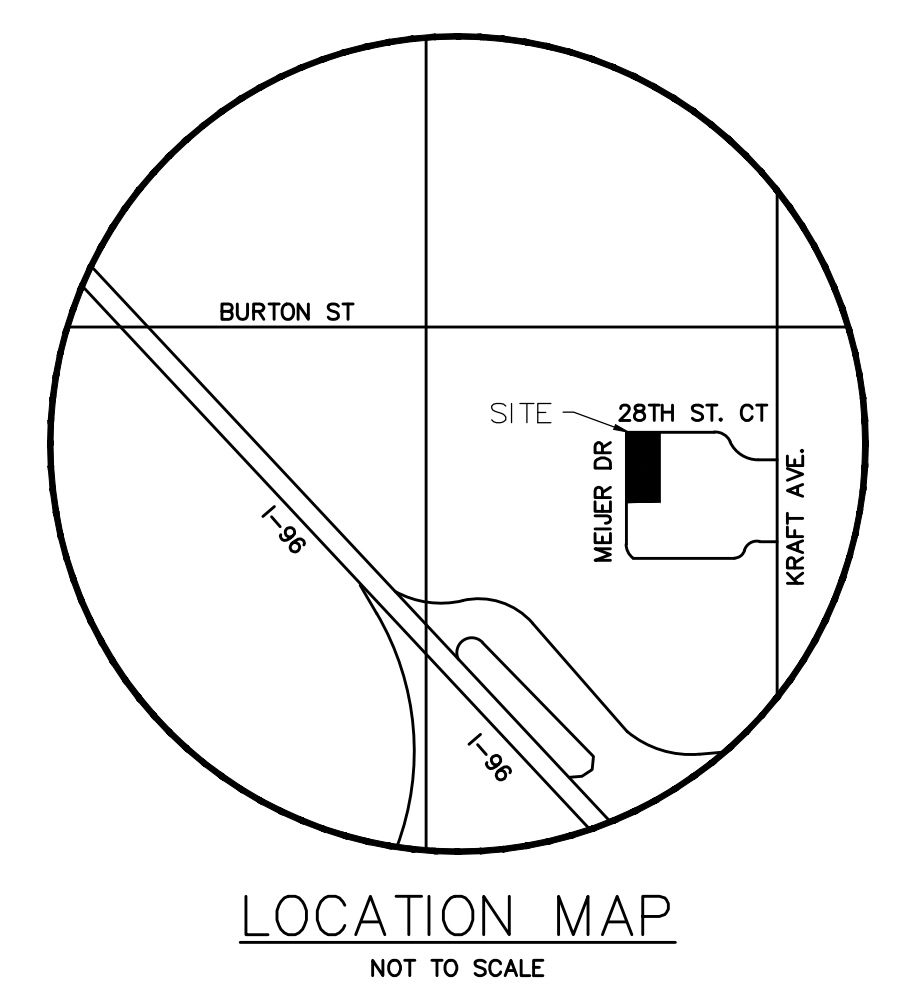
POPULATION EQUIVALENT = 3.5 Persons per R.E.U.
 POPULATION = 91.0 Persons
 AVERAGE FLOW RATE = 100 Gallons per capita per day
 AVERAGE FLOW = 9,100.00 GPD
 PEAK FACTOR = 18 + SQRT(P) / 4 + SQRT (P) = 4.25
 PEAK FLOW = 38,716.46 GPD = 0.058 CFS 8" @ 3.15% (cfs) = 2.79

WATER MAIN BASIS OF DESIGN

PROPOSED BUILDINGS

USAGE	AREA	UNIT FACTOR	R.E.U.
Hotel	102 rooms	0.25 units per room	25.50
Pool	544 sf	3 units / 1000 sf	1.63
			25.50
			Rounded= 26.00

POPULATION EQUIVALENT = 3.5 Persons per R.E.U.
 POPULATION = 91.0 Persons
 AVERAGE FLOW RATE = 100 Gallons per capita per day
 AVERAGE FLOW = 9,100.00 GPD = 0.0091 MGD
 PEAK FACTOR = 18 + SQRT(P) / 4 + SQRT (P) = 4.25
 PEAK FLOW = 38,716.46 GPD = 0.038716 MGD



be

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**TOWNEPLACE SUITES
CASCADE TWP, KENT CO, MI**

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ISSUED FOR	DATE
SPA	08/17/16
SPA	10/12/16

DATE	DRAWN	JDT

CHECKED : ACA
 SCALE : 1"=30'
 JOB NO : BD-15-338
 SHEET TITLE : UTILITY PLAN
 SHEET

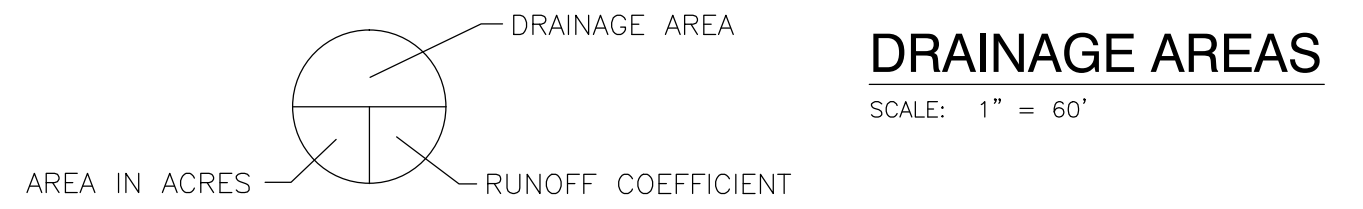
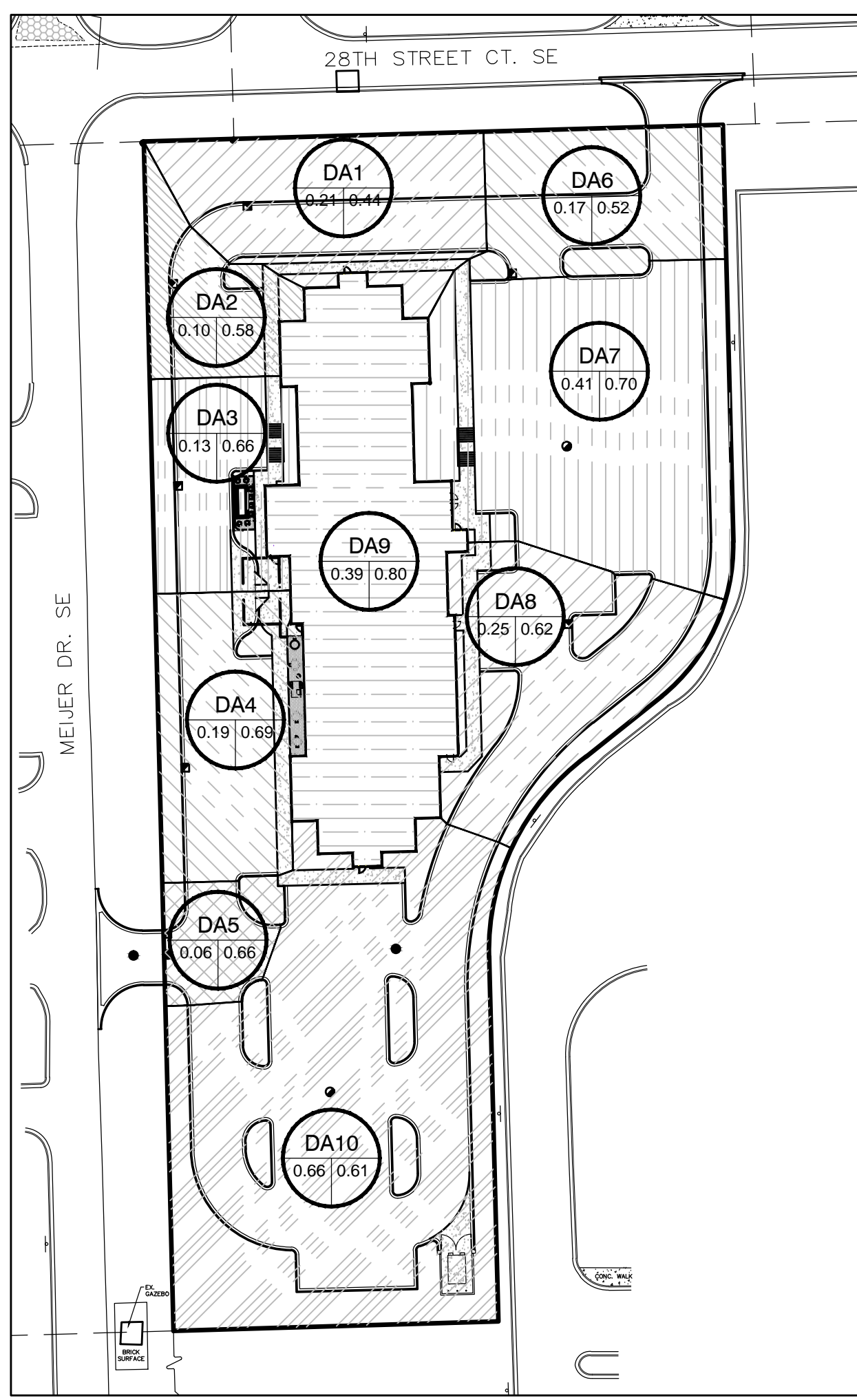
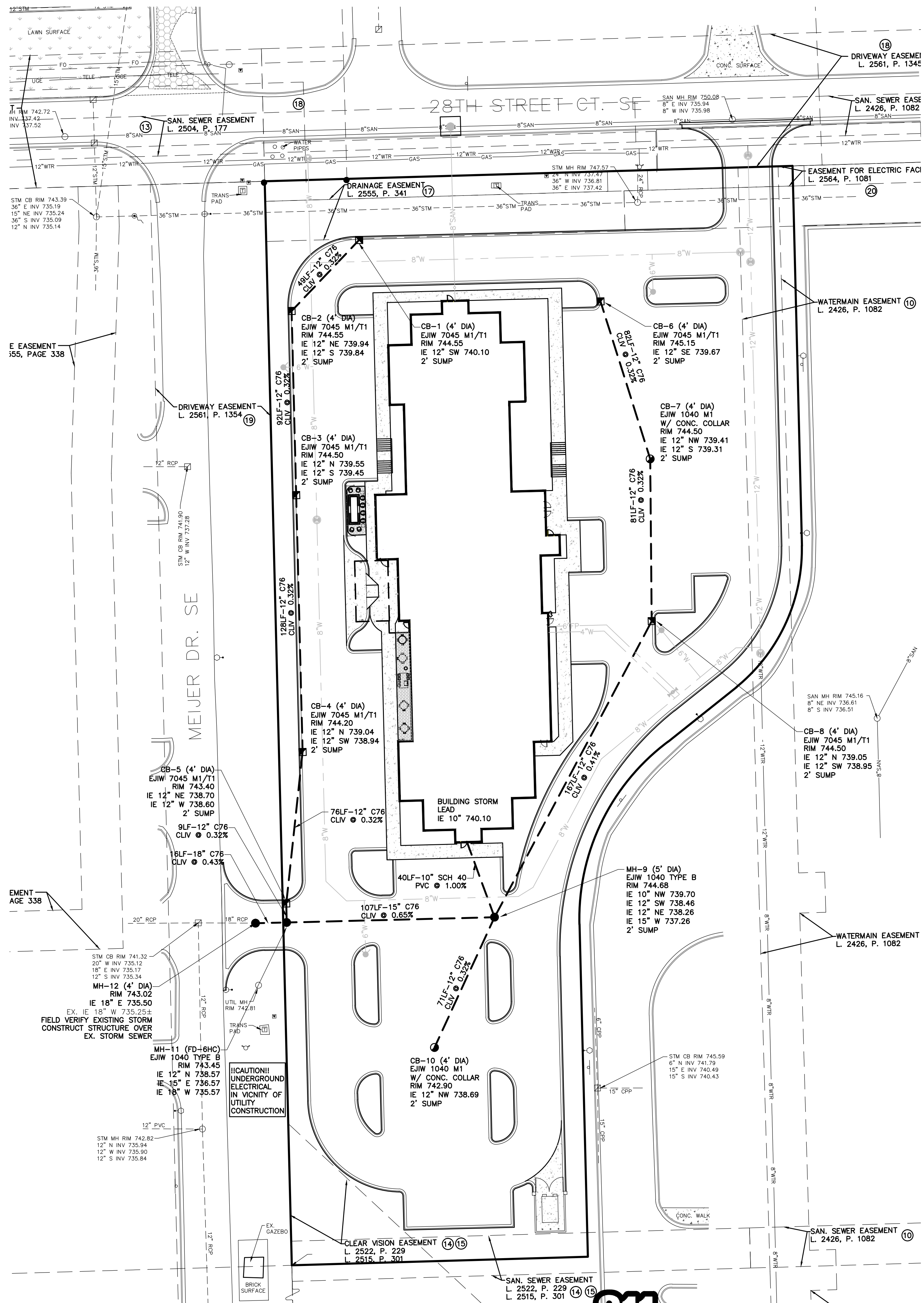
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811

Know what's below.
Call before you dig.

SCALE: 1" = 30'

C5.0



DRAINAGE AREA KEY

STORM MANAGEMENT

- KENT COUNTY DRAIN COMMISSIONER'S OFFICE REVIEWED STORM MANAGEMENT SYSTEM AND BRAD BOOMSTRA, P.E. ACKNOWLEDGED IN AN EMAIL DATED OCTOBER 10, 2016 THAT SINCE THE STORMWATER FROM THIS SITE IS UTILIZING AN EXISTING CONNECTION, WE DO NOT REQUIRE A PERMIT IN AN EMAIL MESSAGE FROM BRAD BOOMSTRA, P.E. DATED AUGUST 17, 2016, IT WAS CONFIRMED THAT THE SITE IS WITHIN THE REGIONAL DETENTION AREA AND NO ON-SITE DETENTION IS REQUIRED.
- THE FIRST DEFENSE FD-6HC STORM TREATMENT UNIT TO SATISFY THE REQUIREMENTS OF THE TOWNSHIP STORMWATER ORDINANCE.

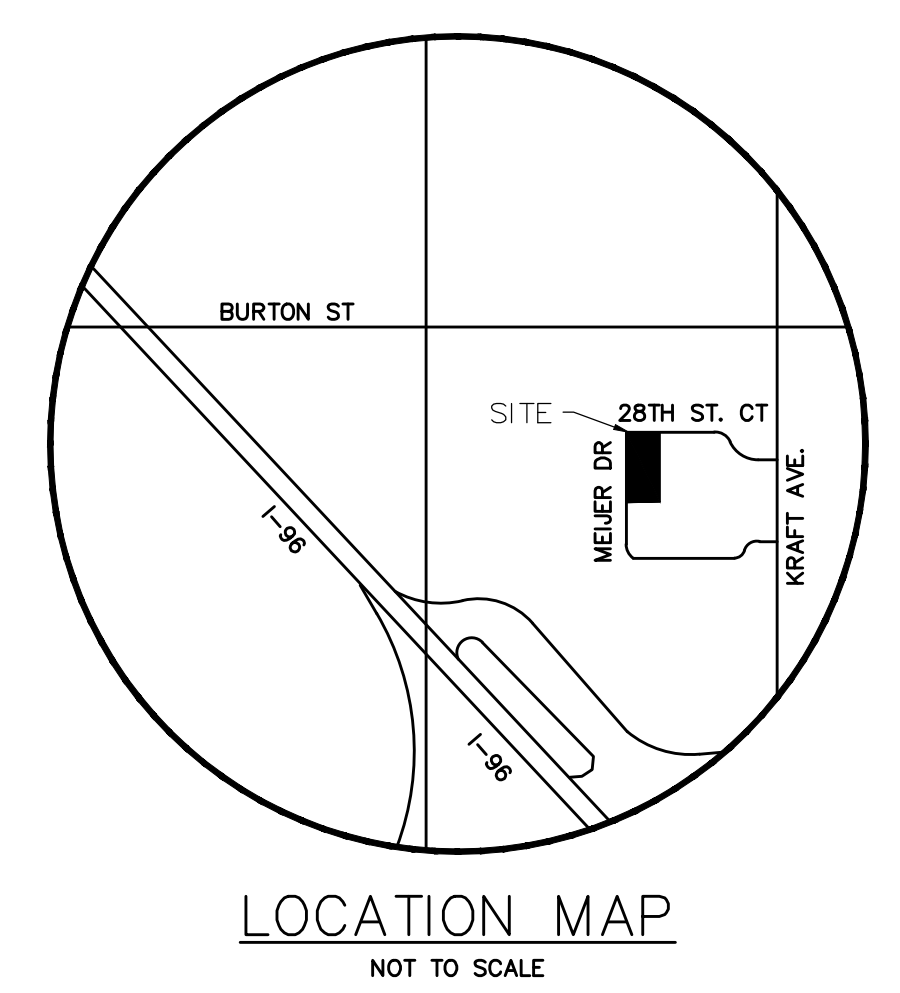
DRAINAGE AREAS

Drainage Area	Area Total (S.F.)	Pervious Area (S.F.)	Impervious Area (S.F.)	C Perv	C Imperv.	Area Total (acres)	Cw
DA1	8948.75	5329.52	3619.23	0.20	0.80	0.21	0.44
DA2	4150.78	1553.55	2597.23	0.20	0.80	0.10	0.58
DA3	5871.77	1412.31	4459.46	0.20	0.80	0.13	0.66
DA4	8203.64	1479.42	6724.22	0.20	0.80	0.19	0.69
DA5	2746.66	660.72	2085.94	0.20	0.80	0.06	0.66
DA6	7418.15	3417.23	4000.92	0.20	0.80	0.17	0.52
DA7	17975.38	3113.83	14861.55	0.20	0.80	0.41	0.70
DA8	10715.73	3229.62	7486.11	0.20	0.80	0.25	0.62
DA9	17019.31	0.00	17019.31	0.20	0.80	0.39	0.80
DA10	28943.15	9376.20	19566.95	0.20	0.80	0.66	0.61
Total						2.57	0.64

$Q_p = C \cdot I \cdot A$
 $Q_p = A \times 1.486 \cdot n \times R^{2.48} \times S^{0.48}$
 $I = 175 / (t + 25)$ for 10 year storm event

STORM SEWER CALCULATIONS

AREA NO.	FROM MH/CB	TO MH/CB	AREA A	COEFF. C*	AREA A x C	COEFF. Wt Cw	TIME t _c	INT. I	n	FLOW Q _r	PIPE CAP. Q _p	PIPE LENGTH	PIPE DIA.	PIPE SLOPE	VEL. FULL	TIME FLOW	H.G.L.		INVERT ELEV.					
																	HIGH END HGL	LOW END HGL	HIGH END INV	LOW END INV				
DA1	1	2	0.21	0.44	0.09	0.21	0.44	0.09	15.00	4.38	0.013	0.40	2.02	49	12	0.32%	2.57	0.32	744.55	744.55	741.94	741.74	740.10	739.94
DA2	2	3	0.10	0.58	0.05	0.30	0.48	0.15	15.32	4.34	0.013	0.63	2.02	92	12	0.32%	2.57	0.60	744.55	744.50	741.64	741.26	739.84	739.55
DA3	3	4	0.13	0.66	0.09	0.44	0.54	0.23	15.92	4.28	0.013	1.00	2.02	128	12	0.32%	2.57	0.83	744.50	744.20	741.16	740.63	739.45	739.04
DA4	4	5	0.19	0.69	0.13	0.62	0.58	0.36	16.75	4.19	0.013	1.53	2.02	76	12	0.32%	2.57	0.49	744.20	743.40	740.53	740.22	738.94	738.70
DA5	5	11	0.06	0.66	0.04	0.69	0.59	0.41	17.24	4.14	0.013	1.68	2.02	9	12	0.32%	2.57	0.06	743.40	743.45	740.12	740.08	738.60	738.57
DA6	6	7	0.17	0.52	0.09	0.17	0.52	0.09	15.00	4.38	0.013	0.39	2.02	82	12	0.32%	2.57	0.53	745.15	744.50	741.62	741.28	739.67	739.41
DA7	7	8	0.41	0.70	0.29	0.58	0.65	0.38	15.53	4.32	0.013	1.63	2.02	81	12	0.32%	2.57	0.53	744.50	744.50	741.18	740.85	739.31	739.05
DA8	8	9	0.25	0.62	0.15	0.83	0.64	0.53	16.06	4.26	0.013	2.25	2.28	167	12	0.41%	2.90	0.96	744.50	744.68	740.75	739.88	738.95	738.26
DA10	10	9	0.66	0.61	0.40	0.66	0.61	0.40	15.00	4.38	0.013	1.76	2.02	71	12	0.32%	2.57	0.46	742.90	744.68	740.27	739.97	738.69	738.46
DA9	9	11	0.39	0.80	0.31	1.88	0.66	1.24	17.02	4.16	0.013	5.18	5.21	107	15	0.65%	4.24	0.42	744.68	743.45	738.88	738.08	737.26	736.57
---	11	12	0.00	0.00	0.00	2.57	0.64	1.65	17.30	4.14	0.013	6.82	6.89	16	18	0.43%	3.90	0.07	743.45	743.02	737.08	737.00	735.57	735.50



be

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CASCADE TWP, KENT CO, MI

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ISSUED FOR DATE

SPA	10/12/16
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DATE

DRAWN - JDT

CHECKED - ACA

SCALE - 1"=30'

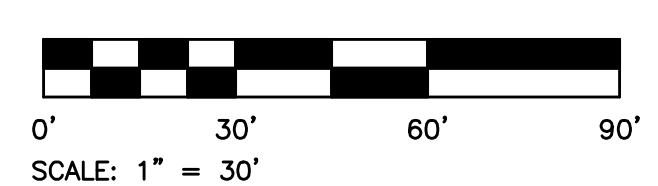
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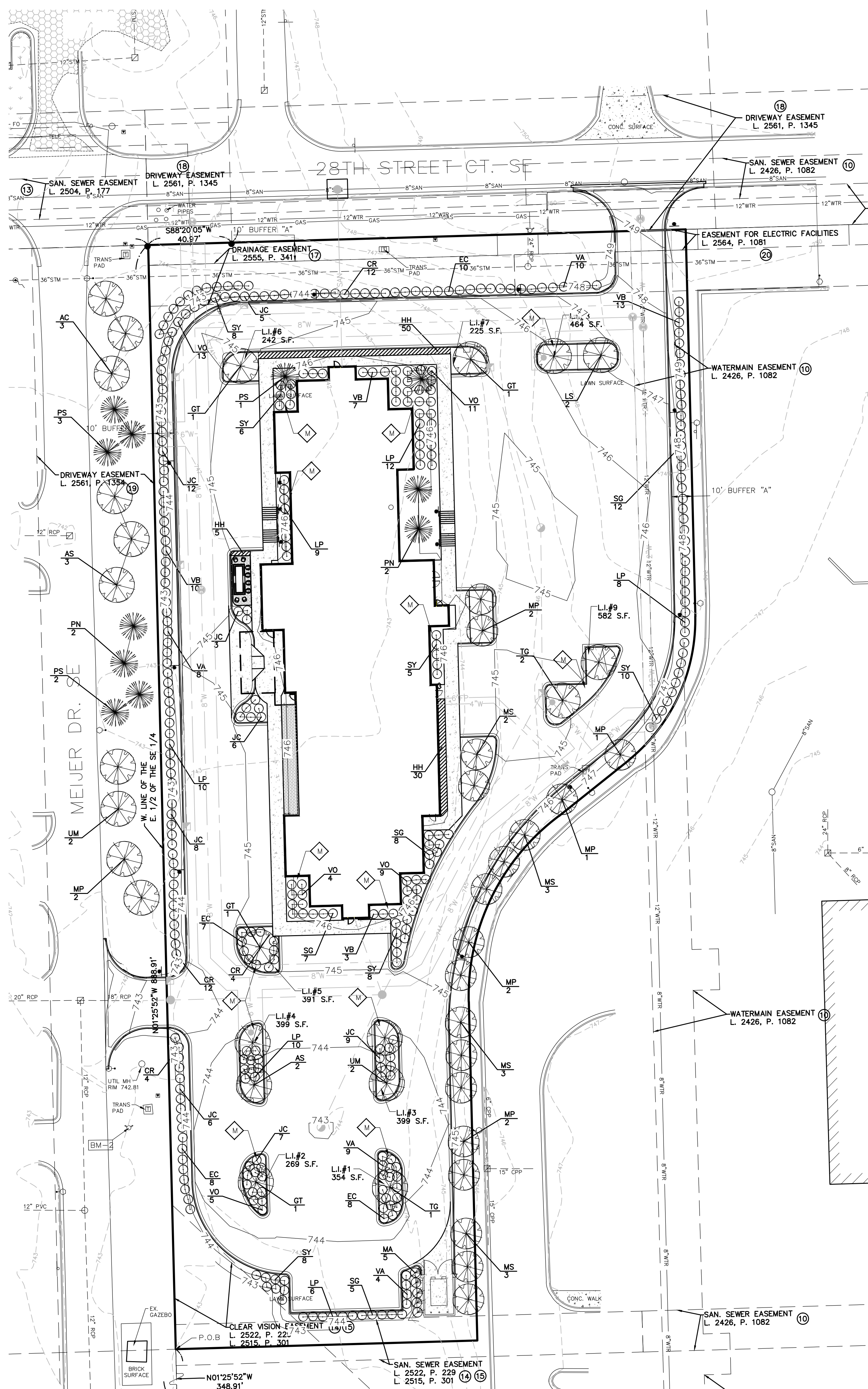
SHEET TITLE - STORM MANAGEMENT PLAN

SHEET

C5.1

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GENERAL NOTES

- CONTRACTOR TO PROVIDE DESIGN AND INSTALLATION OF UNDERGROUND IRRIGATION SYSTEM IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND REGULATORY AGENCY REQUIREMENTS. ALL LANDSCAPING AND GRASS AREAS TO BE IRRIGATED. IRRIGATION CONTROL PANEL SHALL BE LOCATED WITHIN THE HVAC ENCLOSURE.
- ALL GREEN SPACES AND PLANTING AREAS SHALL BE IRRIGATED.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS AND POST ALL BONDS PRIOR TO CONSTRUCTION.
- REFER TO PLUMBING PLANS FOR LOCATION OF IRRIGATION METER.
- ALL GRASS/LAWN AREAS SHALL BE SOD OVER 4-INCHES OF TOPSOIL.
- SPACE ALL SHRUBS AT 5- FEET ON CENTER UNLESS OTHERWISE INDICATED ON THE PLANS.
- ALL DISTURBED LAWN AREAS SHALL BE RESTORED TO AT LEAST PREVIOUS CONDITION IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
- THE GENERAL CONTRACTOR SHALL INCLUDE TOPSOIL IN BASE BID. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE AMOUNT OF TOPSOIL AVAILABLE ON-SITE.

INTERIOR LANDSCAPING

REQUIRED
30 S.F. PER PARKING SPACE
PARKING SPACES = 104
REQUIRED = 103 * 30 = 3,090 S.F.
PROVIDED
PROVIDED = 3,325 S.F.

