

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
OCTOBER 27, 2014
6:30 P.M.
AGENDA**

CALL TO ORDER:

PLEDGE OF ALLEGIANCE:

APPROVAL OF AGENDA:

CALL TO THE PUBLIC:

(Note: The Board reserves the right to not begin new business after 10:00 p.m.)

OPEN PUBLIC HEARING #1... Review of site plan, special use, and environmental impact assessment for proposed 86-bed student housing apartments, located on the south side of Grand River Avenue and east side of Grand Oaks Drive, at 3750 Cleary Drive, Howell, Michigan 48443., Parcel # 4711-05-400-062. The request is petitioned by Cleary University.

Planning Commission disposition of petition

- A. Recommendation of Special Use
- B. Recommendation of Environmental Impact Assessment (10-16-14)
- C. Recommendation of Site Plan (10-16-14)

Administrative Business:

- *Staff report*
- *Approval of October 14, 2014 Planning Commission meeting minutes*
- *Member discussion*
- *Adjournment*



GENOA CHARTER TOWNSHIP
Application for Site Plan Review

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: Judy Walker, VP Finance and Administration
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: Cleary University, 3750 Cleary Drive, Howell MI 48843

SITE ADDRESS: 3750 Cleary Drive, Howell, MI 48843 PARCEL #(s): 4711-05-400-062

APPLICANT PHONE: (734) 929-9092 OWNER PHONE: (800) 686-4646

OWNER EMAIL: jwalker@cleary.edu

LOCATION AND BRIEF DESCRIPTION OF SITE: Cleary University-Livingston Campus is
located on south side of Grand River in Howell. Site currently used for university classes.

BRIEF STATEMENT OF PROPOSED USE: Proposed student housing apartment with 86 beds
is proposed in the southeast portion of the site.

THE FOLLOWING BUILDINGS ARE PROPOSED: Proposed 3-story, 86-bed student housing
apartment.

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

BY: Judy Walker
ADDRESS: 3750 Cleary Drive Howell, MI 48843

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

1.) Mr. Brent LaVanway, P.E. of Boss Engineering at brentl@bosseng.com
Name Business Affiliation E-mail Address

FEE EXCEEDANCE AGREEMENT

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

SIGNATURE: Judy Walker DATE: 10-3-14
PRINT NAME: Judy Walker PHONE: 734-929-4092
ADDRESS: 3750 Cleary Drive Howell MI 48843



GENOA CHARTER TOWNSHIP
Special Land Use Application

This application must be accompanied by a site plan review application and the associated submittal requirements. (The Zoning Official may allow a less detailed sketch plan for a change in use.)

APPLICANT NAME & ADDRESS: Judy Walker, V.P. Finance and Administration

Submit a letter of Authorization from Property Owner if application is signed by Acting Agent.

APPLICANT PHONE: (734) 929-9092

EMAIL: jwalker@cleary.edu

OWNER NAME & ADDRESS: 3750 Cleary Drive, Howell, MI 48843

SITE ADDRESS: 3750 Cleary Drive, Howell, MI 48843

PARCEL #(s): 4711-05-400-062

OWNER PHONE: (800) 686-1883

EMAIL: _____

Location and brief description of site and surroundings:

Cleary University Livingston Campus on the south side of Grand River in Howell. Site currently used for university classes and proposed student housing. Site is surrounded by commercial and industrial properties, including Wal-Mart, GenTech Industrial Park, KFC, Wendy's, and Belle Tire.

Proposed Use:

A student housing apartment is proposed on site. Building to be 3 stories and contain 86 beds.

Describe how your request meets the Zoning Ordinance General Review Standards (section 19.03):

- a. Describe how the use will be compatible and in accordance with the goals, objectives, and policies of the Genoa Township Comprehensive Plan and subarea plans, and will promote the Statement of Purpose of the zoning district in which the use is proposed.

The proposed use is to house students on campus for Cleary University. This student housing apartment will create a stronger, more centralized university campus.

- b. Describe how the use will be designed, constructed, operated, and maintained to be compatible with, and not significantly alter, the existing or intended character of the general vicinity.

The intended use will compliment the businesses in the general vicinity by providing potential customers and employees for surrounding businesses.

- c. How will the use be served adequately by essential public facilities and services such as highways, streets, police and fire protection, drainage structures, water and sewage facilities, refuse disposal and schools?

The site will be accessed by Grand River Avenue. The site incorporates a stormwater detention system prior to its outlet into an existing storm outlet system. Adjacent property contains water lower and 16" water supply mains. Water will be extended to service the proposed building. Sanitary for the proposed building will be tied into the existing sanitary lift station on site.

d. Will the use involve any uses, activities, processes, or materials potentially detrimental to the natural environment, public health, safety, or welfare by reason of excessive production of traffic, noise, vibration, smoke, fumes, odors, glare, or other such nuisance? If so, how will the impacts be mitigated?

No negative impacts/nuisances will be produced.

e. Does the use have specific criteria as listed in the Zoning Ordinance (sections 3.03.02, 7.02.02, & 8.02.02)? If so, describe how the criteria are met.

Sec. 3.03.02 - Nothing

Sec. 7.02.02 - Nothing

Sec. 8.02.02 - Nothing

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AGREE TO DESIGN, CONSTRUCT AND OPERATE, AND MAINTAIN THESE PREMISES AND THE BUILDINGS, STRUCTURES, AND FACILITIES WHICH ARE GOVERNED BY THIS PERMIT IN ACCORDANCE WITH THE STATED REQUIREMENTS OF THE GENOA TOWNSHIP ZONING ORDINANCE, AND SUCH ADDITIONAL LIMITS AND SAFEGUARDS AS MAY BE MADE A PART OF THIS PERMIT.

THE UNDERSIGNED _____ STATES THAT THEY ARE THE FREE OWNER OF THE PROPERTY OF PROPERTIES DESCRIBED ABOVE AND MAKES APPLICATION FOR THIS SPECIAL LAND USE PERMIT.

BY: Judy Wall
ADDRESS: 3750 Cleary Drive Howell, MI 48843

Contact Information - Review Letters and Correspondence shall be forwarded to the following:		
Mr. Brent LaVanway, P.E.	of Boss Engineering	at brent@bosseng.com
Name	Business Affiliation	Email

FEE EXCEEDANCE AGREEMENT	
As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.	
SIGNATURE: <u>Judy Wall</u>	DATE: <u>10-3-14</u>
PRINT NAME: <u>Judy Walker</u>	PHONE: <u>734-929-9092</u>



October 22, 2014

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly VanMarter, AICP Assistant Township Manager/Community Development Director
Subject:	Cleary University student housing – Special Land Use and Site Plan Review #2
Location:	3750 Cleary Drive – south side of Grand River, between Grand Oaks and Latson Road
Zoning:	OSD Office Service District

Dear Commissioners:

At the Township’s request, we have reviewed the revised site plan (dated 10/16/14) proposing a new student apartment building for Cleary University.

The 29.6-acre site is currently developed with Cleary’s Livingston Campus. The site is zoned OSD, while surrounding zoning designations include RCD, NR-PUD and IND. We have reviewed the proposal in accordance with the applicable provisions of the Genoa Township Zoning Ordinance and Master Plan.

A. Summary

1. With the exception of the Master Plan’s statement for “high quality” building architecture, we are of the opinion that the general special land use standards of Article 19 are met.
2. Any issues raised by the Township Engineer or Brighton Area Fire Department must be addressed and/or properly mitigated.
3. The 3-story building is an allowable height exception for school/institutional buildings given the setbacks provided.
4. The proposed elevations, including colors and materials, are subject to review and approval by the Planning Commission.
5. The proposed building materials exceed the maximum allowable percentages for split-face CMU and EIFS.
6. The Master Plan calls for “high quality” buildings in this area. In order to achieve this, we believe the building materials and design need enhancement.
7. Planning Commission approval is needed for the amount of parking proposed (120% maximum versus 143% proposed).
8. We encourage the applicant to consider additional plantings elsewhere on campus if deficiencies exist.

B. Proposal

The applicant requests special land use approval and site plan review for a new student housing building on Cleary’s campus. The proposed building is 3-stories tall with a footprint of 12,787 square feet. The submittal notes that the building will contain space for up to 86 beds, including a mix of unit sizes. Sheet 3 of the submittal also identifies a future Phase 2 building mirroring the proposed building.

Student apartments that are accessory to a college are allowed in the OSD with special land use approval.



Aerial view of site and surroundings (looking north)

C. Special Land Use Review

Section 19.03 of the Zoning Ordinance identifies the following review criteria for Special Land Uses:

- 1. Master Plan.** The Township Master Plan and Future Land Use map identify the site as Research and Development, which is described as follows:

This area should be developed as a light industrial/R&D/office park. High quality building architecture should be utilized to convey a high quality image. Enhanced landscaping and screening should be provided along adjoining major thoroughfares.

While not specifically noted, a college and ancillary uses is a relatively consistent land use with R&D, which is typically envisioned as a campus-like setting. Our only concern with the project under this criterion relates to the recommendation for “high quality building architecture,” which is addressed in greater detail the site plan review component of this letter.

- 2. Compatibility.** This area of the Township contains a variety of uses, including public, office, commercial and industrial. The inclusion of student housing as part of an overall college campus is generally in keeping with the established uses in this area. There are a number of retail/service uses in the immediate area that will likely benefit from the proposed housing.
- 3. Public Facilities and Services.** Given the developed nature of the area and access off of the main roadway through the Township, we anticipate that necessary facilities and services are in place for the proposed development. However, we defer to the Township Engineer and Brighton Area Fire Department for specific comments under this criterion.

4. **Impacts.** Given the nature of existing and planned uses for the area, the proposal is not expected to create any adverse impacts on surrounding properties or roadways. In fact, the proposal may be a benefit to traffic conditions in that the students who would otherwise be driving to/from classes will now be housed on campus.
5. **Mitigation.** The Township may require mitigation necessary to limit or alleviate any potential adverse impacts as a result of the proposal. Any comments provided from an engineering or public safety perspective should be addressed as part of this criterion.

D. Site Plan Review

1. **Dimensional Requirements.** As described below, the project complies with the dimensional standards for the OSD:

District	Lot Size		Minimum Setbacks (feet)				Max. Height	Lot Coverage
	Lot Area (acres)	Width (feet)	Front Yard	Side Yard	Rear Yard	Parking		
OSD	1	100	70	20	40	20 front 10 side/rear	35' 2.5 stories	35% building 60% impervious
Proposal	29.6	216	878	69 (E)	251 (S)	10 side 190 rear	30' 3 stories*	5.5% building 19.8% impervious

* Section 11.01.05(a) allows school and other institutional buildings of up to 60 feet in height provided all setbacks meet or exceed the height of the building.

2. **Building Materials and Design.** The proposed elevations, including colors and materials, are subject to review and approval by the Planning Commission.

Primary building materials are a combination of split-face CMU and EIFS. Calculations are not provided, but it appears that these materials exceed the maximum allowable percentages found in Section 12.01.03.

As referenced in our special land use review above, the Master Plan specifically calls for “high quality building architecture” in this area. While the proposed building does possess some decorative elements, we do not believe the design and materials fully reflect the type of building envisioned by the Plan.

Although the Commission has some discretion over required building materials (Section 12.01.04), we recommend the applicant incorporate more “quality” materials consistent with the requirements of Section 12.01.03. Additionally, we are of the opinion that the building design would benefit from further enhancement. Specific suggestions, include:

- The lintel (header) treatments on many of the first and second floor windows could be replicated on the third floor as well as adding better defined window sills.
- Each of the entrances could be enhanced vertically with a more dramatic tower of floor-to-ceiling, wall-to-wall windows to make them more obvious and inviting.
- There are several blank portions of the facades that could be improved by additional bays of windows or vertical articulation of the building materials.

3. **Parking and Vehicular Circulation.** Based on the requirements for colleges and multi-family residential, Section 14.04 requires 58 parking spaces for the total site. The site currently provides 38 spaces, while an 83-space parking lot is included as part of this project.

Sheet 3 includes a breakdown of parking on-site, which is based on need/demand as opposed to the requirements of the Zoning Ordinance. As such, the proposed parking for the student housing exceeds the 120% limitation imposed by Section 14.02.06. Therefore, Planning Commission approval is needed, although the additional parking will likely be absorbed by others on campus.

The number of barrier free spaces and parking lot design comply with the requirements of Article 14.

4. **Pedestrian Circulation.** The site plan identifies an existing sidewalk along Grand River and internal sidewalks connecting the parking lot, proposed building and existing buildings.
5. **Vehicular Circulation.** Vehicular access will be via Cleary Drive through a driveway connection in the redeveloped parking lot northeast of the proposed student housing building.
6. **Loading.** Section 14.08 requires loading spaces “for each use involving the receipt or distribution of goods.” Given the nature of the proposed use, we do not feel a loading space is warranted in this instance.
7. **Landscaping.** We have reviewed the landscape plan based on the standards of Section 12.02. The only required plantings are tied to the parking lot and detention pond; however, we encourage the applicant to consider improvements to other areas of campus if deficiencies exist.

Location	Requirements	Proposed	Comments
Parking lot	9 canopy trees 830 SF of landscaped area	10 canopy trees 850 SF of landscaped area	In compliance
Detention pond	8 trees 80 shrubs	9 trees 85 shrubs	In compliance

8. **Waste Receptacle and Enclosure.** The project includes a new waste receptacle and enclosure south of the proposed building. Section 12.04 requires a rear yard or non-required side yard location, unless otherwise approved by the Planning Commission. The proposed placement, enclosure and base pad are compliant.
9. **Exterior Lighting.** The submittal includes a lighting plan (Sheet 7), which proposes the installation of 4 light poles within the parking lot and 6 wall mounted fixtures.

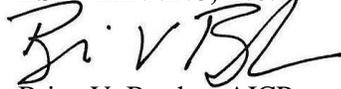
The pole mounted fixtures are at a height of 22 feet, the maximum footcandle reading is 10.0, and the proposed fixtures are downward directed and cut-off, all of which comply with Ordinance standards.

10. **Impact Assessment.** The submittal includes an Impact Assessment (dated 10/2/14)). In summary, the Assessment notes that the project is not anticipated to adversely impact natural features, public services/utilities, surrounding land uses or traffic.

Should you have any questions concerning this matter, please do not hesitate to contact our office. I can be reached by phone at (248) 586-0505, or via e-mail at borden@lslplanning.com.

Sincerely,

LSL PLANNING, INC.



Brian V. Borden, AICP
 Senior Planner



October 22, 2014

Ms. Kelly Van Marter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

Re: Cleary University Residence Hall Plan Review #2

Dear Ms. Van Marter:

We have reviewed the resubmitted special land use application and site plan documents for the Cleary University Residence Hall dated October 16, 2014, and delivered to the Township on that day. The petitioner also included a response letter indicating how they addressed our previous comments.

Tetra Tech has reviewed the documents and offers the following comments for consideration by the planning commission:

SUMMARY

1. Despite additional information provided, it is still recommended the Planning Commission require the applicant to service the site with gravity sanitary sewer.
2. The proposed route for the future water main loop should be included on the site plan for consideration, as the water main will ultimately become a part of the public water system.

SANITARY SEWER

1. The Genoa Township Utility Department strongly discourages the installation of new pump stations, as these have mechanical and electrical parts that ultimately increase the long term operation and maintenance of the sanitary sewer system due to ongoing costs associated with both labor and electricity. In addition, they are a liability, as mechanical or power failures can and do cause sanitary sewer backups.
2. The Genoa-Oceola Sanitary Sewer System has documented capacity concerns with the existing gravity sanitary sewer along Grand River Avenue. The major area of concern is just east of Grand Oaks, where the pipe is very near capacity. The petitioner is proposing to add more flow to this area, which should be avoided.
3. The Township is aware that Cleary University is Master Planning this site for future dormitory buildings and sporting venues with water and sanitary sewer utilities eventually being required for those facilities as well. All of the vacant land to the west of this development can be served by a gravity system that is installed with an outlet to Grand Oaks Drive. This new gravity will be more

Tetra Tech

401 South Washington Square, Suite 100, Lansing, MI 48933
Tel 517.316.3930 Fax 517.484.8140 www.tetrattech.com

accessible for future connections than the proposed pump station, which would be located uphill of the future development.

- There are two viable outlets on Grand Oaks for a new gravity sewer that can serve the proposed finished floor elevation approximately 1,500 linear feet away. The first is located on Cleary, just east of Grand Oaks with an elevation of 981.50. The second option is to outlet directly to Pump Station #7 (PS-7), with an invert elevation around 963.00. The Township has indicated they would be happy to assist with obtaining an easement on the property directly west of Cleary to outlet directly to PS-7.
4. It is anticipated that the cost associated with a new gravity sewer would be in the same range as the current proposal (a new pump station and 4-inch force main to Grand River).
 5. The existing building located north of the proposed building could be served by the new gravity sanitary sewer system, which would eliminate the need for the existing pump station. It is recommended the existing pump station be abandoned and the existing building be connected to the new gravity sanitary sewer system.
 6. Construction plans shall be submitted to the MHOG Utility Department to start the permitting and inspection requirements for the proposed sanitary sewer that will be publically owned and maintained.
 7. The petitioner will be required to record easements with the Township for the proposed municipal water and sanitary sewer systems to provide access for future maintenance and repair of the dedicated public utilities.

WATER MAIN

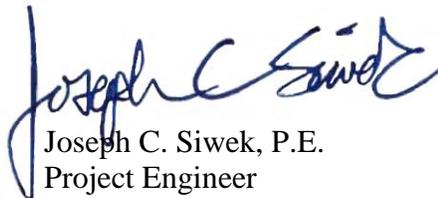
1. Looped water mains provide more reliable water service, increased pressure, and increased fire flow. The plans removed the route of the proposed water main for the portion of the main to be constructed with the second dormitory building, and added a note to state the water main would be looped during future construction phases. Petitioner needs to indicate the route of this proposed water main for the Utility Department to consider as part of the plan review. During construction plan review of the water main, the MHOG water model will be analyzed to determine if the proposed water main loop will provide the most benefit to the site connecting to existing water main to the east or to the south.

The Township should consider these issues in your discussion on the site plan application. The petitioner should revise and resubmit the site plan along with an updated impact assessment to address the above comments prior to approval. Please call if you have any questions.

Sincerely,



Gary J. Markstrom, P.E.
Unit Vice President



Joseph C. Siwek, P.E.
Project Engineer

copy: Brent LaVanway, P.E., Boss Engineering



BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.
Brighton, MI 48116
o: 810-229-6640 f: 810-229-1619

October 21, 2014

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: Cleary University – Residence Hall
3750 Cleary Drive
Revised Site Plan Review – Student Housing Apartment Phase 1

Dear Kelly:

The Brighton Area Fire Department has reviewed the above mentioned site plan. The plans were received for review on October 17, 2014 and the drawings are dated October 16, 2014. The project is based on a new 3 story, 12,787 square foot building student housing apartment building (R-2 Use) on the campus of the University. The plan review is based on the requirements of the International Fire Code (IFC) 2012 edition. Additional comments are being provided for the existing educational buildings and the access them.

The following items marked as **NOT CORRECTED** are being requested to be addressed prior to a full fire department recommendation:

Access Requirements:

1. **NOT CORRECTED:** The minimum turning radius along the fire apparatus access drive shall be 50' outside radius measured to the inside of the curb. The configuration of the main entry to the apartment building through the parking lot appears to be difficult to maneuver for fire apparatus and does not meet this minimum standard. *The access from the north side of Apt. #1 to the east side of Apt. #1 does not appear to meet this standard.*
IFC 503.2.4
2. **NOT CORRECTED:** The access road into the site shall be a minimum of 26' wide. As proposed, the width proposed is between 30' and 24'. With a width of 26' wide, one side of the street shall be marked as a fire lane. Include the location of the proposed fire lane signage and include a detail of the fire lane sign in the submittal. *The access drive from the main parking lot and the drive on the east side of Apt. #1 need to be increased to 26'.*
IFC D 105
3. **CORRECTED:** *Access roads to site shall be provided and maintained during construction.* Access roads shall be constructed to be capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds.
IFC 503.2.3



4. **Corrected:** The turn-around at the end of the access drive south of the new building shall be increased in length to accommodate a fire apparatus turn-around.

IFC D103.1

Fire Protection Features:

5. **Corrected:** The new fire hydrant (Hyd 01) located north of the new building should be relocated so that it is not located behind parked cars. The corner landscape area next to the handicap parking, or the parking island north of the handicap parking are two acceptable alternatives.

IFC C 102.1

6. **Corrected:** The building shall be provided with an automatic sprinkler system in accordance with NFPA 13, *Standard for the Installation of Automatic Sprinkler Systems*.

IFC 903

- A. The FDC shall be located on the front of the building within 100' of a fire hydrant.
- B. The size, gate valve, and connection of the fire protection lead shall be indicated on the utility site plan.

General Comments:

7. **To Be Field Verified:** The building shall include the building address on the building. The address shall be a minimum of 6" high letters of contrasting colors and be clearly visible from the street. The location and size shall be verified prior to installation.

IFC 505.1

8. **To Be Field Verified:** The location of a key box (Knox Box) shall be indicated on future submittals. The Knox box will be located adjacent to the front door of the structure.

IFC 506.1

Additional Comments Regarding Existing Buildings:

9. **Not Addressed, Request Additional Discussion:** The access to the existing south educational building is severely lacking causing concern over the fire department's ability to reach this structure in the event of an emergency. It appears that the second phase may improve some accessibility to this building but it will still be lacking proper access. The applicant is asked to improve the existing gravel drive southwest of the existing building to be paved, 26' wide and capable of supporting 75,000 pounds.

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

Michael Evans, EFO, CFPS
Deputy Fire Chief



2911 Dorr Road
Brighton, MI 48116
810.227.5225
810.227.3420 fax
genoa.org

MEMORANDUM

TO: Brent Lavanway, Boss Engineering

FROM: Kelly VanMarter, Assistant Township Manager/Community Development Director

DATE: October 17, 2014

RE: Cleary University – Student Housing

This memo will describe the connection fees required for the proposed 21 unit/86 bed student housing apartment building. Each unit in the housing building equates to 1 REU.

