### GENOA CHARTER TOWNSHIP PLANNING COMMISSION PUBLIC HEARING TUESDAY, OCTOBER 11, 2016 6:30 P.M. AGENDA

### **CALL TO ORDER:**

### PLEDGE OF ALLEGIANCE:

### **APPROVAL OF AGENDA:**

<u>CALL TO THE PUBLIC:</u> (Note: The Board reserves the right to not begin new business after 10:00 p.m.)

**OPEN PUBLIC HEARING #1...**Review of environmental impact assessment and site plan for a proposed multi-tenant commercial center to include a 2,117 sq. ft restaurant with drive-thru, a 2,819 sq. ft. restaurant space with an attached 1,501 hair salon located at the northwest corner of the Grand Oaks Drive and Latson Road. The request is petitioned by USA 2 GO.

### Planning Commission disposition of petition:

- A. Recommendation of Impact Assessment (9-21-16)
- B. Recommendation of Site Plan (9-21-16)

### **ADMINISTRATIVE BUSINESS:**

- Staff Report
- Approval of September 12, 2016 Planning Commission meeting minutes
- Member discussion
- Adjournment



# GENOA CHARTER TOWNSHIP Application for Site Plan Review

**GENOA TOWNSHIP** 

AUG 2 5 2016

RECEIVED

### TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: USA 2 GO, 28265 Beck Road, Suite C-2, wixon, MI 48393
If applicant is not the owner, a letter of Authorization from Property Owner is needed.
OWNER'S NAME & ADDRESS: RG Properties, 10050 Innovation Dr., Suite 100, Dayton, OH 45342
SITE ADDRESS: Intersection of Latson Rd. and Grand Oaks Dr. PARCEL #(s): 11-08-200-017
APPLICANT PHONE: (248) 773-7992 OWNER PHONE: (937) 434-7218
OWNER EMAIL: tgunlock@rgproperties.com
LOCATION AND BRIEF DESCRIPTION OF SITE: The site is located at the northwest corner
of S. Latson Road and Grand Oaks Drive. The property has 380 feet of frontage on
Latson Road. The zoning is currently undeveloped, non-residential planned unit
development (NRPUD). The total site is approximately 1.43 acres.
BRIEF STATEMENT OF PROPOSED USE:  The proposed use for the property is to build a drive-thru
coffee shop in the northern building and a second commercial building, with required parking.
THE FOLLOWING BUILDINGS ARE PROPOSED: The northern building is a proposed coffee shop
with drive-thru service. The building will be approximately 2,117 s.f. in total area.
The second building will be approximately 4,320 s.f. containing two units.
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: Thom Dumond w/Boss Engineering
ADDRESS: 3121 E. Grand River Ave., Howell, MI 48843

Contact Information - Review Letters and Correspondence shall be forwarded to the following:						
Thom Dumond of Boss Engineering at thom@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.

PRINT NAME: Thom Dumond

DATE: 8-22-16

PHONE: 517-861-9387

ADDRESS: 3121 E. Grand River Ave., Howell, MI 48843



# AUG 2 6 2016 RECEIVED

August 25, 2016

Genoa Township Planning Commission Genoa Township Hall 2911 Dorr Road Brighton, MI 48116

RE: Lot A, Livingston Commons PUD, Genoa Township, Livingston County, Michigan

Dear Commission Members,

As owners of the above referenced property, RG Properties hereby authorizes USA 2 GO and its representatives to proceed through Genoa Township and other required governmental agencies having jurisdiction, with the design development and construction of a commercial center on the aforementioned property.

Regards,

Thomas W. Gunlock Sr. Property Manager



Planning Commission Genoa Township 2911 Dorr Road Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP
	Planning Director and Assistant Township Manager
Subject:	Genoa Plaza – Site Plan Review #2
<b>Location:</b>	Grand Oaks Drive – vacant parcel at the northwest corner of Grand Oaks and Latson Road
<b>Zoning:</b>	NR-PUD Non-Residential Planned Unit Development District

### Dear Commissioners:

At the Township's request, we have reviewed the revised site plan (dated 9/21/16) proposing a new multitenant commercial center for the vacant 2.31-acre site at the northwest corner of Grand Oaks and Latson Road.