BUFFER LANDSCAPING

WEST SIDE - BUFFERYARD "A"
BUFFER LENGTH = 540.00'
REQUIREMENT
MIN. WIDTH = 10'
CANOPY TREE = 1 / 100LF
UNDERSTORY TREE = 2 / 100LF
SHRUBS = N/A
EVERGREEN = N/A
REQUIREMENT
CANOPY = 540.00 / 100 = 5.4 = 6
UNDERSTORY = 2(540.00 / 100) = 10.8 = 11
PROVIDED
CANOPY = 10
UNDERSTORY = 7

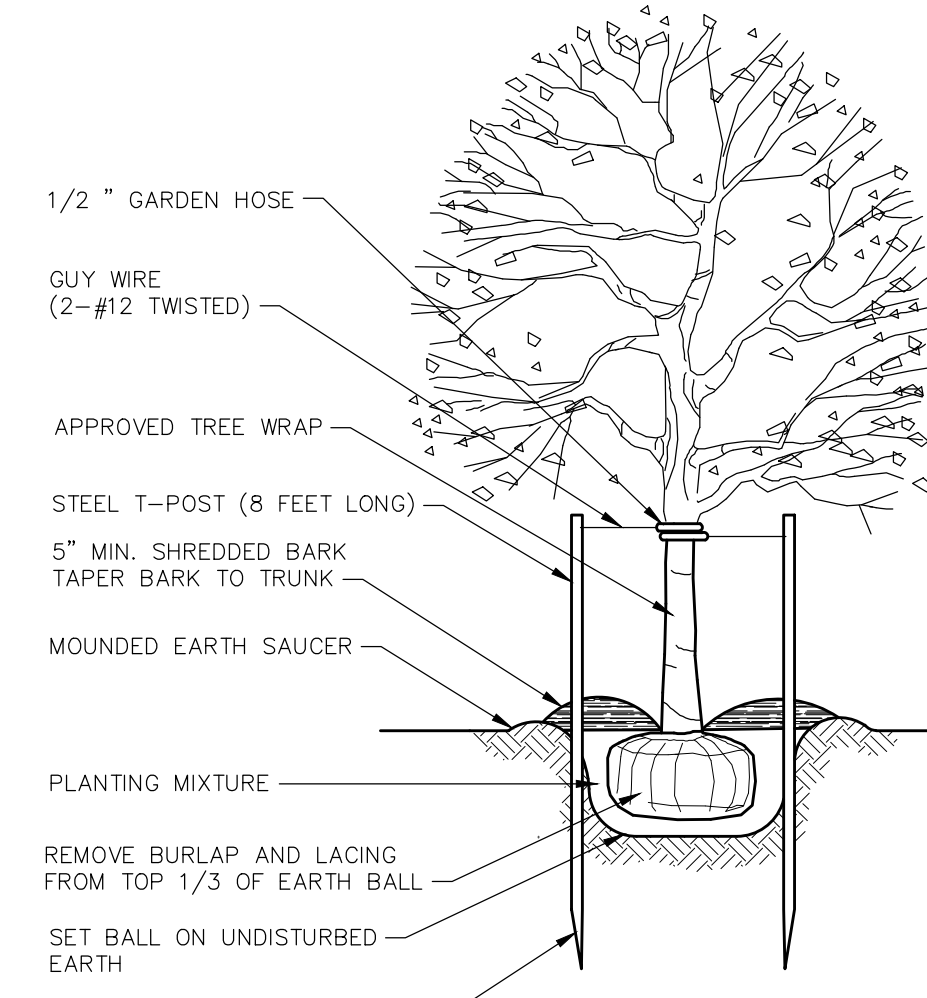
NORTH SIDE - BUFFERYARD "A"
BUFFER LENGTH = 263.00'
REQUIREMENT
MIN. WIDTH = 10'
CANOPY TREE = 1 / 100LF
UNDERSTORY TREE = 2 / 100LF
SHRUBS = N/A
EVERGREEN = N/A
REQUIREMENT
CANOPY = 263.00 / 100 = 2.6 = 3
UNDERSTORY = 2(263.00 / 100) = 5.2 = 6
PROVIDED
CANOPY = 0
UNDERSTORY = 0

EAST SIDE - BUFFERYARD "A"
BUFFER LENGTH = 583.84'
REQUIREMENT
MIN. WIDTH = 10'
CANOPY TREE = 1 / 100LF
UNDERSTORY TREE = 2 / 100LF
SHRUBS = N/A
EVERGREEN = N/A
REQUIREMENT
CANOPY = 583.84 / 100 = 5.8 = 6
UNDERSTORY = 2(583.84 / 100) = 11.6 = 12
PROVIDED
CANOPY = 0
UNDERSTORY = 15

SOUTH SIDE - BUFFERYARD "A"
BUFFER LENGTH = 147.53'
REQUIREMENT
MIN. WIDTH = 10'
CANOPY TREE = 1 / 100LF
UNDERSTORY TREE = 2 / 100LF
SHRUBS = N/A
EVERGREEN = N/A
REQUIREMENT
CANOPY = 147.53 / 100 = 1.5 = 2
UNDERSTORY = 2(147.53 / 100) = 3
PROVIDED
CANOPY = 0
UNDERSTORY = 0

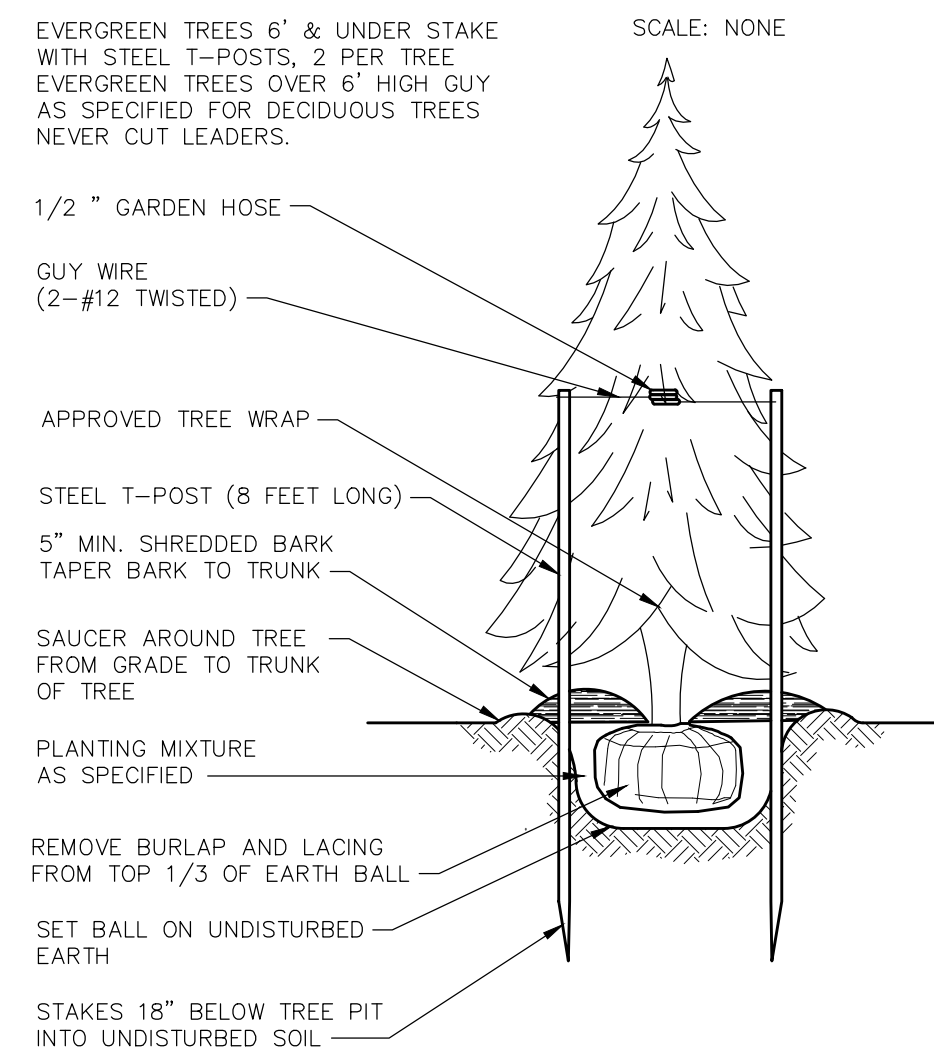
KEY NOTES

- M MULCH (SHREDDED BARK) 5" DEPTH
- S 4" STEEL EDGING



DECIDUOUS TREE PLANTING

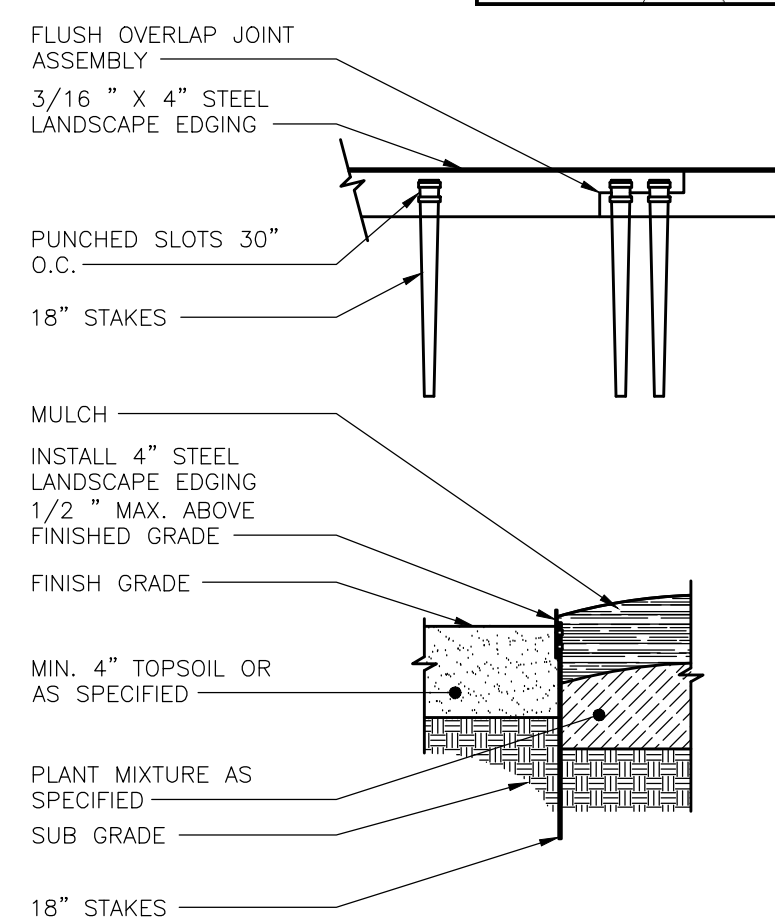
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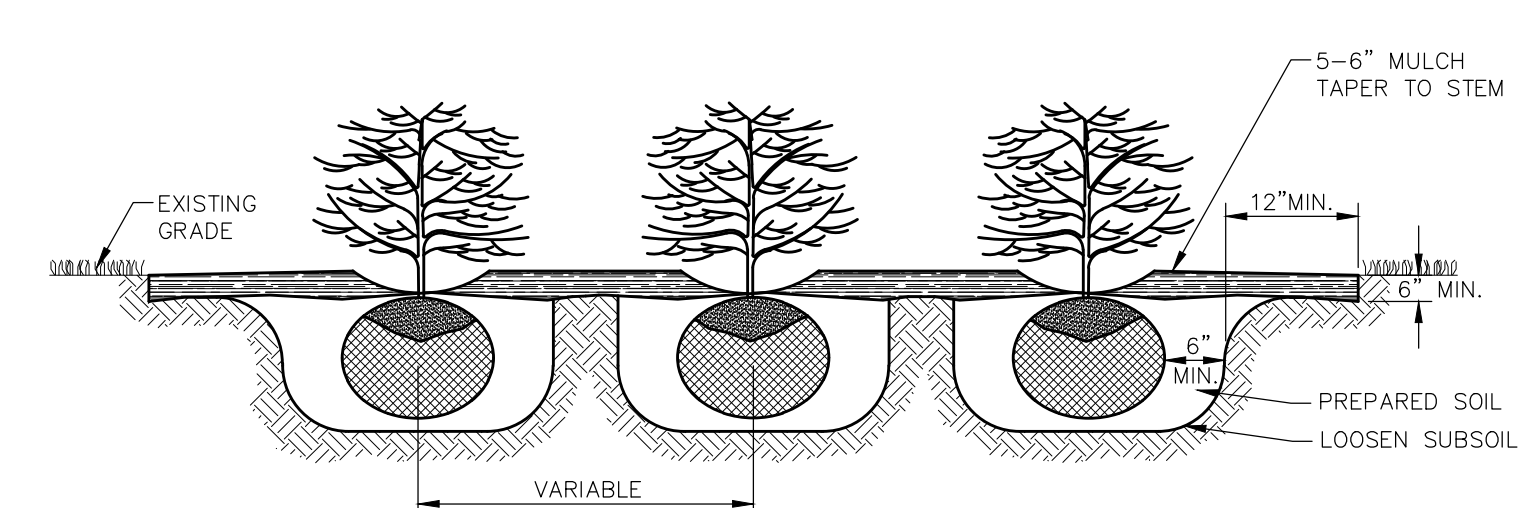
EVERGREEN TREE PLANTING

SCALE: NONE

QUANTITY	KEY	BOTANICAL NAME	COMMON NAME	SIZE
85	HH	HEMERCALUS HYPERION	HYPERION DAYLILY	2YD #2 CONT.
4	GT	GLEDITSIA T.I. 'SKYLINE'	SKYLINE HONEYLOCUST	2-1/2" B&B
3	TG	TILIA CORDATA 'GREENSPIRE'	GREEN MOUNTAIN LINDEN	2-1/2" B&B
4	UM	ULMUS AMERICANA 'VALLEY FORGE'	VALLEY FORGE AMERICAN ELM	2-1/2" B&B
2	LS	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2-1/2" B&B
5	AS	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGER MAPLE	2-1/2" B&B
11	MS	MALUS 'SNOWDRIFT'	SNOWDRIFT CRABAPPLE	2" B&B
10	MP	MALUS 'PRAIRIFIRE'	PRAIRIFIRE CRABAPPLE	2" B&B
3	AC	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	2" B&B
5	MA	THUJA OCCIDENTALIS 'TECHNY'	MISSION ARBORVITAE	4" HT
5	PN	PINUS NIGRA	AUSTRIAN PINE	6' HT
6	PS	PICEA OMORIKA	SERBIAN SPRUCE	6' HT
42	VO	VIBURNUM OPULUS 'COMPACTUM'	COMPACT EUROPEAN CRANBERRY BUSH	24" B&B
31	VA	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	24" B&B
33	VB	VIBURNUM DENTATUM 'BLUE MUFFIN'	BLUE MUFFIN ARROWWOOD VIBURNUM	24" B&B
55	LP	SPRAEA JAPONICA 'LITTLE PRINCESS'	LITTLE PRINCESS SPIRAEA	24" B&B
32	SG	SPRAEA JAPONICA 'GOLDFLAME'	GOLDFLAME SPIRAEA	24" B&B
33	EC	EUONYMUS ALATUS 'COMPACTUM'	DWARF BURNING BUSH	24" B&B
32	CR	CORNUS SERICEA 'STOLONIFERA'	RED OSIER DOGWOOD	24" B&B
45	SY	TAXUS X.MEDIA 'SEBIAN'	SEBIAN YEWE	24" B&B
56	JC	JUNIPERUS C. 'SEAGREEN'	SEA GREEN JUNIPER	24" B&B



4" STEEL LANDSCAPE EDGE
NO SCALE



-FIRST AND SECOND WATERING AND CULTIVATION SHALL INCLUDE SHRUB BEDS.
-CUT 6" X 12" (MIN.) EDGING AROUND THE PERIMETER OF ALL SHRUB BEDS SHOWN ON THE PLANS. SPRAY A NON-PERSISTANT GLYPHOSATE HERBICIDE TO ENTIRE SHRUB BEDS PRIOR TO PLANTING AND BARK PLACEMENT.
-SHRUB BEDS ARE TO BE PAID FOR BY THE PAY ITEM 'SITE PREPARATION'.
-ALL PLANTS SHALL BE SET PLUMB AND HAVE THE BEST SIDE OF PLANT FACING THE MAIN VIEWING DIRECTION.

SHRUB BED DETAIL
SCALE: NONE

DESCRIPTION
THIS WORK SHALL CONSIST OF PROVIDING ALL NECESSARY MATERIALS, LABOR, EQUIPMENT, TOOLS AND SUPERVISION REQUIRED FOR THE EXECUTION AND GUARANTEE OF ALL PLANTINGS AND RELATED WORK AS SHOWN ON THE DRAWINGS.

PLANT MATERIALS SHALL CONFORM TO THE SIZES STATED ON THE PLANT LIST AND SHALL BE OF A MINIMUM SIZE OR LARGER. ALL MEASUREMENTS OF SPREAD, CALIPER, BALL SIZE, TRUNK CROWN RATIO, QUALITY DESIGNATIONS, ETC., SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "ANSI STANDARDS FOR NURSERY STOCK". PLANT MATERIAL SHALL BE NURSERY GROWN AND INSPECTED BY THE OWNER'S REPRESENTATIVE AT THE SITE PRIOR TO PLANTING. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL AT ANY TIME.

NURSERY STOCK SHALL BE PREPARED FOR SHIPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT ANSI SPECIFICATION Z60.1 AND SHALL BE ENCLOSED OR COVERED DURING TRANSPORTATION TO PREVENT DRYING.

SITE PREPARATION

THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND PROTECT AND REPAIR UTILITIES ENCOUNTERED DURING CONSTRUCTION WHETHER SHOWN ON THE PLANS OR NOT.

INDIVIDUAL HOLES SHALL BE CENTERED AT STAKED PLANT LOCATIONS. CONTRACTOR IS TO STAKE PRIOR TO PLACEMENT OF PLANT MATERIAL AND OBTAIN APPROVAL FROM THE OWNER'S REPRESENTATIVE. PLANTING HOLES SHALL BE DUG LARGE ENOUGH TO PERMIT PLACING PREPARED TOPSOIL 18" LATERALLY BEYOND THE ENDS OF THE ROOT BALLS FOR SHADE AND EVERGREEN TREES AND 6" LATERALLY FOR SHRUBS UNLESS OTHERWISE SPECIFIED.

EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE AT THE TIME THE HOLE IS DUG. THE PLANTING HOLE SHALL BE BACKFILLED WITH PREPARED TOPSOIL THE SAME DAY THEY ARE DUG.

TOPSOIL SHALL AT FERTILE, FRIABLE NATURAL TOPSOIL OF CLAY LOAM CHARACTER CONTAINING AT LEAST 5% BUT NOT MORE THAN 20% BY WEIGHT OF ORGANIC MATTER WITH A PH RANGE FROM 6.0 TO 7.0. TOPSOIL SHALL BE FREE OF CLAY LUMPS, COARSE SAND, STONES, PLANT ROOTS, STICKS OR OTHER FOREIGN MATTER.

CARE FOR PLANTS BEFORE PLANTING

PLANTS DESIGNATED "BB" SHALL BE BALLED AND BURLAPPED WITH FIRM NATURAL BALLS OF EARTH. CRACKED, LOOSENED OR BROKEN BALLS SHALL NOT BE PLANTED. THEY SHALL BE MARKED WITH SPRAY PAINT AND IMMEDIATELY REMOVED FROM THE JOB SITE. IMMEDIATELY FOLLOWING DELIVERY AT THE JOB SITE, ALL PLANTS THAT WILL NOT BE PLANTED THAT SAME DAY SHALL BE "HEELED IN" WITH SHREDDED BARK OR MOIST SOIL AND KEPT MOIST UNTIL PLANTED.

THE TRUNKS AND BRANCHES OF ALL TREES SHALL BE PROTECTED FROM INJURY OF ANY KIND DURING ALL OPERATIONS. THE OWNER'S REPRESENTATIVE SHALL REJECT ANY TREES THAT ARE INJURED.

PLANTING

THE CONTRACTOR IS RESPONSIBLE FOR PLANTING MATERIALS PLUMB. SET THE TOP OF THE ROOT BALL AT OR SLIGHTLY HIGHER THAN THE SURROUNDING GRADE. PLANTS SHALL BE FACED TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO ADJACENT STRUCTURES. NO FILLING WILL BE PERMITTED AROUND TRUNK OR STEMS. WHEN THE PLANT HAS BEEN PROPERLY SET, THE HOLE SHALL BE BACKFILLED TO 1/2 THE DEPTH OF THE BALL WITH PREPARED TOPSOIL MIXTURE, FIRMLY PACKED AND WATERED-IN AT TIME OF PLANTING. LOOSED AND REMOVE BURLAP AND LACING FROM UPPER 1/3 OF THE ROOT BALL. BACKFILL WITH PREPARED TOPSOIL, WHICH AFTER COMPACTION IS FLUSH WITH THE SURROUNDING GROUND.

MULCHING

ALL PLANT MATERIAL SHALL BE ENCRICLED WITH A 5" MINIMUM COVERING OF NON-DYED SHREDDED BARK MULCH TO 6" OUTSIDE THE PLANTING HOLE. TAPERING MULCH TO 2" AROUND THE TRUNK OF ALL PLANTS. SUBMIT SAMPLE TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PLACEMENT. WOOD CHIPS SHALL NOT BE ALLOWED ON THIS JOB. MULCH SHALL BE TREATED WITH PRE-EMERGENT HERBICIDE.

WRAPPING DECIDUOUS TREES

TREE WRAP SHALL COVER TRUNKS OF ALL DECIDUOUS TREES BEGINNING BELOW THE SOIL LINE JUST ABOVE THE ROOTS. WRAP SHALL BE TIED WITH TWINE IN 5 PLACES, INCLUDING THE TOP AND BOTTOM OF WRAPPING. MASKING TAPE OR WIRE WILL NOT BE ALLOWED.

BRACING AND GUYING

GUYING SHALL BE EMPLOYED TO PREVENT LEANING OR LOOSENING OF THE TREE FROM THE BALL. BRACING MATERIAL SHALL BE T-POSTS PAINTED GREEN. GUYING MATERIAL SHALL BE 12 GAUGE WIRE AND GARDEN HOSE 1/2 INCH DIAMETER. GUY WIRE SHALL BE ENCASED IN HOSE TO PREVENT DIRECT CONTACT WITH THE TREE. DECIDUOUS TREES SHALL BE BRACED OR GUYED IMMEDIATELY AFTER THE TREE WRAPPING IS COMPLETE.

STEEL LANDSCAPE EDGING

4" STEEL LANDSCAPE EDGING SHALL BE USED ON THIS PROJECT. ALUMINUM OR PLASTIC EDGING WILL NOT BE ALLOWED.

PRUNING

UPON COMPLETION, ALL PLANT MATERIAL MUST BE PRUNED. THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED BRANCHES AND TO COMPENSATE FOR THE LOSS OF ROOTS FROM TRANSPANTING. ALL CUTS SHALL BE MADE FLUSH LEAVING NOT STUBS. PRUNING PAINT SHALL NOT BE USED.

FINISHING AND CLEANING UP

IMMEDIATELY UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL CLEAN UP THE AREA OF SURPLUS MATERIALS. THE CONTRACTOR SHALL REPAIR AND RE-ESTABLISH TURF IN RUTTED AREAS.

WARRANTY

THE LANDSCAPE INSTALLATION CONTRACTOR SHALL REPLACE ALL UNHEALTHY VEGETATION AND PLANTINGS WITHIN ONE (1) YEAR OF INITIAL PLANTING OR SUBSEQUENT PLANTING PERIOD.

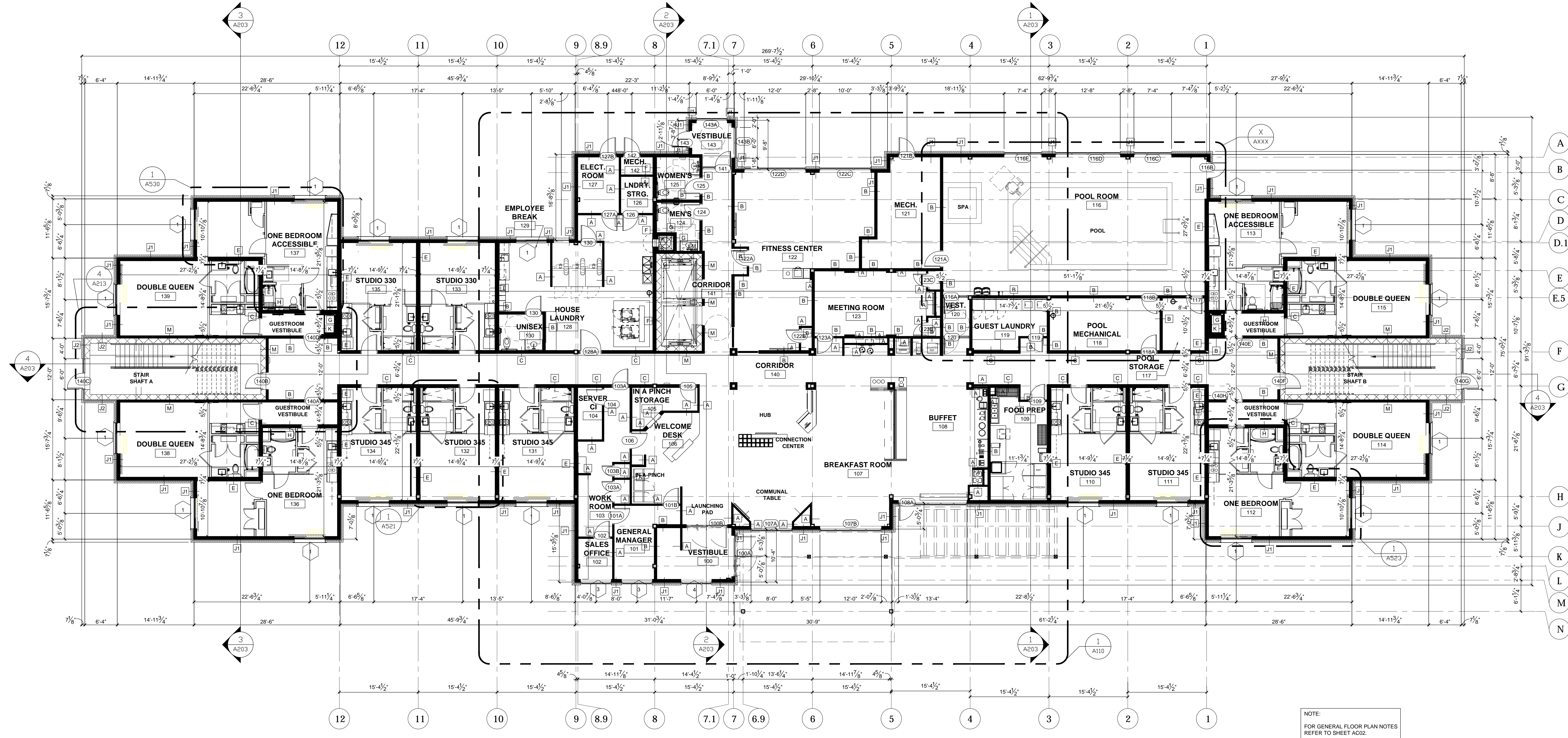
TOWNEPLACE SUITES
CASCADE TWP, KENT CO, MI

THE CLIENT HAS BEEN ADVISED TO CHECK FOR EXISTING UTILITIES AND TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL GOVERNMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.

ISSUED FOR	DATE
SPA	08/17/16
SPA	10/12/16
DATE	
DRAWN	JDT
CHECKED	ACA
SCALE	1"=30'
JOB NO.	BD-15-338
SHEET TITLE	LANDSCAPE PLAN AND DETAILS
SHEET	



Bud Design & Engineering Services, Inc.
 ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
 10775 S. Saginaw St. Suite B
 Grand Haven, MI 49439
 PH: 616.895.0793
 FAX: 616.895.0569
 Web: www.budesign.com



FIRST FLOOR PLAN
 SCALE: 1/8"=1'-0"
 TRUE PLAN NORTH NORTH

NOTE:
 FOR GENERAL FLOOR PLAN NOTES
 REFER TO SHEET AC02.

TownePlace
 suites
 Marriott

CASCADE TWP.
 KENT CO., MI

THIS DRAWING IS THE PROPERTY OF BUD DESIGN & ENGINEERING SERVICES, INC. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF BUD DESIGN & ENGINEERING SERVICES, INC. IS STRICTLY PROHIBITED. THE USER ASSUMES ALL LIABILITY FOR ANY ERRORS OR OMISSIONS IN THIS DRAWING.

ISSUED FOR	DATE
MARRIOTT 30%	06.30.16
OWNER REVIEW	07.29.16

DATE :	
DRAWN : AM	
CHECKED : -	
SCALE : 1/8" = 1'-0"	
JOB NO : BD-15-338	
SHEET TITLE :	FIRST FLOOR PLAN

SHEET
A100



Bud Design &
Engineering Services, Inc.
Architectural | Engineering | Interior Design
10773 S. Sageshore St., Suite B
Grand Blanc, MI 48439
PH: 810.695.0793
FAX: 810.695.0669
Web: www.budsdg.com

KENT CO., MI

TownePlace
SUITES
Marriott

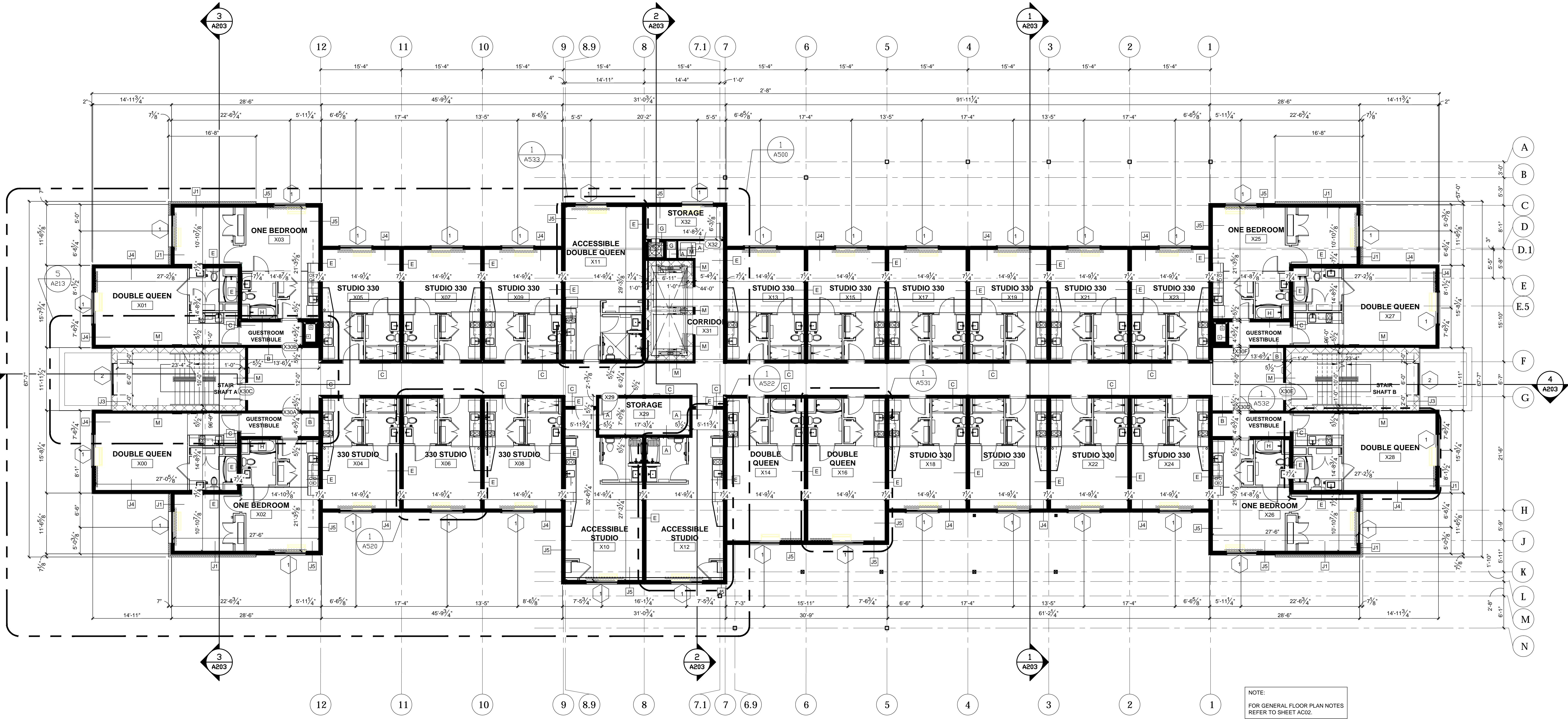
CASCADE TWP.

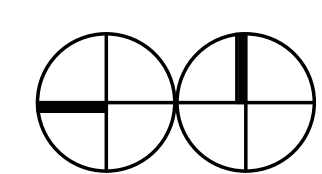
WE HEREBY CERTIFY THAT THE INFORMATION CONTAINED ON THIS DRAWING WAS PREPARED BY US OR UNDER OUR CLOSE PERSONAL SUPERVISION AND THAT WE ARE A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MICHIGAN. WE AGREE TO HOLD OURSELVES AND OUR EMPLOYERS HARMLESS FROM AND AGAINST ALL LIABILITY, INCLUDING REASONABLE ATTORNEY'S FEES, IN CONNECTION WITH THE PERFORMANCE OF OUR PROFESSIONAL SERVICES UNDER THIS AGREEMENT. THE INFORMATION CONTAINED ON THIS DRAWING IS THE PROPERTY OF BUD DESIGN & ENGINEERING SERVICES, INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF BUD DESIGN & ENGINEERING SERVICES, INC.