21 units @ 1 REU per apartment unit =	21 REU
New Connection Charge	21 REU

Water	21 REU @ \$7,900	\$165,900.00
Sewer	21 REU @ \$7,200	\$151,200.00
Total Due:		\$ 317,100

Connection Fees must be paid at time of land use permit issuance.

SUPERVISOR

Gary T. McCririe

CLERK

Paulette A. Skolarus

TREASURER

Robin L. Hunt

MANAGER

Michael C. Archinal

TRUSTEES

H. James Mortensen

Jean W. Ledford

Todd W. Smith

Linda Rowell

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
NOTICE OF PUBLIC HEARING
OCTOBER 27, 2014
6:30 P.M.**

The Genoa Township Planning Commission will hold a public hearing at 6:30 p.m. on October 27, 2014 requesting recommendation of the following:

OPEN PUBLIC HEARING #1... Review of a special use application, impact assessment and site plan for proposed student housing apartments with 86 beds. The property in question is located on the south side of Grand River Avenue and east side of Grand Oaks Drive, at 3750 Cleary Drive, Howell, Michigan 48443. The request is petitioned by Cleary University.

Please address any written comments to the Genoa Township Planning Commission at 2911 Dorr Rd, Brighton, MI 48116 or via email at kathryn@genoa.org. All materials relating to this request are available for public inspection at the Genoa Township Hall prior to the hearing.

Genoa Township will provide necessary reasonable auxiliary aides and services to individuals with disabilities who are planning to attend. Please contact the Genoa Township Hall at (810) 227-5225 in advance of the meeting if you need assistance.

10-12-2014 DAILY 216176



2911 Dorr Road
Brighton, MI 48116
810.227.5225
810.227.3420 fax
genoa.org

October 2, 2014

To Whom It May Concern:

There will be a hearing for a Special Land Use Permit in your general vicinity on Monday, October 27 at 6:30 p.m. at Genoa Township Hall, located at 2911 Dorr Road, Brighton, Michigan.

The property in question is located on the south side of Grand River Avenue and east side of Grand Oaks Drive, at 3750 Cleary Drive, Howell, Michigan 48443. The Special Land Use has been requested for proposed student housing apartments with 86 beds. The request is petitioned by Cleary University.

Materials relating to this request are available for public inspection at the Genoa Township Hall during regular business hours. If you have any questions or objections in this regard, please be present at the public hearing noted above. Written comments may be addressed to the Planning Commission.

Sincerely,

Kelly VanMarter
Assistant Township Manager / Community Development Director
KKV/kp

SUPERVISOR
Gary T. McCririe

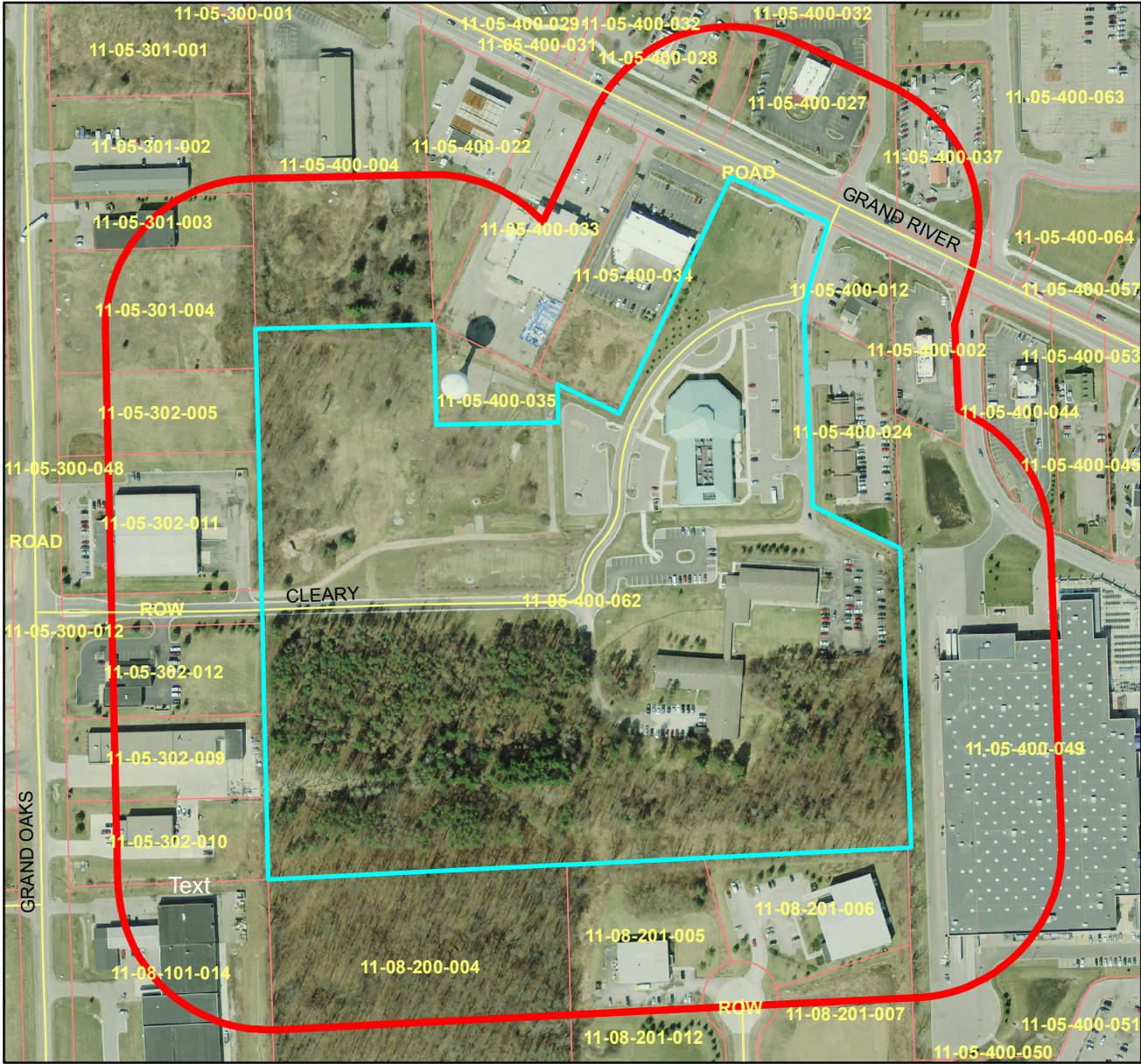
CLERK
Paulette A. Skolarus

TREASURER
Robin L. Hunt

MANAGER
Michael C. Archinal

TRUSTEES
H. James Mortensen
Jean W. Ledford
Todd W. Smith
Linda Rowell

300 ft Buffer for Noticing



Planning Commission Case #14-15
Applicant: Cleary University
Parcel # 4711-05-400-062
Meeting Date: October 27, 2014

TACO BELL CORP - TAX UNIT 004678
PO BOX 35370
LOUISVILLE, KY 40232-5370

OCCUPANT
3653 E GRAND RIVER
HOWELL, MI 48843

SPEEDWAY - PROP TAX DEPT
539 SOUTH MAIN STREET
FINDLAY, OH 45840

OCCUPANT
3598 E GRAND RIVER
HOWELL, MI 48843

RDC ENTERPRISES III LLC
PO BOX 469
PINCKNEY, MI 48169

OCCUPANT
3670 E GRAND RIVER
HOWELL, MI 48843

RAND ASSOC - HERBERT RICKERT
1270 RICKETT RD
BRIGHTON, MI 48116

OCCUPANT
3652 E GRAND RIVER
HOWELL, MI 48843

MHOG WATER AUTHORITY - GO
TOWER
2911 DORR RD
BRIGHTON, MI 48116

CLEARY UNIVERSITY
3750 CLEARY DRIVE
HOWELL, MI 48843

RNS HOWELL LLC
5215 OLD ORCHARD RD STE #760
SKOKIE, IL 60077

OCCUPANT
3780 E GRAND RIVER
HOWELL, MI 48843

KIEFER INVESTMENT
3550 CEDAR LAKE RD
HOWELL, MI 48843

OCCUPANT
1105 GRAND OAKS DR
HOWELL, MI 48843

DEVELOPERS DIVERSIFIED - PROP TAX
3300 ENTERPRISE PARKWAY
BEACHWOOD, OH 44122

OCCUPANT
3669 E GRAND RIVER
HOWELL, MI 48843

CHATA 256 LLC
714 W MICHIGAN
JACKSON, MI 49201

OCCUPANT
3669 E GRAND RIVER
HOWELL, MI 48843

MCDONALD'S CORP 21-1123
PO BOX 182571
COLUMBUS, OH 43218-2571

OCCUPANT
3781 E GRAND RIVER
HOWELL, MI 48843

FLEUR DE LYS APARTMENTS
30100 TELEGRAPH RD STE 403
FRANKLIN, MI 48025

OCCUPANT
887 GRAND OAKS DR
HOWELL, MI 48843

RSK COMPANIES LLC
4777 NEWHAVEN DR
HOWELL, MI 48843

OCCUPANT
895 GRAND OAKS DR
HOWELL, MI 48843

SCHMALZRIED PROPERTIES
PO BOX 208
UNION LAKE, MI 48387

OCCUPANT
3600 E GRAND RIVER
HOWELL, MI 48843

L&H REALTY ENTERPRISES LLC
1172 FENDT DR #100
HOWELL, MI 48843

HIGHLAND ENGINEERING, INC.
1153 GRAND OAKS DR
HOWELL, MI 48843

KIEFER INVESTMENTS
3550 CEDAR LAKE RD
HOWELL, MI 48843

OCCUPANT
1125 GRAND OAKS DR
HOWELL, MI 48843

R & K ENTERPRISES OF HOWELL LLC
1167 FENDT DR
HOWELL, MI 48843

LIV CTY ROAD COMMISSION - EMS
BLDG
3535 GRAND OAKS DR
HOWELL, MI 48843

WAL-MART #DIVISION-STORE #1754
DEPT 0555
PO BOX 8050 MS 0555
BENTONVILLE, AR 72712-8050

OCCUPANT
3850 E GRAND RIVER
HOWELL, MI 48843

MCM PROPERTIES, LLC
6728 ROBB RD
FOWLerville, MI 48836

OCCUPANT
1085 GRAND OAKS DR
HOWELL, MI 48843

BRIGGS & ALLISON HOWELL LLC
1212 FENDT DR
HOWELL, MI 48843

WHITE CASTLE MICHIGAN LLC
555 W GOODALE STREET
COLUMBUS, OH 43215

OCCUPANT
3832 E GRAND RIVER
HOWELL, MI 48843

RHODES DON & SHIRLEY
1247 FENDT DR.
HOWELL, MI 48843

OCCUPANT
1183 FENDT DR
HOWELL, MI 48843

**IMPACT ASSESSMENT
FOR
“CLEARY UNIVERSITY STUDENT HOUSING APARTMENT”
GENOA TOWNSHIP
LIVINGSTON COUNTY, MI**

Prepared for:

**UNIVERSITY HOUSING SOLUTIONS, LLC
c/o Mr. Alan Price
90 Hidden Ravines Drive
Powell, OH 43065**

Prepared by:

**BOSS ENGINEERING COMPANY
3121 E. GRAND RIVER
HOWELL, MICHIGAN 48843
517-546-4836
BE Project No. 14-175**

October 2, 2014

INTRODUCTION

The purpose of this Impact Assessment (IA) report is to show the effect that this proposed development has on various factors in the general vicinity of the project. The format used for presentation of this report conforms to the *Submittal Requirements For Impact Assessment/Impact Statement* guidelines in accordance with Section 13.05 of the published Zoning Ordinance for Genoa Township, Livingston County, Michigan.

DISCUSSION ITEMS

A. Name(s) and address(es) of person(s) responsible for preparation of the impact assessment and a brief statement of their qualifications.

Prepared By :
BOSS ENGINEERING COMPANY
3121 E. Grand River
Howell, Michigan 48843
Phone: 517-546-4836

Prepared For:
Mr. Alan Price
University Housing Solutions, LLC
90 Hidden Ravines Drive
Powell, OH 43065

B. Description of the site, including existing structures, man made facilities, and natural features, all-inclusive to within 10' of the property boundary.

The subject site is located on the south side of Grand River Avenue, southeast of Cleary Drive and east of Grand Oaks Drive. The site improvement is located ON property owned by Cleary University. The acreage of the property affected is 29.60 acres. The property is located in the Northwest ¼ of Section 5, T2N-R5E, Genoa Township, Livingston County, Michigan. Current zoning of the site is OSD (Office Service District).

A paved parking lot exists currently where the site is to be developed.

The site is gently rolling with areas of steeper slopes and generally slopes from the Southeast to Northwest. Elevations vary between 1010.0± and 993.0±, respectively. Stormwater management for the site includes sheet flow to a swale just east of the existing Chrysler building on site and flows into a 30" concrete culvert that goes under the Chrysler building. The water continues west toward Grand Oaks Drive. The existing Walmart store to the east of the site has a detention basin outlet that flows westerly along the southern property boundary.

Existing on-site utilities include overhead wires, a sanitary lift station, gas and electric services. A 16" watermain is located just northwest of the area of impact on the site between the two existing Cleary University buildings.

Adjacent properties include:

- South – GenTech Industrial Park (zoned IND)
- North – Belle Tire, Aco Hardware, Wendy's, McDonalds, KFC (zoned RCD)
- East – Walmart (zoned NRPUD)
- West – Industrial Buildings (zoned IND)

C. Impact on natural features: A written description of the environmental characteristics of the site prior to development, i.e., topography, soils, vegetative cover, drainage, streams, creeks or ponds.

As previously mentioned, subject site is gently rolling with areas of steeper slopes and generally slopes from the Southeast to the Northwest. Site elevations vary between 1010.0± and 993.0±. The USDA Soil Conservation Service "Soil Survey of Livingston County, Michigan", indicates native site soils consist of:

1. MIAMI LOAM (MoB), 2% to 6% slopes. Surface runoff is slow, permeability is moderate, and erosion hazard is slight.
2. MIAMI LOAM (MoE), 18% to 25% slopes. Surface runoff is rapid, permeability is moderate, and erosion hazard is severe.

Vegetative cover for the site includes lawn, low brush cover, and moderate canopy cover with a mixture of evergreen and deciduous trees.

The National Wetland Inventory Plan prepared by the United States Department of the Interior, Fish and Wildlife Service indicates that there are no wetlands located on the site.

Site drainage from the proposed site will utilize both swales and storm sewer. All site drainage will be directed into a proposed detention basin on site. The outlet of the proposed detention basin – alongside the southern corner of the existing Chrysler building - will outlet into the existing storm outlet system that runs adjacent to the southern property line.

D. Impact on storm water management: description of soil erosion control measures during construction.

Surface runoff during periods of construction will be controlled by proper methods set forth by the Livingston County Drain Commissioner. These methods shall include silt fence, silt sacks, and seeding with mulch and/or matting.

At the time of construction, there may be some temporary dust, noise, vibration and smoke, but these conditions will be of relatively short duration and shall be controlled by applying appropriate procedures to minimize the effects, such as watering if necessary for dust control.

E. Impact on surrounding land use: Description of proposed usage and other man made facilities; how it conforms to existing and potential development patterns. Effects of added lighting, noise or air pollution which could negatively impact adjacent properties.

The applicant is proposing to construct a new 86 bed student housing apartment and parking lot. The property on which site development is located is OSD (Office Service District). The proposed building conforms to the existing and potential land development patterns in the area. A Special Use permit will be required.

Proposed improvements will enhance current site conditions. There is an existing parking lot on site that services the existing Chrysler building, with a primary use for university classes for Cleary University. The parking lot is in poor condition and will be replaced with an improved lot. There is a significant amount of trees/brush south of the existing parking lot that will need to be cleared. There are no significant natural features on site. Site improvements planned with the residence hall and parking lot, include the establishment of an open lawn space and landscaped areas. The landscaping meets the Genoa Township standards.

The layout was prepared taking into account the topography in order to balance the amount of earthwork required for proposed use. Site drainage will be controlled via swales and storm sewers and will be restricted to Livingston County Drain Commission standard outlet rates. The proposed

basin will accommodate the site improvements and enhance the site storm drainage pattern overall. All areas being developed currently drain through a 30" concrete culvert that runs underneath the Chrysler building. The proposed development routes the storm water into a basin that releases into an existing outlet (from the Walmart property to the east) which is then released into a county drain further west of the area of impact on the property.

Cleary Drive presently experiences a medium volume of traffic along with associated noise level generated from commercial vehicles. It is anticipated the proposed student housing apartment will cause no significant increase in traffic volume. The proposed residence hall is expected to accommodate some of the growth of the student enrollment as well as some of the existing students whom commute. The classrooms and other university facilities are centrally located and within close proximity which will reduce the use of vehicles by the residences.

Additional lighting is proposed on site and is to be directed away from adjacent properties to limit adverse affects of lighting. Existing and proposed landscaping along the property boundary will help serve as a visual buffer and as a noise buffer. Additional noise created by the residence will be minimal and due to the nature of the adjacent properties, rear of Walmart building to the east and Industrial facilities to the south, there will be no impact. There will be no increase in the amount of odor emanating from the site.

F. Impact on public facilities and services: Description of number of residents, employees, patrons, and impact on general services, i.e., schools, police, fire.

The student housing apartment is proposed to consist of 86 beds. This is an immediate increase of the number of people on site, other than typical university class hours. Normal police and fire protection services are anticipated.

G. Impact on public utilities: Description of public utilities serving the project, i.e., water, sanitary sewer, and storm drainage system. Expected flows projected in residential units.

There are new water, sanitary, and storm sewer drainage services proposed for the student housing apartment. A storm water system is proposed throughout the proposed parking lot and release into a proposed basin to the west of the residence hall. An existing 16" water main is proposed to be tapped to service the residence hall and hydrants on site. There is an existing sanitary lift station on site and is just north of the proposed residence hall. A new sanitary sewer is proposed to tie into the system to accommodate the additional waste flows from the proposed residence hall.

H. Storage or handling of any hazardous materials: Description of any hazardous materials used, stored, or disposed of on-site.

Cleary University will not be storing or handling any hazardous materials in this building.

I. Impact on traffic and pedestrians: Description of traffic volumes to be generated and their effect on the area.

The proposed student housing apartment will house students who currently live in apartment complexes in the surrounding community. The proposed housing apartment will be dedicated to housing these local commuter students first. This will reduce the trips generated to and from campus. Based on the Institute of Transportation Engineers, Trip Generation 6th edition, an average student on weekdays generates 2.38 trip ends. The housing apartments are proposed to have 84 beds therefore creating a site reduction of 200 trips (84 students x 2.38 trips/student). The reduction will be on Grand River Avenue. Students will have pedestrian access to Wal-Mart and nearby restaurants.

J. Special provisions: Deed restrictions, protective covenants, etc.

There are no special provisions for this development.

K. Description of all sources:

- Genoa Township Zoning Ordinance
- "Soil Survey of Livingston County, Michigan" Soil Conservation Services, U.S.D.A.
- National Wetlands Inventory, U.S. Department of Interior, Fish and Wildlife Service
- Cleary University Topographic Surveys (BE #04148 - April 2004) (BE #14-175 – July 2014)
- ITE, Trip Generation Manual, 6th edition



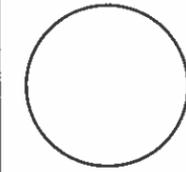
PROPOSED SOUTH ELEVATION



PROPOSED NORTH ELEVATION

PRELIMINARY - NOT FOR CONSTRUCTION

ARCHITECT OF RECORD
BRIAN BAUER
EXPIRATION #/##



mkc
ASSOCIATES, INC.