The site, which is immediately east of Lowe's, is part of the Livingston Commons PUD and is zoned NR-PUD. We have reviewed the proposal in accordance with the applicable provisions of the Genoa Township Zoning Ordinance, as well as the PUD Agreement for the subject site.

### A. Summary

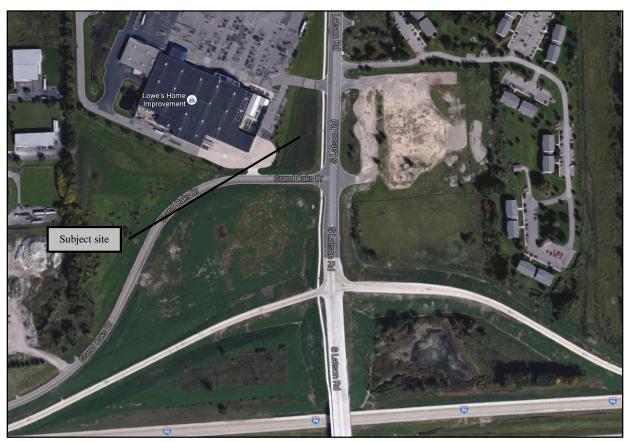
- 1. The applicable standards for drive-through restaurants are met, although the last stacking space may temporarily block access to some of the parking spaces.
- 2. Two of the wall faces (south side of north building and north side of south building) slightly exceed the allowable percentage of cement board siding.
- 3. In our opinion, the PUD Agreement does not allow both the proposed and existing curb cuts along Grand Oaks. This item warrants additional discussion at the upcoming meeting.
- 4. There are two minor discrepancies on the landscape plan that need to be corrected.
- 5. Permits will be required prior to installation of any tenant signage.
- 6. The applicant should be aware that this PUD requires the use of channel lettering for wall signs.
- 7. The lot area noted on the site plan is different than that referenced in the Impact Assessment.
- 8. The easement area for the Township entranceway signage needs to be 7' x 25'.
- 9. The entranceway signage easement should also be recorded and dedicated to the Township.

### B. Proposal/Process

The applicant requests site plan review and approval of a multi-tenant commercial center, which includes two buildings – one drive-through restaurant containing 2,117 square feet of floor area and a two tenant building (restaurant and hair salon) containing 4,320 square feet of floor area.

Based on the PUD Agreement, the uses are all permitted by right, although the drive through restaurant must comply with the use conditions outlined in Paragraph C below.

Procedurally, the Planning Commission is to make a recommendation to the Township Board on both the final PUD site plan and Environmental Impact Assessment.



Aerial view of site and surroundings (looking north)

### **C.** Use Conditions (Drive through Restaurant)

Section 7.02.02(j) provides the following use conditions for drive-through restaurants:

1. Principal and accessory buildings shall be setback fifty (50) feet from any adjacent public right of way line or property line.

The revised plan has shifted the building containing the drive-through restaurant to provide a 50-foot minimum setback. This standard is met.

2. The establishment of a new drive-through restaurant shall require the lot be separated a minimum of five hundred (500) feet from any other lot containing a drive-through restaurant.

The PUD Agreement specifically waives this standard.

3. Only one (1) access shall be provided onto any street.

There is a one-way entrance to the site from Grand Oaks and a connection to an internal service drive from Latson Road; however, there is no direct access to/from Latson. This standard is met.

4. Such restaurants constructed adjacent to other commercial developments shall have a direct vehicular access connection where possible.

As noted above, the site has a connection to an internal drive that provides access throughout the development. This standard is met.

### D. Site Plan Review

**1. Dimensional Requirements.** As described in the table below, the project complies with the dimensional standards for this PUD:

	Lot S	Lot Size Minin		num Setbacks (feet)			Max.	
District	Lot Area (acres)	Width (feet)	Front Yard	Side Yard	Rear Yard	Parking	Height	Lot Coverage
NR- PUD	1	120	10	5	10	10 front 5 side/rear	75' / 5 stories	50% building 90% impervious
Proposal	2.31	874	59.5 (Latson) 78.9 (Grand Oaks)	115 (N)	31.67	10 front 10 side/rear	21.7' / 1 story	6.2% building 46% impervious

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

Primary materials include brick and cement board siding, with decorative awnings, brick soldier course and a stone block base as accents. The flat roof buildings include parapets to help screen mechanical equipment. A note has also been added stating that all rooftop units will be fully screened by the parapet walls.