ISSUED FOR:	DATE:
MARriott 30K	06.30.16
OWNER REVIEW:	07.29.16

DATE:	
DRAWN:	AM
CHECKED:	
SCALE:	1/8" = 1'-0"
JOB NO.:	BD-15-338
SHEET TITLE:	UPPER FLOOR PLAN (TYP)
SHEET	

A102



 **1** UPPER FLOOR PLAN (TYP.)
A102/A102 SCALE: 1/8"=1'-0"

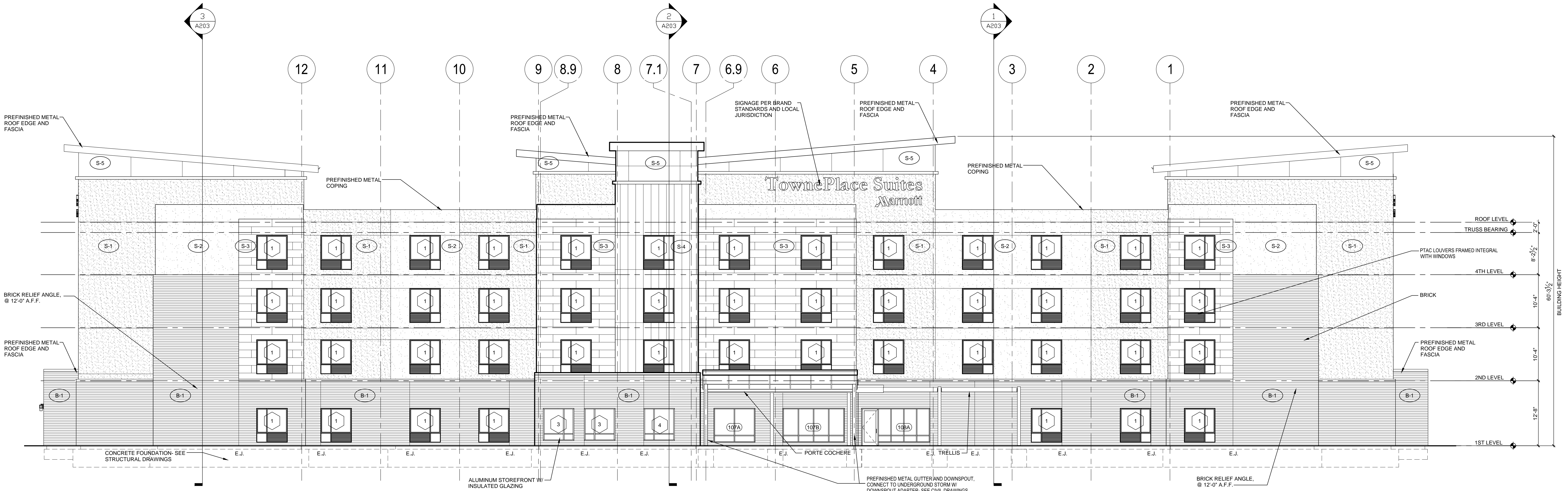


Bud Design & Engineering Services, Inc.
 Architecture | Engineering | Interior Design
 10775 S. Sagamore St., Suite B
 Grand Blanc, MI 48439
 (517) 810-0515
 (517) 810-0516
 Web: www.budesign.com

**TownePlace Suites
 Marriott**

KENT CO., MI

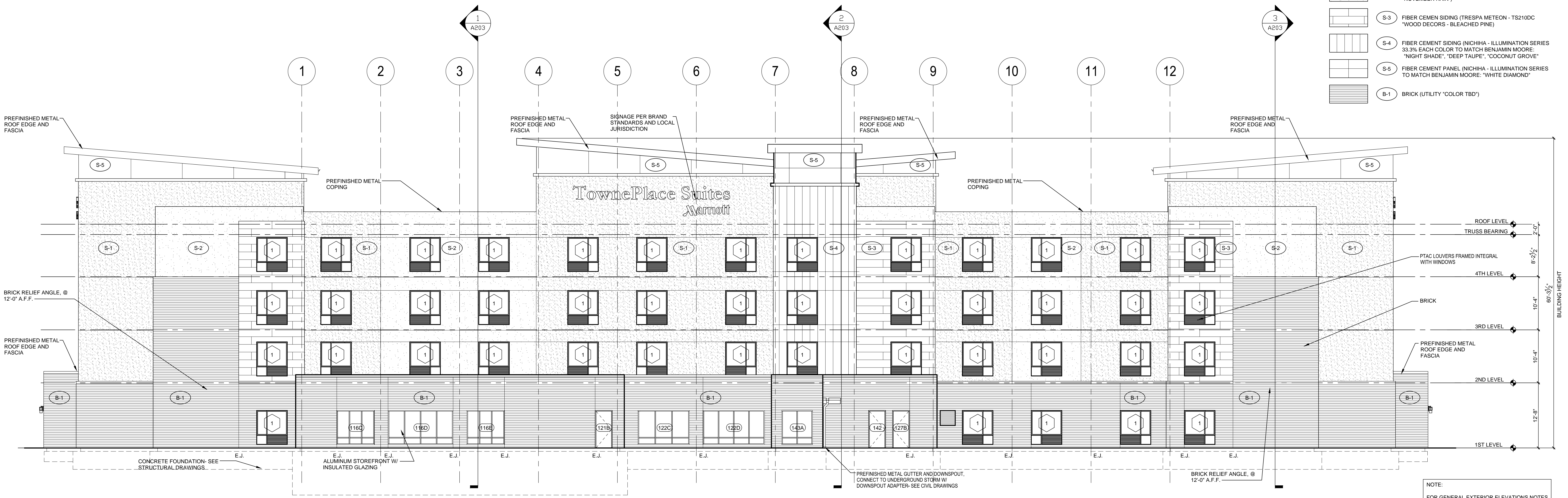
CASCADE TWP.



1 NORTH ELEVATION
 A200 | A200 SCALE: 1/8"=1'-0"

EXTERIOR FINISH KEY

	S-1 EIFS (BENJAMIN MOORE "MANOR BLUE")
	S-2 EIFS (BENJAMIN MOORE "NOVEMBER RAIN")
	S-3 FIBER CEMENT SIDING (TRESPA METEON - TS210DC "WOOD DECORS - BLEACHED PINE")
	S-4 FIBER CEMENT SIDING (NICHHA - ILLUMINATION SERIES 33.3% EACH COLOR TO MATCH BENJAMIN MOORE: "NIGHT SHADE", "DEEP TAUPE", "COCONUT GROVE")
	S-5 FIBER CEMENT PANEL (NICHHA - ILLUMINATION SERIES TO MATCH BENJAMIN MOORE: "WHITE DIAMOND")
	B-1 BRICK (UTILITY "COLOR TBD")



2 SOUTH ELEVATION
 A200 | A200 SCALE: 1/8"=1'-0"

NOTE:
 FOR GENERAL EXTERIOR ELEVATIONS NOTES REFER TO SHEET A202.

NO PORTION OF THESE DRAWINGS SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT. ANY SUCH REPRODUCTION OR TRANSMISSION WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO THE ARCHITECT. THE ARCHITECT'S LIABILITY IS LIMITED TO THE PROFESSIONAL SERVICES PROVIDED HEREIN AND DOES NOT INCLUDE THE CONSTRUCTION OF THE PROJECT OR THE PERFORMANCE OF THE CONTRACTOR. THE ARCHITECT'S LIABILITY IS LIMITED TO THE PROFESSIONAL SERVICES PROVIDED HEREIN AND DOES NOT INCLUDE THE CONSTRUCTION OF THE PROJECT OR THE PERFORMANCE OF THE CONTRACTOR.

ISSUED FOR:	DATE:
MARRIOTT 30K	06.30.16
OWNER REVIEW	07.29.16

DATE:	
DRAWN:	AM
CHECKED:	*
SCALE:	1/8" = 1'-0"
JOB NO.:	BD-15-338
SHEET TITLE:	EXTERIOR ELEVATIONS

SHEET
A200

STAFF REPORT

TO: Cascade Charter Township Planning Commission
FROM: Steve Peterson, Planning Director
REPORT DATE: October 20, 2016
MEETING DATE: November 14, 2016
CASE: #16-3341/ Oak Harbor Preserve

GENERAL INFORMATION

- A. Applicant: Koetje Builders and Developers
547 Baldwin
Jenison MI 49428
Telephone: 457-3450
Fax: 457-7566
- B. Status of Applicant: Owner
- C. General Location: The property is located on the north side of 48th St between Little Harbor and Buttrick Ave.
- D. Requested Action: Rezone approximately 40 Acres to PUD to allow for 31 Site Condominium units.
- E. Existing Zoning on Subject Parcels: R1, Residential
- F. Zoning on Adjoining Parcels: R1, Residential
- G. Parcel Size: Approximately 40 acres
- H. Existing Land Use on Subject Parcel: Vacant
- I. Adjacent Area Land Uses:
- | | | |
|-------|---|-------------|
| North | - | I-96 |
| East | - | Residential |
| South | - | Residential |
| West | - | Residential |

STAFF ANALYSIS

- A. The applicant is requesting Basic Plan Review in order to rezone approximately 40 acres for a Site Condominium Planned Unit Development called Oak Harbor Preserve. This rezoning request is for 31 single-family site condo units.
- B. The property is zoned R1, single-family, and is Master Planned the same.
- C. The applicant has drawn a plan showing how the property could be developed with 31 lots using 50% open space with a minimum of 21,000 sq ft per lot. This plan meets our subdivision ordinance for density
- D. The development will be served by wells and septic. The applicant has a report from the KCHD date August 31, 2016. In it they found some levels of arsenic in the ground water. As such the KCHD is requiring certain provisions to deal with the arsenic. We should get a detailed report from the applicant on how they plan to address these conditions from the KCHD.
- E. The applicant is seeking PUD rezoning in order to increase the minimum lot size to achieve a better design for the subdivision. The proposed plan provides for 29% of the developable acreage to be left as open space and a minimum lot size of 25,000 sq.ft with an average lot size of 27,085.
- F. The open space that is being provided is mainly located along the road frontages of the project
- G. The development will be utilizing private streets. The developer will need to comply with our private street ordinance as well as the KCRC for the names of the streets. The location of the curb cuts off from 48th and Buttrick will also need to be approved by the KCRC.
- H. They will be paving the short section of Buttrick Ave north of 48th St. This is a public road and will need to meet KCRC standards.
- I. We had previously approved this project in 2006 and awarded several extensions. However the applicant never initiated the project so it has expired. They essentially would like to have the same project approved once again. Because it has expired they need to go through the entire approval process again.
- J. This project includes some of the property that was considered for the 48th St sand mine in 1998. Some neighbors expressed concern for their wells and possible protected plant species on the property. The applicant should be providing some documentation that these issues have been evaluated and taken into account for their project.
- K. The Township Engineer will need to approve the storm water plan prior to the public hearing. This is probably the only area that may require some additional work by the applicant as our storm water regulations have been updated since 2006.
- L. No sidewalks are planned for the project, and would not connect to any planned or future pathways.

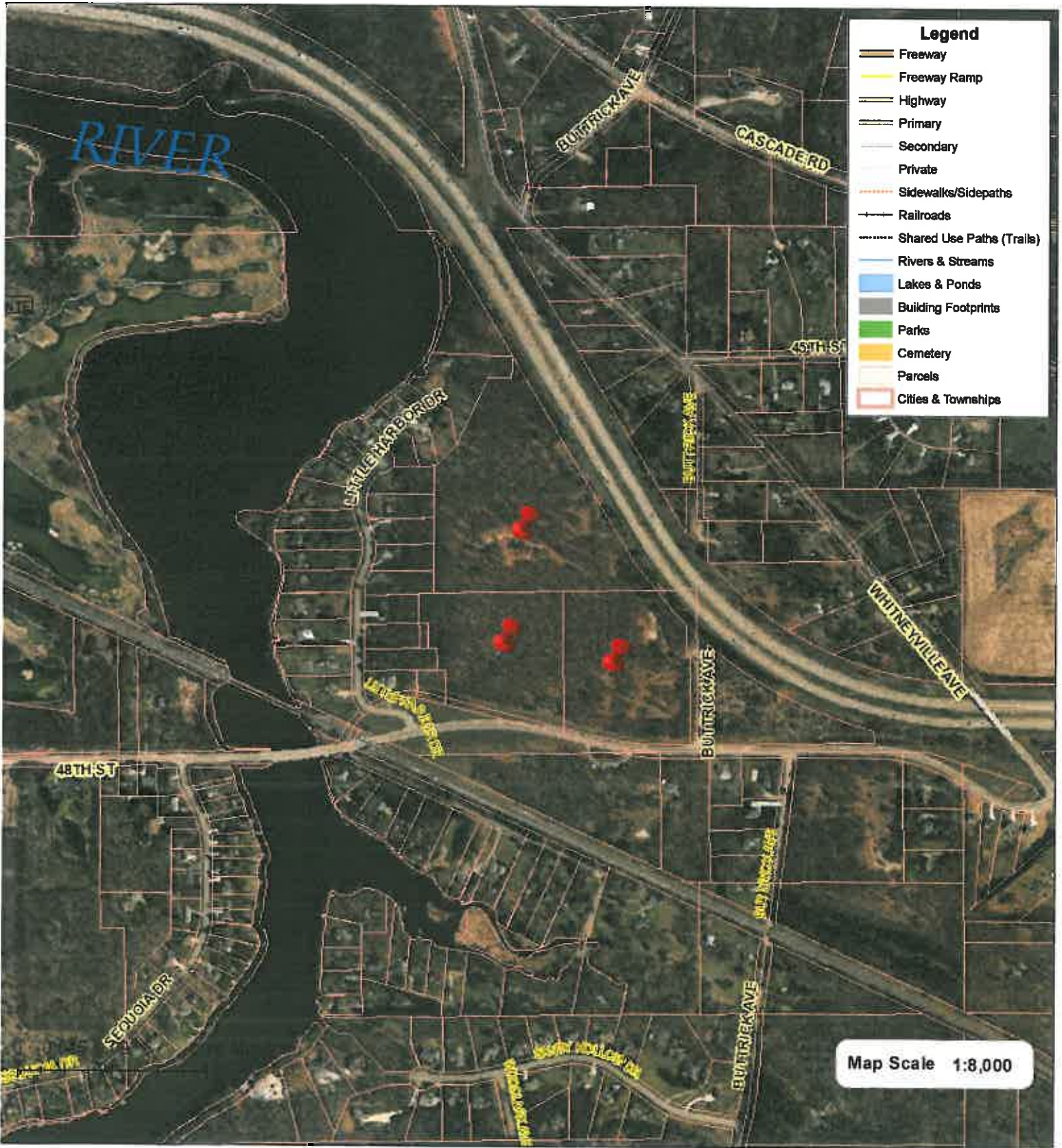
- M. The applicant has submitted this package as required by Section 16.05 (2) of the Zoning Ordinance for Basic Plan Review.
- N. If you find that all of the procedural information has been provided, this application should proceed to a public hearing and consideration of a Preliminary Development Plan. It will be at that stage of the review process that the merits of the request will be considered and the detailed site plans will be required and reviewed.

Before proceeding to the Preliminary Development plan review (Public Hearing), I would recommend that the applicant submit the following information:

1. Review and approval by KCRC for street names and drive locations.
2. Provide some analysis/evaluation of the impact on neighboring wells and possible protected plant species on the property.
3. Plans indicating the private roads meet our design standards.
4. Approval from the Township Engineer.
5. Provide a detailed plan that is acceptable to the KCHD to address the concerns from the August 31, 2016 review.

Attachments: Site Plan
Application
Location Map
Test Plan

TITLE



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Printed 11/8/2016 8:22:33 AM

KENT COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH

700 Fuller Avenue N.E.

Grand Rapids, Michigan 49503-1918

Phone: 616-632-6900

Fax: 616-632-6892

Email: KCEHmail@kentcountymi.gov

Website: www.accesskent.com



Adam London, RS, MPA
Administrative Health Officer

August 31, 2016

Randy Koetjie
Koetjie Builders & Developers, LLC
547 Baldwin St.
Jenison, MI 49428

**RE: PROPOSED OAK HARBOR PRESERVE SITE CONDOMINIUM, UNITS 1-31
SINGLE FAMILY RESIDENTIAL
CASCADE TOWNSHIP**

Dear Mr. Koetjie:

The Environmental Health Division of the Kent County Health Department has reviewed the proposed development in accordance with Act 59, PA 1978 as amended and rules..

The following advisories must be incorporated into the Master Deed and/or By-Laws prior to final Health Department approval:

WATER SYSTEMS/SEWAGE DISPOSAL SYSTEMS FOR CONDOMINIUM

WATER SYSTEMS

- A test well in the Development found arsenic above the Environmental Protection Agency (EPA) maximum contamination level (MCL) of 0.01 mg/L. See additional Arsenic Advisory.
- Iron levels in test wells were detected between .512 mg/L and 1.25 mg/L. The EPA considers iron a secondary contaminate that does not impact human health but may impart noticeable aesthetic impairment. Iron levels above 0.3 mg/L may adversely affect water quality including, rusty color, metallic taste, odor, and staining of fixtures. Individual owners may wish to install a water treatment systems to remove or reduce iron in the water supply
- Individual water supply systems will be permitted on a unit solely to provide water for domestic consumption at the residence, for irrigation purposes, swimming pools, or other nondomestic uses on the unit.
- A permit from KCHD is required prior to the installation or major repair of any on-site water supply. As part of the application, KCHD may require a site plan of the property upon which the water supply is or will be located. Required features may include property boundaries, elevations, buildings, sewage disposal system, surface water bodies, wells, underground fuel storage tanks, chemical storage areas, driveways, and other significant details.
- All wells installed for private water supply must penetrate an adequate protective continuous clay overburden of at least ten (10) feet. This overburden is to be located greater than twenty-five (25) feet below the ground surface. Test wells within the development drilled to a depth of 111 and 116 feet found suitable clay barrier from 44 feet to 105 feet.
- All wells are to be grouted in accordance with the Michigan Department of Environmental Quality water well grouting requirements.
- Except as otherwise approved by KCHD, all wells must be located on the unit being served and must be 10' from property boundaries.

PROPOSED OAK HARBOR PRESERVE, UNITS 1-31

- It will be the responsibility of the co-owner to install and maintain the water supply and treatment system in good order and working condition and comply with all applicable governmental regulations and neither the developer nor the association will have any responsibility with respect to the same.

SEWAGE DISPOSAL SYSTEMS

- A site evaluation may be required on any unit where the developer or unit owner has proposed placement of the initial and replacement wastewater disposal system outside of those areas already approved and on file with KCHD.
- Due to lot sizes less than one acre, this Department will require detailed site plans with application to obtain a permit from KCHD for a septic tank and disposal areas, the co-owner will submit to KCHD a lot development plan drawn to scale that will locate the unit, private drives and right-of-ways, utilities, unit lines, building site and proposed well and septic location. As part of the application, KCHD may require a topographical map showing existing and proposed contours. Contour intervals shall not exceed two (2) feet.
- Utilities, buildings, drives, or other structures that may interfere with the installation and operation of the on-site sewage disposal system shall not be permitted within the designated initial and replacement sewage disposal areas as indicated on the permit issued by KCHD.
- Due to high levels of hardness, iron, and arsenic, water treatment systems may be necessary. Discharge of said water treatment system backwash cannot be directed into the building sewer, septic tanks, or disposal areas. The owner of each unit shall make provisions for a separate drainage system to properly dispose of water treatment system backwash. Units that have elevated arsenic shall not discharge treatment system backwash within 50' of any water well.
- Designated initial and replacement sewage disposal areas shall be isolated a minimum of 100 feet from the high water level in any surface water or stormwater infiltration basin, 25 feet from any 24-hour stormwater detention basin with a controlled outlet, 25 feet from foundation walls containing footing drains, 25 feet from storm sewer catch basins, 10 feet from drainage easements consisting of open swales, 10 feet from solid storm sewers, and 10 feet from all easements areas.
- Except as otherwise approved by the developer and KCHD, all septic systems will be located on the unit not closer than ten (10) feet to the unit boundary line.
- It will be the responsibility of the co-owner to install and maintain the septic system in good working order and comply with all applicable government regulations. Neither the developer nor the association will have any responsibility with respect to the same.

ARSENIC ADVISORY

A test well in the Oak Harbor Preserve Site Condominium found Arsenic levels between .005 and 0.011 mg/L. The current Environmental Protection Agency maximum contaminant level (MCL) for arsenic in public water supplies is 0.01 mg/L. The current Michigan Department of Environmental Quality Rule 560.414, Onsite Water Supply and Sewage Disposal for Land Divisions and Subdivisions, which applies to private water wells located in proposed site condominiums and subdivisions, establishes a MCL for arsenic at 0.05 mg/L through reference to EPA's 1996 publication entitled "Drinking Water Regulations and Health Advisories."

Arsenic can naturally occur in soil and groundwater or it may be caused by agricultural or industrial practices. It is odorless and colorless. Arsenic is a recognized carcinogen and has been linked to several types of cancer. Prolonged exposure to low levels may cause skin damage, gastrointestinal, nervous system, and circulatory problems. Long-term exposure to levels above .005 mg/L may result in lower IQ scores in children.

Each individual well completed on any unit shall be sampled for arsenic prior to connection or use. This Department may require sampling to be completed by or under the supervision of the Kent County Health Department. Samples shall be collected following well development. The sample shall be a first draw after a 24 hour waiting period and after disinfection byproducts are flushed from the system. Immediately prior to sampling, the well casing must be flushed by removing the equivalent of three casing volumes of water. Any well that is found to have arsenic levels at or above the EPA MCL of 0.01 mg/L shall be either:

1. Be properly abandoned and replaced with a new well screened at an increased or decreased elevation. Construction modifications must comply with requirements set by the Kent County Health Department.

or

2. Owner will install point of use treatment devices. Approval may require that systems meet NSF Standard 61. This standard gives reasonable assurance that the water treatment device will reduce or remove arsenic to levels below the MCL. At a minimum, the treatment systems must be installed at the point of use (each fixture where drinking water may be obtained).

Prior to installing a water treatment system, the owner must provide the following to the Kent County Health Department for review: (1) Proposed treatment device specification sheet detailing the type of system and appropriate approvals for the removal of arsenic, and (2) Additional water sample analyzed for arsenic downstream from treatment device. Results shall not exceed the MCL as defined by EPA for final approval.

Owners should consult with a qualified water treatment distributor to analyze the source of groundwater and the most appropriate technology for arsenic removal/reduction. Dissolved arsenic may be more difficult to remove in the presence of high iron or chlorides. Some forms of arsenic in the presence of high iron levels may require pretreatment systems ahead of the arsenic treatment device.

KCHD requests that this portion (well/septic language and advisory) of the document not be recorded until approved and stamped by this office. Upon receipt of the approved, recorded document, final Health Department approval can be granted. If you have any questions, please contact me at 616-204-2375.

Sincerely,

Jason Buck, REHS

cc: Dale Ladouceur, Michigan Department of Environmental Quality
Randal Feenstra, Feenstra & Associates, Inc.

Randy Feenstra

From: Strunk, John <jstrunk@kentcountyroads.net>
Sent: Thursday, June 09, 2016 2:52 PM
To: Randy Feenstra
Subject: Oak Harbor Preserve

Randy – Your drive detail plans for Oak Harbor Preserve have been approved. A permit will be issued when proper surety (performance bond, check, letter of credit) has been submitted. Call me with any questions.



John R. Strunk

Certification Engineer, Commercial Driveways
(616) 242.6901 ext. 6913
jstrunk@kentcountyroads.net

Kent County Road Commission

1500 Scribner Avenue NW, Grand Rapids, MI 49504-3299
kentcountyroads.net



CASCADE CHARTER TOWNSHIP

2865 Thornhills SE Grand Rapids, Michigan
49546-7140

PLANNING & ZONING APPLICATION

APPLICANT:

Name: Koetje Builders and Developers, LLC

Address: 547 Baldwin St.

City & Zip Code: Jenison, MI 49423

Telephone: (616) 457-3450

Email Address: _____

OWNER: * (If different from Applicant)

Name: SAME

Address: _____

City & Zip Code: _____

Telephone: _____

Email Address: _____

NATURE OF THE REQUEST: (Please check the appropriate box or boxes)

- | | |
|---|--|
| <input type="checkbox"/> Administrative Appeal | <input type="checkbox"/> Administrative Site Plan Review |
| <input type="checkbox"/> Deferred Parking | <input type="checkbox"/> P.U.D. – Rezoning * |
| <input checked="" type="checkbox"/> P.U.D. – Site Condominium * | <input type="checkbox"/> Rezoning |
| <input type="checkbox"/> Site Plan Review * | <input type="checkbox"/> Sign Variance |
| <input type="checkbox"/> Special Use Permit | <input type="checkbox"/> Subdivision Plat Review * |
| <input type="checkbox"/> Zoning Variance | <input type="checkbox"/> Other: _____ * |

*** Requires an initial submission of 5 copies of the completed site plan**

BRIEFLY DESCRIBE YOUR REQUEST:**

(**Use Attachments if Necessary)

-SEE OTHER SIDE-

LEGAL DESCRIPTION OF PROPERTY**:

Part of the NE 1/4, Section 27, T6N, R10W,
Cascade Township, Kent County, MI.
(see attached)

(**Use Attachments if Necessary)

PERMANENT PARCEL (TAX) NUMBER: 41-19-⁻⁰¹⁸~~27-230-004~~

ADDRESS OF PROPERTY: ⁻⁰¹⁶7901 48th ST, 7735 48th ST, 4580 Little Harbor Dr.

PRESENT USE OF THE PROPERTY: Vacant

NAME(S) & ADDRESS(ES) OF ALL OTHER PERSONS, CORPORATIONS, OR FIRMS HAVING A LEGAL OR EQUITABLE INTEREST IN THE PROPERTY:

Name(s)	Address(es)
<u>None</u>	

SIGNATURES

I (we) the undersigned certify that the information contained on this application form and the required documents attached hereto are to the best of my (our) knowledge true and accurate. I (we) also agree to reimburse the Cascade Charter Township for all costs, including consultant costs, to review this request in a timely manner. I (we) understand that these costs may also include administrative reviews which may occur after the Township has taken action on my (our) request.

I (we) the undersigned also acknowledge that the proposed project does not violate any known property restrictions (i.e. plat restrictions, deed restrictions, covenants, etc.)

Owner – Print or Type Name
(*If different from Applicant)

Randy Koetje
Applicant – Print or Type Name

* _____
Owner’s Signature & Date
(*If different from Applicant)


Applicant’s Signature & Date

PLEASE ATTACH ALL REQUIRED DOCUMENTS NOTED IN THE PROCESS REVIEW SHEET – THANK YOU

SITE PLAN FOR: OAK HARBOR PRESERVE

NORTHEAST CORNER OF SECTION 27, TOWN 6 NORTH,
RANGE 10 WEST, CASCADE TOWNSHIP, KENT COUNTY, MI

DEVELOPER

KOETJE BUILDERS AND DEVELOPERS, LLC
547 BALDWIN STREET
JENISON, MI 49428
(616) 457-3450
FAX (616) 457-7566

ENGINEER

FEENSTRA & ASSOCIATES, INC.
7482 MAIN STREET
JENISON, MI 49428
PHONE (616) 457-7050583-1601
FAX (616) 457-9680
E-MAIL: RANDY@FEENSTRINC.COM

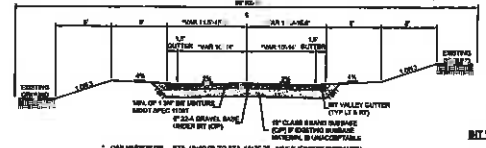
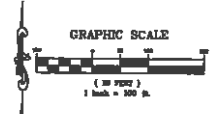
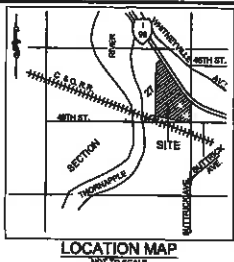
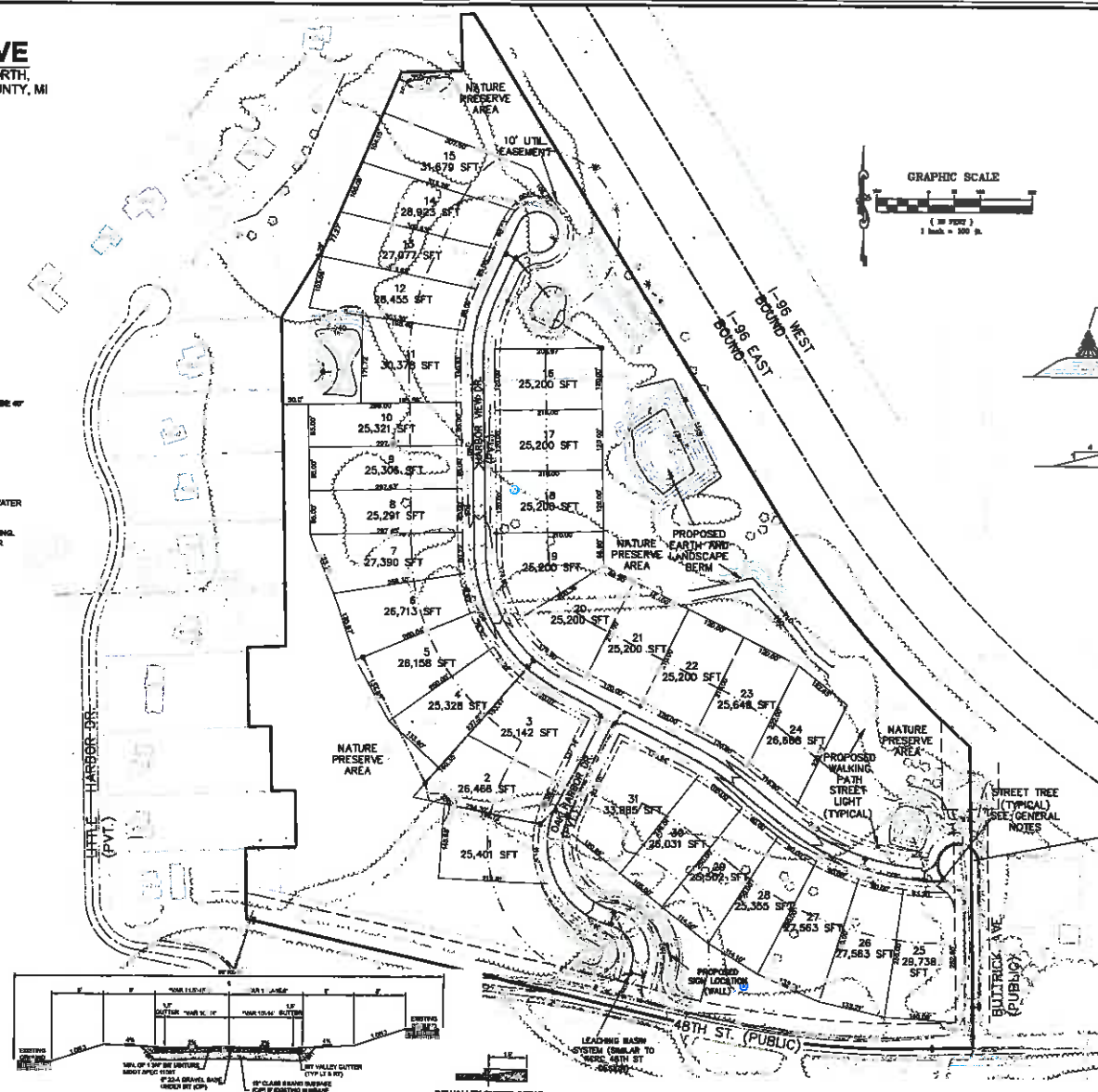
GENERAL

- CURRENT ZONING: R-1 RESIDENTIAL DISTRICT
- PROPOSED ZONING: PUD SITE CONDOMINIUM
- SETBACKS:
 - FRONT YARD: 35'
 - INTERIOR SIDE YARD: 20' TOTAL (10' MINIMUM)
 - REAR YARD: 25' MINUS LOTS 7 THRU 14 AND 12 THRU 15 TO BE 40'
 - MINIMUM LOT AREA: 2,500 SFT
 - MINIMUM LOT WIDTH: 80' (AT BUILDING SETBACK LINE)
- PARCEL SIZE TO BE DEVELOPED: 34.3 AC (INCLUDING PARK(S)-OF-WAY)
- PROPOSED DENSITY: 1.1 UNITS/ACRE
- PROPOSED OPEN SPACE: APPROX. 16.25 AC GROSS (60%) APPROX. 10.73 AC NET (28%)
- PROPOSED IMPROVEMENTS:
 - 31 SINGLE FAMILY RESIDENTIAL HOME SITES
 - APPROX. 2,000 LF BITUMINOUS ROADWAY (PRIVATE)
 - THIS DEVELOPMENT WILL BE SERVED BY SEPTIC SYSTEMS AND WELL WATER
 - THE MANAGEMENT OF SURFACE DRAINAGE WILL CONFORM TO K.C.D.C. AND CASCADE TOWNSHIP STANDARDS.
 - STORMWATER WILL BE COLLECTED VIA STORMWATER STRUCTURES AND PIPING.
 - ALL SIGNS, LANDSCAPING, LIGHTING AND SCREENING WILL BE INSTALLED PER CASCADE TOWNSHIP STANDARDS.
 - STREET TREES TO BE ACEN RUBRUM 'AUTUMN FLAME', 2" TO 2 1/2" CALIPER @ TALL, 4' FROM GRADE (IF NEEDED).