- ARCHITECTURE
- ENGINEERING
- PLANNING

49 W. 4th STREET
MANSFIELD, OHIO 44902
PHONE: 419-825-1100
FAX: 419-825-1428

COLUMBUS
MANSFIELD
NEW PHILADELPHIA
www.mkcinc.com

CONSULTANTS

**NEW RESIDENTIAL
BUILDING AT
CLEARY UNIVERSITY
FOR**

**UNIVERSITY
HOUSING
SOLUTIONS**

**HOWELL
MICHIGAN**

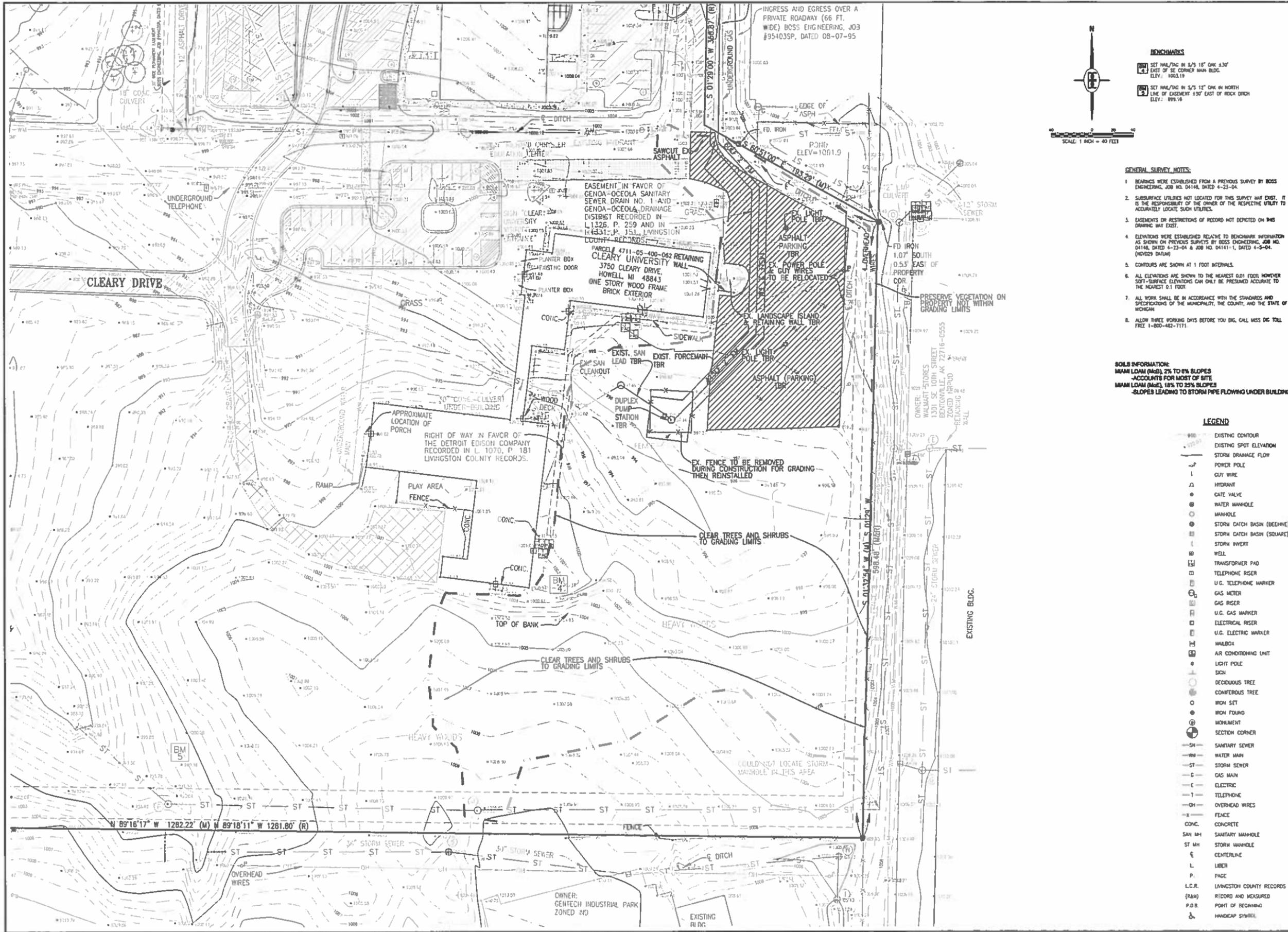
SUBMITTED: 10/1/2014

REVISIONS		
MARK	DATE	DESCRIPTION
△		
△		
△		
△		

DESIGN BY: PROJ. MGR.
SHEET CONTENT

Renderings

JOB NO. 14-085 SHEET A-202



BENCHMARKS

BM 1 SET NAIL/BAG IN S/S 18" CONC 4.50' EAST OF SE CORNER MAIN BLDG. ELEV. 1003.19

BM 2 SET NAIL/BAG IN S/S 12" CONC IN NORTH LINE OF EASEMENT 4.50' EAST OF ROCK DITCH. ELEV. 899.16

GENERAL SURVEY NOTES:

- BENCHMARKS WERE ESTABLISHED FROM A PREVIOUS SURVEY BY BOSS ENGINEERING, JOB NO. 04148, DATED 4-23-04.
- SUBSURFACE UTILITIES NOT LOCATED FOR THIS SURVEY MAY EXIST. IT IS THE RESPONSIBILITY OF THE OWNER OF THE RESPECTIVE UTILITY TO ACCURATELY LOCATE SUCH UTILITIES.
- EASEMENTS OR RESTRICTIONS OF RECORD NOT DEPICTED ON THIS DRAWING MAY EXIST.
- ELEVATIONS WERE ESTABLISHED RELATIVE TO BENCHMARK INFORMATION AS SHOWN ON PREVIOUS SURVEYS BY BOSS ENGINEERING, JOB NO. 04148, DATED 4-23-04 & JOB NO. 04141-1, DATED 4-5-04. (NOX229 DATA)
- CONTOURS ARE SHOWN AT 1 FOOT INTERVALS.
- ALL ELEVATIONS ARE SHOWN TO THE NEAREST 0.01 FOOT; HOWEVER, SOFT-SURFACE ELEVATIONS CAN ONLY BE PRESUMED ACCURATE TO THE NEAREST 0.1 FOOT.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY, THE COUNTY, AND THE STATE OF MICHIGAN.
- ALLOW THREE WORKING DAYS BEFORE YOU DIG. CALL MISS DG TOLL FREE 1-800-482-7171.

SOILS INFORMATION:
 MAAM LOAM (M&S), 2% TO 6% SLOPES
 -ACCOUNTS FOR MOST OF SITE
 MAAM LOAM (M&S), 18% TO 25% SLOPES
 -SLOPES LEADING TO STORM PIPE FLOWING UNDER BUILDING

LEGEND

- EXISTING CONTOUR
- - - EXISTING SPOT ELEVATION
- STORM DRAINAGE FLOW
- POWER POLE
- GUY WIRE
- HYDRANT
- GATE VALVE
- WATER MANHOLE
- MANHOLE
- STORM CATCH BASIN (BEEHIVE)
- STORM CATCH BASIN (SQUARE)
- STORM INVERT
- WELL
- TRANSFORMER PAD
- TELEPHONE RISER
- U.G. TELEPHONE MARKER
- GAS METER
- GAS RISER
- U.G. GAS MARKER
- ELECTRICAL RISER
- U.G. ELECTRICAL MARKER
- MAILBOX
- AIR CONDITIONING UNIT
- LIGHT POLE
- SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- IRON SET
- IRON FOUND
- MONUMENT
- SECTION CORNER
- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- GAS MAIN
- ELECTRIC
- TELEPHONE
- OVERHEAD WIRES
- FENCE
- CONC.
- CONCRETE
- SAN MH
- ST MH
- CENTERLINE
- LIBER
- PAGE
- L.C.R.
- (R&M)
- P.D.B.
- HANDICAP SYMBOL

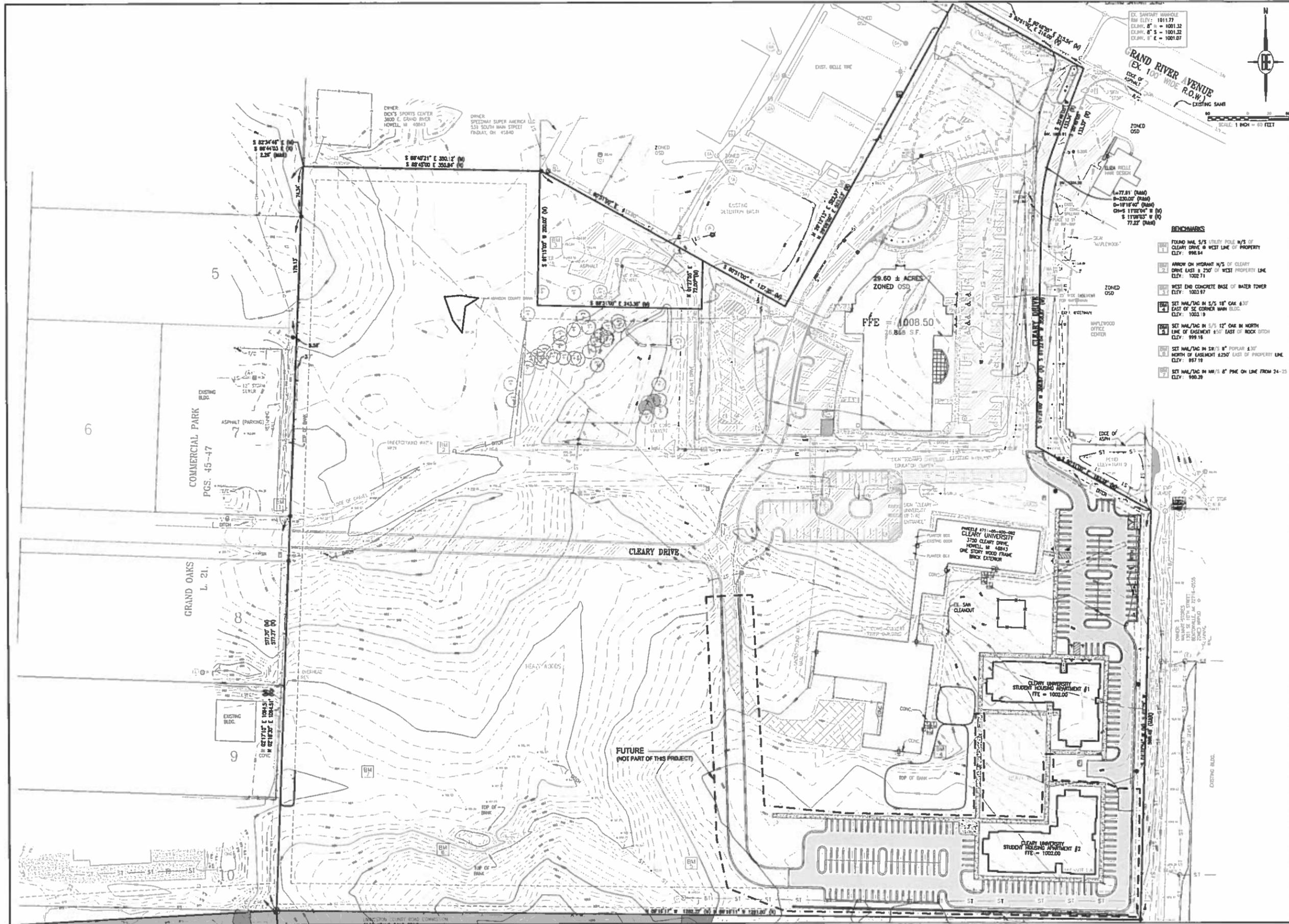
THE LOCATION AND PLACEMENT OF CERTAIN UTILITIES ARE SHOWN AS SHOWN ON PREVIOUS SURVEYS BY BOSS ENGINEERING, JOB NO. 04148, DATED 4-23-04 & JOB NO. 04141-1, DATED 4-5-04. (NOX229 DATA) THE LOCATION AND PLACEMENT OF CERTAIN UTILITIES ARE SHOWN AS SHOWN ON PREVIOUS SURVEYS BY BOSS ENGINEERING, JOB NO. 04148, DATED 4-23-04 & JOB NO. 04141-1, DATED 4-5-04. (NOX229 DATA) THE LOCATION AND PLACEMENT OF CERTAIN UTILITIES ARE SHOWN AS SHOWN ON PREVIOUS SURVEYS BY BOSS ENGINEERING, JOB NO. 04148, DATED 4-23-04 & JOB NO. 04141-1, DATED 4-5-04. (NOX229 DATA)

BOSS Engineering
 Engineers Surveyors Planners Landscape Architects
 3121 E. GRAND RIVER AVE.
 HOWELL, MI. 48843
 800.246.6735 FAX 517.548.1670

PROJECT: CLEARY UNIVERSITY STUDENT HOUSING APARTMENT
PREPARED FOR: UNIVERSITY HOUSING SOLUTIONS, LLC
 90 HIDDEN RAVINES DRIVE
 BEAVERVILLE, AK 72716-0565
 (863) 711-7788

DATE: 10/16/14
DESIGNED BY: ST
DRAWN BY: ST
CHECKED BY: ST
SCALE: 1" = 40'
JOB NO.: 14-292
DATE: 10/2/14
SHEET NO.: 2

EXISTING CONDITIONS & DEMOLITION PLAN



EX. SURVEY MONUMENT
 BM ELEV. = 1011.77
 CLEARLY, 8" S - 1001.32
 CLEARLY, 8" S - 1001.32
 CLEARLY, 8" E - 1001.07

GRAND RIVER AVENUE
 (EX. 100' WIDE R.O.W.)
 EXISTING SAWH
 ZONED OSD

SCALE: 1" = 60' FEET

BENCHMARKS

- 1 FOUND 1/4" S/S UTILITY POLE N/S OF CLEARLY DRIVE @ WEST LINE OF PROPERTY ELEV. = 998.64
- 2 ARROW ON HYDRANT N/S OF CLEARLY DRIVE EAST @ 250' OF WEST PROPERTY LINE ELEV. = 1002.71
- 3 WEST END CONCRETE BASE OF WATER TOWER ELEV. = 1003.97
- 4 SET NAIL/TAG IN S/S 18" OAK 430' EAST OF SE CORNER MAIN BLDG. ELEV. = 1003.19
- 5 SET NAIL/TAG IN S/S 12" OAK IN NORTH LINE OF EASEMENT 450' EAST OF ROCK DITCH ELEV. = 999.19
- 6 SET NAIL/TAG IN S/S 8" POPLAR 430' NORTH OF EASEMENT 4250' EAST OF PROPERTY LINE ELEV. = 987.19
- 7 SET NAIL/TAG IN 1/4" 8" PINE ON LINE FROM 24'-13" ELEV. = 990.39

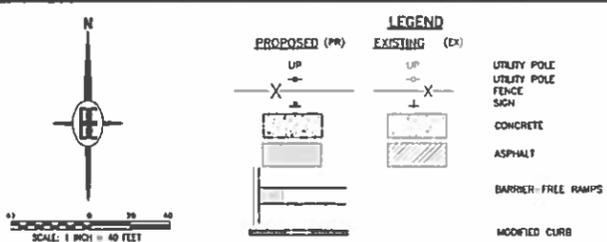
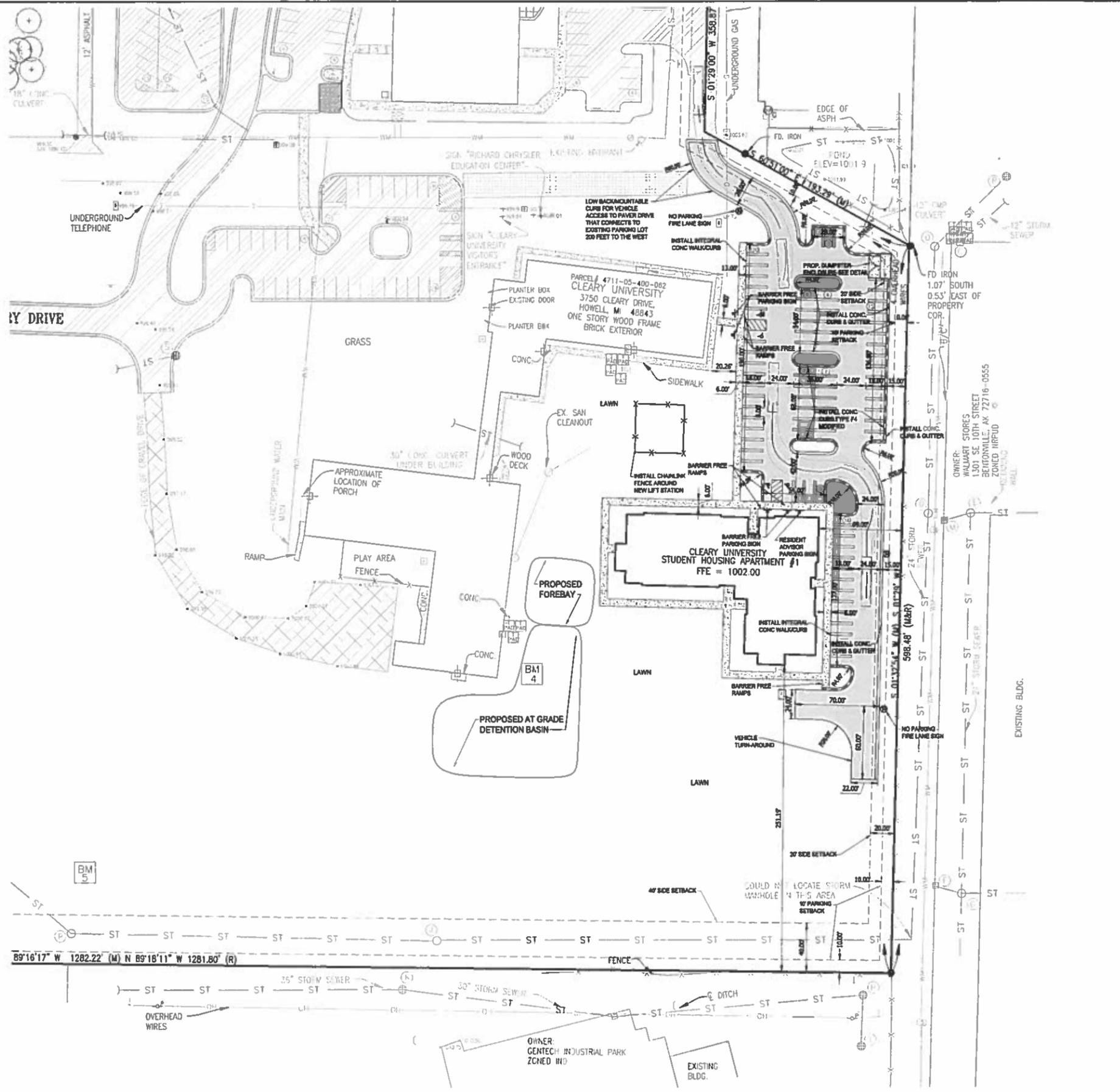
DEBOSS Engineering
 Engineers Surveyors Planners Landscape Architects

3121 E. GRAND RIVER AVE.
 HOWELL, MI. 48843
 800.246.6735 FAX 517.548.1670

CLEARLY UNIVERSITY STUDENT HOUSING APARTMENT
UNIVERSITY HOUSING SOLUTIONS, LLC
 90 HIDDEN HAVENS DRIVE
 HOWELL, MI 48843
 (800) 711-7738

OVERALL SITE PLAN

NO.	DATE	REVISIONS PER	BY
1	10/26/14	DESIGNED BY	ST
2		DRAWN BY	ST
3		CHECKED BY	
SCALE: 1" = 60'			
JOB NO. 14-292			
DATE 10/27/14			
SHEET NO. 3			



SITE BUILDING DATA

PARCEL SIZE:	28.80 AC.
EXISTING ZONING:	OFFICE SERVICE DISTRICT
EXISTING USE:	UNIVERSITY BUILDINGS
PROPOSED USE:	UNIVERSITY STUDENT HOUSING APARTMENT
REQUIRED FRONT SETBACK:	70 FT
PROPOSED FRONT SETBACK:	876.31 FT.
REQUIRED SIDE SETBACK:	20 FT
PROPOSED SIDE SETBACK:	88.00 FT.
REQUIRED REAR SETBACK:	40 FT.
PROPOSED REAR SETBACK:	251.18 FT.
PARKING LOT SETBACK:	10.00 FT. (SIDE/REAR)
PROPOSED PARKING SETBACK:	15.00 FT. (SIDE)
MAX. BUILDING HEIGHT:	2.5 STORIES/25 FT
	*80 FT MAX. PROVIDED THE FRONT, SIDE AND REAR YARDS ARE MORE THAN THE BUILDING HEIGHT (ORDINANCE 11.01.05 (a))
PROPOSED BUILDING HEIGHT:	STUDENT HOUSING APARTMENT 1 3 STORY / 30 FT.
MAX. LOT COVERAGE:	33% BUILDING 80% IMPERVIOUS
PROPOSED BUILDING FOOTPRINT:	STUDENT HOUSING APARTMENT 1: 12,787 S.F.
EXISTING BUILDINGS:	88,318 S.F.
TOTAL:	71,106 S.F. (5.81%)
IMPERVIOUS COVERAGE:	EXISTING IMPERVIOUS: 201,207 S.F.
	PROPOSED IMPERVIOUS: 53,281 S.F.
TOTAL:	254,488 S.F. (18.8%)

PARKING DATA

PARKING REQUIRED:
STUDENT HOUSING APARTMENT 1:

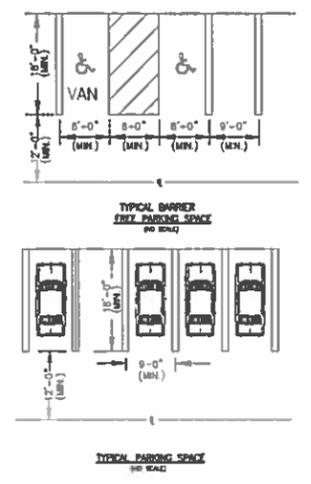
1 SPACE / RESIDENT ADVISOR UNIT → 1 RA UNIT X 1 SPACE = 1 SPACE
2 SPACES / 4 BED RESIDENT UNIT → 8 4-RESIDENT UNITS X 2 SPACES = 16 SPACES
3 SPACES / 6 BED RESIDENT UNIT → 2 6-RESIDENT UNITS X 3 SPACES = 6 SPACES
43 SPACES REQUIRED (INCLUDING 2 BARRIER FREE SPACES)

UNIVERSITY CLASSROOMS: 60 STUDENTS + 10 STAFF = 70 SPACES

TOTAL PARKING REQUIRED: 70 + 43 = 113 SPACES (5 BARRIER-FREE SPACES REQUIRED)

TOTAL PARKING PROVIDED: 63 SPACES (INCLUDES 4 BARRIER-FREE PARKING SPACES)
36 SPACES EXISTING (INCLUDES 2 BARRIER-FREE SPACES)
121 SPACES PROVIDED (INCLUDING 6 BARRIER-FREE SPACES)

- GENERAL NOTES**
- ALL OUTDOOR LIGHTS SHALL BE SHIELDED TO REDUCE GLARE AND SHALL BE ARRANGED TO NOT INTERFERE WITH THE VISION OF PERSONS ON ADJACENT ROADWAYS OR ADJACENT PROPERTY.
 - ALL SIGNS SHALL MEET LOCAL MUNICIPALITY ORDINANCE REQUIREMENTS.
 - ACCESS ROADS TO SITE SHALL BE PROVIDED AND MAINTAINED DURING CONSTRUCTION. ACCESS ROADS SHALL BE CONSTRUCTED TO BE CAPABLE OF SUPPORTING THE IMPOSED LOAD OF FIRE APPARATUS OF 75,000 POUNDS.