The PUD agreement requires that out parcel buildings provide at least 80% natural materials for all wall surfaces. In response, the applicant has added material calculations to the elevation drawings demonstrating that all but two wall faces meet this standard.

More specifically, the south side of the north building (22%) and north side of the south building (23%) provide slightly too much cement board siding.

**3. Parking.** Based on the specific uses proposed, the development requires a total of 58 spaces, while 62 are provided. This includes the 3 required barrier free spaces. Typical parking details also show the use of looped (double striped) spaces, as required.

Additionally, Section 14.04 requires 10 stacking spaces, 3 short-term waiting spaces and 2 RV/semi-truck spaces. The revised plan provides 10 stacking spaces and 3 parking spaces just past the drive through window that may act as waiting spaces, although the  $10^{th}$  stacking space may temporality block some of the parking spaces.

Given the full scope of the Livingston Commons development, the Township has previously allowed the use of other areas within the PUD for the RV/semi-truck parking.

- **4. Pedestrian Circulation.** There is an existing concrete sidewalk in the Latson right-of-way. The plan proposes a connection to this sidewalk, as well as a separate sidewalk along the site's Grand Oaks frontage. Internal connections, crosswalk striping and ramps at driveways are also provided.
- **5. Vehicular Circulation.** Primary vehicular access is via the east/west drive connecting Lowe's to Latson Road. There is also a one-way entrance off of Grand Oaks.

The plan proposes a combination of one-way and two-way drives with sufficient aisle width for each type.

Lastly, paragraph 3.2(M) of the PUD Agreement allows for a right in/right out drive on Grand Oaks; however, this also restricts the Lowe's parcel from having direct access to Grand Oaks. Based on our read of the Agreement, the existing Lowe's curb cut along Grand Oaks would need to be removed in order to accommodate the new one.

Genoa Township Planning Commission Genoa Plaza Site Plan Review #2 Page 4

Given the applicant's response to this matter in the revised submittal, it seems there is a difference of interpretation. In our opinion, this matter warrants additional discussion at the upcoming meeting.

- **6. Loading.** Loading zones are shown on the west side of the single tenant building. Given the proposed design, deliveries will need to occur during off-peak times, as the zones will block traffic in the drive-through and/or bypass lanes. The applicant has indicated that deliveries will be scheduled for off-peak time so as to minimize the disruption.
- **7. Landscaping**. We have reviewed the landscape plan based on the conventional standards of Section 12.02 with adjustments made in terms of the PUD Agreement.

Location	Requirements	Proposed	Comments
Front yard greenbelts	Extensive landscaping 10' width	13 trees 2.5' hedgerow 10' width	Requirements met
Parking lot	19 trees	21 trees	Requirement met

Additionally, the project includes outdoor tables/chairs, benches and bike rack in accordance with the PUD Agreement requirement for "pedestrian gathering and seating plazas."

Lastly, there are two minor discrepancies between the landscape plan and table of plantings that need to be corrected for the number of Littleleaf Linden (9 versus 7) and Mount Airy Fothergilla (42 versus 38).

- **8. Waste Receptacle and Enclosure.** The project includes a new waste receptacle and enclosure adjacent to the south side of the sit-down restaurant building. Details include the required concrete base pad and enclosure matching the materials used on the building. Placement and design details also comply with Ordinance requirements.
- **9. Exterior Lighting.** Sheet C7 includes a detailed lighting plan proposing the use of 8 parking lot light poles, 12 wall-mounted fixtures and 8 ornamental street lights. Except for the ornamental fixtures, details show the use of downward directed LED fixtures and the photometric readings are well within that allowed by Ordinance.
- **10. Signs.** The submittal includes a detail for a new monument sign (Sheet C3). The location, size, height and design of the monument sign are compliant.

At such time as tenants are known, the applicant must apply for a sign permit for the monument sign panels and wall signage. Additionally, the applicant should be aware that this PUD requires the use of channel or individual lettering and not panels for wall signage.