LEGAL DESCRIPTION

A PARCEL OF LAND BEING PART OF THE NORTHEAST 1/4 OF SECTION 27, TOWN 6 NORTH, RANGE 10 WEST, CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE EAST 1/4 CORNER OF SAID SECTION 27; THENCE ALONG THE SOUTH LINE OF THE NORTHEAST 1/4 OF SECTION 27, SOUTH 88°10'22" WEST, A DISTANCE OF 748.76 FEET; THENCE ALONG THE CENTERLINE OF 48TH STREET AS RECORDED IN LIBER 80, PAGE 478, MISCELLANEOUS RECORDS OF KENT COUNTY, MICHIGAN, FOR THE FOLLOWING THREE COURSES: THENCE 498.79 FEET ALONG THE ARC OF A CURVE TO THE RIGHT BEING NON-TANGENT WITH THE LAST DESCRIBED LINE, SAID CURVE HAVING A RADIUS OF 19,000 FEET, A CENTRAL ANGLE OF 14°54'00", AND A CHORD WHICH BEARS NORTH 84°29'41" WEST, A DISTANCE OF 668.39 FEET; THENCE ALONG A LINE BEING NON-TANGENT WITH THE LAST DESCRIBED CURVE, NORTH 78°58'12" WEST, A DISTANCE OF 858.88 FEET; THENCE 15.11 FEET ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAVING A RADIUS OF 301.6 FEET, A CENTRAL ANGLE OF 2°22'15", AND A CHORD WHICH BEARS NORTH 78°22'18" WEST, A DISTANCE OF 16.11 FEET; THENCE NORTH 01°07'20" WEST, A DISTANCE OF 198.56 FEET; THENCE NORTH 88°10'22" EAST, A DISTANCE OF 80.00 FEET; THENCE NORTH 01°07'20" WEST, A DISTANCE OF 118.00 FEET; THENCE SOUTH 88°10'22" WEST, A DISTANCE OF 40.00 FEET; THENCE NORTH 01°07'20" WEST, A DISTANCE OF 180.00 FEET; THENCE SOUTH 13°10'32" WEST, A DISTANCE OF 43.00 FEET TO THE EAST LINE OF LITTLE HARBOR ON THE HILLSBORO AS RECORDED IN LIBER 83 OF PLATS, PAGES 57-58, PUBLIC RECORDS OF KENT COUNTY, MICHIGAN; THENCE ALONG THE EAST LINE OF LITTLE HARBOR ON THE HILLSBORO FOR THE FOLLOWING THREE COURSES: THENCE NORTH 01°07'20" WEST, A DISTANCE OF 194.00 FEET TO THE SOUTH LINE OF LOT 3, LITTLE HARBOR ON THE HILLSBORO; THENCE ALONG THE SOUTH LINE OF SAID LOT 3, NORTH 47°10'32" EAST, A DISTANCE OF 75.00 FEET TO THE SOUTHEAST CORNER OF LOT 3, LITTLE HARBOR ON THE HILLSBORO; THENCE NORTH 01°07'20" WEST, A DISTANCE OF 642.00 FEET TO THE NORTHEAST CORNER OF LOT 7, LITTLE HARBOR ON THE HILLSBORO; THENCE NORTH 31°38'00" EAST, A DISTANCE OF 158.18 FEET; THENCE NORTH 25°02'00" EAST, A DISTANCE OF 374.15 FEET; THENCE NORTH 68°14'20" EAST, A DISTANCE OF 119.00 FEET; THENCE NORTH 01°46'40" WEST, A DISTANCE OF 110.00 FEET; THENCE ALONG THE SOUTH LINE OF THE NORTH 28.0 FEET OF THE NORTHEAST 1/4 OF SAID SECTION 27, NORTH 88°14'20" EAST, A DISTANCE OF 24.86 FEET TO THE SOUTHWESTLY RIGHT-OF-WAY LINE OF I-96 (300 FEET WIDE); THENCE ALONG THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF I-96 FOR THE FOLLOWING TWO COURSES; THENCE SOUTH 31°34'20" EAST, A DISTANCE OF 1124.21 FEET; THENCE 807.65 FEET ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAVING A RADIUS OF 2061.8 FEET, A CENTRAL ANGLE OF 19°53'1" AND A CHORD WHICH BEARS SOUTH 40°01'14" EAST, A DISTANCE OF 806.36 FEET TO THE EAST LINE OF THE NORTHEAST 1/4 OF SAID SECTION 27; THENCE ALONG THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 27, SOUTH 01°07'20" EAST, A DISTANCE OF 686.80 FEET TO THE POINT OF BEGINNING, CONTAINING 40.43 ACRES OF LAND, MORE OR LESS.



PRIVATE ROAD SECTION
(N.T.S.)

SITE LAYOUT

OAK HARBOR PRESERVE
 MICHIGAN
 CASCADE TWP

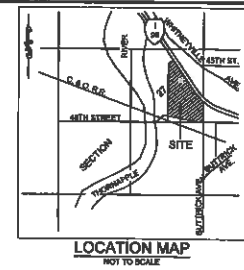
ABRAMS AERIAL SURVEY CORPORATION
 1000 W. WASHINGTON ST., SUITE 200
 GRAND RAPIDS, MI 49503
 TEL: (616) 941-2200
 FAX: (616) 941-2201
 WWW.ABRAMSAS.com

NO.	DATE	DESCRIPTION

PROJ. NO.	DATE	SCALE

ABRAMS
AERIAL SURVEY CORPORATION
1000 W. WASHINGTON ST., SUITE 200
GRAND RAPIDS, MI 49503
TEL: (616) 941-2200
FAX: (616) 941-2201
WWW.ABRAMSAS.com

DATE OF PHOTOGRAPHY APRIL 12, 19
 3 WORKING DAYS BEFORE YOU DIG
 CALL MISS DIG
 1-800-482-7171



PARALLEL PLAN

OAK HARBOR PRESERVE

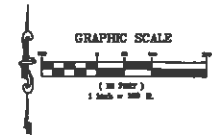
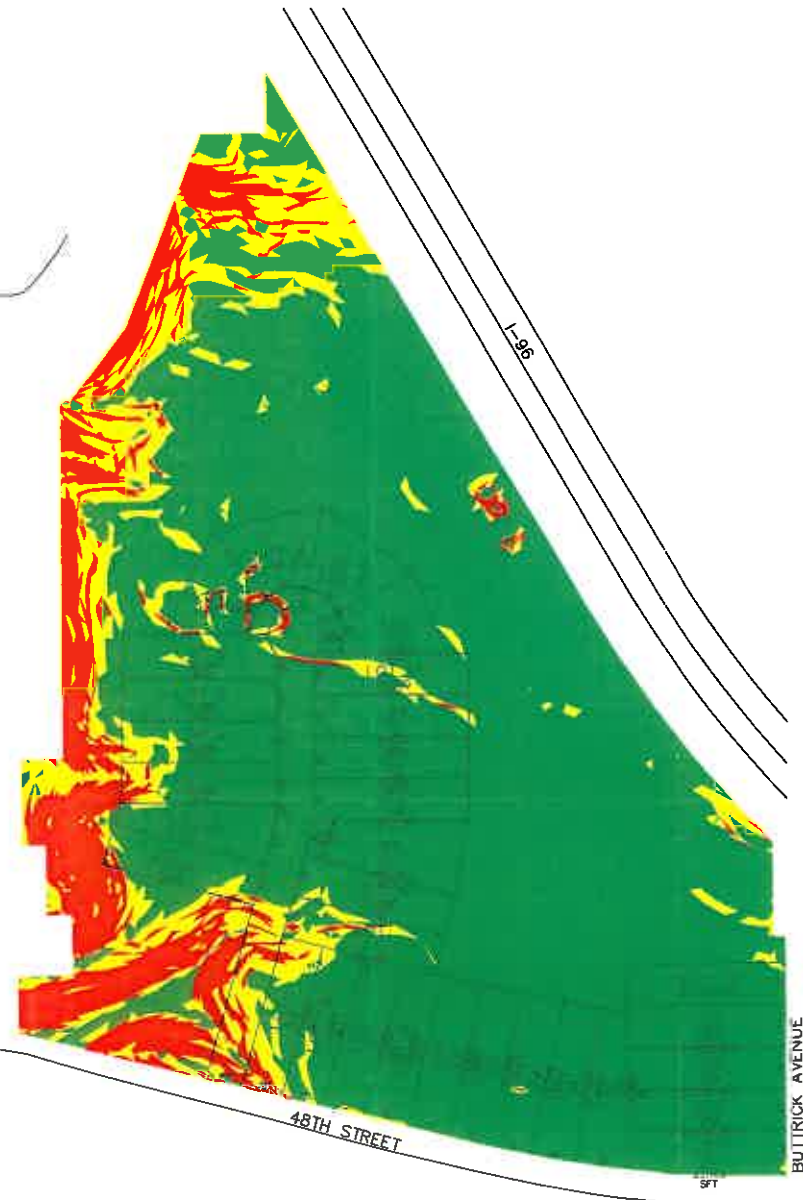
CASCADE TWP MICHIGAN



REVISIONS	
NO.	DESCRIPTION

DATE	BY	DESCRIPTION

DRAWING NO. 1 OF 2



NUMBER	MINIMUM SLOPE	MAXIMUM SLOPE	COLOR	AREA
1	0.000%	12.500%	Green	15.26 AC
2	12.500%	25.000%	Yellow	3.15 AC
3	25.000%	2155.684%	Red	3.43 AC

NOTE: OPEN SPACE AREA DOES NOT INCLUDE LOTS OR ROAD

DEVELOPABLE AREA: 16.61 AC
 OPEN SPACE AREA: 16.84 AC*
 * 15.26 AC + (3.15 AC x 0.5) = 16.84 AC

STAFF REPORT: Case # 16-3342
REPORT DATE: October 25, 2016
PREPARED FOR: Cascade Charter Township Planning Commission
MEETING DATE: November 14, 2016
PREPARED BY: Steve Peterson, Planning Director

APPLICANT:
FCC Inc
8182 Broadmoor Ave
Caledonia MI 49316

STATUS

OF APPLICANT: Builder for Property Owner

REQUESTED ACTION: The applicant is requesting site plan approval for a 17,000 sq ft addition.

EXISTING ZONING OF SUBJECT PARCEL(S): TI, Transitional Industrial

GENERAL LOCATION: The property is located on the North side of 33rd St adjacent to the consumers power property and the access to Waterfall Shoppes.

PARCEL SIZE: 8 Acres

EXISTING LAND USE ON THE PROPERTY: Industrial

ADJACENT AREA LAND USES: N – Commercial (hotel)
S,E, W - Industrial

ZONING ON ADJOINING PARCELS: N –Waterfall Shoppes P.U.D.
S, E, W – Transitional Industrial

STAFF COMMENTS

STAFF COMMENTS:

1. The applicant is requesting site plan approval in order to construct an approximate 17,000 sq ft addition. This addition is located in the sideyard along the east side of the building.
2. The applicant was last before the planning Commission in 2012 for an addition on the rear of the building.

3. In order accommodate the addition they are expanding the parking lot and combining their property next door that houses the truck was facility. They show 194 spaces and I have calculated a required 180 spaces.
4. The Township Fire Department has reviewed and approved the plans.
5. The Township Engineer has reviewed and approved the plans with a condition that the storm sewer easement issue is resolved prior to a permit being issued.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **APPROVE** the Site Plan for the addition as shown on the site plan dated 10-6-16 contingent on following conditions:

1. Receive a soil erosion control permit from KCRC, if required
2. Combine the property with the 5287 33rd St property.
3. Execute the storm water agreement
4. Resolve the storm water easement issue prior to a building permit being issued.

Attachments: Site plan package
 Township Engineer letter



November 10, 2016
Project No. G080322

Mr. Steve Peterson
Cascade Charter Township
2865 Thornhills Avenue, SE
Grand Rapids, MI 49546-7192

Re: Paragon Die and Engineering
Site Plan Review

Dear Steve:

We have reviewed the site plan for Paragon Die and Engineering, located at 5225 33rd Street, prepared by Exxel Engineering. The current site plan and the basis of this review are dated October 6, 2016. The proposed project is a 17,000 square foot building addition, parking lot expansion, and associated utility improvements.

Stormwater and Drainage

Flood Control

The Cascade Charter Township Storm Water Ordinance (SWO), Section 1.04, states the ordinance shall apply to all development that requires any permit for work which will alter the stormwater drainage characteristics of the development site. The site is located in Storm Water Management Zone B, which requires onsite detention or retention of the 25-year storm event. The SWO also requires the first 0.5-inch of storm water runoff be detained and released over a 24-hour period.

Stormwater runoff from the site discharges to a regional detention basin under the jurisdiction of the Kent County Drain Commissioner (KCDC). The detention basin is located along the Patterson drain on the south side of I-96. The applicant sent the site plan to the KCDC for comment and their response was the regional detention basin was designed for the proposed development and has available storage capacity. Therefore, onsite stormwater detention is not required.

Stormwater runoff from the existing site discharges to the storm sewer in 33rd Street. The 33rd Street storm sewer connects to a 36-inch storm sewer along the east side of the site that ultimately discharges to the KCDC regional detention pond. The 36-inch pipe and utility easement are located on the adjacent property. Stormwater runoff from the new parking lot will discharge to the existing 36-inch storm sewer.

The existing easement on the adjacent parcel is not contiguous to the Paragon parcel resulting in a gap of less than 10 feet. The applicant has been notified that they will need to coordinate with the adjacent property owner to obtain this short easement to allow the connection. Since the existing runoff from the Paragon site is being routed through this storm sewer and easement already we do not anticipate the applicant will have an issue obtaining the easement. However, the easement must be obtained prior to proceeding with any construction.

Water Quality Control

The SWO requires the first 0.5 inch of stormwater runoff be detained and released over a 24-hour period. All stormwater runoff from the site will discharge to the KCDC regional detention basin. This requirement has been satisfied.



Stormwater Runoff

All stormwater runoff from the impervious areas of the site will discharge to the KCDC regional detention basin. The proposed increase in impervious area will slightly increase the amount of stormwater runoff to the regional detention basin. The KCDC did not require stormwater calculations to quantify the amount of increased runoff.

Drainage Plan

The applicant has submitted drawings and additional documentation as required in the SWO Section 2.03, Drainage Plan. Please refer to the included checklist for items and comments on each item. Please note a maintenance agreement is required before construction begins. The agreement should be submitted to the Township for review.

Utilities

The site plan does not include any new utilities for the proposed work.

Soil Erosion and Sedimentation Control

Soil Erosion and Sedimentation Control (SESC) measures are provided on the plan drawings. The applicant has included silt fence along the eastern edge of the site and silt sacks in new and existing catch basins. SESC falls under the review and approval of the Kent County Road Commission and a permit is required before construction can begin. The SESC measures indicated on the drawings appear appropriate given the expected work.

Summary

The proposed stormwater design meets the Township SWO requirements for new developments. The applicant will need to apply for and obtain an SESC permit prior to beginning construction. The applicant will also need to obtain the small easement from the adjacent property owner for connection to the existing storm sewer system. We recommend approval of the site plan from an engineering standpoint provided the items mentioned are addressed

If you have any questions or require additional information, please contact me at 616.464.3786 or nrtorrey@ftch.com.

Sincerely,

FISHBECK, THOMPSON, CARR & HUBER, INC.

A handwritten signature in black ink, appearing to read "N. Torrey", is positioned above the name of the signatory.

Nathan R. Torrey, PE

jlk
Attachment
By email



Cascade Charter Township

Storm Water Ordinance, Ordinance 7 of 2002, as amended by Ordinance No. 2 of 2008, 5/14/2008

Reviewing Engineer Comments are Italicized

OK – Received and Acceptable

NA – Not Applicable

NR – Not Received, Needs Follow-up, See Comments

Paragon Die and Engineering

Drainage Plan Checklist

- OK (1) Location of the development site and water bodies that will receive storm water runoff
All stormwater runoff from the site discharges to the Kent County Drain Commissioner (KCDC) regional detention pond located along the Patterson Drain on the south side of I-96.
- OK (2) Existing and proposed topography of the development site, including the alignment and boundary of the natural drainage courses, with contours having a maximum interval of one foot (using USGS datum). The information shall be superimposed on the pertinent Kent County soil map
Existing and proposed contours have been provided. Soil map information is not required.
- OK (3) Development tributary area to each point of discharge from the development
- OK (4) Calculations for the final peak discharge rates
- OK (5) Calculations for any facility or structure size and configuration
The applicant provided calculations for the onsite storm sewer system.
- OK (6) Drawing showing all proposed storm water runoff facilities with existing and final grades
The applicant provided plans showing all proposed storm water runoff facilities.
- OK (7) The sizes and locations of upstream and downstream culverts serving the major drainage routes flowing into and out of the development site. Any significant off-site and on-site drainage outlet restrictions other than culverts should be noted on the drainage map
Significant offsite flows were not identified by the applicant.
- OK (8) An implementation plan for construction and inspection of all storm water runoff facilities necessary to the overall drainage plan, including a schedule of the estimated dates of completing construction of the storm water runoff facilities shown on the plan and an identification of the proposed inspection procedures to ensure that the storm water runoff facilities are constructed in accordance with the approved drainage plan
A construction schedule was included on the plans.
- OK (9) Plan to ensure the effective control of construction site storm water runoff and sediment track-out onto roadways
The SESC measures shown on the plan appear appropriate given the expected work. SESC falls under the review and approval of the KCRC and a permit is needed before construction can begin.



OK (10) Drawings, profiles, and specifications for the construction of the storm water runoff facilities reasonably necessary to ensure that storm water runoff will be drained, stored, or otherwise controlled in accordance with this ordinance

The applicant provided a plan and design details for construction of the onsite storm sewer system.

NR (11) Maintenance agreement, in form and substance acceptable to the Township, for ensuring maintenance of any privately owned storm water runoff facilities. The maintenance agreement shall include the developer's written commitment to provide routine, emergency, and long-term maintenance of the facilities and, in the event that the facilities are not maintained in accordance with the approved drainage plan, the agreement shall authorize the Township to maintain any on-site storm water runoff facility as reasonably necessary, at the developer's expense

Maintenance agreement was not provided and is required.

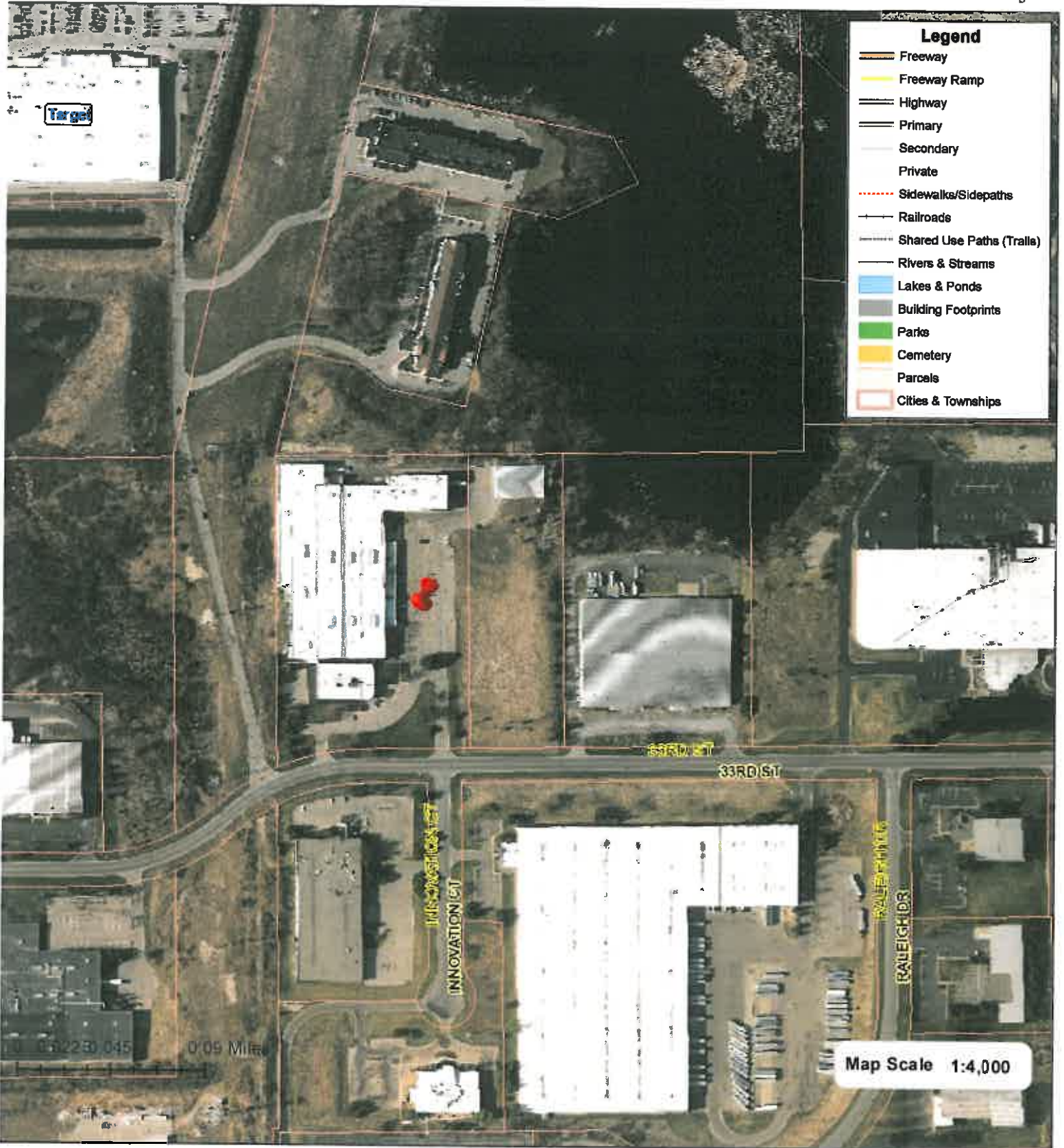
OK (12) Name of the engineering firm and the registered professional engineer that designed the drainage plan and that will inspect final construction of the storm water runoff facilities

NA (13) All design information must be compatible for conversion to Grand Valley Regional Geographic Information System (REGIS)

This is a privately owned system and will not be uploaded to REGIS.

OK (14) Other information necessary for the Township to verify that the drainage plan complies with the Township's design and performance standards for drains and storm water management systems

TITLE



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SITE PLAN REVIEW PROCESS



Planning & Zoning Application

APPLICANT: Name: FCG, Inc
Address: 8182 Broadmoor Ave SE Caledonia, MI 49316
Telephone: 616-891-4000
Facsimile: 616-891-1309

OWNER:* Name: Paragon Die and Engineering
Address: 5225 33rd St SE Grand Rapids, MI 49512
Telephone: 616-949-2220
Facsimile: _____

*(**If different from the Applicant)*

NATURE OF THE REQUEST (Please check the appropriate box or boxes)	
<input type="checkbox"/> Administrative Appeal	Administrative Site Plan Review
<input type="checkbox"/> Deferred Parking	P.U.D. - Rezoning **
<input type="checkbox"/> P.U.D. - Site Condominium **	Rezoning
<input checked="" type="checkbox"/> Site Plan Review **	Sign Variance
<input type="checkbox"/> Special Use Permit	<input type="checkbox"/> Subdivision Plat Review **
Zoning Variance	Other _____ **

*(**Requires an initial submission of 3 copies of the completed site plan)*

BRIEFLY DESCRIBE YOUR REQUEST:***

New building addition, approximately 17,000 sq. ft. Addition will be used for manufacturing purposes. Project includes utility relocation and parking lot expansion to allow for lost parking at addition footprint. Addition is needed to house new equipment to allow Paragon the ability to continue their growth.

*(***Use Attachments if necessary)*

SITE PLAN REVIEW PROCESS



LEGAL DESCRIPTION OF PROPERTY**
Lots 22 and 23 of Foremost Industrial Park No. 2, part of the Southeast 1/4, Section 18, Town 6 North, Range 10 West, Cascade Township, Kent County, Michigan, according to the recorded plat thereof in Liber 85 of Plates, on page 2, Lot 24 of Foremost Industrial Park No. 2, Southeastern 1/4 of section 18, Town 6 North, Range 10 West, Cascade Township, Kent County, Michigan according to the recorded plat thereof in Liber 85 of Plates, pages 1 and 2

(**Use Attachments if Necessary)

PERMANENT PARCEL (TAX) NUMBER: 41-19- 18-401-006

ADDRESS OF PROPERTY: 5225 33rd St

PRESENT USE OF THE PROPERTY: Commercial Manufacturing

NAME(S) & ADDRESS(ES) OF ALL OTHER PERSONS, CORPORATIONS, OR FIRMS HAVING A LEGAL OR EQUITABLE INTEREST IN THE PROPERTY:

Name(s)

Address(es)

SIGNATURES

I (we) the undersigned certify that the information contained on this application form and the required documents attached hereto are to the best of my (our) knowledge true and accurate. I (we) also agree to reimburse the Cascade Charter Township for all costs, including consultant costs, to review this request in a timely manner. I (we) understand that these costs may also include administrative reviews which may occur after the Township has taken action on my (our) request.

I (we) the undersigned also acknowledge that the proposed project does not violate any known property restrictions (i.e. plat restrictions, deed restrictions, covenants, etc.)

David M...

Owner - Print or Type Name
(*if different from Applicant)

[Signature] 10/17/16
Owner's Signature & Date
(*if different from Applicant)

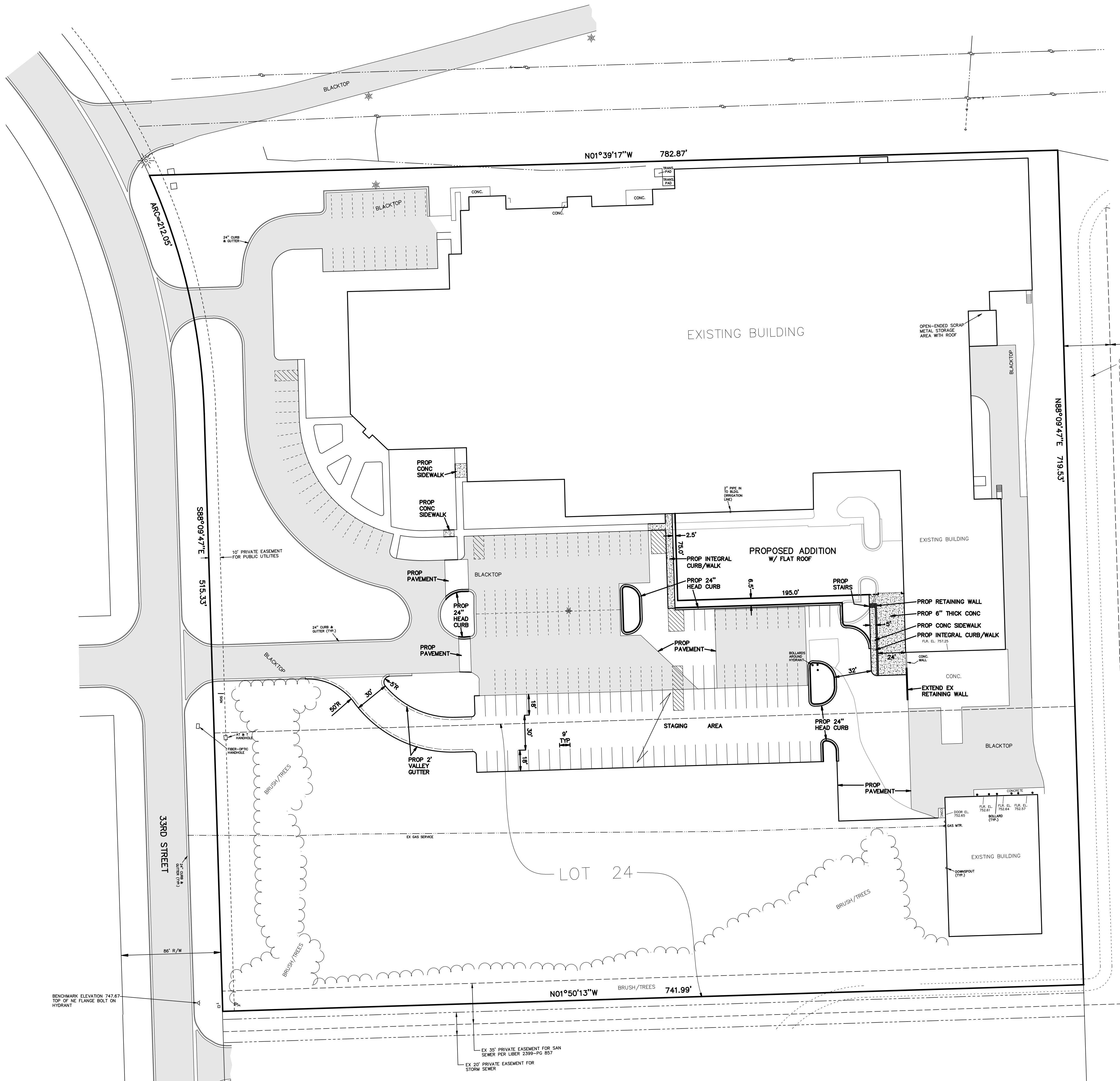
Jeff Davis - FCC, Inc

Applicant - Print or Type Name

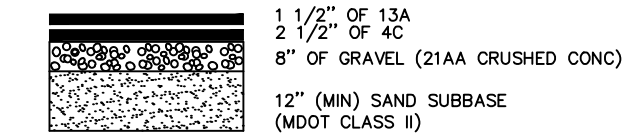
[Signature] 10/13/16
Applicant's Signature & Date

PLEASE ATTACH ALL REQUIRED DOCUMENTS NOTED IN THE PROCESS REVIEW SHEET - THANK YOU!