BEFORE YOU DIG CALL MISS DIG

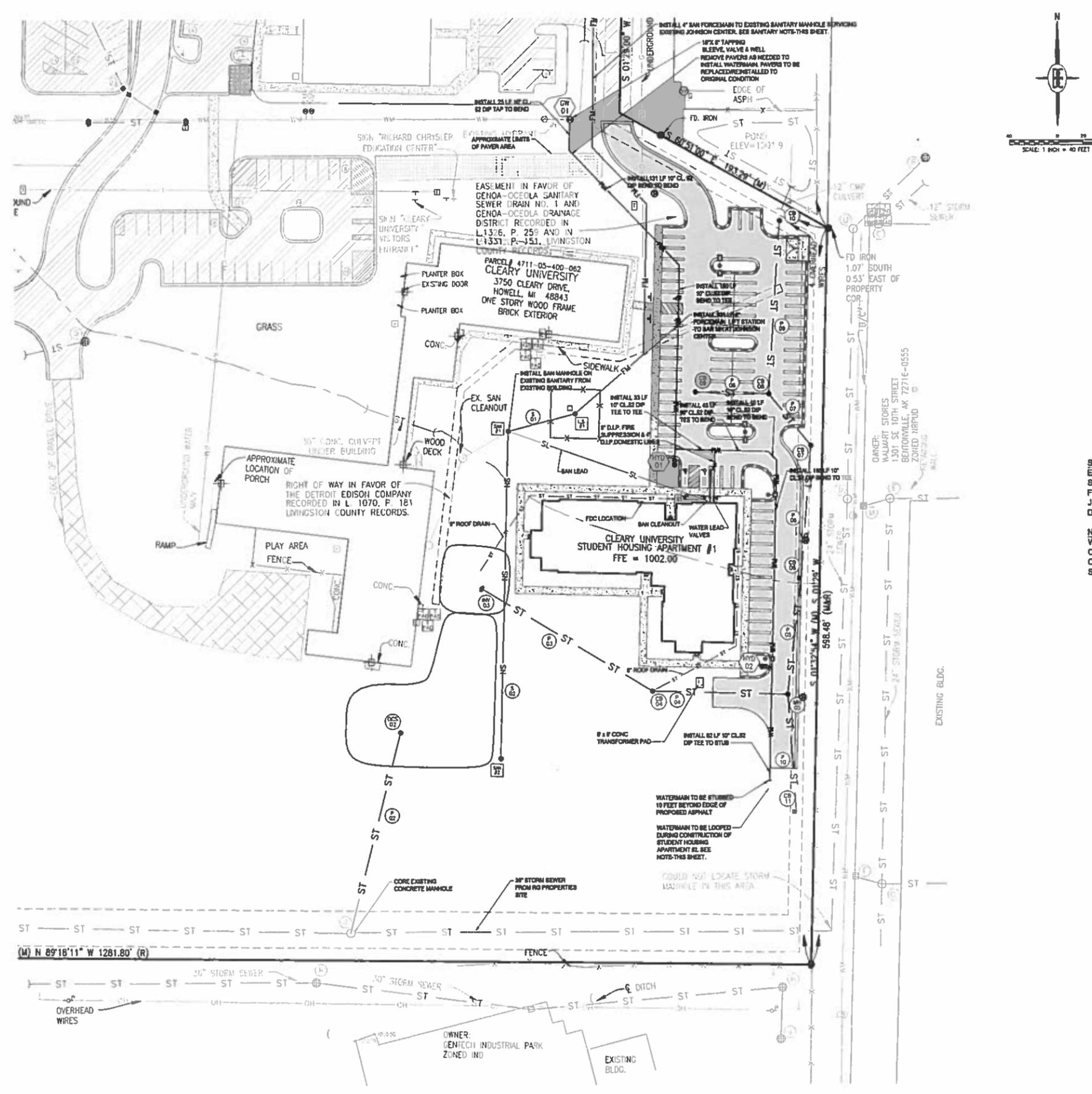
BEBOSS Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
800.246.6735 FAX 517.546.1670

CLEARY UNIVERSITY STUDENT HOUSING APARTMENT
UNIVERSITY HOUSING SOLUTIONS, LLC
90 HOBBS PARKS DRIVE
POWELL, OH 43065
(614) 711-7738

SITE PLAN

PROJECT:	CLEARY UNIVERSITY STUDENT HOUSING APARTMENT
PROPOSED FOR:	UNIVERSITY HOUSING SOLUTIONS, LLC
DATE:	10/2/14
DESIGNED BY:	ST
DRAWN BY:	ST
CHECKED BY:	
SCALE:	1" = 40'
JOB NO.:	14-292
DATE:	10/2/14
SHEET NO.:	3A

BOSS BE



STORM PIPE INVENTORY

P 02 Diameter (in) 12 Length (ft) 167 Slope 0.32% Type C-76 CL IV RCP	P 03 Diameter (in) 21 Length (ft) 161 Slope 0.24% Type C-76 CL IV RCP
P 04 Diameter (in) 21 Length (ft) 111 Slope 0.20% Type C-76 CL IV RCP	P 05 Diameter (in) 21 Length (ft) 95 Slope 0.20% Type C-76 CL IV RCP
P 06 Diameter (in) 18 Length (ft) 108 Slope 0.20% Type C-76 CL IV RCP	P 07 Diameter (in) 18 Length (ft) 54 Slope 0.20% Type C-76 CL IV RCP
P 08 Diameter (in) 12 Length (ft) 80 Slope 0.32% Type C-76 CL IV RCP	P 09 Diameter (in) 12 Length (ft) 142 Slope 1.00% Type C-76 CL IV RCP
P 10 Diameter (in) 12 Length (ft) 95 Slope 1.00% Type C-76 CL IV RCP	

SANITARY PIPE INVENTORY

S 01 Diameter (in) 8 Length (ft) 57 Slope 0.40% TYPE PVC SDR 26	S 02 Diameter (in) 8 Length (ft) 266 Slope 0.40% TYPE PVC SDR 26
--	---

SANITARY NOTE
EXISTING SANITARY LIFT STATION TO BE REPLACED. NEW LIFT STATION TO SERVICE STUDENT APARTMENTS AND EXISTING CLASSROOM BUILDING. FORCE MAIN TO TIE INTO EXISTING GRAVITY SYSTEM EAST OF THE EXISTING JOHNSON CENTER. FLOW ANALYSIS TO BE PERFORMED AND SUPPLIED AT LATER DATE DURING CONSTRUCTION PLAN REVIEW.

NOTE:
WATER MAIN IS TO BE LOOPED DURING FUTURE CONSTRUCTION OF STUDENT HOUSING APARTMENT #2. WATER MAIN TO CONTINUE WEST AND NORTH AND TIE INTO EXISTING WATER SYSTEM NORTHWEST OF EXISTING CHRYSLER BUILDING.

LEGEND

PROPOSED (PR)	EXISTING (EX)	DESCRIPTION
---	---	CONTOUR
---	---	STORM DRAINAGE FLOW
---	---	SPOT ELEVATION
---	---	FINISHED FLOOR ELEVATION
---	---	FINISHED GRADE ELEVATION
---	---	TOP OF ASPHALT
---	---	TOP OF CURB / CONCRETE
---	---	TOP OF WALK
---	---	FLOW LINE
---	---	TOP OF PIPE
---	---	BOTTOM OF PIPE
---	---	RM ELEVATION
---	---	INVERT ELEVATION
---	---	MANHOLE STRUCTURE
---	---	INLET STRUCTURE
---	---	CATCH-BASH STRUCTURE
---	---	REARBOARD STRUCTURE
---	---	END-SECTION
---	---	GATEVALVE STRUCTURE
---	---	HYDRANT
---	---	UTILITY POLE
---	---	SANITARY SEWER
---	---	SANITARY LEAD
---	---	FORCE MAIN
---	---	PRESSURE SEWER
---	---	STORM SEWER
---	---	WATER MAIN
---	---	WATER LEAD
---	---	FIBER OPTIC
---	---	OVERHEAD WIRE
---	---	CABLE
---	---	ELECTRIC
---	---	GAS
---	---	TELEPHONE
---	---	MANHOLE
---	---	INLET / CATCH-BASH
---	---	FLARED END-SECTION
---	---	GATE VALVE
---	---	HYDRANT
---	---	UTILITY POLE
---	---	FENCE
---	---	NOT FIELD VERIFIED
---	---	TO BE REMOVED
---	---	COMPACTED SAND BACKFILL
---	---	SANITARY SEWER LABEL
---	---	STORM SEWER LABEL
---	---	WATER MAIN LABEL
---	---	SOIL EROSION CONTROL MEASURE

DEBOSS Engineering
Engineers Surveyors Planners Landscape Architects

3121 E. GRAND RIVER AVE.
HOWELL, MI 48843
800.246.6735 FAX 517.548.1670

PROJECT: CLEARY UNIVERSITY STUDENT HOUSING APARTMENT #1
PREPARED FOR: UNIVERSITY HOUSING SOLUTIONS, LLC
93 HIDDEN BLAVES DRIVE
HOWELL, MI 48843
(866) 711-7788

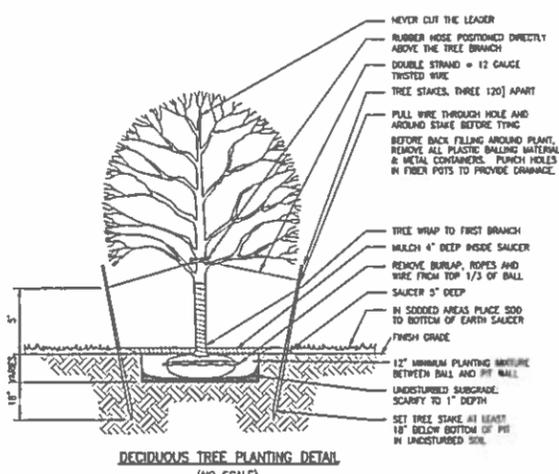
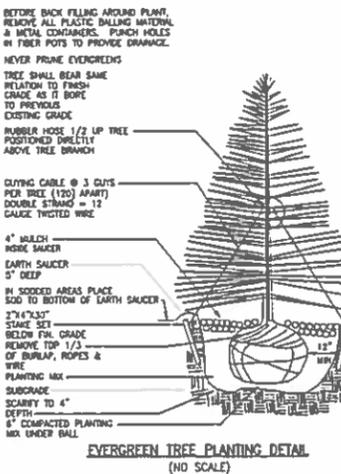
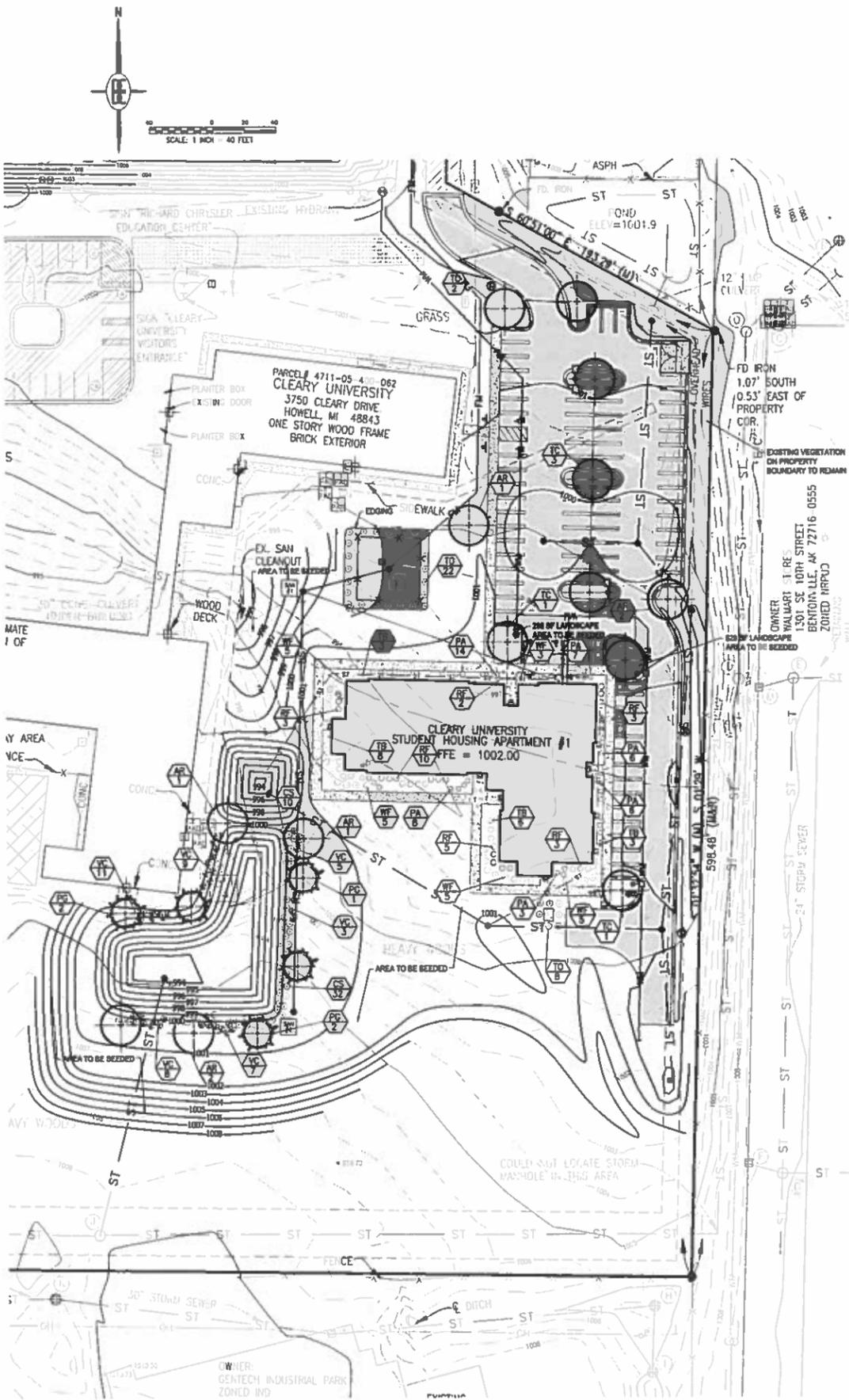
TITLE: UTILITY PLAN

NO.	DATE	REVISION FOR
1	10/2/14	PER TOWNSHIP REVIEW
2		REVISION FOR

DESIGNED BY: ST
DRAWN BY: ST
CHECKED BY:
SCALE: 1" = 40'
JOB NO. 14-292
DATE: 10/2/14
SHEET NO. 5

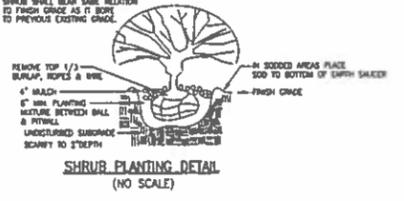
GENERAL LANDSCAPE NOTES:

1. ALL PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING MUNICIPALITY AND SHALL BE NURSERY GROWN. ALL SIZES AND MEASUREMENTS SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. ALL PLANT MATERIAL SHALL BE OF SELECTED SPECIMEN QUALITY AND HAVE A NORMAL HABIT OF GROWTH. ALL PLANT MATERIAL IS SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
2. ALL PLANT MATERIALS SHALL BE BALLED AND BURLAPPED STOCK OR CONTAINER STOCK. NO BARE ROOT STOCK IS PERMITTED. ALL PLANT BALLS SHALL BE FIRM, INTACT AND SECURELY WRAPPED AND BOUND.
3. ALL PLANT BEDS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND OTHER EXTRANEOUS OBJECTS AND POOR SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BACKFILLED TO GRADE WITH PLANTING MIX (SEE BELOW).
4. PLANTING MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL FROM ON SITE, 1 PART PEAT, AND 5 POUNDS OF SUPERPHOSPHATE PER CUBIC YARD OF MIX. INGREDIENTS SHALL BE THOROUGHLY BLENDED TO A UNIFORM CONSISTENCY.
5. ALL PLANT BEDS AND INDIVIDUAL PLANTS SHALL BE MULCHED WITH A 4 INCH LAYER OF SHREDDED BARK MULCH.
6. ALL PLANTS AND PLANT BEDS SHALL BE THOROUGHLY WATERED UPON COMPLETION OF PLANTING AND STAKING OPERATIONS.
7. THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF 1 YEAR FROM THE DATE THE WORK IS ACCEPTED, IN WRITING, BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE WITHOUT COST TO THE OWNER, WITHIN A SPECIFIED PERIOD TIME, ALL DEAD PLANTS, AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE ARCHITECT DURING AND AT THE END OF THE GUARANTEE PERIOD. REPLACEMENT STOCK SHALL CONFORM TO THE ORIGINAL REQUIREMENTS.
8. EDGING, WHERE NOTED ON THE PLANS, SHALL BE BLACK ALUMINUM EDGING, 3/16" X 4". INSTALL PER MANUFACTURER'S INSTRUCTIONS. ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRREGULARITIES.
9. ALL AREAS OF THE SITE THAT BECOME DISTURBED DURING CONSTRUCTION AND ARE NOT TO BE PAVED, STONED, LANDSCAPED, OR SODDED SHALL BE SEEDED AND MULCHED.
SEED MIXTURE SHALL BE AS FOLLOWS:
KENTUCKY BLUEGRASS (CHOOSE 3 VARIETIES: ADELPHI, RUGBY, GLADE OR PARADE) 30%
ADELPHI, RUGBY, GLADE OR PARADE 30%
RUBY RED OR DAWSON RED FINE FESCUE 20%
ATLANTA RED FESCUE 20%
PENNSYLVANIAN PERENNIAL RYE 20%
THE ABOVE SEED MIXTURE SHALL BE SOWN AT A RATE OF 250 POUNDS PER ACRE. PRIOR TO SEEDING, THE TOPSOIL LAYER SHALL BE FERTILIZED WITH A COMMERCIAL FERTILIZER WITH A 10-20-10 ANALYSIS:
10% NITROGEN: A MINIMUM OF 25% FROM A UREA-FORMALDEHYDE SOURCE
20% PHOSPHATE
10% POTASH: SOURCE TO BE POTASSIUM SULFATE OR POTASSIUM NITRATE
THE FIRST FERTILIZER APPLICATION SHALL BE AT A RATE OF 10 POUNDS OF BULK FERTILIZER PER 1000 SQUARE FEET.
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ANY PART OF THE AREA THAT FAILS TO SHOW A UNIFORM GERMINATION SHALL BE RESEEDING AND SUCH RESEEDING SHALL CONTINUE UNTIL A DENSE LAWN IS ESTABLISHED. DAMAGE TO SEEDING AREAS RESULTING FROM EROSION SHALL BE REPAIRED BY THE CONTRACTOR.
10. ALL AREAS OF THE SITE SCHEDULED FOR SEEDING OR SODDED SHALL FIRST RECEIVE A 4 INCH LAYER OF CLEAN, FRAMBLE TOPSOIL. THIS SOIL SHALL BE DISCED AND SHALL BE GRADED IN CONFORMANCE WITH THE GRADING PLAN.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES AND TO INFORM THE LANDSCAPE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING LANDSCAPING.
12. ALL PLANT MATERIALS SHALL BE FREE OF WEEDS, INSECTS AND DISEASE.