**11. Impact Assessment.** The submittal includes a revised Impact Assessment (dated 9/21/16). In summary, the Assessment notes that the project is not anticipated to adversely impact natural features, public services/utilities, surrounding land uses or traffic.

The applicant has confirmed the lot area as 1.43 acres, which is consistent with the Impact Assessment. However, Sheet C3 refers to it as a 2.31-acre site.

Genoa Township Planning Commission Genoa Plaza Site Plan Review #2 Page 5

**12. Township Entranceway.** Section 6.4B of the PUD Agreement requires a Township entranceway landmark with a depiction included as Exhibit D.

As noted in our first review letter, this feature was envisioned closer to the expressway ramp; however, we believe the southeast corner of the site could be an appropriate location with better visibility.

In response to our suggestions, the revised plans provide an area for the entranceway signage along with additional ornamental landscaping to enhance this site as a gateway to the Township. The plan identifies an easement area for the entranceway signage; however, it is noted as a 7-inch easement. The area scales to roughly 7' x 23'. The note should be corrected accordingly.

Additionally, based on renderings prepared by the Township, the area needs to be at least 7' x 25', so we request that the applicant slightly expand the easement area. The easement area will also need to be recorded and dedicated to the Township.

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 <a href="mailto:borden@lslplanning.com">borden@lslplanning.com</a>.

Respectfully,

LSL PLANNING, A SAFEBUILT COMPANY

Brian V. Borden, AICP Planning Manager



October 4, 2016

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

Re: Genoa Plaza Site Plan Review

Dear Ms. Van Marter:

We have reviewed the updated site plan documents from Boss Engineering, Inc. dated September 21, 2016, which were delivered to the Township Engineer on that date. The applicant is proposing a mixed-use development including a 2,117 sft restaurant with drive-thru service, a 2,819 sft restaurant space and an attached 1,501 sft hair salon on the northwest corner of Grand Oaks Drive and Latson Road in an outlot east of Lowe's. Tetra Tech has reviewed the updated documents and site plan and offers the following comments:

### **Summary**

- 1. Sanitary sewer service needed to each building.
- 2. Revisions to the on-site water main and connection.

### Site Plan

- 1. Section 7 of the Genoa-Oceola Sewer Use Ordinance prohibits multiple buildings discharging into one lead. A separate and independent building sewer shall be provided for every building.
- 2. MHOG Engineering recommends looping the water main to the north based on the length and expected usage. The connection to the existing water main is proposed as a tapping sleeve and valve right at an existing underground fitting, which is not ideal. We recommend the existing fitting be removed and replaced with a tee and valve to the site.

The petitioner should review the above comments, revise the site plan drawings and resubmit the documents for review. The petitioner will be required to submit construction plans of public utilities to MHOG for plan review, permitting and inspection requirements.

roject Engineer

Please call if you have any questions.

Sincerely,

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

Copy: Thom Dumond P.E. Boss Engineering Inc.

Tetra Tech

### **BRIGHTON AREA FIRE AUTHORITY**



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

September 29, 2016

Kelly VanMarter Genoa Township 2911 Dorr Road Brighton, MI 48116

RE: Genoa Plaza

Latson & Grand Oaks Dr.

Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above mentioned site plan. The plans were received for review on September 23, 2016 and the drawings are dated August 22, 2016 with revisions dated September 21, 2016. The project is for a proposed new multi-tenant retail plaza consisting of one mixed-use structure and one single tenant structure. The plan review is based on the requirements of the International Fire Code (IFC) 2015 edition.

 Based upon building size, proposed occupancy use and potential occupant load; Structure R2 may be required to be provided with an automatic sprinkler system in accordance with NFPA 13, Standard for the Installation of Automatic Sprinkler Systems. Architectural drawings and detail are required to make this determination for both structures. (Noted that at this time, suppression is not required)

IFC 903

- A. If automatic sprinklers are required, the FDC shall be located on the front of the building (Latson rd.).
- B. If required; the location, size, gate valve and connection of the fire protection lead(s) shall be indicated on the utility site plan.
- 2. The buildings shall include the address numbers on the building. The address shall be a <u>minimum of 6"</u> high letters of contrasting colors and be clearly visible from the street (Latson Rd.). The location and size shall be verified prior to installation. (Noted to be Provided on Architectural Drawings)