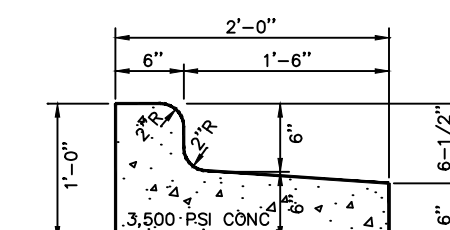
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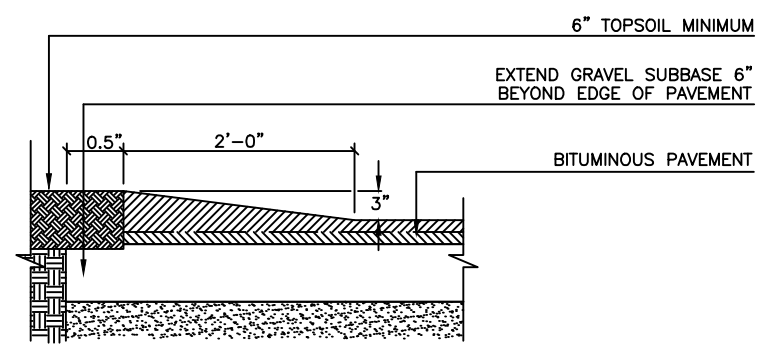
BLACKTOP NOTES :
 -- ASPHALT BINDER PG64-28 FOR HEAVY DUTY PAVEMENT
 -- RAP LIMITED TO MDT TIER 1 (0-17% BY WEIGHT) FOR WEARING COURSE AND MDT TIER 2 (18-27% BY WEIGHT) FOR LEVELING COURSE
 -- 13A MIX TO HAVE 60% MINIMUM CRUSHED MATERIAL WITH 3% AIR VOIDS
 -- ASPHALT TO BE COMPACTED TO 94-97% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY THE RICE METHOD
 -- A BOND COAT OF SS-1h EMULSION IS REQUIRED BETWEEN ASPHALT LAYERS AT A RATE OF 0.1 GALLONS/SYD



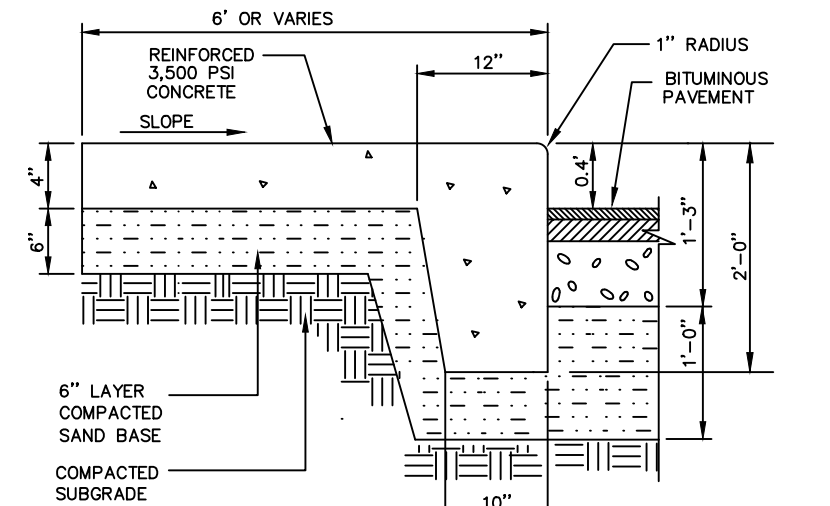
HEAVY DUTY PAVING SECTION



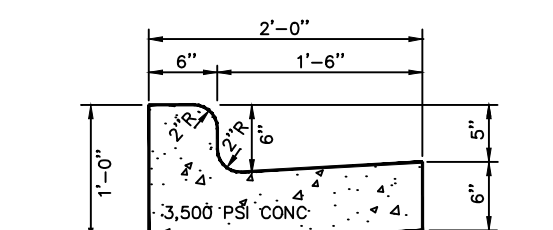
24" HEAD CURB DETAIL
(NOTED R-CROSS HATCHED ON PLAN)



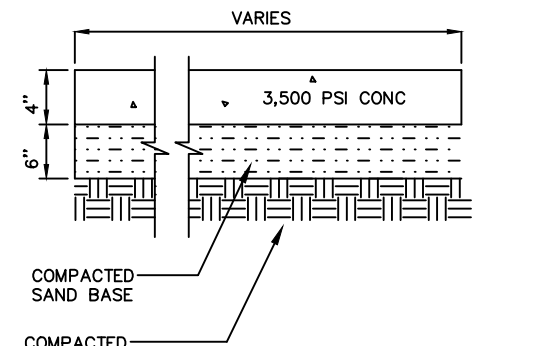
BITUMINOUS VALLEY GUTTER



INTEGRAL CONC CURB / WALK



24" HEAD CURB DETAIL
(NOTED R-CROSS HATCHED ON PLAN)



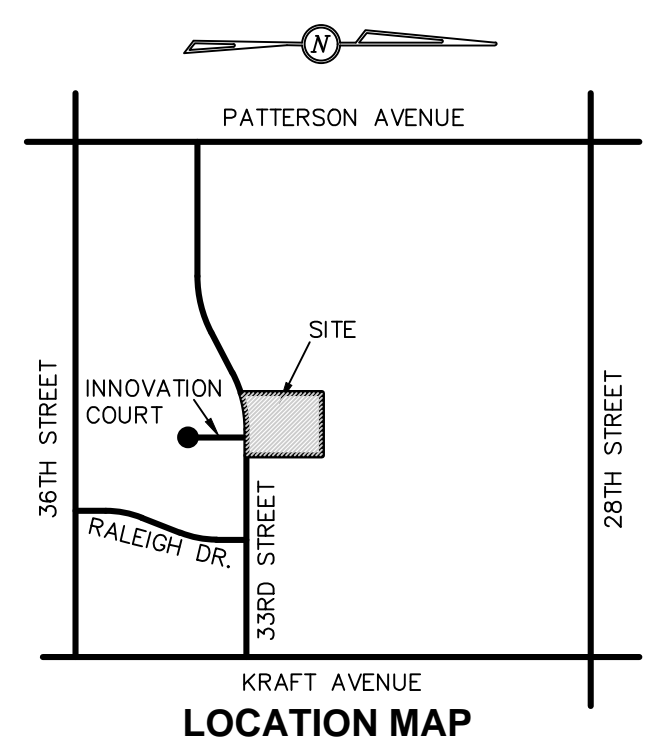
CONC SIDEWALK DETAIL

GENERAL NOTES :
 1. DESCRIPTION:
 LOTS 22, 23 & 24 OF FOREMOST INDUSTRIAL PARK NO. 2
 2. LOT 22 & 23 (PP#41-19-18-401-006, ADDRESS 5225 33RD ST SE) & LOT 24 (PP#41-19-18-401-003, ADDRESS 5287 33RD ST SE) ARE ZONED INDUSTRIAL

PROPOSED PARKING SPACES	=	194
EXISTING PARKING SPACES	=	175
NET GAIN	=	19 SPACES
EXISTING BUILDING SIZE	=	150,339 SF
PROPOSED ADDITION	=	16,982 SF
TOTAL	=	167,321 SF
NET INCREASE	=	11.3%



Know what's below.
 Call before you dig.



SITE LAYOUT PLAN
PARAGON DIE & ENGINEERING
5225 33RD ST SE

FOR: PARAGON DIE & ENGINEERING
 5225 33RD ST SE
 GRAND RAPIDS, MI 49512

IN: PART OF THE SE 1/4, SECTION 18, T6N, R10W,
 CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

REVISIONS:	<p>planners • engineers • surveyors 5252 Clyde Park, S.W. • Grand Rapids, MI 49509 Phone: (616) 531-3660 Fax: (616) 531-2121 www.exxelengineering.com</p>	
DRAWN BY: MK		FILE NO.: 161577E
APPROVED BY: DJS		SHEET 2 OF 4
DATE: 10-06-16		

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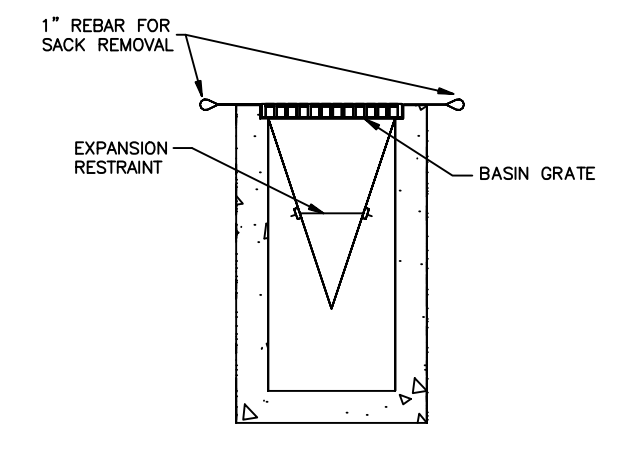
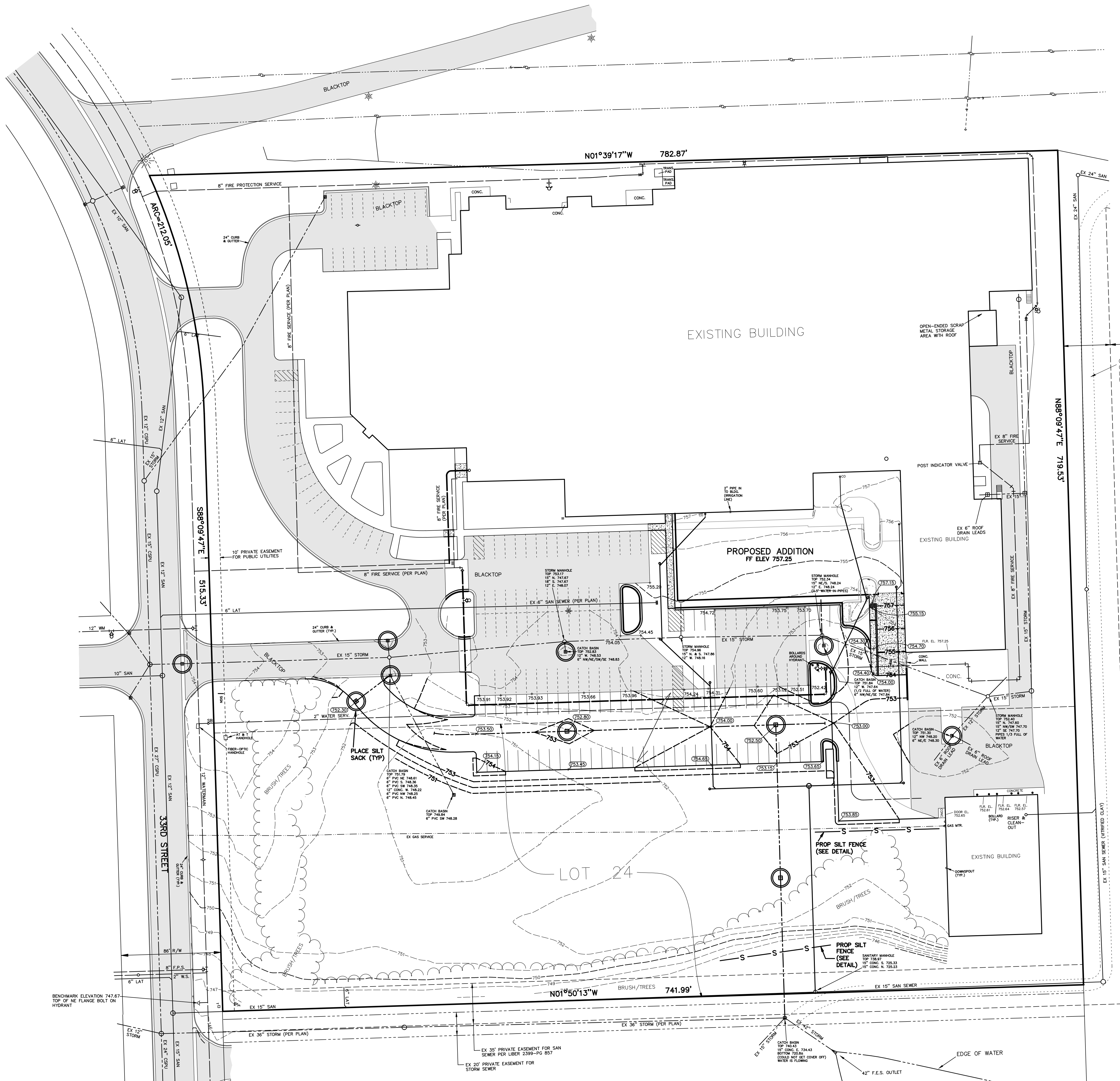


Know what's below.
Call before you dig.

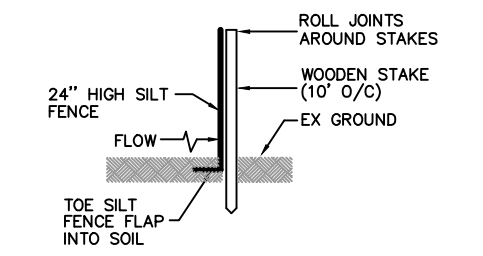


SCALE : 1"=40'
1' CONTOUR INTERVAL
LEGEND

- = LIGHT POLE
- = HYDRANT
- = VALVE
- = CATCH BASIN
- = MANHOLE
- = CLEANOUT
- = STOP BOX
- = TELEPHONE BOX
- = PROPOSED CONTOUR
- = EXISTING CONTOUR
- = PROPOSED SPOT ELEVATION



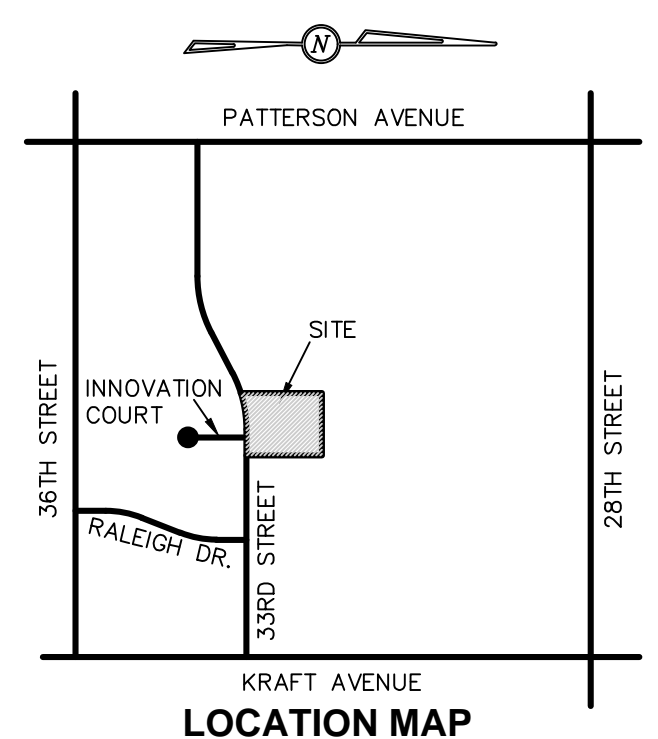
SILT SACK DETAIL



SILT FENCE DETAIL

Soil Erosion Control Notes:

1. Place silt fence as shown on plan and per detail.
2. All disturbed non paved areas shall have 4" of topsoil and seeded.
3. All temporary erosion controls must remain in place until vegetation is uniformly established.
4. Protect 4 proposed & 6 existing storm inlets with silt sacks and remove silt sacks when site is stabilized.
5. Contractor to take necessary precaution to eliminate soil tracking onto public streets. If tracking occurs, contractor is responsible to sweep public streets daily.
6. All soil erosion and sediment controls shall be inspected and maintained on a daily basis and immediately following every significant rainfall event.



LOCATION MAP

GRADING & SOIL EROSION CONTROL PLAN
PARAGON DIE & ENGINEERING
5225 33RD ST SE

FOR: PARAGON DIE & ENGINEERING
 5225 33RD ST SE
 GRAND RAPIDS, MI 49512

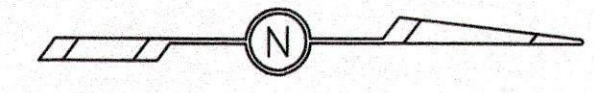
IN: PART OF THE SE 1/4, SECTION 18, T6N, R10W,
 CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

REVISIONS:	

planners • engineers • surveyors
5252 Clyde Park, S.W. • Grand Rapids, MI 49509
 Phone: (616) 531-2660 Fax: (616) 531-2121
 www.exxelengineering.com

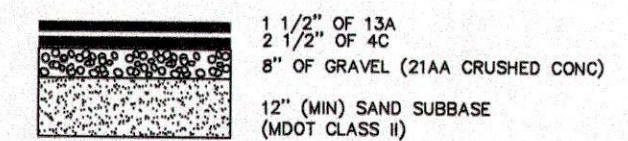
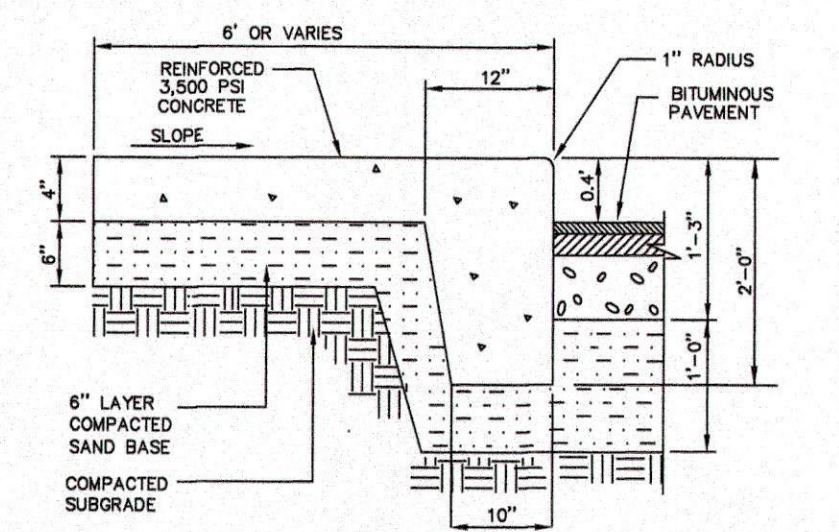
DRAWN BY: MK	FILE NO.: 161577E
APPROVED BY: DJS	SHEET 4 OF 4
DATE: 10-06-16	

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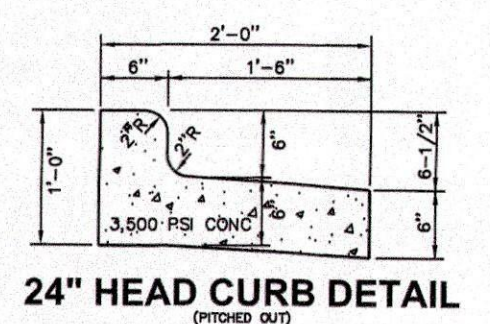
SCALE : 1"=40'

- BLACKTOP NOTES :**
- ASPHALT BINDER PG64-28 FOR HEAVY DUTY PAVEMENT
 - RAP LIMITED TO MDOT TIER 1 (0-17% BY WEIGHT) FOR WEARING COURSE AND MDOT TIER 2 (18-27% BY WEIGHT) FOR LEVELING COURSE
 - 13A MIX TO HAVE 60% MINIMUM CRUSHED MATERIAL WITH 3% AIR VOIDS
 - ASPHALT TO BE COMPACTED TO 94-97% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY THE RICE METHOD
 - A BOND COAT OF SS-1h EMULSION IS REQUIRED BETWEEN ASPHALT LAYERS AT A RATE OF 0.1 GALLONS/SYD

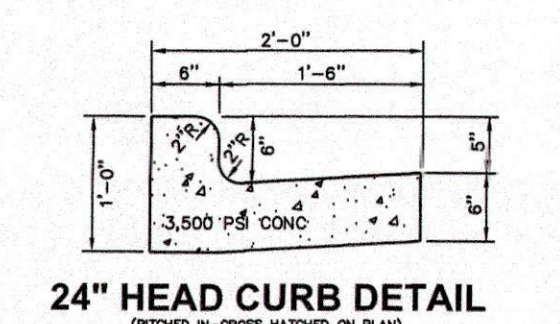


HEAVY DUTY PAVING SECTION

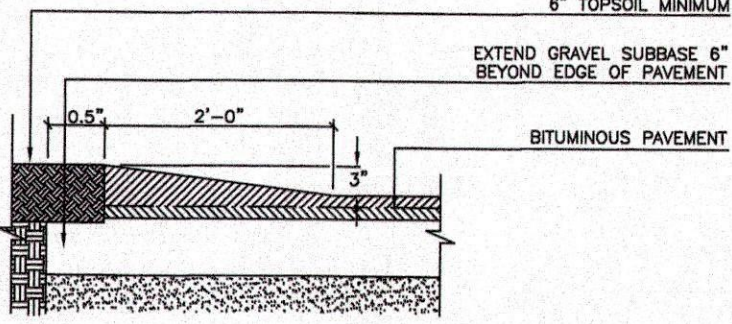
INTEGRAL CONC CURB / WALK



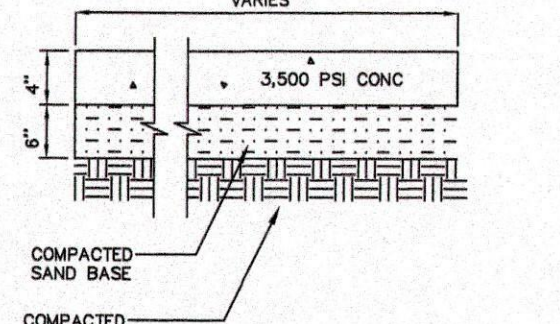
24" HEAD CURB DETAIL



24" HEAD CURB DETAIL



BITUMINOUS VALLEY GUTTER



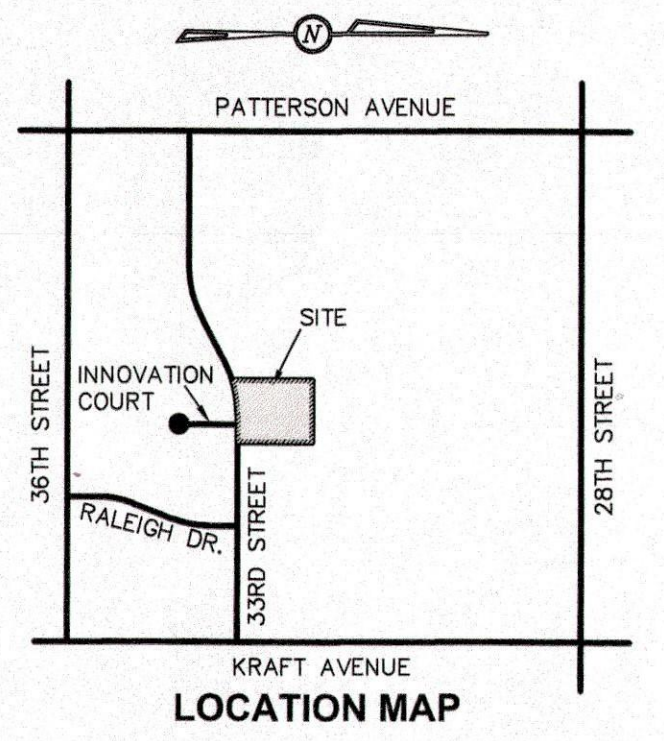
CONC SIDEWALK DETAIL

- GENERAL NOTES :**
- DESCRIPTION:
LOTS 22, 23 & 24 OF FOREMOST INDUSTRIAL PARK NO. 2
 - LOT 22 & 23 (PP#41-19-18-401-006, ADDRESS 5225 33RD ST SE) & LOT 24 (PP#41-19-18-401-003, ADDRESS 5287 33RD ST SE) ARE ZONED INDUSTRIAL

PROPOSED PARKING SPACES	=	194
EXISTING PARKING SPACES	=	175
NET GAIN	=	19 SPACES
EXISTING BUILDING SIZE	=	150,339 SF
PROPOSED ADDITION	=	16,982 SF
TOTAL	=	167,321 SF
NET INCREASE	=	11.3%




Know what's below.
Call before you dig.

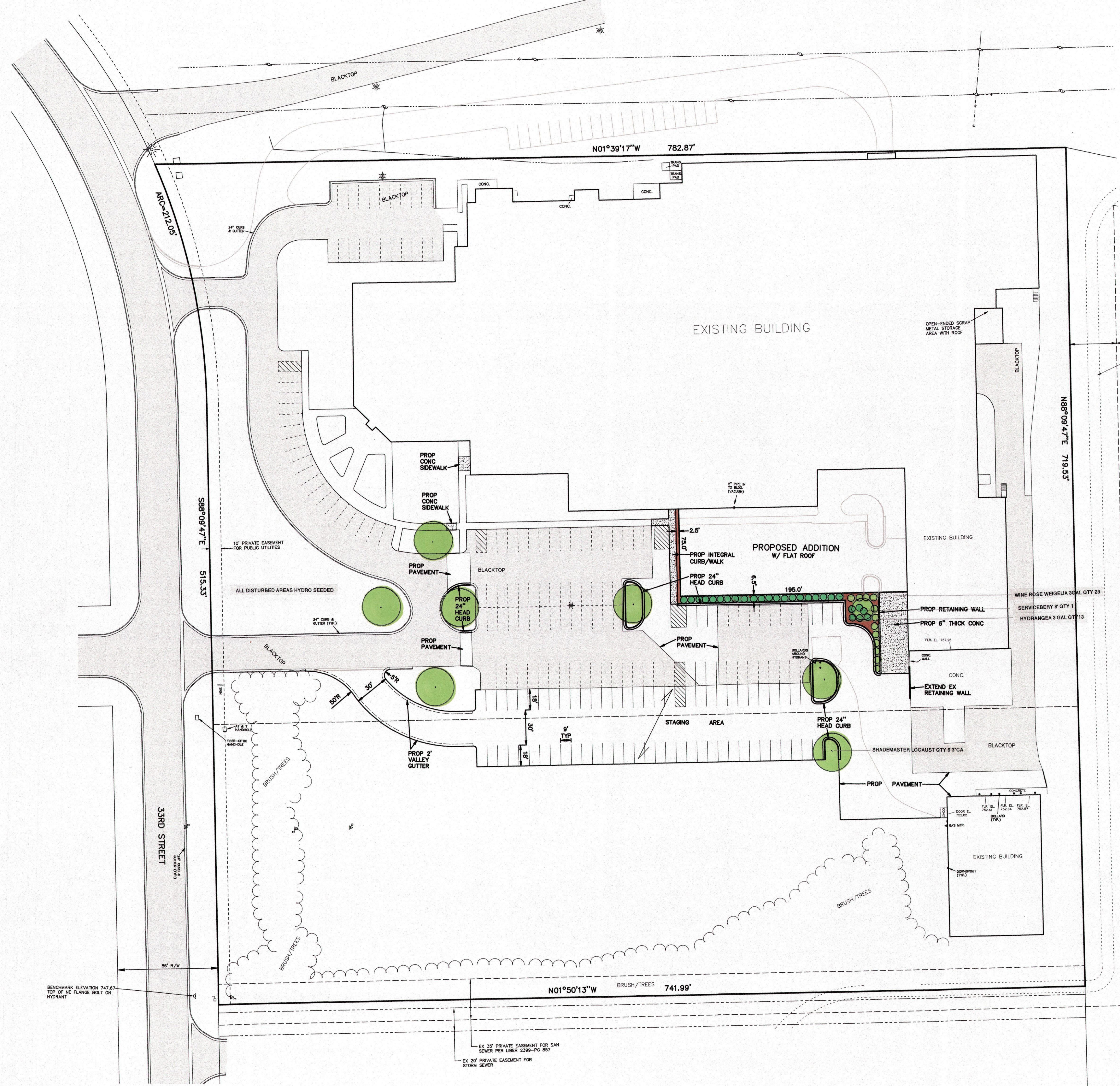


SITE LAYOUT PLAN
PARAGON DIE & ENGINEERING
5225 33RD ST SE

FOR: PARAGON DIE & ENGINEERING
 5225 33RD ST SE
 GRAND RAPIDS, MI 49512

IN: PART OF THE SE 1/4, SECTION 18, T6N, R10W,
 CASCADE TOWNSHIP, KENT COUNTY, MICHIGAN

REVISIONS:	 excel engineering, inc. planners • engineers • surveyors 5252 Clyde Park, S.W. • Grand Rapids, MI 49509 Phone: (616) 531-3650 Fax: (616) 531-2121 www.excelengineering.com		
DRAWN BY:	MK	FILE NO.:	161577E
APPROVED BY:	DJS	SHEET	2 OF 4
DATE:	10-06-16		



P:\Projects\2016\161577\Drawings\dwg\161577.dwg, 3/29/16 3:06:51 PM, mknit

Planning Commission
Cascade Charter Township
Kent County Michigan

RESOLUTION ____ OF 2016

RESOLUTION OF SUPPORT TO ADOPT THE CASCADE CHARTER TOWNSHIP
CAPITAL IMPROVEMENT PLAN 2017-2022

Whereas, a Capital Improvement Plan is a tool that can be used to implement the Township Master Plan.

Whereas, the Capital Improvement Plan is a budgeting process used to determine public improvement needs over a 6-year period.

Whereas, the Capital Improvement Plan will assist the Township in making decisions for Improvements to its roads, parks, utilities and public buildings.

Whereas, the Capital Improvement Plan represents sound planning and management techniques that improve the efficiency and economy of local government.

Now Therefore Be It Resolved, that the Cascade Charter Township Planning Commission adopts the 2017-2022 Capital Improvement Plan for Cascade Charter Township and that it be forwarded to the Township Board for their adoption as well.

The foregoing Resolution was offered by Member _____, supported by Member _____. The roll call vote being as follows:

YEAS: _____

NAYS: _____

ABSENT: _____

RESOLUTION DECLARED ADOPTED.

Steve Waalkes
Planning Commission Chairperson

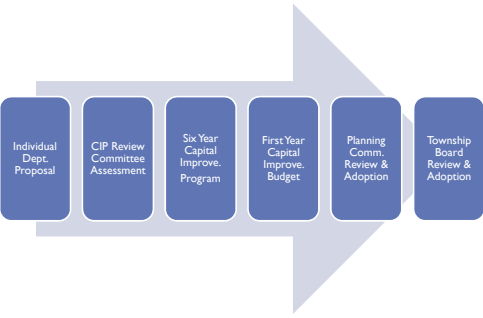
Cascade Charter Township
Capital Improvement Plan
2017 - 2022



Capital Improvement Plan

- Capital Improvements Plan outlines a schedule of capital expenditures for the next 6 years
- To be included, must be consistent with:
 - Master Plan
 - State/Federal Requirement
 - Township Approved Policy
- Typically should be at least \$10,000

Capital Improvement Plan



```
graph LR; A[Individual Dept. Proposal] --> B[CIP Review Committee Assessment]; B --> C[Six Year Capital Improve. Program]; C --> D[First Year Capital Improve. Budget]; D --> E[Planning Comm. Review & Adoption]; E --> F[Township Board Review & Adoption];
```

Capital Improvement Plan

- Six-Year Capital Improvement Plan
 - Mid-range planning document
 - Describes all proposals submitted by departments
 - Assessment & prioritization of each project
 - Adopted by Planning Commission
 - Approved by Township Board
- First-Year Capital Improvements Budget
 - Short-range budget document
 - Recommends capital needs to be funded
 - Identifies expected revenue sources
 - Submitted by Township Manager to Township Board for adoption

Capital Improvement Plan

- The Benefits of a Capital Improvement Plan
 - Focuses attention on community goals, needs and capabilities
 - Optimizes use of the taxpayer's dollar
 - Guides future growth and development
 - Encourages the most efficient government
 - Improves the basis for intergovernmental and regional cooperation
 - Maintains a sound and stable financial program
 - Enhances federal and state grant opportunities

Capital Improvement Plan

- Project Prioritization
 - **Essential** – Urgent, high priority project that should be done if at all possible
 - **Desirable** – High priority project that should be done as funding becomes available
 - **Acceptable** – Worthwhile project to be considered if funding is available
 - **Deferrable** – Low priority project which can be postponed

Capital Improvement Plan

- Funding Sources
 - Millage Funding
 - General, Fire, Police, Pathways, Open Space, Library
 - General Obligation & Revenue Bonds
 - G.O. Bonds – Taxing power pledged to retire debt
 - Revenue Bonds – User charges and other income to pay debt – backed by “Full faith and credit”
 - Tax Increment Financing
 - DDA funding – tax collections above “base” taxable value

Capital Improvement Plan

- Funding Sources (Con't)
 - Federal & State Funds
 - Grants (DNR Trust Fund, etc...)
 - Entitlements (Revenue Sharing)
 - Special Assessments
 - Oak Terrace Water, Kraft Ave. Water/Sewer, etc...
 - Developer Contributions
 - Dedicated Infrastructure
 - Payments for Improvements
 - Utility System Funding
 - Township approved improvement
 - Paid for through utility bills
 - Other Funds
 - Capital leases, dedicated revenues, sale of assets, etc...