LANDSCAPE REQUIREMENTS

1. PARKING LOT
REQUIRED: 85 SPACES (1 TREE AND 100SF LAND AREA / 10 SPACES)
= 8 TREES AND 800 SF
2. PROPOSED: 8 TREES AND 800 SF LANDSCAPE AREA
DETENTION BASIN
REQUIRED: 345 LF PERIMETER / 8 TREES AND 80 SHRUBS
PROPOSED: 8 TREES AND 80 SHRUBS



LANDSCAPE LEGEND

- DECIDUOUS TREES - MIN. 2 1/2" CAL. (REPLACEMENT TREES TO BE MIN. 5" CAL.)
RED MAPLES, SUGAR MAPLES, RED OAKS, WHITE OAKS, PIN OAKS, LITTLE LEAF LINDEN, GINKGO, HONEYLOCUST, RIVER BIRCH
- EVERGREEN TREES - MIN. 8 FT. HT. (REPLACEMENT TREES TO BE MIN. 10 FT. HT.)
WHITE PINE, GREEN SPRUCE, BLUE SPRUCE, DOUGLAS FIR
- DECIDUOUS SHRUBS - MIN. 24" HT.
LILAC, VIBURNUM, FORSYTHIA, REDTILING DOGWOOD, BAYBERRY, ROSE, HYDRANGEA
- EVERGREEN SHRUBS - MIN. 24" HT.
DENSE YEW, BOXWOODS, DWARF MUGO PINES, JUMPERS, MOUNTAIN LAURAL

PLANT LIST

KEY	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
TREES	7	Acer rubrum 'Red Sunset'	Red Sunset Maple	2 1/2" cal.	B-B
	7	Tilia cordata 'Greenspire'	Greenspire Linden	2 1/2" cal.	B-B
	5	Picea glauca	White Spruce	6'-8" ht.	B-B
SHRUBS	30	Thuja occidentalis 'Tectny'	Mission Arborvitae	min. 36" ht.	B-B
	42	Cornus sericea	Redosier Dogwood	24"-36" ht.	B-B
	43	Viburnum carlesii 'Compactum'	Comp. Kousa Spice Vib.	24"-36" ht.	B-B
	23	Weigela florida 'Variegata Nana'	Variegated Dwarf Weigela	24"-36" ht.	B-B
	20	Thuja occidentalis 'Bobazam'	Mr. Bowling Ball Arborvitae	24"-36" ht.	B-B
	28	Rhamnus frangula	Fine Line Buckthorn	min. 36" ht.	B-B
44	Penstemon alopecuroides 'Little Bunny'	Little Bunny Fountain Grass	1'-2" ht.	B-B	

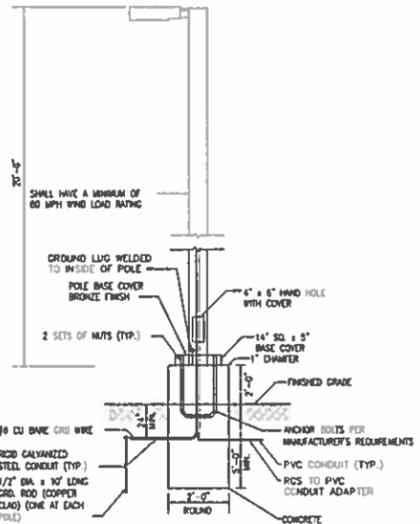
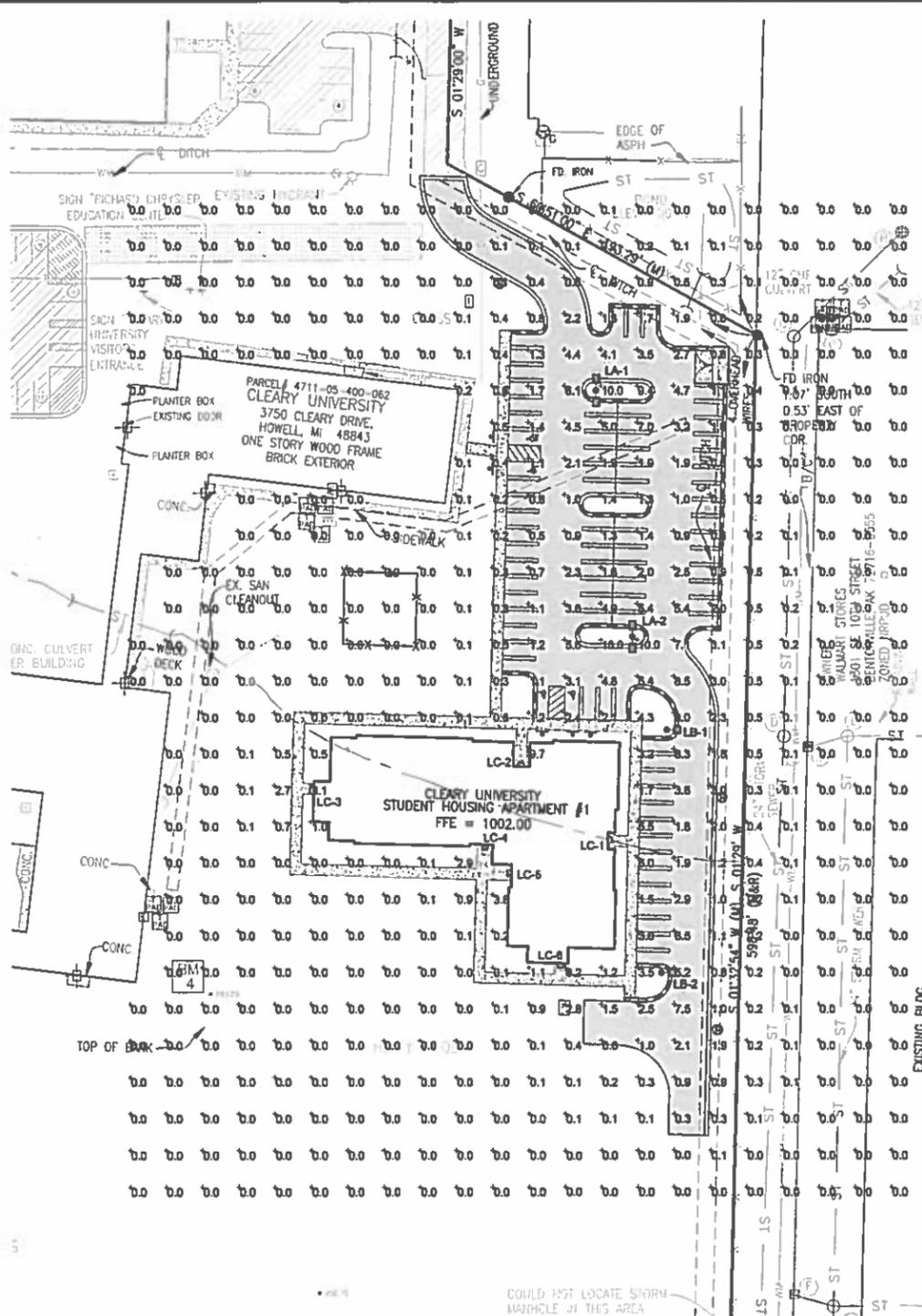
DEBOSS Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
800.246.6735 FAX 517.548.1670

LANDSCAPE PLAN

PROJECT: CLEARY UNIVERSITY STUDENT HOUSING APARTMENT
PREPARED FOR: UNIVERSITY HOUSING SOLUTIONS, LLC
90 HARBOR BLVD, SUITE 200
HOWELL, MI 48843
(810) 711-7788

NO.	DATE	REVISIONS PER
1	10/2/14	REVISED PER

DESIGNED BY: KB
DRAWN BY: ST
CHECKED BY:
SCALE: 1" = 40'
JOB NO. 14-292
DATE: 10/2/14
SHEET NO. 6



BOX LIGHT FIXTURE DETAIL (TYP.)
(NO SCALE)

LUMINAIRE SCHEDULE

SYMBOL	LABEL	QTY.	DESCRIPTION	CATALOG NUMBER	LAMP	FILE	LUMENS	LLF	POLE DESCRIPTION	POLE HEIGHT	BASE HEIGHT	TOTAL HEIGHT
LA	LA	2	LITHONIA SPECIFICATION AREA LUMINAIRE, 400W METAL HALIDE, 84 WIDE REFLECTOR, FULL CUTOFF	KSF2 400W RW	400 WATT CLEAR E208 PLASE START METAL HALIDE	KSF2 400W RW.R2	38,000	.72	SSA-20-4G-725-DH28-008	27'	7'	22'
LB	LB	2	LITHONIA SPECIFICATION AREA LUMINAIRE, 400W METAL HALIDE, 84 WIDE REFLECTOR, FULL CUTOFF	KSF2 400W R2	400 WATT CLEAR E208 PLASE START METAL HALIDE	KSF2 400W R2.R2	38,000	.72	SSA-20-4G-725-DH19-008	27'	7'	22'
LC	LC	8	ESW WP111A ARCHITECTURAL HALF-MOON, FULL CUTOFF WALL PACK	ESW-WP111A P20M 150W W1	150 WATT 8017 TYPE LAMP'S PLASE START METAL HALIDE		14,000	.72	WALL MOUNTED	12'	0'	12'

ALL IES FILES PROVIDED BY MANUFACTURER FOR CALCULATION OF LIGHTING LEVEL.

LITHONIA LIGHTING

FEATURES & SPECIFICATIONS

KSF2

NETA PALM 20-4000
800 PATTEN VISION 20-4000
12" H x 12" W

Item	Description	Material	Quantity	Unit	Notes
1	400W Metal Halide Lamp	400W	2	Lamp	
2	400W Metal Halide Lamp	400W	2	Lamp	
3	400W Metal Halide Lamp	400W	2	Lamp	
4	400W Metal Halide Lamp	400W	2	Lamp	
5	400W Metal Halide Lamp	400W	2	Lamp	
6	400W Metal Halide Lamp	400W	2	Lamp	
7	400W Metal Halide Lamp	400W	2	Lamp	
8	400W Metal Halide Lamp	400W	2	Lamp	
9	400W Metal Halide Lamp	400W	2	Lamp	
10	400W Metal Halide Lamp	400W	2	Lamp	

KSF2 Arm-Mounted Rectilinear Cutoff Lighting

LITHONIA LIGHTING

8000 10000 15000 20000 25000 30000 35000 40000 45000 50000 55000 60000 65000 70000 75000 80000 85000 90000 95000 100000

ESW-WP111
ARCHITECTURAL HALF-MOON, FULL CUTOFF WALL PACK

PRODUCT SPECIFICATIONS

CONSTRUCTION

The ESW-WP111 Series features a durable, die-cast aluminum enclosure with an unobstructed viewing window. The enclosure is 1/2" thick and finished with a powder coat. The enclosure is designed for outdoor use and is resistant to corrosion. The enclosure is designed to provide a uniform light distribution, without creating hot spots or dark areas. The enclosure is designed to be easy to install and maintain.

LENS & BEAMS

The ESW-WP111 Series has a lens that is 1/2" thick and finished with a powder coat. The lens is designed to provide a uniform light distribution, without creating hot spots or dark areas. The lens is designed to be easy to install and maintain.

POLE MOUNTING

The ESW-WP111 Series is designed to be mounted on a pole. The pole mounting is designed to be easy to install and maintain. The pole mounting is designed to provide a uniform light distribution, without creating hot spots or dark areas.

INSTALLATION

The ESW-WP111 Series is designed to be installed in a parking lot. The installation is designed to be easy to install and maintain. The installation is designed to provide a uniform light distribution, without creating hot spots or dark areas.

OPERATIONAL NOTES

The ESW-WP111 Series is designed to be operated in a parking lot. The operation is designed to be easy to install and maintain. The operation is designed to provide a uniform light distribution, without creating hot spots or dark areas.

PHOTOMETRICS

ESW-WP111-P20M-150W Mounted at 10'

OPERATIONAL NOTES

The ESW-WP111 Series is designed to be operated in a parking lot. The operation is designed to be easy to install and maintain. The operation is designed to provide a uniform light distribution, without creating hot spots or dark areas.

SITE LIGHTING SUMMARY

LIGHTING LEVELS ARE SHOWN IN FOOTCANDLES AT 5' ABOVE GRADE

MAX. LIGHT LEVEL AT THE PROPERTY LINE: 0.50 FC.

MIN. LIGHT LEVEL AT THE PROPERTY LINE: 0.00 FC.

GENERAL LIGHTING NOTES

- THE LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS.
- ALL POLES ARE TO BE MOUNTED ON CONCRETE PEDESTALS 2' ABOVE GRADE IN PARKING LOTS AS SHOWN IN DETAIL.
- ALL POLES LOCATED OUTSIDE OF THE PARKING AREA SHALL BE LOCATED 5' FROM BACK OF CURB OR EDGE OF SIDEWALKS.
- SHOP DRAWINGS FOR THE ELECTRICAL WIRING OF THE POLES NEED TO BE SUBMITTED TO THE ENGINEER FOR COORDINATION OF UNDERGROUND CONDUIT AND APPROVAL OF LAYOUT.

LEGEND

PROPOSED (PR) EXISTING (EX)

MANHOLE INLET / CATCHBASIN
FLARED END-SECTION
GATE VALVE
HYDRANT
UTILITY POLE
FENCE
SIGN

DOUBLE FEATURE LIGHT POLE
SINGLE FEATURE LIGHT POLE
WALL MOUNTED LIGHT FEATURE
GROUND LIGHT FEATURE
FOOT CANDLES ON SITE
FOOT CANDLES OFF SITE

BESS Engineering
Engineers Surveyors Planners Landscape Architects

3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
800.246.6735 FAX 517.548.1670

CLEARLY UNIVERSITY STUDENT HOUSING APARTMENT

UNIVERSITY HOUSING SOLUTIONS, LLC
60 HADLEY BLVD. SUITE 200
POWELL, OH 43065
(614) 711-7788

LIGHTING PLAN

DESIGNED BY: TD
DRAWN BY: TD
CHECKED BY: TD
SCALE: 1" = 40'
JOB NO. 14-292
DATE: 10/2/14
SHEET NO. 7

**LIVINGSTON COUNTY SOIL EROSION PERMIT TEMPLATE
TEMPORARY CONTROLS AND SEQUENCE**

1. NOTIFY LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE 24 HOURS PRIOR TO START OF GRADE WORK.
2. IN ACCORDANCE WITH PUBLIC ACT NO. 53, OF 1974 THE PERMIT HOLDER SHALL CALL MISS DIG FOR STAKING AND LOCATING OF UTILITIES, AT LEAST 72 HOURS IN ADVANCE OF THE START OF ANY WORK.

PERMITTING STANDARDS

3. (IMPORTANT NOTICE) RETENTION/DETENTION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. INGRESS/EGRESS MUST HAVE LARGE CRUSHED ROCK TO REDUCE THE TRACKING OF SOIL ONTO THE PUBLIC TRAFFIC AREAS. SEE DETAIL ITEMS BELOW.
4. 36" M.D.O.T SPECIFICATION TYPE SILT FABRIC FENCE AS SHOWN ON PLANS SHALL BE PLACED AND MAINTAINED ALONG PERIMETER ON ALL LOW LYING AREAS OF THE CONSTRUCTION SITE TO FILTER RUNOFF BEFORE LEAVING PROJECT SITE.

5. ALL TEMPORARY EROSION CONTROL DEVICES AS NOTED ON PLANS SHALL BE INSTALLED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION.
6. PLAN DOES DENOTE A DETAILED EROSION CONTROL DEVICE TO RESTRICT TRACKING OF MATERIAL ONTO THE HIGHWAY. STONE DIAPERS SHALL BE INSTALLED AT ALL INGRESS/EGRESS AREAS OF THE SITE PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. DIAPERS SHALL BE OF CRUSHED STONE AND SHALL HAVE A MINIMUM LENGTH OF 100' LINEAL FEET.

RETENTION PONDS

7. RETENTION/DETENTION/SEDIMENTATION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION.
8. DETENTION POND OUTLETS SHALL BE OF THE STANDPIPE AND STONE FILTER SYSTEM, WITH TRASH SCREEN. OUTLET FLOW SHALL NOT EXCEED 0.20 CUBIC FEET OF WATER PER SECOND/PER ACRE. POND DIKS SHALL HAVE A MINIMUM OF ONE (1) FOOT OF FREEBOARD. AN EMERGENCY SPILLWAY SHALL BE CONSTRUCTED WITHIN THE FREEBOARD LEVEL.
9. THE EMERGENCY SPILLWAY FROM THE DETENTION POND SHALL BE SLOTTED AND PEGGED, OR RIP RAPPED, 15 FEET PAST THE TOE OF THE SLOPE OF THE BERM.

10. DIKS AND BERMS SHALL BE FREE OF ALL ORGANIC MATTER.
11. RETENTION/DETENTION PONDS SHALL BE FENCED WITH A 4" CHAIN LINK FENCE, INCLUDING A 12' ACCESS GATE FOR MAINTENANCE UNLESS MINIMUM 5 FT. HORIZONTAL TO 1 FT. VERTICAL SIDE SLOPES ARE PROVIDED. THE FENCE SHALL BE INSTALLED AT THE OUTER PORTION OF THE BERM, TO ALLOW FOR MAINTENANCE WORK TO BE DONE INSIDE THE FENCE.

12. ALL UNIMPROVED DISTURBED AREAS SHALL BE STRIPPED OF TOPSOIL WHICH WILL BE STORED ONSITE DURING THE EXCAVATING STAGE. TOPSOIL PILES SHALL BE SEEDED AND MULCHED, OR MATTED WITH STRAW IN THE NON-GROWING SEASON, IMMEDIATELY AFTER THE STRIPPING PROCESS IS COMPLETED, TO PREVENT WIND AND WATER EROSION.
13. SOIL EROSION CONTROLS SHALL BE MONITORED DAILY BY THE ON-SITE ENGINEER OR CONTRACTOR, WHICHEVER CASE APPLIES.

SLOPES AND DITCHES

14. ON SITE DITCHES SHALL BE OF THE FLAT BOTTOM TYPE MINIMUM WIDTH OF 2' WITH A MINIMUM OF 3 HORIZONTAL TO 1 VERTICAL SIDE SLOPES, 3:1.
15. DITCHES WITH STEEP SLOPES WILL NEED FLOW CHECKS TO PREVENT SCOURING OF THE DITCH BOTTOM. THESE SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER OR INSPECTOR.
16. SLOPES IN EXCESS OF 3 HORIZONTAL TO 1 VERTICAL SHALL NOT BE USED EXCEPT WITH A MECHANICAL DEVICE SUCH AS A RETAINING WALL, TERRACING, OR OTHER PRIOR APPROVED DEVICE.

STORM DRAINS

17. ALL STORM WATER STRUCTURES, CATCH BASINS AND/OR MANHOLES, IF BLOCK, SHALL BE PLASTERED ON BOTH THE INSIDE AND OUTSIDE OF THE STRUCTURES. GROUTING AND POINTING WILL BE NECESSARY AT THE CASTING AND STRUCTURE JOINT TO PREVENT LEAKAGE AND THE RESULTING SOIL MOVEMENT, AROUND THE STRUCTURE.
18. STORM WATER INLETS SHALL HAVE AS A TEMPORARY CONTROL A STRAW BALE BARRIER AND STONE FILTER INSTALLED AROUND THE INLET DURING CONSTRUCTION. AS AN ALTERNATIVE TO THE STRAW BALE BARRIER, A BURLAP AND PEA STONE FILTER MAY BE USED. THREE LAYERS OF BURLAP FIBER AND A FILTER OF PEA STONE MINIMUM 1 FT. IN DEPTH CAN BE USED. DUE TO THE POROSITY OF THE BURLAP FILTER THE MINIMUM OF 1 FT. OF STONE IS VERY IMPORTANT. THE CONTROL SHALL BE INSTALLED AS SOON AS THE STRUCTURE IS BUILT AND INSPECTED DAILY.
19. BURLAP AND PEA STONE FILTERS WILL NEED TO BE CHANGED AFTER EACH RAINFALL.
20. COUNTY CODE REQUIRES A MINIMUM PIPE SIZE OF 12" IN DIAMETER. IF SMALLER PIPE IS NEEDED FOR OUTLET PURPOSES THE 12" CAN BE BAFFLED TO THE CORRECT SIZE. ALL PIPE SHALL MEET THE 12" DIAMETER CODE SIZE.
21. ALL STORM DRAIN OUTLETS 15" IN DIAMETER OR LARGER SHALL HAVE ANNUAL GUARDS INSTALLED TO PREVENT ENTRANCE TO THE SYSTEM.
22. ALL STORM DRAINAGE PIPE 30" IN DIAMETER OR LARGER SHALL BE POINTED, AT THE JOINTS ON THE INSIDE WITH MORTAR, AFTER BACKFILLING.
23. ALL STORM DRAIN OUTLETS THAT DO NOT EMPTY INTO THE RETENTION/DETENTION POND SHALL HAVE A TEMPORARY 5'X10'X3' SUMP INSTALLED AT THE TERMINATION OF THE STORM SEWER. UPON COMPLETION OF THE STABILIZATION WORK THE SUMP AREA SHALL BE FILLED AND RIP RAPPED WITH COBBLE STONE. SILT TRAPS SHALL BE INSPECTED AFTER EACH STORM.
24. STORM WATER OUTLETS DO DENOTE RIP RAP. ALL OUTLETS SHALL BE RIP RAPPED OVER KEYED FILTER FABRIC WITH A MINIMUM OF 15.0 YARDS OF 6" OR LARGER COBBLE STONE.
25. RIP RAP AS NOTED ON THE PLAN SHALL BE OF A FUNNEL SHAPE CONSTRUCTION, WIDTH SHALL INCREASE AS DISTANCE FROM THE OUTLET POINT INCREASES AT A 3:1 RATIO.
26. RIP RAP SHALL BE OF COBBLE STONE, 6" IN DIAMETER OR LARGER. GROUTING MAY BE NECESSARY, AND SHALL BE A MINIMUM OF 6" IN DEPTH WITH THE COBBLE SET IN THE CEMENT SLURRY.
27. STORM WATER OUTLET IS IN NEED OF A SPLASH BLOCK WHICH IS NOT NOTED ON THE PLAN. INSTALL SPLASH BLOCK IF SLOPE OF THE PIPE IS 4% OR GREATER.
28. IT WILL BE NECESSARY FOR THE DEVELOPER TO HAVE THE STORM DRAINAGE LINES CLEANED PRIOR TO FINAL INSPECTION BY THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE. IF REQUIRED, THIS WORK SHALL BE DONE BY A PROFESSIONAL SEWER CLEANING FIRM AND CERTIFIED IN WRITING BY THE PROJECT ENGINEER. ALL SUMPS AND TEMPORARY SILT TRAPS SHALL ALSO BE CLEANED AT THIS TIME.
29. ALL UNIMPROVED DISTURBED AREAS SHALL BE RE-TOP SOILED, WITH A MINIMUM OF 3" OF MATERIAL, SEEDED, MULCHED AND TACKED WITHIN 15 DAYS OF THE COMPLETION OF THE MASSIVE EARTH DISRUPTION. IN THE NON-GROWING SEASON STRAW MATTING WILL SUFFICE. HYDROSEEDING WILL BE AN ACCEPTABLE ALTERNATE FOR MULCHING. EXTREME CARE SHOULD BE EXERCISED IN SPRING AND FALL PERIODS AS A FROST WILL BREAK THE BOND OF THE HYDROSEEDING, WHICH WILL AFFECT THE EFFECTIVENESS OF THIS PROCEDURE.
30. IN THE NON-GROWING SEASON, TEMPORARY STABILIZATION OF MASSIVELY EXPOSED AREAS FOR WINTER STABILIZATION SHALL BE DONE WITH STRAW MATTING.