Capital Improvement Plan

The total capital need over the next six years includes 50 projects, totaling \$19,561,000

Project Type	Number of Projects	Six-Year Plan FY 2017-2022
GF - Administration	8	\$2,943,000
GF - Building & Grounds	2	\$60,000
GF - Cemeteries	4	\$1,105,000
GF - Parks	2	\$50,000
GF - Community Development	4	\$1,498,000
Fire Fund	9	\$1,120,000
Dam Repair Fund	2	\$230,000
Pathways Fund	9	\$3,675,000
Utility Fund	3	\$2,225,000
DDA Fund	5	\$6,600,000
Building Fund	0	\$0
Library Fund	2	\$55,000
TOTALS	50	\$19,561,000

Capital Improvement Plan

General Fund - Administration							
Project Title:	Project Costs						TOTAL
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
Local Road Maintenance	350,000	350,000	350,000	350,000	350,000	350,000	2,100,000*
Township Hall Roof Replacement	150,000						150,000
Township Hall HVAC Replacement	150,000						150,000
Township Hall Parking Lot Repave	100,000						100,000
Township Hall Generator	40,000						40,000
Administrative Copier	15,000				18,000		33,000
Township Server(s) Replacement	20,000				25,000		45,000
Schoellhaus Creek Rehab. Project		325,000					325,000
Totals	825,000	675,000	350,000	350,000	368,000	350,000	2,943,000

Capital Improvement Plan

General Fund - Cemetery (101)							
Project Title:	Project Costs						TOTAL
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
30 th Street Cemetery Expansion				900,000			900,000
30 th Street Cemetery Automatic Gates		125,000					125,000
Whitneyville Cemetery Improvements		40,000					40,000
Snow Cemetery Improvements				40,000			40,000
Totals	0	165,000	0	940,000	0	0	1,105,000

Capital Improvement Plan

General Fund - Buildings & Grounds (101)							
Project Title:	Project Costs						TOTAL
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
Mowing Trailer	10,000						10,000
F-350 Crew Cab Replacement		50,000					50,000
Totals	10,000	50,000	0	0	0	0	60,000

Capital Improvement Plan

General Fund - Parks (101)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Tassel Park Fishing Pier		25,000					25,000
McGraw Park Fishing Pier		25,000					25,000
Totals	0	50,000	0	0	0	0	50,000

Capital Improvement Plan

General Fund - Community Development (101)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
30 th Street Interchange Streetscape/Signage	275,000						275,000
Bus Stop Installations		30,000	30,000	30,000	30,000	30,000	150,000
Entryway Landscaping & Sign Program		80,000	80,000	80,000	80,000		240,000
Railroad Right-of-Way Acquisition		257,000		257,000		257,000	770,000*
Totals	275,000	367,000	110,000	367,000	110,000	287,000	1,488,000

Capital Improvement Plan

Fire Department Fund - 200							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Paper Replacement for Department	19,000						19,000
Department Air Bottle Fill Station	49,000						49,000
Upgrade of AV System at Station 2	11,000						11,000
Parking Lot Repaving at Station 2	71,000						71,000
Rescue Squad Replacement	350,000						350,000
Department Training Facility	500,000						500,000
Bullex Satellite Attack Fire Package		10,000					10,000
Snow Plow Truck Replacement				60,000			60,000
Medic 7 Suburban Replacement						50,000	50,000
Totals	1,000,000	10,000	0	60,000	0	50,000	1,120,000

Capital Improvement Plan

Cascade Dam Repair Fund (211)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Georid Wall Repair	20,000						20,000
Cascade Dam Fish Ladder/Wall Repairs		210,000					210,000
Totals	20,000	210,000	0	0	0	0	230,000

Capital Improvement Plan

Pathway Fund (210)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Pathway Extension - Thornapple River Dr.		300,000					300,000
Pathway Extension - Cascade Rd. (DDA)			400,000				400,000
Pathway Extension - Cascade Road (II)			270,000				270,000
Pathway Extension - Thornapple Riv. Dr.			500,000				500,000
Pathway Extension - Burton Street				1,500,000			1,500,000
Pathway Extension - Thornapple Elem.				120,000			120,000
Pathway Extension - Pine Ridge Elem. (I)				150,000			150,000
Pathway Extension - Pine Ridge Elem. (II)				135,000			135,000
Pathway Extension - Cascade Road (I)					300,000		300,000
Totals	0	300,000	1,170,000	1,905,000	300,000	0	3,675,000

Capital Improvement Plan

Utility Revolving Fund (246)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Thornapple River Drive Utility Extension	875,000						875,000
Burton St. Highway Crossing - Watermain				350,000			350,000
Water/Sewer Extension - 52nd Street					1,000,000		1,000,000
Totals	875,000	0	0	350,000	1,000,000	0	2,225,000

Capital Improvement Plan

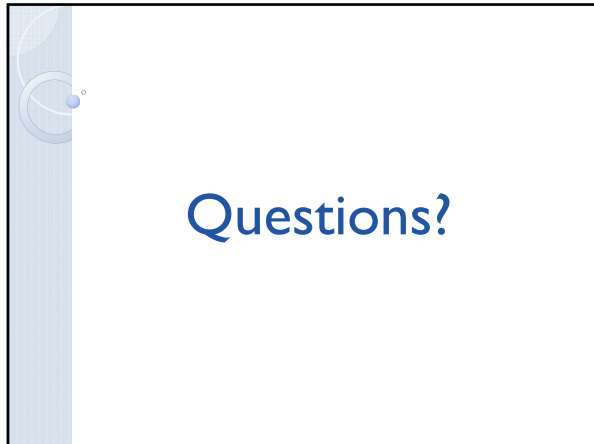
Downtown Development Authority Fund (248)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Community Gathering Area		600,000	600,000	600,000	600,000		2,400,000*
Purchase of Riverfront Properties	TBD	TBD	TBD	TBD	TBD	TBD	3,000,000**
Pathway Extension - Cascade Rd (Part I)			400,000				400,000
Village Area Gateway Improvements						500,000	500,000
28th Street Mid-Block Crossing				300,000			300,000
Totals	0	600,000	1,000,000	900,000	600,000	500,000	6,600,000

Capital Improvement Plan

Building Department Fund (249)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Totals	0	0	0	0	0	0	

Capital Improvement Plan

Library Fund (270)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
CCT Security System		25,000					25,000
Library Carpet Replacement				30,000			30,000
Totals		25,000	0	30,000	0	0	55,000





**Cascade Charter Township
Kent County, Michigan**

**2017 – 2022
Capital Improvements Plan**

Table of Contents

Title Page	i
Table of Contents	1
Chapter 1 - Executive Summary	
Overview	2
The Capital Improvements Program	2
Organization	3
Project Prioritization	4
The Totals	4
Projects	5
Timing	6
Department Highlights	6
Chapter 2 - Introduction	
Capital Improvement Projects	11
Relationship Between the CIB and the Annual Budget	11
Relationship Between the CIP and the Township Planning Process	12
Legal Basis for Capital Improvements Programming	13
The Benefits of Capital Improvements Programming	13
Chapter 3 - Program Summary	
The Capital Improvements Program Process	16
Step 1: Organize the Process	17
Step 2: Develop Criteria	17
Step 3: Develop Project Requests	17
Step 4: Present Departmental Projects	17
Step 5: Screen, Evaluate and Prioritize Projects	18
Step 6: Select Projects	20
Step 7: Prepare and Adopt the CIP and CIB	20
Chapter 4 - Program Funding	21
Chapter 5 - 2014 Recommended Capital Improvements Budget	23
Chapter 6 - 2015 - 2020 Capital Improvement Projects	24

Chapter 1 - Executive Summary

Overview

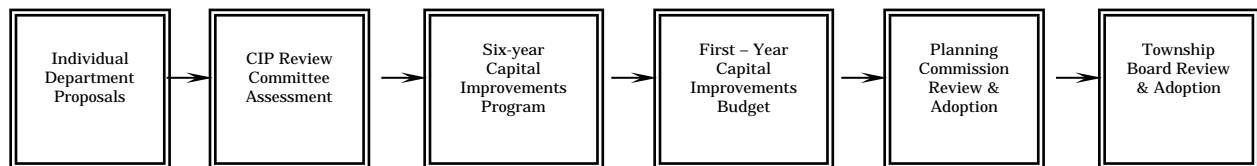
The capital improvements program (CIP) outlines a schedule of public service expenditures over the ensuing six-year period (Fiscal Years 2017-2022). The CIP does not address all of the capital expenditures for the Township, but provides for large, physical improvements which are permanent, including the basic facilities, services and installations needed for the functioning of the community. These include utilities, municipal facilities and other miscellaneous projects.

To qualify for inclusion into this initial CIP, a project must be consistent with 1) an adopted or anticipated component of the master plan, 2) a state and/or federal requirement, or 3) a Township approved policy. The minimum project cost for a CIP project is \$10,000.

Preparation of the capital improvements program is done under the authority of the Township Planning Act (PA 168 of 1959, as amended). A significant amount of informational language is included to help citizens, staff and elected officials understand the complexity of the program and guide its future development. Subsequent CIP documents will be reviewed by the Planning Commission with the goal that the CIP will help implement the Township's Master Plan.

The capital improvements program proposes project funding relative to the anticipated availability of fiscal resources and the choice of specific improvements to be achieved throughout the six-year plan.

The Capital Improvements Program



- √ Six – Year Capital Improvements Plan
 - § Mid-range planning document.
 - § Describes all proposals submitted by individual departments.
 - § Includes an assessment & prioritization of each project.
 - § Adopted by Planning Commission.
 - § Submitted to Township Board for approval.

- √ First – year Capital Improvements Budget
 - § Short – range budget document.
 - § Recommends which of these capital needs should be funded.
 - § Identifies the expected revenue sources.
 - § Submitted by the Township Manager to Township Board for adoption.

Organization

The Capital Improvements Program is divided into three major sections.

- √ The first section provides general information about the Township's programming. It contains:
 - § Introduction
 - § Program Summary
 - § Program Policies
 - § Program Funding
- √ The 2017 Recommended Capital Improvements Budget provides information on projects for the first fiscal year of the plan. It contains:
 - § Project Type
 - § Project Name
 - § Total Project Cost
 - § 2016 Funding Requirements
 - § Funding Source
- √ The 2017-2022 Capital Improvements Plan lists individual capital projects on separate pages within each section, divided by project types. Each project page contains:
 - § A brief description of the project.
 - § Proposed scheduling.
 - § A narrative assessment and justification.
 - § A statement regarding the project's anticipated impact on operating expenses.
 - § Cost and funding source information.
 - § Project priority ranking
 - § Anticipated year of implementation

Project Prioritization

Staff assessed all capital needs and gave each project a priority rating. The rating figure indicates whether a project is:

- ✓ **Essential:** urgent, high priority project that should be done if at all possible.
- ✓ **Desirable:** high priority project that should be done as funding becomes available.
- ✓ **Acceptable:** worthwhile project to be considered if funding is available.
- ✓ **Deferrable:** low priority project which can be postponed.

The Totals

- ✓ The total capital need over the next six years includes 50 projects, totaling \$19,561,000.

<u>Project Type</u>	<u>Number of Projects</u>	<u>Six - Year Plan FY 2017-2022</u>
GF - Administration	8	\$2,943,000
GF - Building & Grounds	2	\$60,000
GF - Cemeteries	4	\$1,105,000
GF - Parks	2	\$50,000
GF - Community Dev.	4	\$1,498,000
Fire Fund	9	\$1,120,000
Dam Repair Fund	2	\$230,000
Pathways Fund	9	\$3,675,000
Utility Fund	3	\$2,225,000
DDA Fund	5	\$6,600,000
Building Fund	0	\$0
Library Fund	2	\$55,000
TOTALS	50	\$19,561,000

Projects

There are 50 projects totaling \$19,561,000 that are submitted as part of this initial Capital Improvements Program. Here are the 16 first-year projects, totaling \$2,855,000, ranked by their priority.

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - 10 Projects \$1,987,000)		
Local Road Maintenance	\$350,000	General Fund
Township Hall Replacement Roof	\$150,000	General, Fire, Building Funds
Township Hall Replacement HVAC	\$150,000	General, Fire, Building Funds
Township Hall Generator	\$40,000	General, Fire, Building Funds
Township Hall Server Replacement	\$20,000	General Fund
Geoid Wall Repair	\$20,000	Dam Fund
Upgrade of A/V System at Station 2	\$11,000	Fire Fund
Parking Lot Repaving at Station 2	\$71,000	General, Fire Fund
Rescue Squad Replacement	\$350,000	Fire Fund
Thornapple River Drive Utility Extension	\$875,000	Infrastructure Fund, General Fund, KCRC, SAD District
Desirable (Total - 6 Project \$868,000)		
Mowing Trailer Replacement	\$10,000	General Fund
Administrative Copier	\$15,000	General Fund
36 th Street Interchange Streetscape/Sign	\$275,000	General Fund
Fire Department Pager Replacement	\$19,000	Fire Fund
Fire Department Air Refill Station	\$49,000	General Fund
Fire Department Training Facility	\$500,000	Fire Fund, Partnerships, Grants, Donations
Acceptable (Total -Projects \$0)		
Deferrable (Total - Projects \$0)		

Timing

The proposed expenditures are distributed as follows:

Department Highlights

General Fund -Administration							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Local Road Maintenance	350,000	350,000	350,000	350,000	350,000	350,000	2,100,000*
Township Hall Roof Replacement	150,000						150,000
Township Hall HVAC Replacement	150,000						150,000
Township Hall Parking Lot Repave	100,000						100,000
Township Hall Generator	40,000						40,000
Administrative Copier	15,000				18,000		33,000
Township Server(s) Replacement	20,000				25,000		45,000
Schoolhouse Creek Rehab. Project		325,000					325,000
Totals	825,000	675,000	350,000	350,000	393,000	350,000	2,943,000

*Project anticipated to be financed over a period of years

General Fund - Buildings & Grounds (101)							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Mowing Trailer	10,000						10,000
F-350 Crew Cab Replacement		50,000					50,000
Totals	10,000	50,000	0	0	0	0	60,000

*Project anticipated to be financed over a period of years

Cascade Charter Township Capital Improvements Program 2017-2022

General Fund - Cemetery (101)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
30 th Street Cemetery Expansion				900,000			900,000
30 th Street Cemetery Automatic Gates		125,000					125,000
Whitneyville Cemetery Improvements		40,000					40,000
Snow Cemetery Improvements				40,000			40,000
Totals	0	165,000	0	940,000	0	0	1,105,000

*Project anticipated to be financed over a period of years

General Fund - Parks (101)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Tassel Park Fishing Pier		25,000					25,000
McGraw Park Fishing Pier		25,000					25,000
Totals	0	50,000	0	0	0	0	50,000

*Project anticipated to be financed over a period of years

General Fund - Community Development (101)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
36 th Street Interchange Streetscape/Signage	275,000						275,000
Bus Stop Installations		30,000	30,000	30,000	30,000	30,000	150,000
Entryway Sign & Landscape Program		80,000	80,000	80,000	80,000		240,000
Railroad Right-of-Way Acquisition		257,000		257,000		257,000	770,000*
Totals	275,000	367,000	110,000	367,000	110,000	287,000	1,498,000

*Project anticipated to be financed over a period of years

Cascade Charter Township Capital Improvements Program 2017-2022

Fire Department Fund - 206							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Pager Replacement for Department	19,000						19,000
Department Air Bottle Fill Station	49,000						49,000
Upgrade of A/V System at Station 2	11,000						11,000
Parking Lot Repaving at Station 2	71,000						71,000
Rescue Squad Replacement	350,000						350,000
Department Training Facility	500,000						500,000
Bullex Satellite Attack Fire Package		10,000					10,000
Snow Plow Truck Replacement				60,000			60,000
Medic 7 Suburban Replacement						50,000	50,000
Totals	1,000,000	10,000	0	60,000	0	50,000	1,120,000

*Project anticipated to be financed over a period of years

Cascade Dam Repair Fund (211)							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Georid Wall Repair	20,000						20,000
Cascade Dam Fish Ladder/Wall Repairs		210,000					210,000
Totals	20,000	210,000	0	0	0	0	230,000

*Project anticipated to be financed over a period of years

Cascade Charter Township Capital Improvements Program 2017-2022

Pathway Fund (216)							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Pathway Extension – Thornapple River Dr.		300,000					300,000
Pathway Extension – Cascade Rd (DDA)			400,000				400,000
Pathway Extension – Cascade Road (II)			270,000				270,000
Pathway Extension – Thornapple Riv. Dr.			500,000				500,000
Pathway Extension – Burton Street				1,500,000			1,500,000
Pathway Extension – Thornapple Elem.				120,000			120,000
Pathway Extension – Pine Ridge Elem. (I)				150,000			150,000
Pathway Extension – Pine Ridge Elem. (II)				135,000			135,000
Pathway Extension – Cascade Road (I)					300,000		300,000
Totals	0	300,000	1,170,000	1,905,000	300,000		3,675,000

*Project anticipated to be financed over a period of years

Utility Revolving Fund (246)							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Thornapple River Drive Utility Extension	875,000						875,000
Burton St. Highway Crossing - Watermain				350,000			350,000
Water/Sewer Extension – 52 nd Street					1,000,000		1,000,000
Totals	875,000	0	0	350,000	1,000,000	0	2,225,000

*Project anticipated to be financed over a period of years

Cascade Charter Township Capital Improvements Program 2017-2022

Downtown Development Authority Fund (248)							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Community Gathering Area		600,000	600,000	600,000	600,000		2,400,000*
Purchase of Riverfront Properties	TBD	TBD	TBD	TBD	TBD	TBD	3,000,000**
Pathway Extension – Cascade Rd (Part I)			400,000				400,000
Village Area Gateway Improvements						500,000	500,000
28th Street Mid-Block Crossing				300,000			300,000
Totals	0	600,000	1,000,000	900,000	600,000	500,000	6,600,000

*Project anticipated to be financed over a period of years

** Not all funding to come from DDA

Building Department Fund (249)							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Totals	0	0	0	0	0	0	

*Project anticipated to be financed over a period of years

Library Fund (270)							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
CCT Security System		25,000					25,000
Library Carpet Replacement				30,000			30,000
Totals		25,000	0	30,000	0	0	55,000

*Project anticipated to be financed over a period of years

Chapter 2 - Introduction

Several factors influence infrastructure management, including the type of project being considered and the financing options available to fund the project. Whether to develop a new neighborhood park or to extend sewer or water lines to an existing neighborhood is a difficult decision when a choice has to be made between them. The Township may not have enough money available for all the projects it would like to do. The challenges to retain and/or expand Township services in the midst of shrinking resources and increasing costs has put pressure on Township government to make its limited capital resources work more efficiently. Administration, elected and appointed officials, and staff have taken several steps to make its capital expenditures more closely reflect its long-range objectives. One such stride is the continuing commitment to ensure that the most needed projects are funded and that the results are those that are called out in the adopted plans and policies. The capital improvements plan accomplishes this.

Capital Improvements Projects

Projects generally considered capital improvements are large, expensive and permanent in nature. They often place a continuing financial burden on the Township (planning and design, maintenance, operations, energy requirements, legal responsibilities, etc.). The capital improvements program addresses all of the capital expenditures for the Township that are valued over \$10,000. It represents the large projects in the near future.

The Capital Improvements Budget (CIB) shows projects scheduled to be funded in the upcoming fiscal year. Voting to accept the Capital Improvements Budget does ***not*** mean that Township Board approves all the projects that it contains. Acceptance acknowledges only that they agree with the Township Manager that these projects represent a reasonable interpretation of the upcoming needs for the Township.

The Relationship between the Capital Improvements Budget and the Annual Budget

As indicated above, the capital improvements budget includes projects that anticipate funding in the first fiscal year. The annual budget itemizes the money needed for all municipal purposes during the next fiscal year. This includes the day-to-day operational expenses of the Township, such as salaries and supplies. The projects included in the capital improvements budget are directly included in the annual budget, and all funding sources required to pay for the projects are confirmed. Approving a particular project still takes place by appropriating money as individual requests come before Township Board throughout the fiscal year.

The Relationship between the Capital Improvements Program and the Township Planning Process

Ideally, comprehensive land use planning influences capital improvements programming. The long-range master plan should yield the perspective on which the mid-range CIP is based. Each type of land use has different degrees of need for capital facilities. For example, a use that requires extensive parking and paving places a burden on the storm water system designed to handle the drainage from the site. The Township will need differing water system improvements and firefighting equipment if a land use plan recommends certain densities of residential development or commercial use for a certain location. These and other possible changes in the Township land use policies necessitate a linkage with the capital improvements program.

On the other hand, a capital improvements program may show that some land should not be zoned for a particular use because it is too expensive to provide the necessary infrastructure. For example, zoning land for industrial use without nearby sewer and water lines makes little sense. Many communities have over zoned the amount of land for industrial use, hoping for increases in tax base. However, often it is too expensive to install the needed services and no prospective manufacturing firm would be willing to pay for installation. Thus, a capital improvements program may help revise the zoning map.

The best strategy is to coordinate the capital improvements program with the master plan and zoning ordinances, to ensure that adequate utility and transportation services will be available in areas targeted for growth or redevelopment. Different zoning districts will need different services and infrastructure.

Many people view the long-range nature of the master plan as one of its greatest strengths. Because it is long-range, typically 20 years in the future, it provides a steady course for the community for a significant period. It contains a vision not subject to short-term obstacles. However, that strength can also be its weakness. The long-range character of the plan also has an air of unreality, which may provide little guidance for decision makers who must invest in the expansion of a water system in the next five years. Over the past few years, the correlation between the master plan components and the CIP has become stronger. In fact, recent changes to the Township Planning Act now allows for the development of a CIP and many legal and planning experts suggest the development of a CIP as a means to insure the township's master plan is legally enforceable, should it be challenged in court. Before the development of the CIP, the Township has begun to take incremental steps towards capital improvements planning. The Cascade Charter Township Park and Recreation Plan, the DDA Tax Increment Financing Plan, the Village Design Plan and the Complete Streets Plan all provide implementation recommendations that link the future vision of the community to relatively short-term actions.

The first recommended program policy in the CIP recognize the importance of the link between the Capital Improvements Plan and implementation of the master plan. In bringing most, if not all, of the decision makers together into the planning process, and by using the CIP process to reinforce the desired future land use patterns, the Township's physical future can be better shaped.

Legal Basis for Capital Improvements Programming

The State of Michigan provides for the development and use of a capital improvements program in the Township Planning Act (Section 10, Act 263 of the Public Acts of 2001). The Act briefly states that, "a township may adopt a capital improvement plan." The Act does not specifically outline a procedure, however many land use planning publications provide a recommended process.

The Benefits of Capital Improvements Programming

All communities need to develop a capital improvements plan. With time, public facilities need major repair, replacement or expansion. Maintaining and upgrading a community's capital stock requires significant financial investment. This investment must be weighed against other community needs and analyzed in light of community goals. Cascade Charter Township, like many communities, is under pressure to make efficient use of capital resources and must make difficult choices. There are more needs than can be satisfied at once, and the selection of one investment over another may shape the development of the community for years to come.

Capital improvements programming is a valuable tool to ensure that choices are made wisely. The Township's development goals are implemented, in part, by the careful provision of capital facilities. The benefits of this systematic approach to planning capital projects include the following:

Focuses attention on community goals, needs, and capabilities.

Through capital improvements, programming, capital projects can be brought into line with the Township's objectives, anticipated growth, and financial capabilities. Considered individually, a new park, water system improvements, and street widening may be great ideas. However, each project may look quite different when, in the course of the CIP process, it is forced to compete directly with other projects for limited funds.

Optimizes use of the taxpayer's dollar.

The capital improvements plan helps the Township Board and Township Manager make sound annual budget decisions. Careful planning of capital improvements helps prevent costly mistakes. In addition, capital planning allows the Township to save money in several other ways. For example, investors in municipal bonds tend to look more favorably on communities that have a CIP; if bond financing is selected for a capital improvement project, the Township may realize significant savings on interest. The CIP can also provide an opportunity, assuming funds are available, to purchase land at a lower cost in advance of construction.

Guides future growth and development

The location and capacity of capital improvements shape the growth of the Township. The Township Board can use the CIP to develop well thought out policies to guide future land use and economic development. The process can also ease political decision making by providing a rationale for approving or rejecting requests for immediate capital expenditures.

Encourages the most efficient government

Interdepartmental coordination of capital improvements programming can reduce scheduling conflicts and ensure that no single function receives more than its fair share of resources. In addition, the CIP can be used to promote innovative management techniques and improve governmental efficiency and effectiveness.

Improves the basis for intergovernmental and regional cooperation.

Capital improvements programming offers public officials of all governmental units (Cascade Charter Township, City of Grand Rapids, Kent County Road Commission, Gerald R. Ford International Airport, Kent County, Kent District Library, Caledonia Public Schools, Forest Hills Public Schools, Lowell Public Schools and the Downtown Development Authority), an opportunity to plan the location, timing, and financing of improvements in the interest of the community as a whole.

Maintains a sound and stable financial program.

Having to make large or frequent unplanned expenditures can endanger the financial well-being of the Township. Sharp changes in the tax structure or bonded indebtedness may be avoided when construction projects are planned and scheduled at intervals over a number of years. When there is ample time for planning, the most economical means of financing each project can be selected in advance. Furthermore, a CIP can help the

Township avoid commitments and debts that would prevent the initiation of other important projects later.

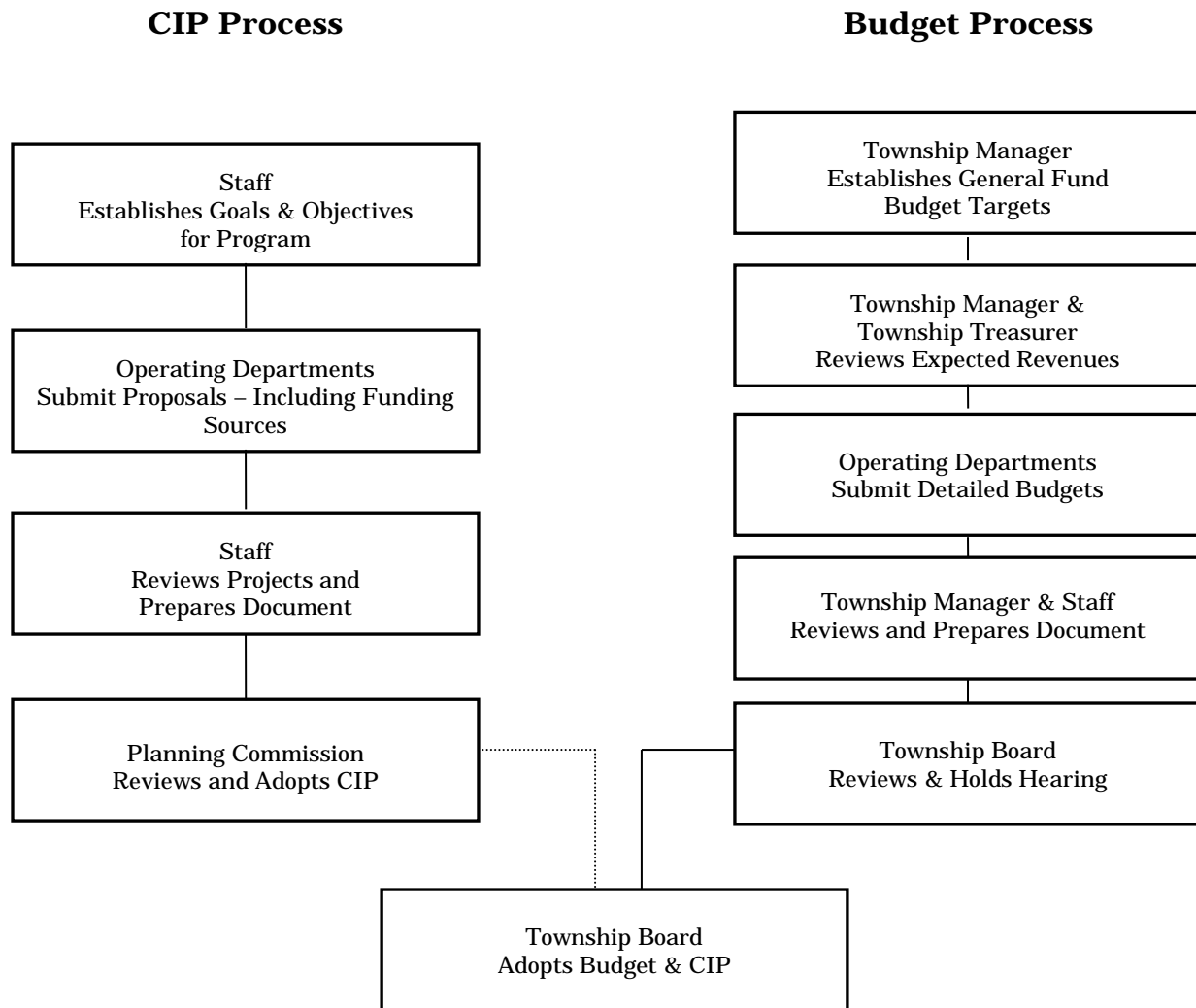
Enhances opportunities for participation in federal or state grant-in-aid programs

Preparing a CIP improves the Township's chance of obtaining aid through federal and state programs that provide funds for planning, construction and financing of capital improvements. There has been little activity in the federal and state grant field recently. Nevertheless, there are cyclical patterns to federal and state programs. The CIP is considered a "public works shelf that contains projects which can be started quickly by having construction, or bid, documents ready should any grants become available.

Chapter 3 - Program Summary

The Capital Improvements Plan Process

The capital improvements plan is a distinct element of the annual budget process that flows through the Township government in somewhat separate channels. The CIP process occurs earlier in the annual cycle than the annual budget. This initial CIP was developed through the Manager's office. The Township Manager and staff will coordinate all operating expenditures. The entire process takes several months to complete.



Cascade Charter Township used a traditional needs driven approach to develop its initial CIP. The process for developing the CIP involved the following steps

Step 1: Organize the Process

Staff began meeting in August to establish the administrative and policy framework within which the CIP process would operate. Before this first step, the Township Manager met with department heads to get their input on upcoming capital purchases and to explain the CIP development process.

Step 2: Develop Criteria

The second task of staff was to review different criteria for capital improvement projects. Literature from planning organizations and other communities with long established capital improvements planning programs were compared. Based upon the review staff adopted program priorities which are explained in further detail, later on in this section.

Step 3: Develop Project Requests

In September, the Township Manager issued a memorandum to all department heads, requesting that they submit proposed capital improvement projects to the Manager's Office. Forms accompanied the memorandum and deadline dates. The department heads that develop project requests were given guidance by the Manager throughout August and September. The project request form is a useful tool for ensuring that proposed projects are well thought out and based on realistic assessment of need.

Because the Township may not have sufficient funding capacity to meet all the capital needs, priorities are set, based on the criteria established earlier in the process. Departments that submit proposals typically will rank their own projects. Priority rankings do not necessarily correspond to funding sequence. For example, a park improvement project ranked lower than a fire equipment purchase may have better access to funds. The fire equipment could require more funds and have to wait for grants or a voter-approved millage. A project's desirability depends on a number of factors – not only what it is, but also on how it's done, where it may be located, how much it costs and its funding potential.

Step 4: Present Departmental Projects

The objective now is to pull together a CIP that was sensitive to the policies that have been adopted and contained projects that related to the master plan objectives.

Step 5: Screen, Evaluate and Prioritize Projects

The most difficult task for staff normally occurs in late September and early October when it evaluated and prioritized the projects submitted for approval. This is a critical component of the CIP process. Project selection must correspond to the amount of money assumed available for capital spending. Within the limited budget, is a new park vehicle or a water line extension of greater importance? Shrinking funds and rising costs incurred in maintaining and rehabilitating deteriorating infrastructure make the process of selecting the most vital capital projects even more crucial and difficult. The merits of each project must be judged against the policies and criteria of the CIP process and the goals of each component of the master plan. Does the project conform in terms of location, size, service provided, relation to its service area, effect on land use patterns, and relation to public policy and community goals? More than merely a technical process, prioritization involves value preferences, policy choices and political actions. Throughout the examination of the proposed projects, staff attempted to overcome some inherent problems in the CIP process:

- a) Government projects are difficult to evaluate because of their diversity and the fact that many, essentially, are not comparable. Individual CIP project requests reflect the need to serve different constituencies and diverse community values. Staff must attempt to reconcile and balance conflicting community values and judgments.
- b) Staff must continually approach the decisions required in this process rationally and analytically regardless of political forces. While conflicting interests within the political process are acknowledged, staff must attempt to develop a program that provides the most benefit to the entire community.
- c) It is inevitable that the number of projects requested exceeds available funding. In the endeavor to provide better service to the community, departments often propose capital projects that, unfortunately, go un-funded. This process should not discourage departments from continuing to submit proposals, but should develop into a mechanism to help in the effort to uncover alternate sources of funding and see that higher-priority projects get implemented.

The initial review (evaluation of project impact) takes place without regard to funding availability and focuses on policies and the objectivity and judgment based on input from Township staff. In the future, staff will review the following impacts of projects:

- § Fiscal consequences.
- § Health and safety effects.

- § Community economic effects.
- § Environmental, aesthetic, and social effects.
- § Disruption and inconvenience caused during construction.
- § Distributional effects (who benefits, who pays).
- § Feasibility
- § Implications of deferring the project
- § Amount of uncertainty and risk.
- § Effects on inter-jurisdictional relationships.

Next, the projects are placed into the appropriate funding priority group in relation to their necessity or urgency. Although many communities have developed detailed weighted ranking systems, staff has consciously avoided this type of system. The staff has established the following classification system to prioritize proposed projects:

Priority A - Essential

Urgent, high-priority projects that should be done if possible. These include projects that are required to complete a major public improvement; projects that would address an emergency, or remedy a condition dangerous to public health, welfare, and safety, projects that would provide facilities for a critically needed community program; projects needed to correct an inequitable distribution of public improvements in the past and projects vital to the economic stability of the City. A special effort is made to find sufficient funding for all of the projects in this group.

Priority B - Desirable

High-priority projects that should be done as funding becomes available. These include projects that would benefit the community, and projects whose validity of planning and validity of timing have been established.

Priority C - Acceptable

Worthwhile projects to be considered if funding is available. These are projects that are adequately planned, but not absolutely required, and should be deferred to a subsequent year if budget reductions are necessary.

Priority D - Deferrable

Low-priority projects which are desirable but not essential and can be postponed without detriment to present services.

In addition, projects may be eliminated from consideration if it is determined that they pose a serious question of community need, adequate planning, or proper timing. This step is also conducted without consideration of project cost or funding.

Step 6: Select Projects

In the end, the availability of funds each year, as approved by the Township Board upon the recommendation of the Township Manager, determines the number of projects that are funded.

As with the measurement of project impacts in Step 5, placing projects in priority groupings relies on the judgment of staff, and is not a completely objective process. The criteria used are not subject to precise measurement. This judgment is not arbitrary and is done within the context of the plans, policies and the goals of the master plan.

The Township Board ultimately approves the assumptions, criteria, policies, and recommendations of the staff by accepting the CIP. Depending on the policy, modifications are expected throughout the process. This is considered an essential part of the procedure, placing the burden on those who dissent to assess the policies underlying the recommendations and to advocate their differences, resulting in the necessary evolution of the entire capital planning process.

Step 7: Prepare and Adopt the CIP and CIB

In Step 2 of the process, broad criteria are established to help staff plan capital improvement projects. As the process continues, and increasingly detailed information emerges, projects may be added, altered, or abandoned. Eventually, staff arrives at a final list of projects that is submitted to the Township Manager and the Planning Commission for review.

The Township Manager and Planning Commission evaluate the CIP package in light of additional information, and makes final programming decisions before sending the CIP on to Township Board. The Board accepts the CIP after its review. Acceptance is ***not*** a commitment to finance the approved projects, but is a statement of policy regarding the Township's approach to meeting its future capital needs.

Chapter 4 - Program Funding

Because capital improvement projects involve the outlay of substantial funds, numerous sources are necessary to provide financing over the life of the project. Most capital funding sources are earmarked for specific purposes and cannot be transferred from one capital program to another. For instance, funds raised by the Pedestrian Pathway millage must be used for the purpose that was stated when the millage was approved by the electors. The CIP has to be prepared with some assumptions as to the amount of money to be available. The following is a summary of the funding sources for projects included in the capital improvements program.

General Obligation (G.O.) and Revenue Bonds

When the Township sells bonds, purchasers are, in effect, lending money to the Township. The money is repaid, with interest, from taxes or fees over the years. The logic behind issuing bonds (or "floating a bond issue") for capital projects is that the citizens who benefit from the capital improvements over a period of time should help the Township pay for them. The Township issues bonds in two forms:

General Obligation Bonds

Perhaps the most flexible of all capital funding sources, G.O. bonds can be used for the design or construction of any capital project. These bonds are financed through property taxes. In financing through this method, the taxing power of the Township is pledged to pay interest and principal to retire the debt. Voter approval is required and the amount is included in the Township's state-imposed debt limits. G.O. Bonds are authorized by a variety of state statutes.

Revenue Bonds

Revenue bonds are sold for projects, such as water and sewer systems, that produce revenues. Revenue bonds depend on user charges and other project-related income to cover their costs. Unlike G.O. bonds, revenue bonds are not included in the Township's state-imposed debt limits because they are backed by the full faith and credit of the Township. Revenue Bonds are authorized by a variety of state statutes.

Tax Increment Financing (TIF)

TIF is a municipal financing tool that can be used to renovate or redevelop declining areas while improving their tax base. TIF applies the increase in various state and local taxes that results from a redevelopment project to pay for project-related public improvements. For purposes of financing activities within the Cascade Village district,

the Downtown Development Authority adopted a 30-year TIF plan in 2011. TIF is authorized by Public Act 281 of 1986, the Local Development Finance Authority Act and Public Act 450 of 1980, the Tax Increment Financing Act.

Millages

The property tax is one of the most important sources of Township revenue. The property tax rate is stated in mills (one dollar per \$1,000 of valuation). This rate is applied to the taxable value of a property to determine the property tax. Millages are voter-approved taxes which are specifically earmarked for a particular purpose. The Township is authorized to utilize millages under Public Act 90 of 1976, the Charter Township Act.

Federal and State Funds

The federal and state governments make funds available to townships through numerous grants and programs. Some federal and state funds are tied directly to a specific program. The Township has discretion (within certain guidelines) over the expenditure of others. For the most part, the Township has no direct control over the amount of money received under these programs.

Special Assessments

Capital improvements that benefit particular properties, rather than the community as a whole, may be financed more equitably by special assessment: that is, by those who directly benefit. Local improvements often financed by this method include street improvements, sanitary and storm sewers, and water mains.

Developer Contributions

Sometimes capital improvements are required to serve new development. Where funding is not available from the Township to construct the improvements, developers may agree to voluntarily contribute their share or to install the facilities themselves so the development can go ahead.

Capital Improvement Projects

What follows is specific details on each project submitted for the Capital Improvement project. Each department begins with a summary sheet that includes a table with the projects listed individually with the cost by year and a second table with the project listed individually under the corresponding priority ranking. After the Department Summary Sheet, each project has a two page project form that contains all of the details of the project that were considered when compiling the Capital Improvements Plan.

FY17 – FY22 CIP – General Fund Administrative

General Fund -Administration							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Local Road Maintenance	350,000	350,000	350,000	350,000	350,000	350,000	2,100,000*
Township Hall Roof Replacement	150,000						150,000
Township Hall HVAC Replacement	150,000						150,000
Township Hall Parking Lot Repave	100,000						100,000
Township Hall Generator	40,000						40,000
Administrative Copier	15,000				18,000		33,000
Township Server(s) Replacement	20,000				25,000		45,000
Schoolhouse Creek Rehab. Project		325,000					325,000
Totals	825,000	675,000	350,000	350,000	393,000	350,000	2,943,000

*Project anticipated to be financed over a period of years

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - Projects \$2,485,000)		
Local Road Maintenance Program	\$2,100,000	General Fund
Township Hall Roof Replacement	\$150,000	General, Fire, Building
Township Hall HVAC Replacement	\$150,000	General, Fire, Building
Township Hall Generator	\$40,000	General, Fire, Building
Township Hall Server(s) Replacement	\$45,000	General Fund
Desirable (Total -Project \$458,000)		
Schoolhouse Creek Rehabilitation Project	\$325,000	General Fund
Township Hall/Fire Dept. Parking Lot	\$100,000	General, Fire, Building
Administrative Copier	\$33,000	General Fund
Acceptable (Total -Projects \$0)		
Deferrable (Total - 0 Projects \$0)		

* Reflects Total Cost of Project

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund - Administrative

1. **Description of Project:**

A. **Project Title:** Local Road Maintenance Program

B. **Location of Project:** Various Local Roads

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Cascade Township traditionally participates in local road maintenance by dedicating funds for preventative maintenance and reconstruction. These funds are matched by the KCRC to complete the projects. The Township approves program projects each spring. Additional funding will be needed in coming years to deal with more intensive projects.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	
Professional services	
Other: Contribution to KCRC	\$2,100,000
Total Estimated Cost	\$2,100,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: _____
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (_____)						
Totals						

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** _____ Essential
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** _____ 2017 - 2022

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: _____ X (Kent County Road Commission)
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** _____ Ben Swayze – Township Manager

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund - Administrative

1. **Description of Project:**

A. **Project Title:** Township Hall Roof Replacement

B. **Location of Project:** Township Hall / Station #1

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
	Land		New Purchase
X	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

The Cascade Township Hall and Fire Station roofs have significant leaks and have reached the end of their useful life and need to be replaced.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	<i>\$150,000</i>
Equipment & furnishings	
Professional services	
Other (Specify)	
Total Estimated Cost	\$150,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: _____
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund	\$60,000					
Fire Fund	\$45,000					
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (<u>Building Fnd</u>)	\$45,000					
Totals	\$150,000					

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** _____ Essential _____
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** _____ 2017 - 2022 _____

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: _____ X _____
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** _____ Ben Swayze – Township Manager _____

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund - Administrative

1. **Description of Project:**

A. **Project Title:** Township Hall HVAC Replacment

B. **Location of Project:** Township Hall / Station #1

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
	Land		New Purchase
X	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

The Cascade Township Hall and Fire Station #1 HVAC system have reached the end of their useful life and need to be replaced.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	<i>\$150,000</i>
Equipment & furnishings	
Professional services	
Other (Specify)	
Total Estimated Cost	\$150,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1,000
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund	\$60,000					
Fire Fund	\$45,000					
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (<u>Building Fnd</u>)	\$45,000					
Totals	\$150,000					

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Essential
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017 - 2022

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund - Administrative

1. **Description of Project:**

A. **Project Title:** Township Hall Parking Lot Repaving

B. **Location of Project:** Township Hall / Station #1

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
	Land		New Purchase
X	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Cascade Township Hall and Fire Station #1 parking lot has reached a state of failure and will need to be repaved. Recommended fix includes a full-depth mill and fill of the existing lot.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	<i>\$100,000</i>
Equipment & furnishings	
Professional services	
Other (Specify)	
Total Estimated Cost	\$100,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$500
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund	\$40,000					
Fire Fund	\$30,000					
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (<u>Building Fnd</u>)	\$30,000					
Totals	\$100,000					

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017 - 2022

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund - Administrative

1. **Description of Project:**

A. **Project Title:** Township Hall Generator

B. **Location of Project:** Township Hall / Station #1

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
	Land	X	New Purchase
X	Building		Replace
	Vehicle		Develop / Improve
	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Cascade Township Hall and Fire Station #1 are currently not served by a permanent generator. This can cause significant issues during a widespread power outage. Additionally, Township Hall serves as a potential Emergency Operations Center and 24/7 power need to be ensured. The Wisner Center and Station #2 are currently served by a generator.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	\$40,000
Professional services	
Other (Specify)	
Total Estimated Cost	\$40,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$500
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund	\$16,000					
Fire Fund	\$12,000					
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (<u>Building Fnd</u>)	\$12,000					
Totals	\$40,000					

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Essential
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017 - 2022

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund - Administrative

1. **Description of Project:**

A. **Project Title:** Township Hall Copier

B. **Location of Project:** Township Hall - Work Room

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
	Land		New Purchase
X	Building	X	Replace
	Vehicle		Develop / Improve
	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Township Hall copier serves as the main source of document reproduction for the Township organization. It is scheduled to be replaced every four years to ensure the highest possible efficiency and reduction in maintenance costs. Current copier is 5 years old.

3. **Alternatives to Proposed Project?**

Continue to operate with current machine and incur escalating maintenance costs.

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	\$15,000
Professional services	
Other (Specify)	
Total Estimated Cost	\$15,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	\$2,500
No income:	
Other revenue (specify):	
Total Revenue:	\$2,500

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1,000
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund	\$15,000					
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (_____)						
Totals	\$15,000					

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017 - 2022

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: _____
- B. Township Personnel: X
- C. Other (specify): _____

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund - Administrative

1. **Description of Project:**

A. **Project Title:** Township Hall Server Replacement

B. **Location of Project:** Township Hall - IT Room

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
	Land		New Purchase
X	Building	X	Replace
	Vehicle		Develop / Improve
	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

There are two Township Servers scheduled for replacement - the Exchange Server and the Application Server. The Exchange server hosts our user and email system while the Application server hosts all of our programs and files. Both of these servers are replaced every 4 years to minimize downtime and maintenance costs and keep up with technology.

3. **Alternatives to Proposed Project?**

Continue to operate with current machines and incur escalating maintenance costs and downtime and risk compatibility issues with updated PC machines on the network.

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	\$45,000
Professional services	
Other (Specify)	
Total Estimated Cost	\$45,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$500
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund	\$20,000			\$25,000		
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (_____)						
Totals	\$20,000			\$25,000		

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Essential
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017 - 2022

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: _____
- B. Township Personnel: X
- C. Other (specify): _____

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund - Administrative

1. **Description of Project:**

A. **Project Title:** Schoolhouse Creek Rehabilitation Project

B. **Location of Project:** Schoolhouse Creek

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
X	Land		New Purchase
	Building		Replace
	Vehicle	X	Develop / Improve
	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

The Township have been working with the property owners along Schoolhouse Creek to rehabilitate the creek to reduce sediment load, reduce erosion and increase floodplain connectivity. The project is currently in the engineering state, which will take most of 2017.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	<i>\$325,000</i>
Equipment & furnishings	
Professional services	
Other (Specify)	
Total Estimated Cost	\$325,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1,000
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund		\$325,000				
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (_____)						
Totals						

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017 - 2022

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

FY17 – FY22 CIP – General Fund Building & Grounds

General Fund - Buildings & Grounds (101)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Mowing Trailer	10,000						10,000
F-350 Crew Cab Replacement		50,000					50,000
Totals	10,000	50,000	0	0	0	0	60,000

*Project anticipated to be financed over a period of years

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - Projects \$0)		
Desirable (Total -Project \$60,000)		
Mowing Trailer	\$10,000	General Fund
F-350 Crew Cab Replacement	\$50,000	General Fund
Acceptable (Total -Projects \$0)		
Deferrable (Total - 0 Projects \$0)		

* Reflects Total Cost of Project

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund – Buildings & Grounds

1. **Description of Project:**

A. **Project Title:** Mowing Trailer

B. **Location of Project:** Buildings and Grounds Fleet

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
	Land		New Purchase
	Building	X	Replace
	Vehicle		Develop / Improve
X	Equipment		Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Second Mowing Trailer needs to be purchased so that two mowing crews can operate at the same time. Mowing trailer will replace a large equipment trailer that is no longer needed.

3. **Alternatives to Proposed Project?**

Continue with current system of deploying mowing crews with multiple drop-off and pick-up points.

4. **Estimated Cost of Project:**

Vehicle purchase	<i>\$10,000</i>
Land Acquisition	
Construction	
Equipment & furnishings	
Professional services	
Other (Specify)	
Total Estimated Cost	\$10,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	\$1,000
No income:	
Other revenue (specify):	
Total Revenue:	\$1,000

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: Same
- B. Estimated annual cost of new staff (if any): Same
- C. Estimated annual cost of materials & supplies: Same

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund	\$10,000					
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other ()						
Totals	\$10,000					

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: _____
- B. Township Personnel: X
- C. Other (specify): _____

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund – Buildings & Grounds

1. **Description of Project:**

A. **Project Title:** F-350 Crew Cab Truck Replacement

B. **Location of Project:** Buildings and Grounds Fleet

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
	Land		New Purchase
	Building	X	Replace
	Vehicle		Develop / Improve
X	Equipment		Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

This Truck will be fourteen years old in 2017 and will be due for replacement. This truck will have a lot of hard use from snow plowing, pulling heavy equipment and hauling dirt and materials.

3. **Alternatives to Proposed Project?**

Continue to utilize existing vehicle and incur escalating maintenance costs.

4. **Estimated Cost of Project:**

Vehicle purchase	<i>\$50,000</i>
Land Acquisition	
Construction	
Equipment & furnishings	
Professional services	
Other (Specify)	
Total Estimated Cost	\$50,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	\$2,500
No income:	
Other revenue (specify):	
Total Revenue:	\$2,500

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: Same
- B. Estimated annual cost of new staff (if any): Same
- C. Estimated annual cost of materials & supplies: Same

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund		\$50,000				
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other ()						
Totals		\$50,000				

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2018

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: _____
- B. Township Personnel: X
- C. Other (specify): _____

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

FY17 – FY22 CIP – General Fund Cemetery

General Fund – Cemetery (101)							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
30 th Street Cemetery Expansion				900,000			900,000
30 th Street Cemetery Automatic Gates		125,000					125,000
Whitneyville Cemetery Improvements		40,000					40,000
Snow Cemetery Improvements				40,000			40,000
Totals	0	165,000	0	940,000	0	0	1,105,000

*Project anticipated to be financed over a period of years

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - Projects \$0)		
Desirable (Total -Project \$980,000)		
30 th Street Cemetery Expansion	\$900,000	General, Cemetery Fund
Whitneyville Cemetery Expansion	\$40,000	General, Cemetery Fund
Snow Cemetery Expansion	\$40,000	General; Cemetery Fund
Acceptable (Total -Projects \$125,000)		
30 th Street Cemetery – Gates/Fencing/Landscaping	\$125,000	General, Cemetery Fund
Deferrable (Total - 0 Projects \$0)		

* Reflects Total Cost of Project

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund - Cemetery

1. **Description of Project:**

A. **Project Title:** 30th Street Cemetery Expansion

B. **Location of Project:** 30th Street Cemetery

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
X	Land		New Purchase
	Building		Replace
	Vehicle	X	Develop / Improve
	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

The 30th Street Cemetery is quickly filling up, and in the near future there will be a need to expand the cemetery if we are going to continue to provide burial space for Cascade residents. The Township owns enough land to potentially double the amount of space in the cemetery. In FY 15 a conceptual plan and cost estimate for the project was developed.

3. **Alternatives to Proposed Project?**

Alternatives to the project involve discontinuing the availability of burial space once the currently developed space is filled up.

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	\$800,000
Professional services	\$100,000
Other (Specify)	
Total Estimated Cost	\$900,000

5. **Estimated Revenue from Project:**

Annual project income:	\$12,000
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	\$12,000

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$10,000
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund		\$250,000	\$250,000	\$400,000		
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (_____)						
Totals		\$250,000	\$250,000	\$400,000		

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017 - 2022

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X – Possible Design/Build
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund - Cemetery

1. **Description of Project:**

A. **Project Title:** 30th Street Cemetery – Gates/Fencing/Landscaping

B. **Location of Project:** 30th Street Cemetery

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
	Land	X	New Purchase
	Building		Replace
	Vehicle		Develop / Improve
X	Equipment		Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Currently the 30th Street Cemetery gates are hand operated, the Fire Department is responsible for closing the gates each night, and the gates are opened each morning by the Buildings and Grounds Department (or Fire Department if it is a weekend the Buildings and Grounds Department is not on. Automatic gates would relieve crews of this responsibility. Would also provide the opportunity for remote access control. Fencing would be replaced as it is worn, and additional landscaping would be installed

3. **Alternatives to Proposed Project?**

If the project is not funded, gates would continue to be hand operated.

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	\$125,000
Professional services	
Other (Specify)	
Total Estimated Cost	\$125,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$500
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund		\$125,000				
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (_____)						
Totals		\$125,000				

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Acceptable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017 - 2022

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Clem Bell – Township Clerk

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund - Cemetery

1. **Description of Project:**

A. **Project Title:** Whitneyville Cemetery Improvements

B. **Location of Project:** Whitneyville Cemetery

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
X	Land		New Purchase
	Building		Replace
	Vehicle	X	Develop / Improve
	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Though not as popular as the 30th Street Cemetery, there are several burials a year in Whitneyville and it is well visited by family members of the deceased. Improvements to landscaping, hardscaping and roads will keep the cemetery in top shape for all to enjoy.

3. **Alternatives to Proposed Project?**

Continue general maintenance of the cemetery only

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	<i>\$40,000</i>
Professional services	
Other (Specify)	
Total Estimated Cost	\$40,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$500
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund		\$40,000				
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (_____)						
Totals		\$40,000				

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2018

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: General Fund - Cemetery

1. **Description of Project:**

A. **Project Title:** Snow Cemetery Improvements

B. **Location of Project:** Snow Cemetery

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land		New Purchase
	Building		Replace
	Vehicle	X	Develop / Improve
	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Though not as popular as the 30th Street Cemetery, there are several burials a year in Snow Cemetery and it is well visited by family members of the deceased. Improvements to landscaping, hardscaping and roads will keep the cemetery in top shape for all to enjoy.

3. **Alternatives to Proposed Project?**

Continue general maintenance of the cemetery only

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	<i>\$40,000</i>
Professional services	
Other (Specify)	
Total Estimated Cost	\$40,000

FY17 – FY22 CIP – General Fund Parks

General Fund - Parks (101)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Tassel Park Fishing Pier		25,000					25,000
McGraw Park Fishing Pier		25,000					25,000
Totals	0	50,000	0	0	0	0	50,000

*Project anticipated to be financed over a period of years

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - Projects \$0)		
Desirable (Total -Project \$0)		
Acceptable (Total -Projects \$50,000)		
Tassel Park Fishing Pier	\$25,000	General Fund
McGraw Park Fishing Pier	\$25,000	General Fund
Deferrable (Total - Projects \$0)		

* Reflects Total Cost of Project

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: September 1, 2016

Department: General Fund - Parks

1. **Description of Project:**

A. **Project Title:** Tassel Park Fishing Pier

B. **Location of Project:** Tassel Park

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

From the 2014 – 2019 Parks and Recreation Plan. Will improve access to the Thornapple River and provide fishing opportunities. Will be a floating dock with pilings.

3. **Alternatives to Proposed Project?**

None

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$25,000
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	\$25,000

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: September 1, 2016

Department: General Fund - Parks

1. **Description of Project:**

A. **Project Title:** McGraw Park Fishing Pier

B. **Location of Project:** McGraw Park

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

From the 2014 – 2019 Parks and Recreation Plan. Will improve access to the Grand River and provide fishing opportunities. Will be a floating dock.

3. **Alternatives to Proposed Project?**

None

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$25,000
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	\$25,000

FY17 – FY22 CIP – General Fund Community Development

General Fund – Community Development (101)							
Project Title:	Project Costs						TOTAL
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
36 th Street Interchange Streetscape/Signage	275,000						275,000
Bus Stop Installations		30,000	30,000	30,000	30,000	30,000	150,000
Entryway Sign & Landscape Program		80,000	80,000	80,000	80,000		240,000
Railroad Right-of-Way Acquisition		257,000		257,000		257,000	770,000*
Totals	275,000	367,000	110,000	367,000	110,000	287,000	1,498,000

*Project anticipated to be financed over a period of years

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - Projects \$0)		
Desirable (Total -Project \$1,195,000)		
36 th Street Interchange Streetscape/Sign	\$275,000	General Fund
Bus Stop Installations	\$150,000	General Fund, DDA
Railroad ROW Acquisition	\$770,000	Grant Funds, Donations
Acceptable (Total -Projects \$320,000)		
Entryway Sign & Landscape Program	\$320,000	General Fund, DDA
Deferrable (Total - 0 Projects \$0)		

* Reflects Total Cost of Project

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: August 30, 2016

Department: General Fund - Community Development

1. **Description of Project:**

A. **Project Title:** 36th Street Interchange Streetscape/Signage

B. **Location of Project:** 36th Street Interchange

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

36th Street currently serves as a major entryway into our community, but does little to identify Cascade or provide a welcoming atmosphere. This would be part of an ongoing project to implement expanded entryway identification and landscaping at all major entrances to the Township. This project would be quite a bit larger than other projects, and would include major landscaping and hardscaping improvements.

3. **Alternatives to Proposed Project?**

None - leave intersection as is.

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$250,000
Equipment & furnishings	
Professional services	\$25,000
Other (specify)	
Total Estimated Cost	<i>\$275,000</i>

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$2,000
- B. Estimated annual cost of new staff (if any): None
- C. Estimated annual cost of materials & supplies: \$500

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund	\$275,000					
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (Grant Funds)						
Totals	\$275,000					

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: XX
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Steve Peterson – Community Dev. Dir.

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: August 30, 2016

Department: General Fund - Community Development

1. **Description of Project:**

A. **Project Title:** Bus Stop Installation

B. **Location of Project:** High Usage Areas Along Bus Routes

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

The Township has committed to a 3-year pilot program to bring bus service to Cascade Township along 28th Street. The bus shelter program would build bus shelters in strategic locations along the route. The first shelter was built at the MDOT Park and Ride location by Meijer, and the second was built at the Mary Free Bed YMCA by The Rapid.

3. **Alternatives to Proposed Project?**

None - no shelters at stops

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$150,000
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	<i>\$150,000</i>

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$2,000
- B. Estimated annual cost of new staff (if any): None
- C. Estimated annual cost of materials & supplies: \$500

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund		\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (Rapid or Donations)		XX	XX	XX	XX	XX
Totals		\$30,000	\$30,000	\$30,000	\$30,000	\$30,000

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2018 - 2022

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: XX
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Sandra Korhorn – ED/DDA Director

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: August 30, 2016

Department: General Fund - Community Development

1. **Description of Project:**

A. **Project Title:** Cascade Entryway Sign & Landscape Program

B. **Location of Project:** Various Interchanges and Facilities

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land		New Purchase
	Building		Replace
	Vehicle	X	Develop / Improve
	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

An entryway sign program consistent with the DDA design guidelines and other planned entryway signs in the Township. The signs would be at strategic intersections and facilities in the Township. Estimated at one per year.

3. **Alternatives to Proposed Project?**

None

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$320,000
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	<i>\$320,000</i>

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1,000
- B. Estimated annual cost of new staff (if any): None
- C. Estimated annual cost of materials & supplies: \$500

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund		\$80,000	\$80,000	\$80,000	\$80,000	
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund		If in DDA	If in DDA	If in DDA	If in DDA	
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (Specify)						
Totals		\$80,000	\$80,000	\$80,000	\$80,000	\$80,000

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Acceptable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2018 - 2021

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: XX
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Sandra Korhorn – ED/DDA Director

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: August 30, 2016

Department: Community Development

1. **Description of Project:**

A. **Project Title:** railroad right of way

B. **Location of Project:** Patterson ave to Kraft Ave

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Purchase the railroad right of way to protect for future use.

3. **Alternatives to Proposed Project?**

none

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	\$770,000
Construction	
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	0

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: 0
- B. Estimated annual cost of new staff (if any): 0
- C. Estimated annual cost of materials & supplies: 0

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund		257k		257k		257k
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (___KC Airport/right place_____)						
Totals						

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** desirable
(Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2018, 2020, 2022

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: _____
- B. Township Personnel: XX
- C. Other (specify): _____

11. **Request Sheet Completed By:** Steve Peterson

FY17 – FY22 CIP – Fire Department Fund

Fire Department Fund - 206							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Pager Replacement for Department	19,000						19,000
Department Air Bottle Fill Station	49,000						49,000
Upgrade of A/V System at Station 2	11,000						11,000
Parking Lot Repaving at Station 2	71,000						71,000
Rescue Squad Replacement	350,000						350,000
Department Training Facility	500,000						500,000
Bullex Satellite Attack Fire Package		10,000					10,000
Snow Plow Truck Replacement				60,000			60,000
Medic 7 Suburban Replacement						50,000	50,000
Totals	1,000,000	10,000	0	60,000	0	50,000	1,120,000

*Project anticipated to be financed over a period of years

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - Projects \$561,000)		
Pager Replacement For Department	\$19,000	Fire Fund
Upgrade of A/V System at Station 2	\$11,000	Fire Fund
Parking Lot Repaving at Station 2	\$71,000	Fire Fund; General Fund
Rescue Squad Replacement	\$350,000	Fire Fund
Snow Plow Truck Replacement	\$60,000	Fire Fund; General Fund
Medic 7 Suburban Replacement	\$50,000	Fire Fund
Desirable (Total -Project \$559,000)		
Department Air Bottle Fill Station	\$49,000	Fire Fund
BullEx Satellite Attack Fire Package	\$10,000	Fire Fund
Department Training Facility	\$500,000	Fire Fund; FEMA Grant
Acceptable (Total -Projects \$0)		
Deferrable (Total - Projects \$0)		

* Reflects Total Cost of Project

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: September 16, 2016

Department: Fire Department

1. **Description of Project:**

A. **Project Title:** Pagers Replacement for Department

B. **Location of Project:** Fire Department

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
	Land		New Purchase
	Building	X	Replace
	Vehicle		Develop / Improve
X	Equipment		Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

This is to replace our current pagers (Minitor 5) with new Minitor 6 pagers. The Minitor 5 pagers are no longer serviceable. We do not have enough for replacements if any of them fail.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	\$19,000.00
Professional services	
Other (specify)	
Total Estimated Cost	\$19,000.00

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: September 9, 2016

Department: Fire Department

1. **Description of Project:**

A. **Project Title:** Cascade System - Air fill system

B. **Location of Project:** Fire Department

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
	Land	X	New Purchase
	Building		Replace
	Vehicle		Develop / Improve
X	Equipment		Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

This will be used to fill our SCBA bottles after they are used on training exercises, car fires, structure fires, etc. We currently have to travel to other departments to have our bottles filled. At times this can be a challenge of we are busy as well as the other departments being able to fill our bottles. This way we can use our SCBA packs more frequently and not worry about getting them filled at other locations.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$2,000.00
Equipment & furnishings	\$47,000.00
Professional services	
Other (specify)	
Total Estimated Cost	\$49,000.00

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	Zero

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$150.00
- B. Estimated annual cost of new staff (if any): 0
- C. Estimated annual cost of materials & supplies: 0

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Fire Fund	\$49,000.00					
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (_____)						
Totals						

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: Yes
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Chief John Sigg

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: September 12, 2016

Department: Fire Department

1. **Description of Project:**

A. **Project Title:** Upgrade of AV System at Station 2

B. **Location of Project:** Fire Station 2

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
	Land		New Purchase
	Building		Replace
	Vehicle	X	Develop / Improve
X	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

This will allow us to upgrade our current system and stay with the increasing changes within the electronic age. We would be able to use I pads, smart phones to integrate training programs. Use new type of computers that only use HDMI cables. Allow us to record our trainings for staff that may miss the training and keep them current with our department training program.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	\$10,179.00
Professional services	
Other (specify)	
Total Estimated Cost	\$10,179.00

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	0

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: _____
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Fire Fund	\$10,179.00					
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (_____)						
Totals	\$10,179.00					

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** _____ **Essential** _____
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** _____ **2017** _____

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: _____ **Yes** _____
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** _____ **Chief J. Sigg** _____

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: September 9, 2016

Department: Fire Department

1. **Description of Project:**

A. **Project Title:** Parking Lot Repaved

B. **Location of Project:** Station 2

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

This would be to remove existing asphalt, fine grade for paving, repave and restripe parking lot. There has been no work done on this lot other than some minor patching. This was completed in 1995 so this lot is 21 years old and needs to be redone.