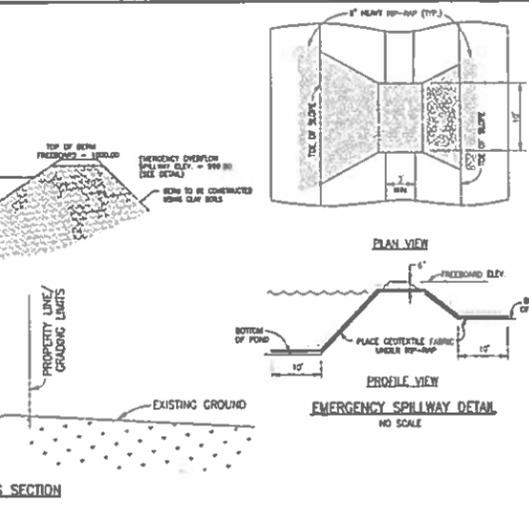
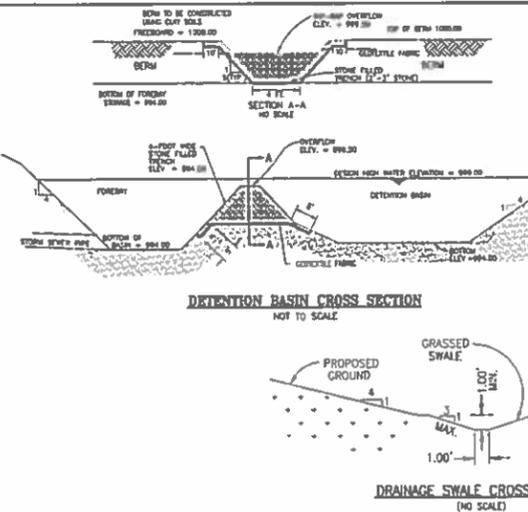
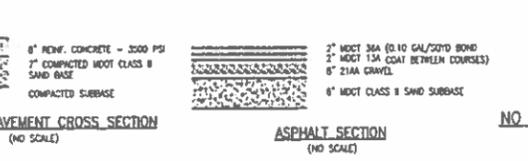
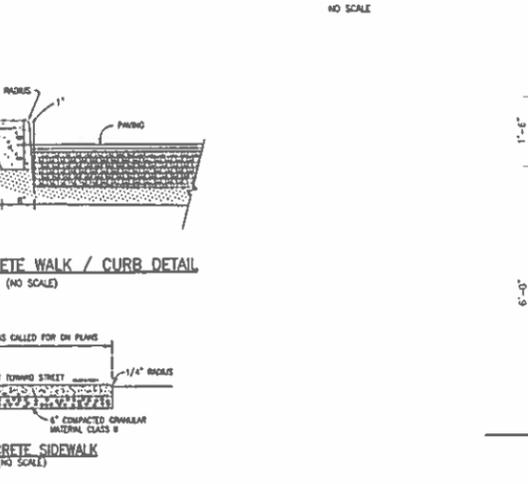
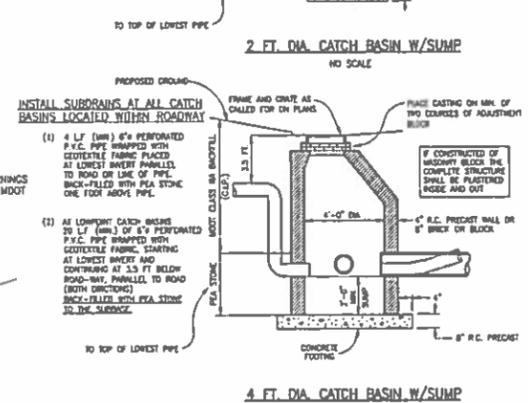
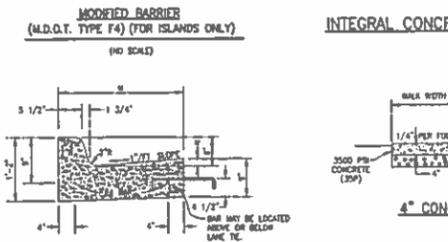
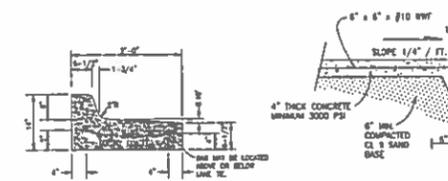
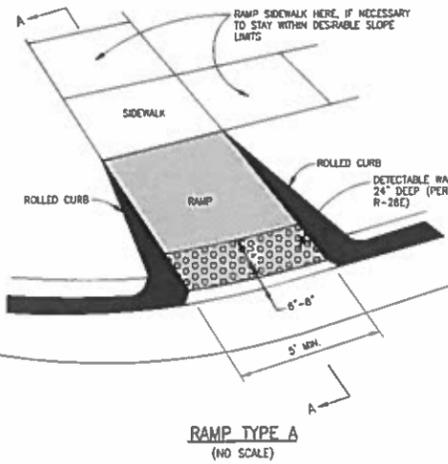
31. PERMIT FEES DURING THE WINTER PERIOD OF NON-CONSTRUCTION, (DECEMBER 1 THROUGH MARCH 31), SHALL NOT BE IMPOSED IF THE PERMIT HOLDER TEMPORARILY STABILIZES THE EXPOSED AREAS WITH STRAW MATTING, AND OTHER APPROVED CONTROLS, AND OBTAINS A WINTER STABILIZATION CERTIFICATE FROM THIS OFFICE.
32. PERIODIC INSPECTIONS WILL BE MADE THROUGHOUT THE COURSE OF THE PROJECT. IT WILL BE THE RESPONSIBILITY OF THE MANAGERS OF THE PROJECT TO CONTACT THIS OFFICE FOR THE FINAL INSPECTION AT THE END OF THE PROJECT.
33. THIS COMMERCIAL PERMIT IS VALID FOR THE MASS EARTH MOVEMENT, THE INSTALLATION OF ROADS, DRAINS, AND UTILITIES AND IS NOT FOR ANY SINGLE FAMILY RESIDENCE. ALL RESIDENTIAL BUILDERS WILL NEED TO SECURE WAIVERS AND OR PERMITS AS NECESSARY FOR EACH LOT IN THIS DEVELOPMENT AT THE TIME APPLICATION FOR SINGLE FAMILY RESIDENCE IS MADE.
34. THE ISSUING BUILDING DEPARTMENT SHALL NOT ISSUE THE CERTIFICATE OF OCCUPANCY UNTIL THE FINAL INSPECTION LETTER FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE HAS BEEN OBTAINED.
35. PER THE LIVINGSTON COUNTY DRAIN COMMISSIONER THE SEEDING, FERTILIZER AND MULCH MINIMUM QUANTITIES SHALL BE AS FOLLOWS:
TOP-SOIL 3" IN DEPTH
GRASS SEED 218 LBS. PER ACRE
FERTILIZER 150 LBS. PER ACRE
STRAW MULCH 3" IN DEPTH 1.5 TO 2 TONS PER ACRE (ALL MULCHING MUST HAVE A TACKER, SUCH AS TACKIFIER, NET BINDING, ETC.)
HYDRO-SEEDING HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%, IN SUCH CASES STABILIZATION SHALL BE DONE WITH SEED AND STRAW MULCH WITH A TACKIFIER.

MAINTENANCE SCHEDULE FOR SOIL EROSION CONTROLS
1. SILT FENCE SHALL BE INSPECTED WEEKLY AND AFTER EACH MAJOR STORM EVENT. MAINTENANCE SHALL INCLUDE REMOVAL OF ACCUMULATED SILT AND REPLACEMENT OF TORN SECTIONS. SILT FENCE SHALL BE REMOVED WHEN ALL CONTRIBUTING AREAS HAVE BEEN STABILIZED.
2. TRACKING PAD SHALL BE INSPECTED MONTHLY FOR ACCUMULATED DIRT. TRACKING PAD SHALL BE REPLACED WHEN THE STONES ARE CHECKED WITH DIRT. TRACKING PAD SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FIRST COURSE OF ASPHALT BEING LAID.
3. DETENTION/RETENTION POND SHALL BE INSPECTED QUARTERLY ON A PERMANENT BASIS. MAINTENANCE SHALL INCLUDE SEDIMENT REMOVAL, EMBANKMENT STABILIZATION AND MAINTAINING THE OUTLET STRUCTURE IN GOOD CONDITION. NO TREES SHALL BE ALLOWED TO GROW ON THE EMBANKMENT.
4. CATCH BASINS SHALL BE INSPECTED ANNUALLY FOR ACCUMULATION OF SEDIMENT. ALL SEDIMENT MUST BE REMOVED AND DISPOSED OF PROPERLY WHEN THE SUMP IS FULL.
5. COMMON AREAS SHALL BE STABILIZED NO LATER THAN 15 DAYS AFTER GRADE WORK, PURSUANT TO RULE 1709 (5).

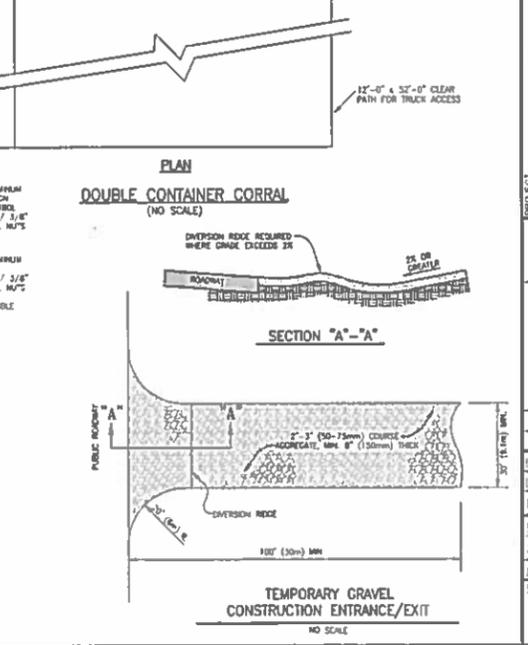
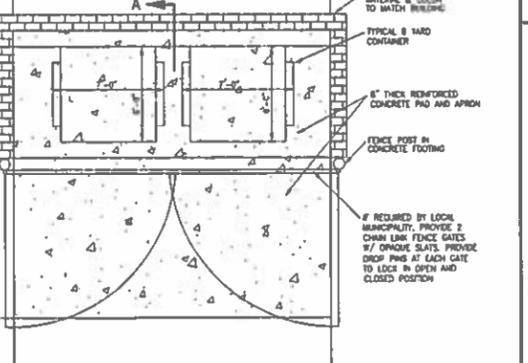
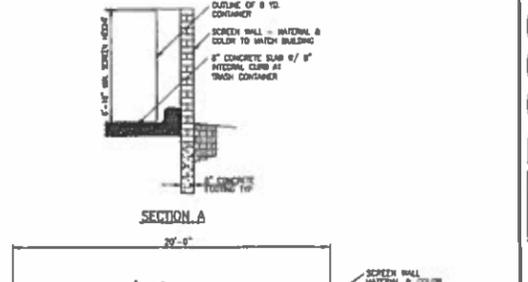
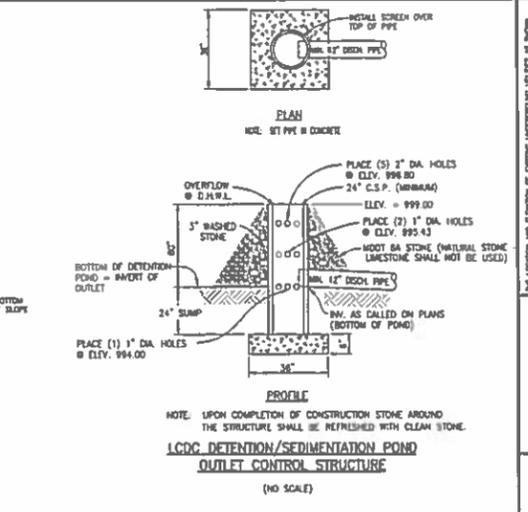
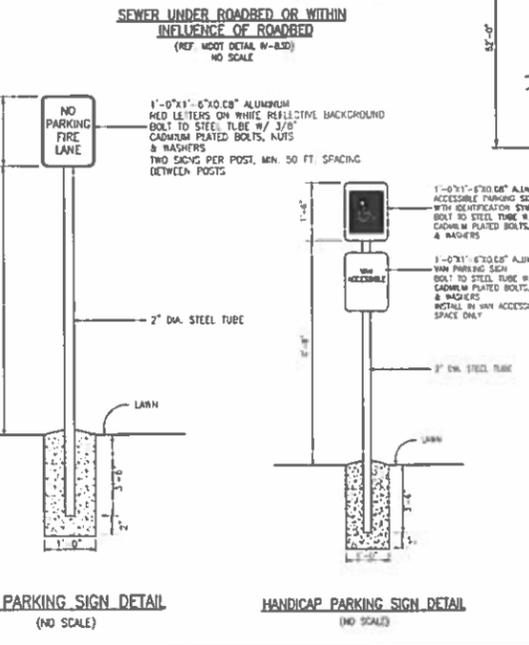
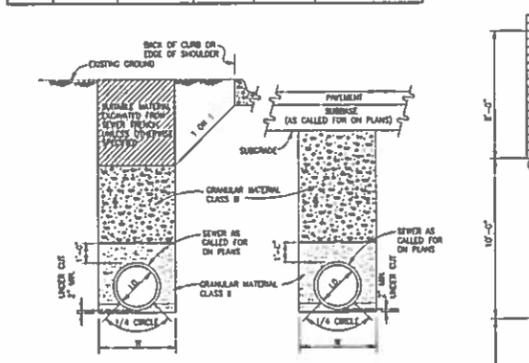
PER THE LIVINGSTON COUNTY DRAIN COMMISSIONER THE SEEDING, FERTILIZER AND MULCH MINIMUM QUANTITIES SHALL BE AS FOLLOWS:
TOP-SOIL 3" IN DEPTH
GRASS SEED 218 LBS. PER ACRE
FERTILIZER 150 LBS. PER ACRE
STRAW MULCH 3" IN DEPTH 1.5 TO 2 TONS PER ACRE (ALL MULCHING MUST HAVE A TACKER, SUCH AS TACKIFIER, NET BINDING, ETC.)
HYDRO-SEEDING HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%, IN SUCH CASES STABILIZATION SHALL BE DONE WITH SEED AND STRAW MULCH WITH A TACKIFIER.

MAINTENANCE SCHEDULE FOR SOIL EROSION CONTROLS

1. SILT FENCE SHALL BE INSPECTED WEEKLY AND AFTER EACH MAJOR STORM EVENT. MAINTENANCE SHALL INCLUDE REMOVAL OF ACCUMULATED SILT AND REPLACEMENT OF TORN SECTIONS. SILT FENCE SHALL BE REMOVED WHEN ALL CONTRIBUTING AREAS HAVE BEEN STABILIZED.
2. TRACKING PAD SHALL BE INSPECTED MONTHLY FOR ACCUMULATED DIRT. TRACKING PAD SHALL BE REPLACED WHEN THE STONES ARE CHECKED WITH DIRT. TRACKING PAD SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FIRST COURSE OF ASPHALT BEING LAID.
3. DETENTION/RETENTION POND SHALL BE INSPECTED QUARTERLY ON A PERMANENT BASIS. MAINTENANCE SHALL INCLUDE SEDIMENT REMOVAL, EMBANKMENT STABILIZATION AND MAINTAINING THE OUTLET STRUCTURE IN GOOD CONDITION. NO TREES SHALL BE ALLOWED TO GROW ON THE EMBANKMENT.
4. CATCH BASINS SHALL BE INSPECTED ANNUALLY FOR ACCUMULATION OF SEDIMENT. ALL SEDIMENT MUST BE REMOVED AND DISPOSED OF PROPERLY WHEN THE SUMP IS FULL.
5. COMMON AREAS SHALL BE STABILIZED NO LATER THAN 15 DAYS AFTER GRADE WORK, PURSUANT TO RULE 1709 (5).



STRUCTURE FRAMES & COVERS						
COVER	TYPE	USE	MANUFACTURER OR TYPE	LAST APPROV. NUMBER	TYPE OF COVER OR GRATE	
A	MH	ALL	1120	R-1415	SANITARY SELF SEALING STORM-VENTED	
B	60\"/>					



BEFORE YOU DIG
CALL MISS DIG
800-246-6735

BOSS Engineering
Engineers Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI 48843
800-246-6735 FAX 517-548-1670

CLAREY UNIVERSITY STUDENT HOUSING APARTMENT
UNIVERSITY HOUSING SOLUTIONS, LLC
90 POPLAR CEN ASSESS
(986) 711-7786

PROJECT PREPARED FOR: UNIVERSITY HOUSING SOLUTIONS, LLC
DATE: 10/2/14

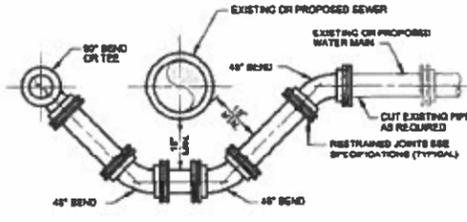
DESIGNED BY: ST
DRAWN BY: ST
CHECKED BY: ST
SCALE: NTS
JOB NO: 14-292
DATE: 10/2/14
SHEET NO: 8

PIPE RESTRAINT SCHEDULE

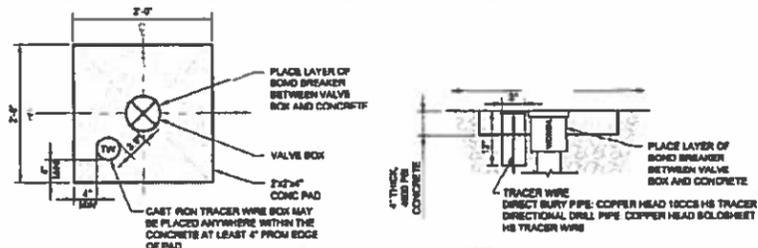
GROUND BURIED PRESSURE PIPE - POLYETHYLENE ENCASED DUCTILE IRON PIPE

PIPE DIAMETER	TEES, 90° BENDS	45° BENDS	22-1/2° BENDS	11-1/4° BENDS	DEAD ENDS	REDUCERS (ONE GAZZ REDUCTION)	REDUCERS (TWO GAZZ REDUCTION)
4	13	0	3	1	40	-	-
6	19	0	4	2	60	21	-
8	24	10	6	3	78	30	78
12	34	14	7	3	107	57	118
16	43	18	9	4	139	88	157
20	51	22	10	5	169	119	194
24	61	28	12	6	198	150	232
30	73	30	16	7	242	188	280
36	84	36	17	8	281	244	330

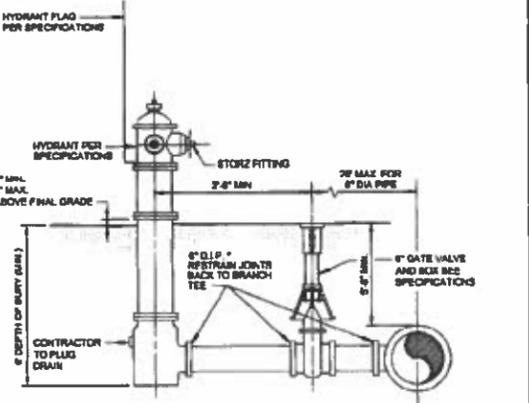
- LENGTHS OF PIPE RESTRAINT ARE GIVEN IN FEET.
 - IF REQUIRED PIPE DIAMETER IS NOT LISTED IN THIS TABLE, THE NEXT LARGEST PIPE DIAMETER SHALL BE USED.
 - THIS TABLE IS BASED ON A TEST PRESSURE OF 150 PSI (OPERATING PRESSURE PLUS WATER HAMMER). FOR OTHER TEST PRESSURES, ALL VALUES TO BE INCREASED OR DECREASED PROPORTIONALLY.
 - THE VALUES PROVIDED OF RESTRAINT LENGTHS ARE IN EACH DIRECTION FROM THE POINT OF DEFLECTION OR TERMINATION EXCEPT FOR TEES, AT WHICH ONLY THE BRANCH IN THE DIRECTION OF THE STEM.
 - IF THE ROOTS ARE USED, USE FOUR ROOTS MINIMUM AND ADD 1/8-INCH TO BAR DIAMETER AS CORROSION ALLOWANCE.
 - SIZE REDUCTION IS BASED UPON THE PIPE DIAMETER SHOWN IN THIS TABLE.
- BASED UPON:
- | | |
|-------------------|-----------|
| INTERNAL PRESSURE | 150 |
| PIPE DEPTH | TYPE 6 |
| BEDDING CLASS | TYPE 4 |
| SOIL TYPE | GOOD SAND |
| SAFETY FACTOR | 2 |



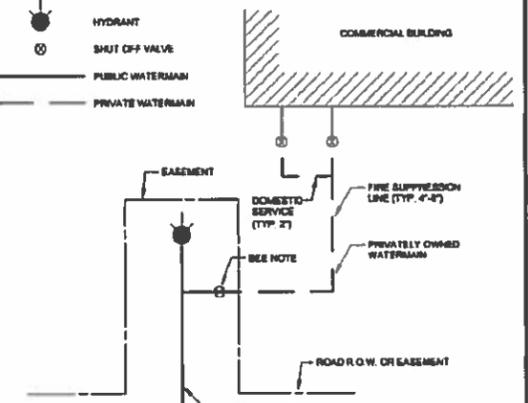
WATER MAIN UTILITY OFFSET



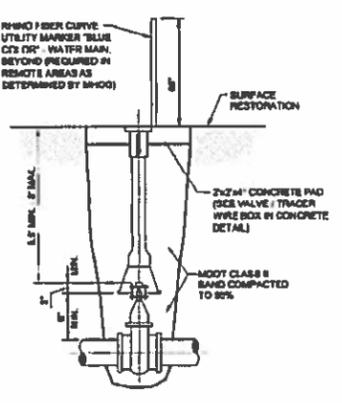
VALVE/TRACER WIRE BOX IN CONCRETE DETAIL