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

This parking lot was constructed in 1995 or 1996 and has had no major repairs completed on it. There are large cracks and spots where the asphalt is gone. This is 20 plus years old and needs to be redone then have a preventive maintenance program set up.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	<i>\$71,000</i>
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	\$71,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

A.	Estimated annual maintenance & repair costs:	<u>\$1,000</u>
B.	Estimated annual cost of new staff (if any):	<u>0</u>
C.	Estimated annual cost of materials & supplies:	<u>0</u>

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Fire Fund	\$71,000					
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (_____)						
Totals	\$71,000					

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Essential
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: Yes
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Chief John Sigg

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: September 9, 2016

Department: Fire Department

1. **Description of Project:**

A. **Project Title:** Rescue Squad Replacement

B. **Location of Project:** Station 1

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
	Land		New Purchase
	Building	X	Replace
x	Vehicle		Develop / Improve
	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

This is to replace our current 1999 Ford. We are requesting a bigger rescue squad to allow us to carry more of our equipment. We also need something larger for blocking on roadways for our staff safety. We are carrying more equipment and need the larger vehicle so we can distribute our weight better in the apparatus.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	\$330,000.00
Land Acquisition	
Construction	
Equipment & furnishings	\$20,000.00
Professional services	
Other (specify)	
Total Estimated Cost	\$350,000.00

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: September 21, 2016

Department: Fire Department

1. **Description of Project:**

A. **Project Title:** Training Facility

B. **Location of Project:** Station 2

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
	Land	X	New Purchase
X	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

This would be to install a training facility at station 2. This would be a valuable tool for our department as well as our neighboring departments. This would allow us to hold more realistic trainings and more hands on training. We use buildings in the township but those are far and few that we can train in and we are limited in what types of training we can perform. FDAC has approved this to be added to 2017 CIP.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	\$500,000.00
Professional services	
Other (specify)	
Total Estimated Cost	\$500,000.00

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	Possible other departments using facility
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1,000.00
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: \$1,000.00

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Fire Fund	XX					
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding	XX					
Special Millage						
Other (Donations)	XX					
Other (Partners)	XX					
Totals	\$500,000.00					

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
(Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: Yes
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Chief John Sigg

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: September 9, 2016

Department: Fire Department

1. **Description of Project:**

A. **Project Title:** Bullex Satellite Attack fire package

B. **Location of Project:** Fire Department Training

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
	Land	x	New Purchase
	Building		Replace
	Vehicle		Develop / Improve
x	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Earlier this year we purchased the Bullex Fire Simulator and have used it many times for our department training. Staff has found this a valuable tool. We would like to expand on the basic unit and add one that shows a bigger fire, where it shows it extends to other rooms and floors.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	\$10,000
Professional services	
Other (specify)	
Total Estimated Cost	\$10,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	Zero

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$500
- B. Estimated annual cost of new staff (if any): None
- C. Estimated annual cost of materials & supplies: None

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Fire Fund		\$10,000				
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (_____)						
Totals		\$10,000				

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2018

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: Yes
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Chief John Sigg

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: _____ September 14, 2016 _____

Department: _____ **Fire Department** _____

1. **Description of Project:**

A. **Project Title:** _____ **Snow Plow Truck** _____

B. **Location of Project:** _____ **Fire Department** _____

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
	Land		New Purchase
	Building	X	Replace
X	Vehicle		Develop / Improve
	Equipment		Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

This is to replace the 2005 plow truck. This was our brush truck then was turned into our snow plow vehicle.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	\$50,000.00
Land Acquisition	
Construction	
Equipment & furnishings	10,000.00
Professional services	
Other (specify)	
Total Estimated Cost	\$60,000.00

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: September 14, 2016

Department: Fire Department

1. **Description of Project:**

A. **Project Title:** Medic 7 - Suburban Replacement

B. **Location of Project:** Fire Department

C. **Project Type:** (check appropriate item in each column)

<u>(Check here)</u>		<u>(Check here)</u>	
	Land		New Purchase
	Building	X	Replace
X	Vehicle		Develop / Improve
	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

This will be a replacement for our medical unit used for responses to medical emergencies. These are small units and allow us a quicker response and allow less wear and tear on our larger apparatus. This will cover a new vehicle and emergency equipment.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	\$50,000.00
Land Acquisition	
Construction	
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	\$50,000.00

FY17 – FY22 CIP – Cascade Dam Fund

Cascade Dam Repair Fund (211)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Georid Wall Repair	20,000						20,000
Cascade Dam Fish Ladder/Wall Repairs		210,000					210,000
Totals	20,000	210,000	0	0	0	0	230,000

*Project anticipated to be financed over a period of years

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - Projects \$230,000)		
Georid Wall Repair	\$20,000	Cascade Dam Fund
Cascade Dam Fish Ladder / Wall Repair	\$210,000	Cascade Dam Fund
Desirable (Total -Project \$0)		
Acceptable (Total -Projects \$0)		
Deferrable (Total - 0 Projects \$0)		

* Reflects Total Cost of Project

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: Cascade Dam Fund

1. **Description of Project:**

A. **Project Title:** Georid Wall Wood Repair

B. **Location of Project:** Cascade Dam

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

The georid wall is the wood wall on the face of the dam structure that protects the wall foundation. Several of the boards have begun to rot through, and we will need to replace them to maintain the integrity of the structure.

3. **Alternatives to Proposed Project?**

None - Required by FERC

4. **Estimated Cost of Project:**

Vehicle purchase	<i>\$20,000</i>
Land Acquisition	
Construction	
Equipment & furnishings	
Professional services	
Other (Specify)	
Total Estimated Cost	\$20,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	0
No income:	
Other revenue (specify):	
Total Revenue:	0

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: Same
- B. Estimated annual cost of new staff (if any): None
- C. Estimated annual cost of materials & supplies: Same

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (<u>Dam Fund</u>)	\$20,000					
Totals	\$20,000					

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Essential
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2017

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: _____
- B. Township Personnel: X
- C. Other (specify): To be completed by STS Hydropower

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: Cascade Dam Fund

1. **Description of Project:**

A. **Project Title:** Cascade Dam Fish Ladder/Wall Repair

B. **Location of Project:** Cascade Dam

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

The Cascade Dam Fish Ladder, which also serves as the south structure wall of the dam, is in need of repairs that are being required by FERC. Our contract with STS Hydropower calls for these repairs to be paid out of the Cascade Dam repair fund. The needed repairs include areas on the top and east face of the fish ladder wall, repairs to the division and east tailrace wall, and removal of the deteriorated wood stairs at the fish ladder to be replaced with poured concrete.

3. **Alternatives to Proposed Project?**

None - Required by FERC

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	<i>\$210,000</i>
Equipment & furnishings	
Professional services	
Other (Specify)	
Total Estimated Cost	\$210,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	0
No income:	
Other revenue (specify):	
Total Revenue:	0

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: Same
- B. Estimated annual cost of new staff (if any): None
- C. Estimated annual cost of materials & supplies: Same

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Fire Fund						
Pathway Fund						
Open Space Fund						
Infrastructure Fund						
DDA Fund						
Special Assessment						
GO/Revenue Bonds						
Grant Funding						
Special Millage						
Other (<u>Dam Fund</u>)		\$210,000				
Totals		\$210,000				

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Essential
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2018

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: XX
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

FY17 – FY22 CIP – Pathway Fund

Pathway Fund (216)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Pathway Extension – Thornapple River Dr.		300,000					300,000
Pathway Extension – Cascade Rd (DDA)			400,000				400,000
Pathway Extension – Cascade Road (II)			270,000				270,000
Pathway Extension – Thornapple Riv. Dr.			500,000				500,000
Pathway Extension – Burton Street				1,500,000			1,500,000
Pathway Extension – Thornapple Elem.				120,000			120,000
Pathway Extension – Pine Ridge Elem. (I)				150,000			150,000
Pathway Extension – Pine Ridge Elem. (II)				135,000			135,000
Pathway Extension – Cascade Road (I)					300,000		300,000
Totals	0	300,000	1,170,000	1,905,000	300,000		3,675,000

*Project anticipated to be financed over a period of years

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - Projects \$0)		
Desirable (Total -Project \$2,975,000)		
Pathway Extension – Thornapple River Dr.	\$300,000	Path Fund
Pathway Extension – Cascade Road (II)	\$270,000	Path Fund
Pathway Extension – Burton Street	\$1,500,000	Path Fund, TEA (State)
Pathway Extension – Thornapple River Dr.	\$500,000	Path Fund
Pathway Extension – Thornapple Elem	\$120,000	SRTS (State Grant)
Pathway Extension – Pine Ridge Elem. (I)	\$150,000	SRTS (State Grant)
Pathway Extension – Pine Ridge Elem. (II)	\$135,000	SRTS (State Grant)
Acceptable (Total -Projects \$700,000)		
Pathway Extension – Cascade Road (I)	\$300,000	Path Fund
Pathway Extension – Cascade Rd (DDA)	\$400,000	Path Fund
Deferrable (Total - 0 Projects \$0)		

* Reflects Total Cost of Project

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 08-12-2015

Department: Pathways

1. **Description of Project:**

A. **Project Title:** Pathway Extension – Thornapple River Drive

B. **Location of Project:** Thornapple River Drive – Cascade Rd. to Peace St.

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Both the DDA Development Plan and the Village Area Complete Streets Plan call for the pathway system to be built on the west side of Thornapple River Drive from Cascade Road to Peace Street. This would connect with the current pathway system and funnel pedestrian traffic down Thornapple River Drive rather than onto Orange Ct.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$300,000
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	<i>\$300,000</i>

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1,000
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund		\$300,000				
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other: DDA Fund						
Totals		\$300,000				

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2018

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Sandra Korhorn – DDA Director

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 08-12-2015

Department: Pathways

1. **Description of Project:**

A. **Project Title:** Pathway Extension – Cascade Rd (Part II)

B. **Location of Project:** Cascade Road – Villa Apts. To Burton Street

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Both the DDA Development Plan and the Village Area Complete Streets Plan call for the pathway system to be built on the south side of Cascade Road to facilitate pedestrian traffic in and out of the Village area and reduce the amount of times pedestrians need to cross Cascade Road when utilizing the pathway coming into the Village area. This section is pathway that would be outside of the DDA boundaries.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$400,000
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	<i>\$400,000</i>

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1,000
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund			\$400,000			
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other: DDA Fund						
Totals			\$400,000			

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2019

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Sandra Korhorn – DDA Director

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 8-14-2015

Department: Pathways

1. **Description of Project:**

A. **Project Title:** Pathway Extension – Cascade (Hall to Watermark)

B. **Location of Project:** Cascade Road – Hall to Watermark

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Approximately 3600 feet of new pathway. Would connect large residential neighborhoods to the existing pathway system and Cascade Parks.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$270,000
Equipment & furnishings	
Professional services	
Other: (Specify)	
Total Estimated Cost	\$270,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1000
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2016	2017	2018	2019	2020	2021
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund				\$270,000		
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other: (Specify)						
Totals				\$270,000		

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:**

(Essential, Desirable, Acceptable, Deferrable)

Desirable

9. **Recommended Year(s) for Implementation:**

2019

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Steve Peterson – Community Development Director

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: August 30, 2016

Department: Pathways

1. **Description of Project:**

- A. **Project Title:** Pathway Extension - Thornapple River Drive
- B. **Location of Project:** Thornapple Riv. Dr. - Cascade Rd to Thornhills
- C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct / Repair / Renovate
	Other (specify below)		Other (Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Connect pathway system on Thornapple River Dr. sewer/water/ road project was done to allow for connection. Busy narrow road that connects to large neighborhood of Burger Dr

3. **Alternatives to Proposed Project?**

Use existing pathway system

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$500,000
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	\$500,000

Cascade Charter Township
2016-2021 CIP Project Request Form

Date: 8-14-2015

Department: Pathways

1. **Description of Project:**

A. **Project Title:** Pathway Extension - Burton Street

B. **Location of Project:** Cascade Road - Spaulding to Patterson

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Approximately 1300 feet of new pathway as well as a pedestrian crossing over I-96.. Would connect Cascade Pathway system to Kentwood system and provide pedestrian route to Grand Rapids. Project should be coordinated with the KCRC and MDOT on bridge and road improvements.

3. **Alternatives to Proposed Project?**

Wait until Bridge Replacement (not currently scheduled) to coordinate pedestrian crossing.

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$1,200,000
Equipment & furnishings	
Professional services	\$300,000
Other: (Specify)	
Total Estimated Cost	\$1,500,000

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 8-14-2015

Department: Pathways

1. **Description of Project:**

A. **Project Title:** Pathway Extension – Thornapple Elementary

B. **Location of Project:** Bridgewater – T.R.D. to Thornapple Elem.

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Approximately 1600 feet of new pathway. Would connect pathway system to Thornapple Elementary Drive. Project should be coordinated with the KCRC and FHPS, could be eligible for Safe Routes to Schools.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$120,000
Equipment & furnishings	
Professional services	
Other: (Specify)	
Total Estimated Cost	\$120,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1000
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund				\$120,000		
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant				XX		
Special Millage						
Other:						
Totals				\$120,000		

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2020

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Steve Peterson – Community Development Director

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 8-14-2015

Department: Pathways

1. **Description of Project:**

- A. **Project Title:** Pathway Extension - Pine Ridge Elementary (I)
- B. **Location of Project:** Leyton/Redford - Cascade Road to Pine Ridge
- C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Approximately 2000 feet of new pathway. Would connect pathway system to Pine Ridge Elementary. Project should be coordinated with the KCRC and FHPS, could be eligible for Safe Routes to Schools.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$150,000
Equipment & furnishings	
Professional services	
Other: (Specify)	
Total Estimated Cost	\$150,000

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 8-14-2015

Department: Pathways

1. **Description of Project:**

- A. **Project Title:** Pathway Extension - Pine Ridge Elementary (II)
- B. **Location of Project:** Hayward/Leyton/Redford - 30th to Pine Ridge
- C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Approximately 1800 feet of new pathway. Would connect pathway system to Pine Ridge Elementary. Project should be coordinated with the KCRC and FHPS, could be eligible for Safe Routes to Schools.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$135,000
Equipment & furnishings	
Professional services	
Other: (Specify)	
Total Estimated Cost	\$135,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1000
- B. Estimated annual cost of new staff (if any):
- C. Estimated annual cost of materials & supplies:

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund				\$135,000		
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant				XX		
Special Millage						
Other:						
Totals				\$135,000		

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2020

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel:
- C. Other (specify):

11. **Request Sheet Completed By:** Steve Peterson – Community Development Director

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 8-14-2015

Department: Pathways

1. **Description of Project:**

A. **Project Title:** Pathway Extension – Cascade Road

B. **Location of Project:** Cascade Road – 36th Street to Cahoon

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Approximately 4000 feet of new pathway. Would connect large residential neighborhoods to the existing pathway system and Cascade Parks. Project should be coordinated with the KCRC

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$300,000
Equipment & furnishings	
Professional services	
Other: (Specify)	
Total Estimated Cost	\$300,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1000
- B. Estimated annual cost of new staff (if any):
- C. Estimated annual cost of materials & supplies:

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund					\$300,000	
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other: (Specify)						
Totals					\$300,000	

* If funding of this project goes beyond 2021, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Acceptable
(Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2021

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel:
- C. Other (specify):

11. **Request Sheet Completed By:** Steve Peterson – Community Development Director

FY17 – FY22 CIP – Utility Revolving Fund

Utility Revolving Fund (246)							
	Project Costs						
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Thornapple River Drive Utility Extension	875,000						875,000
Burton St. Highway Crossing - Watermain				350,000			350,000
Water/Sewer Extension – 52 nd Street					1,000,000		1,000,000
Totals	875,000	0	0	350,000	1,000,000	0	2,225,000

*Project anticipated to be financed over a period of years

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - Projects \$875,000)		
Thornapple River Drive Utility Extension	\$875,000	Utility Fund, S.A.D., General Fund, KCRC
Desirable (Total -Project \$0)		
Acceptable (Total -Projects \$1,000,000)		
Water/Sewer Extension – 52 nd Street	\$1,000,000	Utility Fund, S.A.D.
Deferrable (Total - 0 Projects \$350,000)		
Burton St. Highway Crossing – Watermain	\$350,000	Utility System Funded

* Reflects Total Cost of Project

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 8-14-2015

Department: Infrastructure Revolving Fund

1. **Description of Project:**

- A. **Project Title:** Thornapple River Drive Utility Extension
- B. **Location of Project:** Thornapple River Drive - SW of Tassel Park
- C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
	Land		New Purchase
	Building		Replace
	Vehicle	X	Develop / Improve
	Equipment		Construct /Repair / Renovate
X	Other (specify below)		Other Specify below)

Other : (specify here):

Utility Infrastructure

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

The homeowners in this area have requested public sewer to deal with failing septic systems in the area. The Township is working on a project that would include special assessment funded sewer and Township funded water. Special Assessment District was approved by the Township Board on 10.16.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$750,000
Equipment & furnishings	
Professional services	\$125,000
Other: (Specify)	
Total Estimated Cost	\$875,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: None
- B. Estimated annual cost of new staff (if any): None
- C. Estimated annual cost of materials & supplies: None

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund	\$75,000					
Sewer Fund						
Water Fund	\$375,000					
Pathway Fund						
Revenue Bonds						
G.O. Bonds						
Special Assessment	\$350,000					
Federal Grant						
State Grant						
Special Millage						
Other: (<u>KCRC</u>)	\$75,000					
Totals	\$875,000					

* If funding of this project goes beyond 2021, please attach a proposed schedule to this page

8. **Department Ranking for this Project:**

(Essential, Desirable, Acceptable, Deferrable)

Essential

9. **Recommended Year(s) for Implementation:**

2017

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:**

Ben Swayze – Township Manager

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 8-14-2015

Department: Infrastructure Revolving Fund

1. **Description of Project:**

A. **Project Title:** Burton Street Highway Crossing - Water Main

B. **Location of Project:** Burton Street - I-96 Crossing

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
X	Other (specify below)		Other Specify below)

Other : (specify here):

Utility Infrastructure

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Approximately 1700' of 12" water main, bore/jack installation. Connection is needed for system looing and to improve pressure and reliability. Eligible for system funding. Could also be done in connection with the Burton Street pedestrian bridge.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$350,000
Equipment & furnishings	
Professional services	
Other: (Specify)	
Total Estimated Cost	\$350,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: _____
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2016	2017	2018	2019	2020	2021
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund						
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other: System Funded					\$350,000	
Totals					\$350,000	

* If funding of this project goes beyond 2022 please attach a proposed schedule to this page

8. **Department Ranking for this Project:** _____ Deferrable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** _____ 2020

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: _____ X _____
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Steve Peterson – Community Development Director

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 8-14-2015

Department: Infrastructure Revolving Fund

1. **Description of Project:**

A. **Project Title:** Water/Sewer Extension - 52nd Street East of Kraft

B. **Location of Project:** 52nd Street - East of Kraft

C. **Project Type:** (check appropriate item in each column)

(Check here)		(Check here)	
	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct /Repair / Renovate
X	Other (specify below)		Other Specify below)

Other : (specify here):

Utility Infrastructure

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

The extension of water and sewer utilities along 52nd Street to create more land for potential industrial development. Project intended to stimulate economic development in the area. Project would NOT include necessary pump stations, which could be installed as development dictated.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$1,000,000
Equipment & furnishings	
Professional services	
Other: (Specify)	
Total Estimated Cost	\$1,000,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify): Tap Fees	Variable – but could be substantial
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: _____
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Sewer Fund					\$500,000	
Water Fund					\$500,000	
Pathway Fund						
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other:						
Totals					\$1,000,000	

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Acceptable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2021

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Steve Peterson – Community Development Director

FY17 – FY22 CIP – DDA Fund

Downtown Development Authority Fund (248)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Community Gathering Area		600,000	600,000	600,000	600,000		2,400,000*
Purchase of Riverfront Properties	TBD	TBD	TBD	TBD	TBD	TBD	3,000,000**
Pathway Extension – Cascade Rd (Part I)			400,000				400,000
Village Area Gateway Improvements						500,000	500,000
28th Street Mid-Block Crossing				300,000			300,000
Totals	0	600,000	1,000,000	900,000	600,000	500,000	6,600,000

*Project anticipated to be financed over a period of years

** Not all funding to come from DDA

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - Projects \$3,000,000)		
Purchase of Riverfront Property	\$3,000,000	DDA Fund; General Fund, Grants
Desirable (Total -Project \$3,600,000)		
Community Gathering Area	\$2,400,000	DDA Fund; Private Donations
Pathway Extension – Cascade Rd (Part I)	\$400,000	DDA Fund
28 th Street Mid-Block Crossing	\$300,000	DDA Fund
Acceptable (Total -Projects \$500,000)		
Village Area Gateway Improvements	\$500,000	DDA Fund
Deferrable (Total - Projects \$0)		

* Reflects Total Cost of Project

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: September 1, 2015

Department: Downtown Development Authority

1. **Description of Project:**

A. **Project Title:** Community Gathering Area

B. **Location of Project:** Cascade Civic Complex Property (along 28th Street)

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land		New Purchase
	Building		Replace
	Vehicle	X	Develop / Improve
	Equipment		Construct /Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

The DDA Development Plan and the Parks and Recreation Master Plan call for a community gathering area to be created on the Township land between the Library and 28th Street. The DDA went through the conceptual planning process for the project this year, which includes an amphitheater, natural walking paths, a skate plaza/bouldering park and streetscape improvements. This project ranked as a high priority at a joint DDA/Planning Commission meeting in 2015, where 12 of 14 members ranked it an A or B.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$2,400,000
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	\$2,400,000

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

A.	Estimated annual maintenance & repair costs:	<u>\$15,000</u>
B.	Estimated annual cost of new staff (if any):	<u>None</u>
C.	Estimated annual cost of materials & supplies:	<u>\$5,000</u>

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund						
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other: DDA Fund or Donations		\$600,000	\$600,000	\$600,000	\$600,000	
Totals		\$600,000	\$600,000	\$600,000	\$600,000	

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2018-2021

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Sandra Korhorn – DDA Director

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: September 8, 2015

Department: Downtown Development Authority/General Fund

1. **Description of Project:**

A. **Project Title:** Purchase of Riverfront Properties

B. **Location of Project:** Cascade Rd/Thornapple River Drive

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land	X	New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment		Construct /Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

In the DDA plan, Master Plan and Strategic plan, it discusses the acquisition of land and the development of riverfront properties. This ranks very high in the joint DDA/Planning Commission meeting. 12 out of 14 people ranked this as an "A", Essential priority.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	\$3,000,000
Construction	
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	<i>\$3,000,000</i>

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: TBD
- B. Estimated annual cost of new staff (if any): None
- C. Estimated annual cost of materials & supplies: TBD

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund	TBD	TBD	TBD	TBD	TBD	TBD
Sewer Fund						
Water Fund						
Pathway Fund						
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other: DDA/Private	TBD	TBD	TBD	TBD	TBD	TBD
Totals	TBD	TBD	TBD	TBD	TBD	TBD

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:**

(Essential, Desirable, Acceptable, Deferrable)

Essential

9. **Recommended Year(s) for Implementation:**

As properties become available

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: _____
- B. Township Personnel: _____
- C. Other (specify): X (Township Staff, Law Weathers, Real Estate Prof.)

11. **Request Sheet Completed By:**

Sandra Korhorn – DDA Director

Cascade Charter Township 2017-2022 CIP Project Request Form

Date: 08-12-2015

Department: Downtown Development Authority

1. **Description of Project:**

A. **Project Title:** Pathway Extension – Cascade Rd (Part I)

B. **Location of Project:** Cascade Road – 28th Street to Villa Apts.

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct / Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Both the DDA Development Plan and the Village Area Complete Streets Plan call for the pathway system to be built on the south side of Cascade Road to facilitate pedestrian traffic in and out of the Village area and reduce the amount of times pedestrians need to cross Cascade Road when utilizing the pathway coming into the Village area. This section is pathway that would be in the DDA boundaries.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$400,000
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	<i>\$400,000</i>

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1,000
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund						
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other: DDA Fund			\$400,000			
Totals			\$400,000			

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:**

(Essential, Desirable, Acceptable, Deferrable)

Desirable

9. **Recommended Year(s) for Implementation:**

2019

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:**

Sandra Korhorn – DDA Director

Cascade Charter Township 2017-2022 CIP Project Request Form

Date: 08-12-2015

Department: Downtown Development Authority

1. **Description of Project:**

A. **Project Title:** Village Area Gateway Improvements

B. **Location of Project:** Cascade Road near Thornapple River Bridge

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct / Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Both the DDA Development Plan and the Village Area Complete Streets Plan call for an enhanced gateway feature into the DDA area. Preliminary conceptual design work on this has been done, but there are several issues that need to be resolved prior to construction. Because of the complexities of those issues, this project has been delayed several years.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	<i>\$500,000</i>
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	<i>\$500,000</i>

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

A.	Estimated annual maintenance & repair costs:	<u>\$1,000</u>
B.	Estimated annual cost of new staff (if any):	<u>None</u>
C.	Estimated annual cost of materials & supplies:	<u>\$500</u>

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund						
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other: DDA Fund						\$500,000
Totals						\$500,000

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:**

(Essential, Desirable, Acceptable, Deferrable)

Acceptable

9. **Recommended Year(s) for Implementation:**

2022

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:**

Sandra Korhorn – DDA Director

Cascade Charter Township
2017-2022 CIP Project Request Form

Date: 08-12-2015

Department: Downtown Development Authority

1. **Description of Project:**

A. **Project Title:** 28th Street Mid-Block Crossing

B. **Location of Project:** 28th Street between Kraft and Charlevoix

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
X	Land		New Purchase
	Building		Replace
	Vehicle		Develop / Improve
	Equipment	X	Construct / Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Currently there is no crossing point on 28th Street between Kraft and Charlevoix, where many individuals (including guests of the Crowne Plaza) are crossing to get to the restaurants on the north side of 28th Street. A mid-block crossing would provide safe passage for these pedestrians.

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	\$300,000
Equipment & furnishings	
Professional services	
Other (specify)	
Total Estimated Cost	<i>\$300,000</i>

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$1,000
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund						
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other: DDA Fund				\$300,000		
Totals				\$300,000		

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2020

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Sandra Korhorn – DDA Director

FY17 – FY22 CIP – Building Department

Building Department Fund (249)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
Totals	0	0	0	0	0	0	

*Project anticipated to be financed over a period of years

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - Projects \$0)		
Desirable (Total -Project \$0)		
Acceptable (Total -Projects \$0)		
Deferrable (Total - 0 Projects \$0)		

* Reflects Total Cost of Project

FY17 – FY22 CIP – Library Fund

Library Fund (270)							
Project Costs							
Project Title:	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
CCT Security System		25,000					25,000
Library Carpet Replacement				30,000			30,000
Totals		25,000	0	30,000	0	0	55,000

*Project anticipated to be financed over a period of years

<i>Projects</i>	<i>Project Need*</i>	<i>Funding Prospects</i>
Essential (Total - Projects \$0)		
<hr/>		
Desirable (Total -Project \$55,000)		
CCT Security System	\$25,000	Library Fund
Library Furniture and Fixtures	\$30,000	Library Fund
<hr/>		
Acceptable (Total -Projects \$0)		
<hr/>		
Deferrable (Total - Projects \$0)		
<hr/>		

* Reflects Total Cost of Project

Cascade Charter Township 2017-2022 CIP Project Request Form

Date: 09-01-2016

Department: Library

1. **Description of Project:**

A. Project Title: Cascade Library - CCT Security System

B. Location of Project: Cascade Library

C. Project Type: (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
	Land	X	New Purchase
	Building		Replace
	Vehicle		Develop / Improve
X	Equipment		Construct /Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

Cascade Library and Wisner Center have seen theft and damage, as well as issues in the parking lot. CCT system would provide an added security measure

3. **Alternatives to Proposed Project?**

None – continue to deal with issues as they arise

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	<i>\$25,000</i>
Professional services	
Other (specify)	
Total Estimated Cost	<i>\$25,000</i>

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$100
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund						
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other: Library Fund		\$25,000				
Totals		\$25,000				

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:** Desirable
 (Essential, Desirable, Acceptable, Deferrable)

9. **Recommended Year(s) for Implementation:** 2018

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:** Ben Swayze – Township Manager

Cascade Charter Township
2016-2021 CIP Project Request Form

Date: 09-12-2015

Department: Library

1. **Description of Project:**

A. **Project Title:** Cascade Library Carpet

B. **Location of Project:** Cascade Library

C. **Project Type:** (check appropriate item in each column)

<small>(Check here)</small>		<small>(Check here)</small>	
	Land		New Purchase
X	Building	X	Replace
	Vehicle		Develop / Improve
	Equipment		Construct / Repair / Renovate
	Other (specify below)		Other Specify below)

Other : (specify here):

2. **Justification for Project:** (Describe need for project, long term or short term benefits, other planning documents project may be included in, etc.)

In 2020 the Carpet at the Cascade Library will be 15 years old and ready for replacement

3. **Alternatives to Proposed Project?**

4. **Estimated Cost of Project:**

Vehicle purchase	
Land Acquisition	
Construction	
Equipment & furnishings	<i>\$30,000</i>
Professional services	
Other (specify)	
Total Estimated Cost	<i>\$30,000</i>

5. **Estimated Revenue from Project:**

Annual project income:	
Gain from sale of replace item:	
No income:	
Other revenue (specify):	
Total Revenue:	\$0

6. **Effect on Future Operating Costs:**

- A. Estimated annual maintenance & repair costs: \$500
- B. Estimated annual cost of new staff (if any): _____
- C. Estimated annual cost of materials & supplies: _____

(If this project replaces a vehicle or equipment, you may attach a sheet comparing operating cost of existing item with the proposed item to illustrate potential cost savings.)

7. **Proposed Method of Financing This Project*:**

Method \ Year	2017	2018	2019	2020	2021	2022
General Fund						
Sewer Fund						
Water Fund						
Pathway Fund						
Revenue Bonds						
G.O. Bonds						
Special Assessment						
Federal Grant						
State Grant						
Special Millage						
Other: Library Fund				\$30,000		
Totals				\$30,000		

* If funding of this project goes beyond 2022, please attach a proposed schedule to this page

8. **Department Ranking for this Project:**

(Essential, Desirable, Acceptable, Deferrable)

Desirable

9. **Recommended Year(s) for Implementation:**

2020

10. **Proposed Method of Implementation:** (check appropriate method)

- A. Contract Out: X
- B. Township Personnel: _____
- C. Other (specify): _____

11. **Request Sheet Completed By:**

Ben Swayze – Township Manager

MEMORANDUM

TO: Cascade Township Planning Commission
 FROM: Steve Peterson, Community Development Director
 DATE: November 7, 2016
 RE: Kent County Road Commission Five-Year Road Improvement Plans

For your information, I have reviewed the Kent County Road Commission's five-year (2017 - 2021) road improvement plan for Cascade Township and have listed the proposed projects in Cascade Township in the following table.

ROAD	PROJECT LIMITS	IMPROVEMENT
28 th St	Kraft Ave Intersection	Widen to accommodate dual lefts for eastbound traffic and signal upgrade to improve capacity.
Bridge over Thornapple River Dr (Bridge #27)	Just north of 60 th st (approximately .35 miles)	Culvert Rehabilitation
Cascade Rd	Whitneyville/Buttrick Ave to Quiggle	Sealcoating
Buttrick Ave	28 th to 36 th	Sealcoating
Local road overlays will be reviewed by KCRC maintenance department and Township Manager in the spring.		
2018		
Spaulding Ave	Cascade Rd south 800 feet	Add right turn lane
2019		
Kraft Ave	36 th St to 28 th St	Resurface
Patterson Ave	44 th St north 750 feet	Duel left turns – Capacity/safety Improvements
2020		
None		
2021		
none		