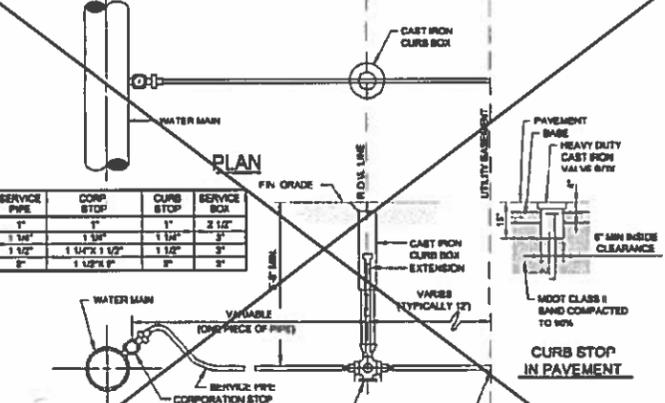
FIRE HYDRANT ASSEMBLY



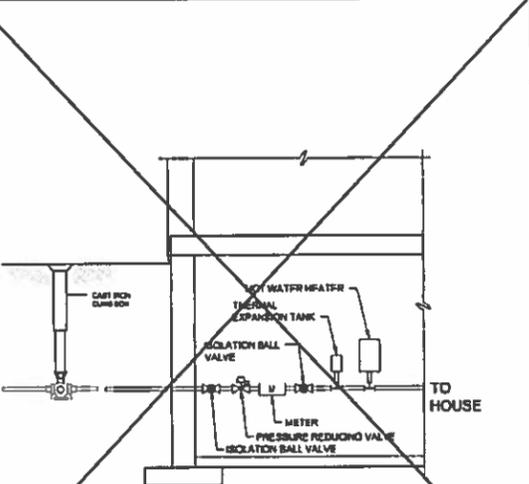
COMMERCIAL BUILDING WATER SERVICE LAYOUT



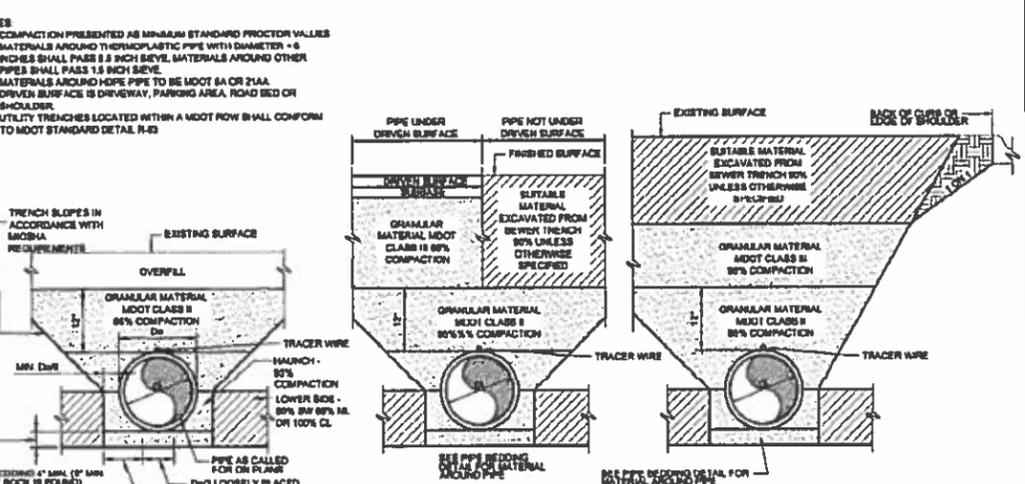
GATE VALVE AND BOX



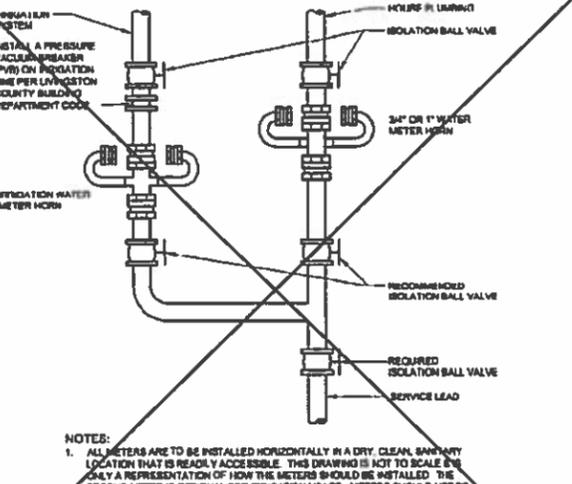
SECTION WATER SERVICE LATERAL



PRIVATE RESIDENCE PRESSURE REDUCING VALVE (PRV)



PIPE BEDDING TRENCH EXCAVATION & PIPE BEDDING



TYPICAL METER HORN INSTALLATION



MARION HOWELL OCEOLA GENOA
Professional Engineer
State of Florida

Scale: NONE
Revised Date: JANUARY 2014

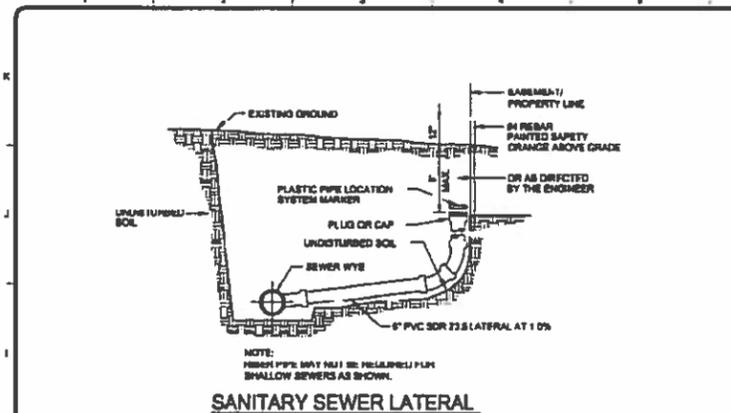
UNIVERSITY HOUSING SOLUTIONS, LLC
90 HOOVER BANKS DRIVE
HOWELL, MI 48843
(616) 711-7768

NO.	DATE	REVISION FOR

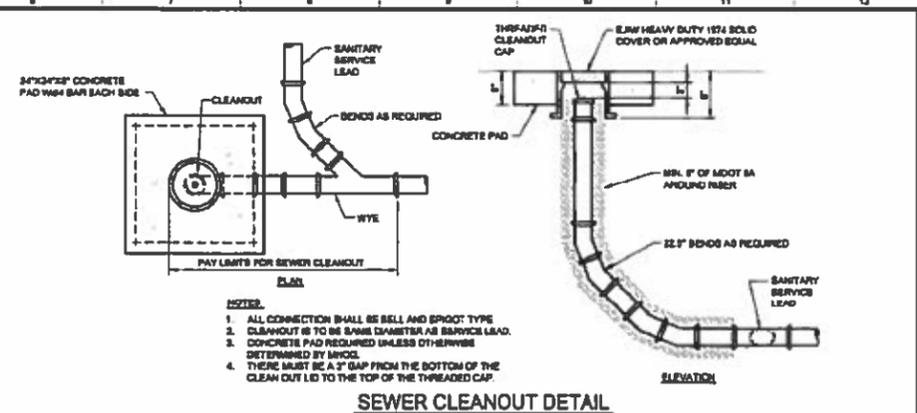
DESIGNED BY: [Signature]
DRAWN BY: [Signature]
CHECKED BY: [Signature]
SCALE: NTS
JOB NO. 14-292
DATE: 10/2/14
SHEET NO. 9

BEBOSS Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI 48843
800.246.6735 FAX 517.548.1670

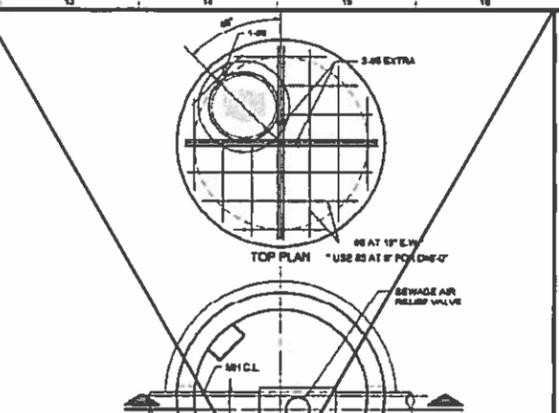




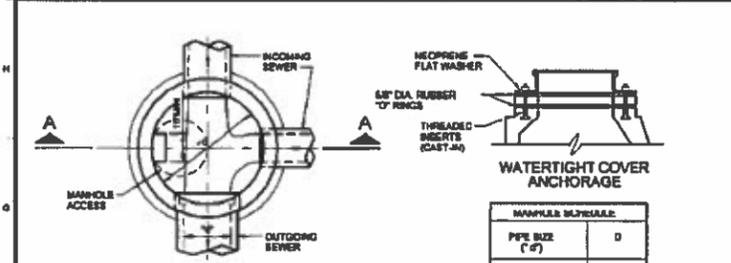
SANITARY SEWER LATERAL



SEWER CLEANOUT DETAIL

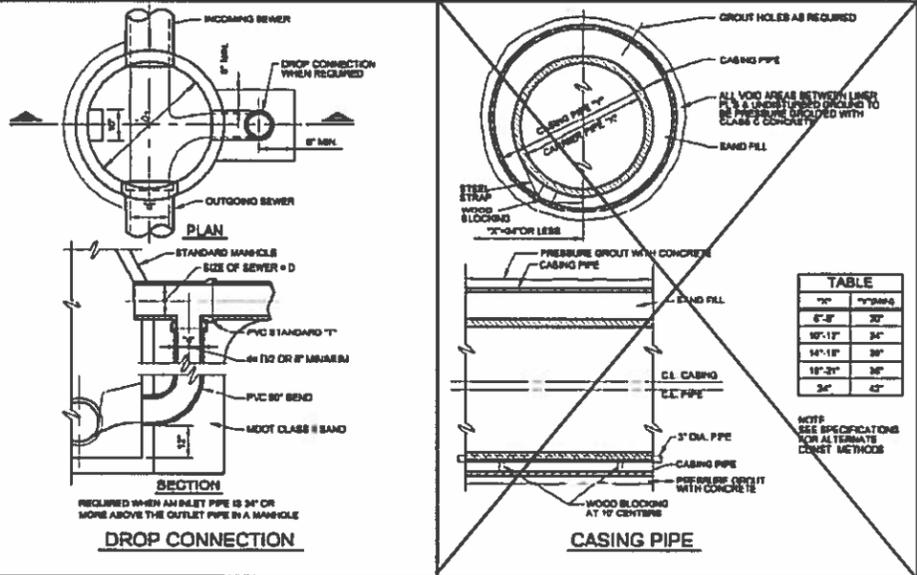


AIR RELIEF STRUCTURE



WATERTIGHT COVER ANCHORAGE

MANHOLE SIZE (D)	Pipe Size (D)
6"	4"
27"-36"	20"
42"-48"	24"
54"	30"

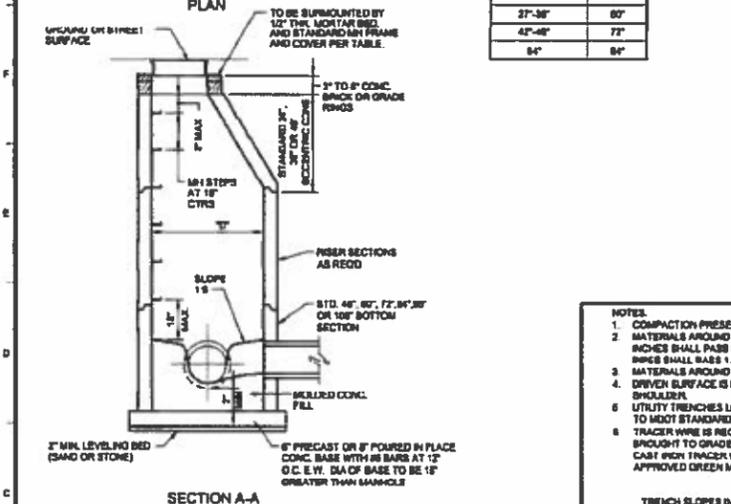


DROP CONNECTION

CASING PIPE

Drop Connection	Casing Pipe
6"	2"
12"	3"
18"	4"
24"	5"
30"	6"

TABLE

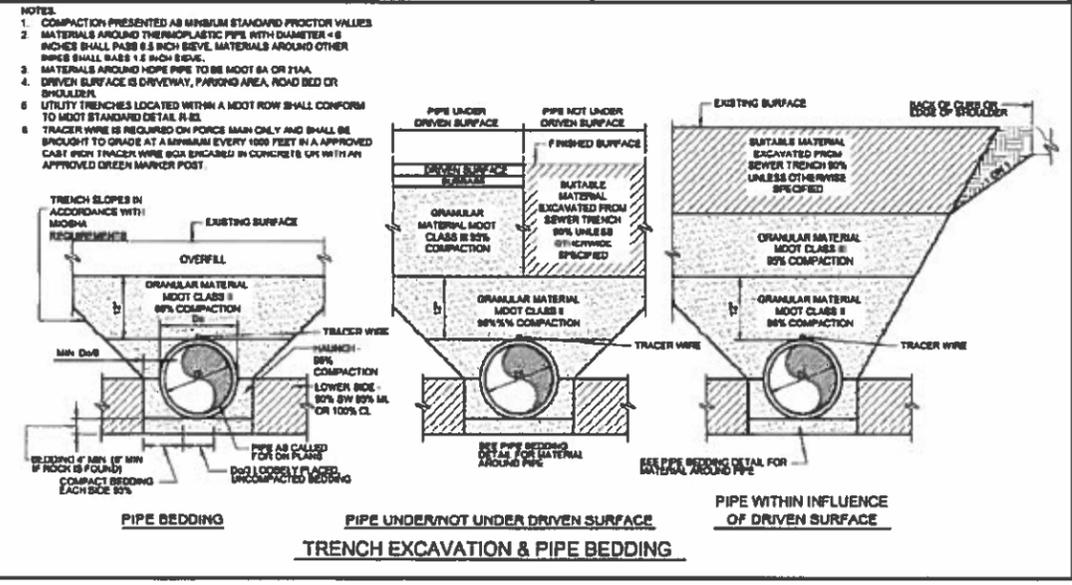


SECTION A-A

- NOTES**
- ALL SANITARY MANHOLES TO BE PRECAST REINFORCED CONCRETE WITH PRECAST JOINTS. SEE SPECIFICATIONS FOR BASIC SLAB AND P.P.C. CONNECTIONS.
 - MANHOLE COVERS SHALL BE THE ECCENTRIC TYPE.
 - PROVIDE 6" OF COMPACTED GRANULAR MATERIAL UNDER ALL PRECAST CONCRETE BASE SLABS.
 - FORCE MAINS CONNECT DIRECTLY TO A MANHOLE SHALL BE INSTALLED SO THAT THE ELEVATION OF THE PIPE CROWN MATCHES. THE FORCE MAIN SHALL BE DIRECTED DOWNWARD INTO THE FLOW CHANNEL.
 - FOR MAINLINE SERVICES ALL PIPES SHALL BE 1/2" DIA. RUBBER BOOTED CONNECTION.

FRAME & COVER FOR SANITARY SEWER MANHOLES			
		MANUFACTURER OR EQUAL	
TYPE	TYPE OF COVER	EAST	NEERAN
MH	SANITARY - SOLID SELF-SEALING	1040-0000	R-1642
MH	SANITARY - SOLID WATERIGHT	1040-APT	R-1916-F
CD	SOLID	1574A	R-1973-A

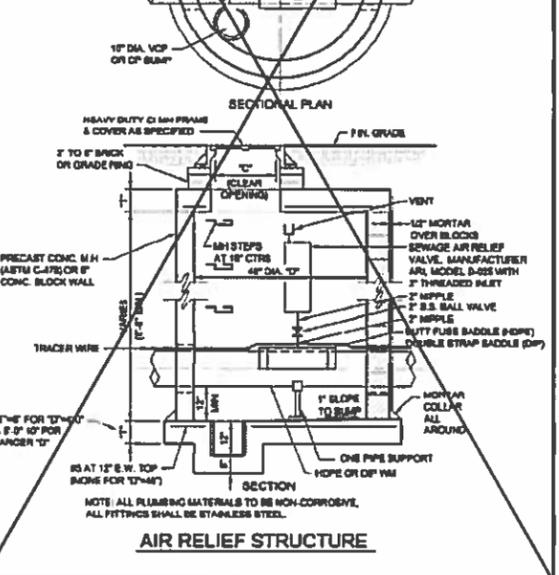
STANDARD MANHOLE



PIPE BEDDING

PIPE UNDER/NOT UNDER DRIVEN SURFACE TRENCH EXCAVATION & PIPE BEDDING

PIPE WITHIN INFLUENCE OF DRIVEN SURFACE



INTERIOR SEWER LATERAL DROP CONNECTION



GENOA OCEOLA
Sewer and Water Authority

SANITARY SEWER STANDARD DETAILS

Scale: NONE
Issued Date: JANUARY 2014

THE USER OF THESE DRAWINGS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR VERIFYING THE ACCURACY OF ALL INFORMATION PROVIDED TO THE ENGINEER. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THE USER'S WORK. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR VERIFYING THE ACCURACY OF ALL INFORMATION PROVIDED TO THE ENGINEER. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THE USER'S WORK.

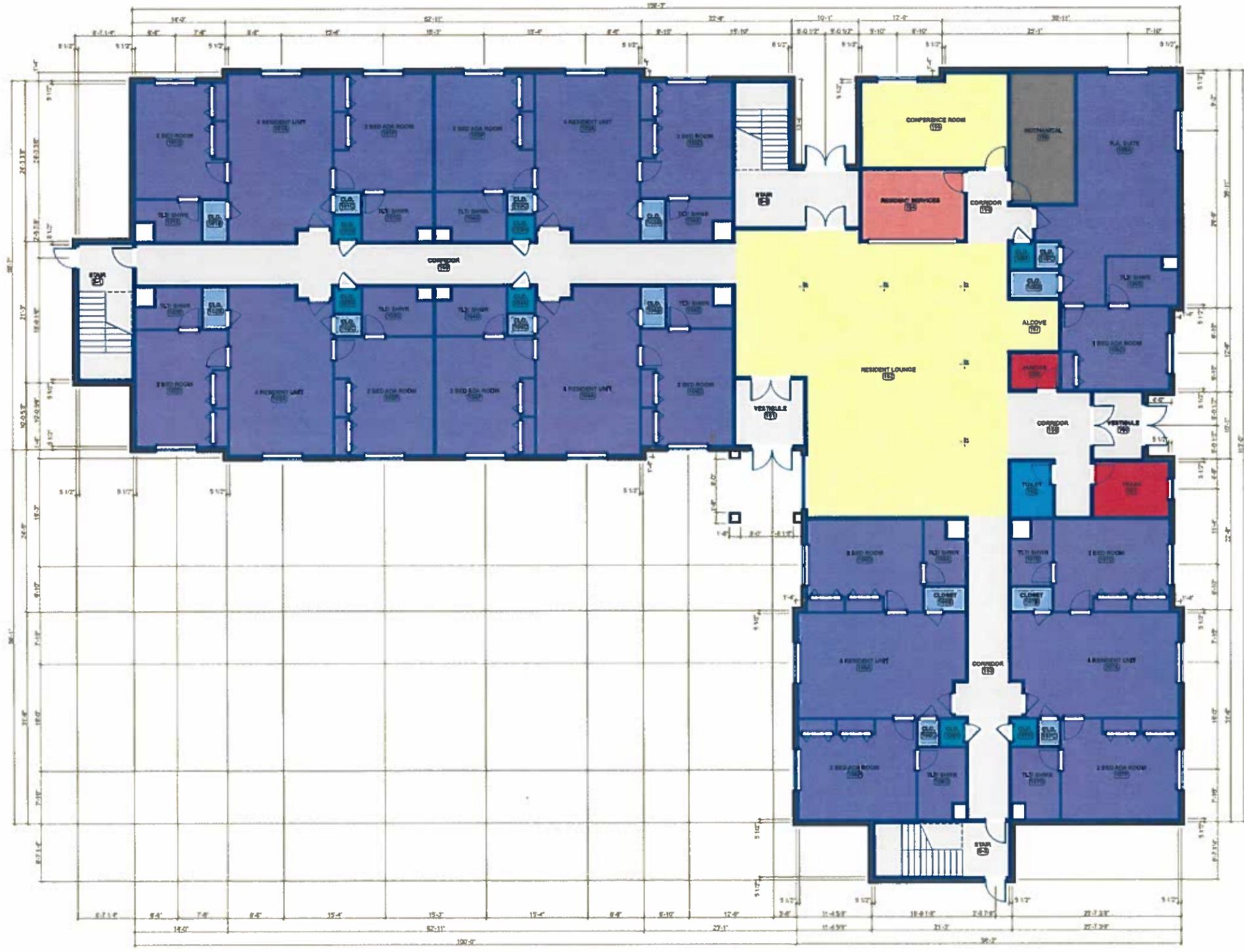
DEBOSS Engineering
Engineers Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
800.246.6735 FAX 517.548.1670

CLEAR UNIVERSITY STUDENT HOUSING APARTMENT
UNIVERSITY HOUSING SOLUTIONS, LLC
90 HIDDEN HARBOR DRIVE
ANN ARBOR, MI 48106
(863) 711-7788

NO.	REVISION	DATE

DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
SCALE: NTS
JOB NO. 14-292
DATE 10/2/14
SHEET NO. 10





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

PRELIMINARY - NOT FOR CONSTRUCTION

ARCHITECT OF RECORD
BRIAN BAUER
EXPIRATION #/###



■ ARCHITECTURE
■ ENGINEERING
■ PLANNING

104 FAIR AVENUE NE
NEW PHILADELPHIA,
OHIO 44863
PHONE: 330-384-8871
FAX: 330-343-3078

COLUMBUS
MANSFIELD
NEW PHILADELPHIA
www.mkcinc.com

CONSULTANTS

**NEW RESIDENTIAL
BUILDING AT
CLEARY UNIVERSITY
FOR
UNIVERSITY
HOUSING
SOLUTIONS**

**HOWELL
MICHIGAN**

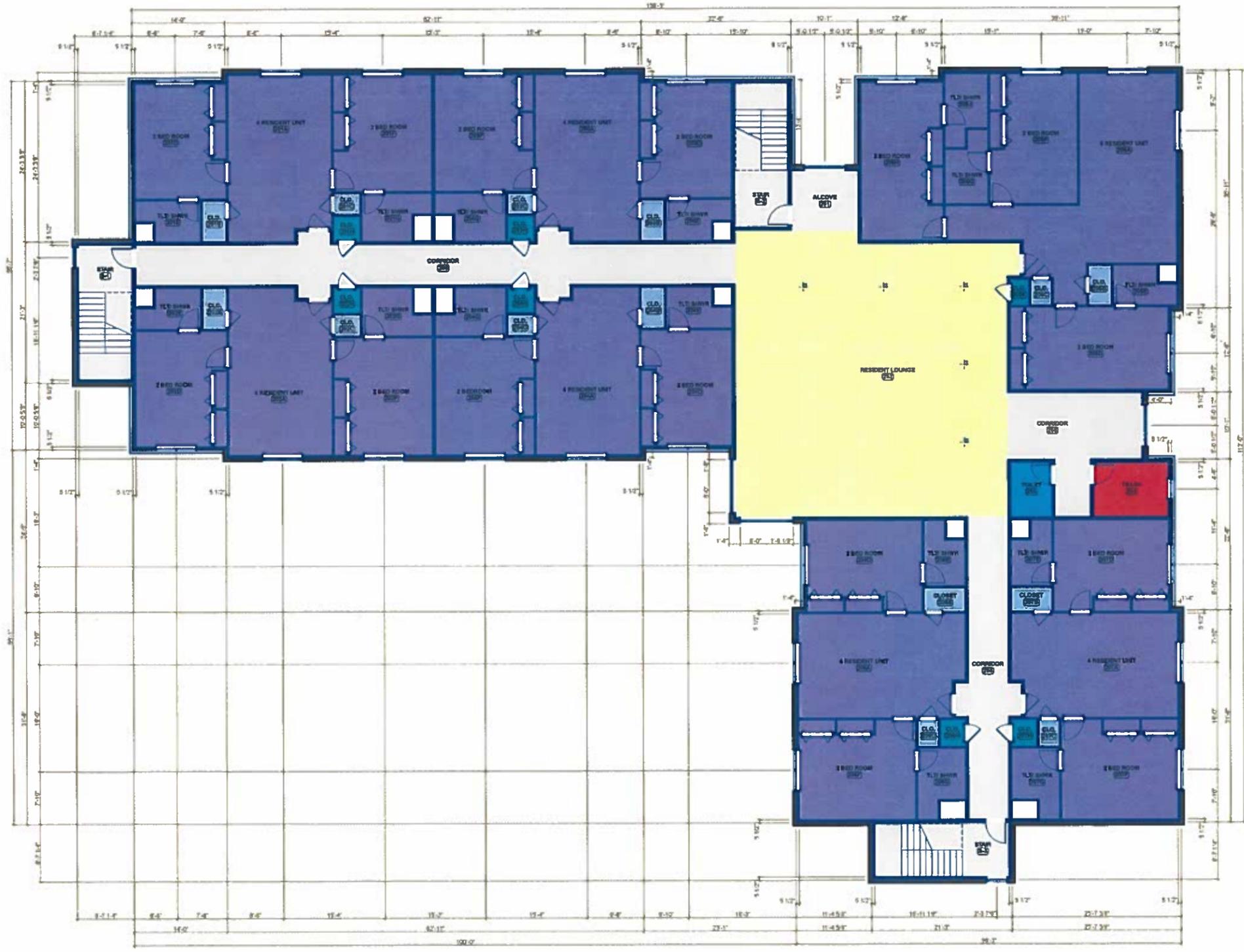
SUBMITTED: 10/01/2014

REVISIONS		
MARK	DATE	DESCRIPTION
△		
△		
△		
△		

DRAWN BY: PROJ. MGR
SHEET CONTENT

First Floor Plan

JOB NO. 14-095 SHEET A-001



SECOND FLOOR PLAN
SCALE 1/8" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

ARCHITECT OF RECORD
BRIAN BAUER
EXPIRATION #/M/M



■ ARCHITECTURE
■ ENGINEERING
■ PLANNING

104 FAIR AVENUE NE
NEW PHILADELPHIA,
OHIO 44883
PHONE : 330-364-8871
FAX : 330-343-3075

COLUMBUS
MANSHFIELD
NEW PHILADELPHIA
www.mkcinc.com

CONSULTANTS

**NEW RESIDENTIAL
BUILDING AT
CLEARY UNIVERSITY
FOR
UNIVERSITY
HOUSING
SOLUTIONS**

**HOWELL
MICHIGAN**

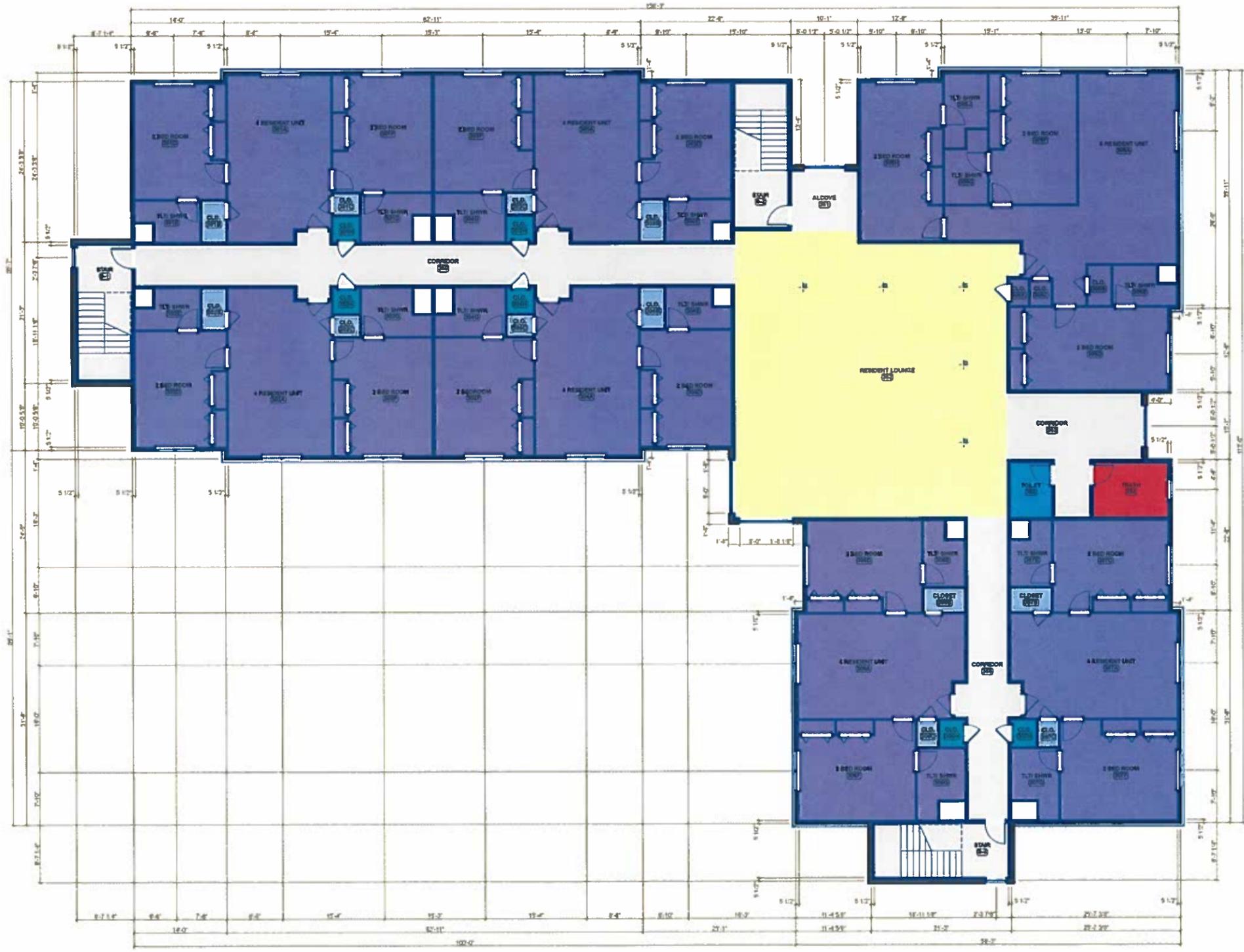
SUBMITTED: 10/01/2014

REVISIONS		
MARK	DATE	DESCRIPTION
△		
△		
△		
△		

DRAWN BY: _____ PROJ. MGR: _____
SHEET CONTENT

Second Floor Plan

JOB NO. 14-095 SHEET A-002



THIRD FLOOR PLAN
SCALE 1/8" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

ARCHITECT OF RECORD
BRIAN BAUER
EXPIRATION #/##



■ ARCHITECTURE
■ ENGINEERING
■ PLANNING

104 FAIR AVENUE NE
NEW PHILADELPHIA,
OHIO 44883
PHONE: 330-364-8871
FAX: 330-343-3078

COLUMBUS
MANSFIELD
NEW PHILADELPHIA
www.mkcinc.com

CONSULTANTS

**NEW RESIDENTIAL
BUILDING AT
CLEARY UNIVERSITY
FOR
UNIVERSITY
HOUSING
SOLUTIONS**

**HOWELL
MICHIGAN**

SUBMITTED: 10/01/2014

REVISIONS		
MARK	DATE	DESCRIPTION
△		
△		
△		
△		

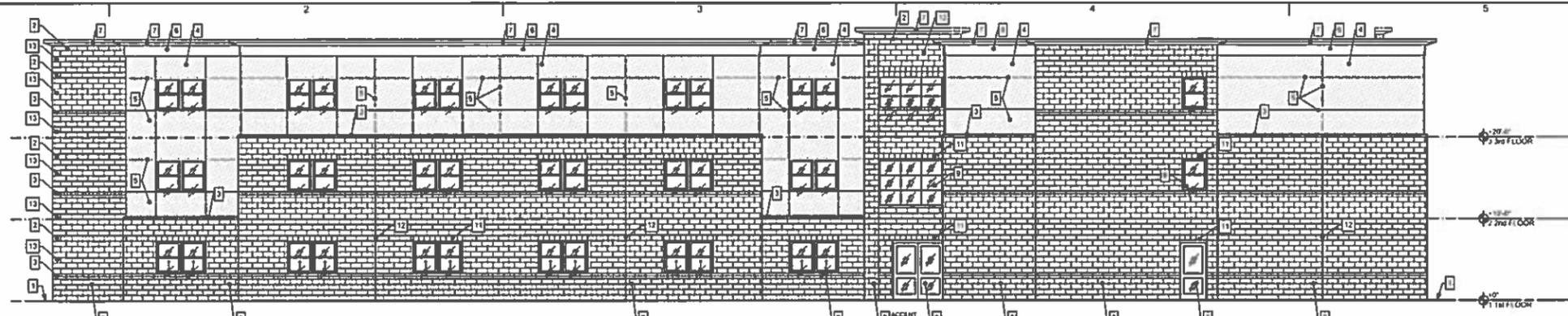
DRAWN BY: _____ PRCL MGR

SHEET CONTENT

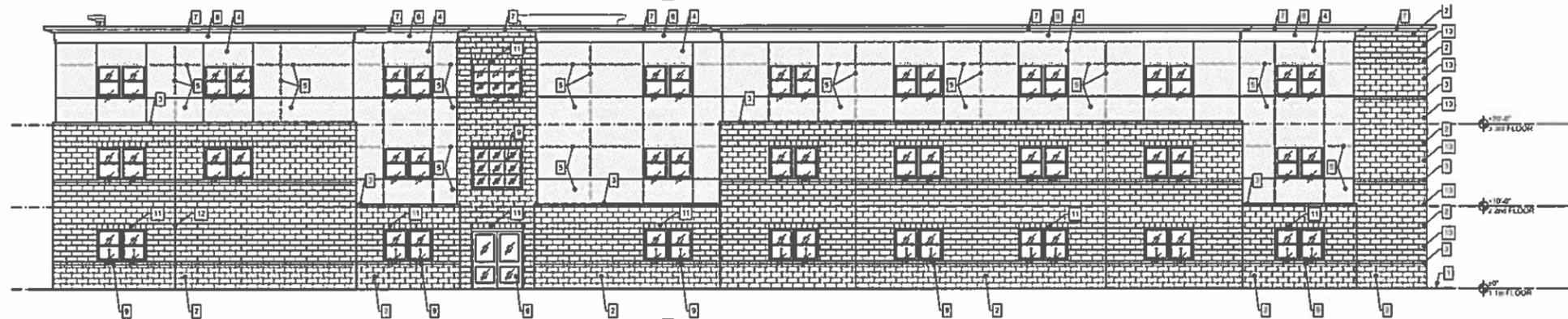
Third Floor Plan

JOB NO. 14-095 SHEET A-003

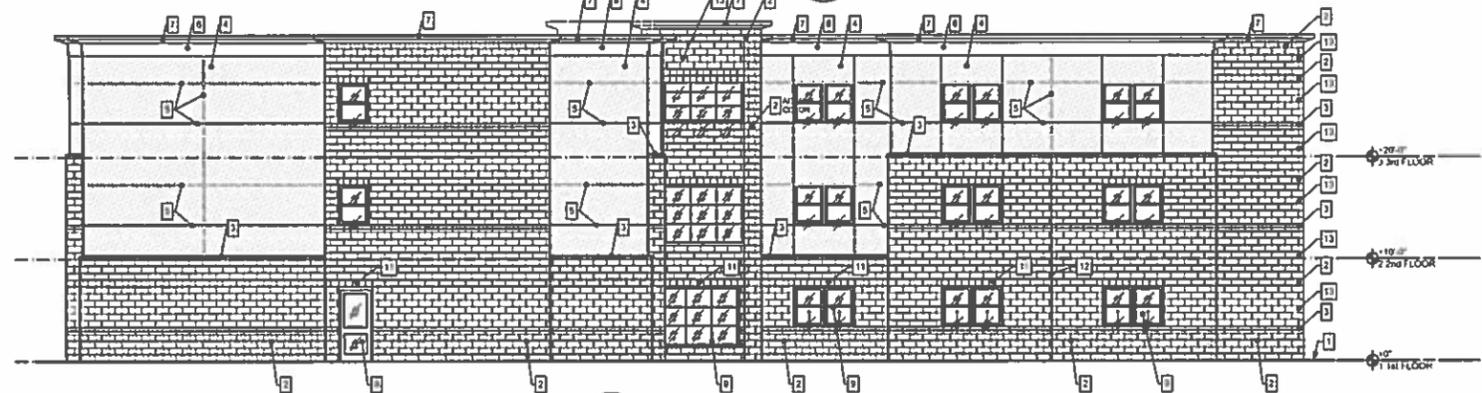
Printed 8/10/2014



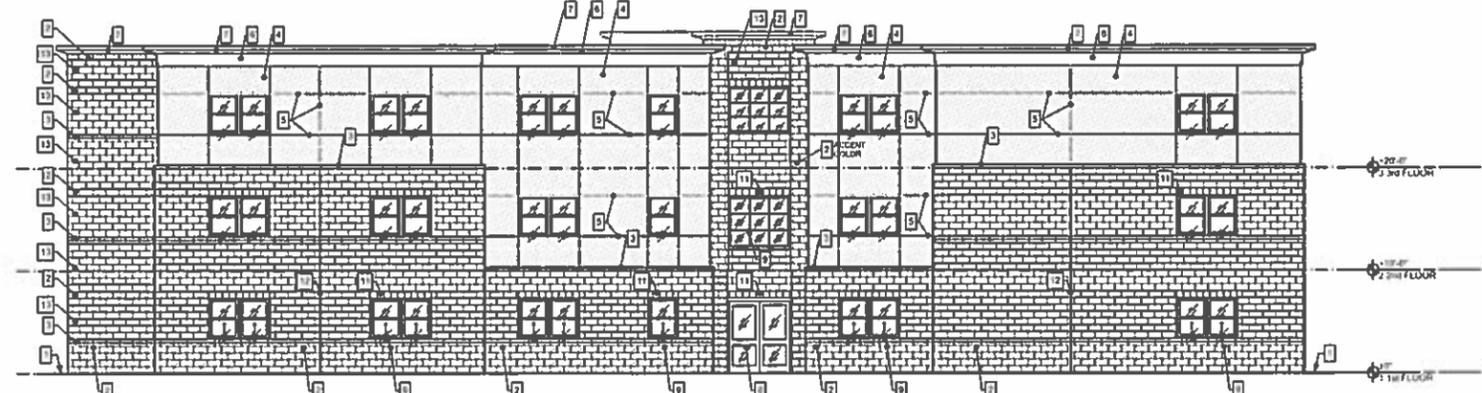
D1 ELEVATION
A-201 SCALE 1/8" = 1'-0"



C1 ELEVATION
A-201 SCALE 1/8" = 1'-0"



B1 ELEVATION
A-201 SCALE 1/8" = 1'-0"



A1 ELEVATION
A-201 SCALE 1/8" = 1'-0"

- ELEVATIONS KEYNOTES:**
1. FINISH GRADE
 2. SPLIT FACE CONCRETE MASONRY UNITS
 3. 4" H SPLIT FACE CMU BALL (ACCENT COLOR)
 4. 1 1/2" EPS SYSTEM ON DRAINAGE BOARD
 5. 3/4" V GROOVE
 6. METAL CLAD FREEZE BOARD
 7. METAL CLAD COPING
 8. HOLLOW METAL DOOR AND FRAME
 9. VINYL WINDOW
 10. METAL DOWNSPOUT
 11. SMOOTH FACE CONCRETE MASONRY HEADERS
 12. MASONRY CONTROL JOINT
 13. "GRAND BLANC" GROUND FACED ARCHITECTURAL BURNISHED MASONRY

PRELIMINARY - NOT FOR CONSTRUCTION

ARCHITECT OF RECORD
BRIAN BAUER
EXPIRATION ###



■ ARCHITECTURE
■ ENGINEERING
■ PLANNING

40 W. 4th STREET
MANSFIELD, OHIO 44902
PHONE: 419-625-1102
FAX: 419-625-1428

COLUMBUS
MANSFIELD
NEW PHILADELPHIA
www.mkcinc.com

CONSULTANTS

**NEW RESIDENTIAL
BUILDING AT
CLEARY UNIVERSITY
FOR**

**UNIVERSITY
HOUSING
SOLUTIONS**

**HOWELL
MICHIGAN**

SUBMITTED: 10/01/2014

REVISIONS		
MARK	DATE	DESCRIPTION
△		
△		
△		
△		

DRAWN BY: PROJ. MGR

SHEET CONTENT

Elevations

JOB NO. 14-095 SHEET A-201

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
OCTOBER 14, 2014
6:30 P.M.
MINUTES**

CALL TO ORDER: The meeting of the Genoa Township Planning Commission was called to order at 6:32 p.m. Present were Chairman Doug Brown, Eric Rauch, Barbara Figurski, James Mortensen, Diana Lowe, Chris Grajek, and John McManus. Also present was Kelly VanMarter, Township Community Development Director.

PLEDGE OF ALLEGIANCE: The Pledge of Allegiance was recited.

APPROVAL OF AGENDA: Barbara Figurski moved to approve the agenda. The motion was supported by Eric Rauch. **Motion carried unanimously.**

ELECTION OF VICE CHAIRMAN: Chairman Brown opened discussion and asked who might be the next Vice Chair. Diana Lowe made a motion to run for the Vice Chair position. Grajek supported. Chairman Brown thanked Lowe for volunteering. **Motion carried unanimously.**

CALL TO THE PUBLIC: The call to the public was held with no response.

OPEN PUBLIC HEARING #1... Review of sketch plan for a façade upgrade for ChemTrend, located at 3205 E. Grand River Ave., Howell, Parcel # 4711-05-100-006. The request is petitioned by ChemTrend Limited Partnership.

John Eckstein of Lindhout Associates of Brighton addressed the Planning Commission on behalf of the petitioner. Rob Curtis and Reid Sparks were also present from ChemTrend.

Rob Curtis addressed the group, ChemTrend is owned by a German company, in business since the 1960's and this is ChemTrend's largest facility.

The existing building is currently made up of two pre-engineered metal buildings with an in-fill addition. ChemTrend is proposing corrugated metal on top with aluminum composite panel below. The plan is to remove brick and put in place a store front system with a sunshade along the front for a contemporary look and due to southern exposure. Currently approximately 95% of the building is metal siding. ChemTrend is proposing higher quality materials and asking for permission for metal. The parapet wall cannot be increased to screen the roof top equipment because it would create unsafe snow drift loads. Many of the other options drove costs out of control.

Mortensen asked if the roof equipment would be hidden. ChemTrend representatives indicated that equipment would be painted to help camouflage the equipment. The frontage roofline would also be raised 8". Rob Curtis indicated that ChemTrend is motivated to improve the look and to help conceal the equipment. The current mustard yellow metal will be gone, painted grey to match the metal. Chris Grajek asked for the positioning of the roof equipment to be verified. Rob Curtis indicated that equipment was sitting near the front roofline and is newer; it might be less expensive to move the equipment than to raise the parapet. The current position of trees was also reviewed. Chairman Brown asked what interest their might be in additional landscaping in the front. Curtis and Eckstein indicated that landscaping has been updated since shown photograph. There is a sidewalk in front of the building as well.

Mortensen and Figurski expressed appreciation for the improvement efforts. Curtis indicated that ChemTrend plans to stay long-term and the parent company has a high tech profile and this upgrade is consistent with this presence.

Rauch identified that the proposed frontage has no element which softens the architectural texture such as cultured stone though he supports the materials proposed. Curtis and Eckstein indicated that a streamlined contemporary look is replacing cultured stone look in projects throughout the marketplace.

A call to the public was made with no response.

Planning Commission disposition of petition

A. Disposition of Sketch Plan. (09-22-14)

Motion by Mortensen to approve the Sketch Plan for ChemTrend subject to the following:

1. The mustard yellow color visible from Grand River will be repainted grey to match as near as possible the proposed new colors of the façade.
2. As rooftop equipment purchases are made in the future, efforts will be made to reduce the profile and visibility from the street. Meanwhile, the rooftop equipment will be painted to match the exterior façade of the building.
3. The materials and renderings reviewed this evening will become the property of the township.

Support by Barbara Figurski. **Motion carried unanimously.**

Administrative Business:

- *Staff report. The special meeting on October 27 is moving forward with proposed student housing, petitioned by Cleary University. Red Olive is petitioning to replace the Prairie House Restaurant and is currently on the agenda for the November 10 meeting.*

- *VanMarter reviewed the timelines involved in the overall Planning project process as well as the meeting calendar currently in place. The more meetings we offer, the more convenient it is for our developers. Our goal is to balance the costs to the developers and to Genoa. Mortensen expressed that the current meeting calendar looks fine for now, based on the number of projects of the past year. VanMarter stated that based on Planning Commission feedback, we will continue to move forward with one meeting per month with an option for a second meeting as needs arise.*
- *Approval of September 8, 2014 Planning Commission meeting minutes. **Motion** by Barbara Figurski to approve the minutes as amended. Support by John McManus. **Motion carried unanimously.***
- *Member discussion*
- *Adjournment. **Motion** by Diana Lowe to adjourn at 7:39 p.m. Support by Barbara Figurski. **Motion carried unanimously.***