IEC 505 1

3. The one way access road along the rear of the structure along with the one-way entrance onto the site from Grand Oaks Dr. shall be a minimum of 20' wide and be maintained the entire length of the rear of the property. The two-way access drive extending along the east side of the property from the south to the north shall be a minimum of 26' wide. There is no dimension identifying this width on the site plan. With a width of 26' wide, the building side of the drive shall be marked as a fire lane. With a width of 20' both sides of the rear drive 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. 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. (All items are revised or noted on Drawings)

IFC D 102.1 IFC D 103.1 IFC D 103.6



### BRIGHTON AREA FIRE AUTHORITY

September 29, 2016 Page 2 Genoa Plaza Latson & Grand Oaks Dr. Site Plan Review

> IFC D 103.6.1 IFC D 103.6.2

- 4. An additional fire hydrant must be installed on the front (Latson Rd.) side of the structure at the drive-thru lane exit between the two buildings, near reference P09. The existing hydrants provided on the Utility plan are located at the rear area not on the property and are not conducive for fire department operations. (Provided on Utility Plan in appropriate location) IFC C 103
- 5. Access onto the site and around building shall provide emergency vehicles with a turning radius of 50' outside and 30' inside up to 55' wall to wall and a minimum vertical clearance of 13½ feet. (Vehicle Circulation Provided and Radii noted)

IFC 503.2.1 IFC D 103.3

6. The location of a key box (Knox Box) shall be indicated on future submittals. The Knox box shall be located adjacent to the front door of each occupant space of both structures. (Noted to be Provided at Time of Construction)

IFC 506.1

7. Provide names, addresses, phone numbers, emails of owner or owner's agent, contractor, architect, on-site project supervisor. (Noted on Drawing, Contractor TBD)

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department.

If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially

Capt. Rick Boisvert, CFPS Fire Inspector

### **Livingston County Road Commission**

3535 Grand Oaks Drive • Howell, Michigan 48843-8575 Telephone: (517) 546-4250 • Facsimile: (517) 546-9628 Internet Address: www.livingstonroads.org

September 23, 2016

Thom Dumond, RLA, LEED AP Boss Engineering 3121 E. Grand River Ave Howell, MI 48843

Re:

Genoa Plaza, Genoa Township, Section 8

LCRC# C-16-08

Dear Mr. Dumond:

I have completed the review of the revised plans, dated September 21, 2016, for the abovereferenced project and have determined the plans to be in substantial compliance with our specifications.

Before a commercial driveway approach permit can be issued, the following items need to be addressed.

- The selected contractor must submit a certificate of insurance to the LCRC with the following language: "The Board of Livingston County Road Commissioners, the Livingston County Road Commission, and their officers, agents, and employees are listed additional insured parties with respects to General Liability."
- 2. An approval letter for the storm sewer discharge into the existing drainage structures on Latson Road will need to be submitted from either Genoa Township or the Livingston County Drain Commissioner's office prior to the issuance of an approach permit.
- 3. An approval letter or permit from the MHOG Utility Department for the connection to its water and sewer system will need to be submitted prior to the issuance of an approach permit.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Kim Hiller, P.E.

**Utilities and Permits Engineer** 

Cc: File

Kelly VanMarter, Genoa Township (via email)

Greg Tatara, MHOG (via email)

Ken Recker, Livingston County Drain Commissioner's office (via email)

# IMPACT ASSESSMENT FOR SITE PLAN PETITION "GENOA PLAZA" GENOA TOWNSHIP, LIVINGSTON COUNTY MICHIGAN

Prepared for:

USA 2 GO 28265 BECK ROAD, SUITE C-2 WIXOM, MI 48393 (248) 773-7992

Prepared by:

BOSS ENGINEERING COMPANY 3121 E. GRAND RIVER HOWELL, MI 48843 (517) 546-4836

> August 22, 2016 Revised: 09/21/16

> > 16-243 EIA

### INTRODUCTION

The purpose of this Impact Assessment (IA) report is to show the effect that this proposed development may have 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* guidelines in accordance with Section 18.07 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 For: USA 2 GO 28265 Beck Road, suite c-2 Wixom, MI 48393 (248) 773-7992

Prepared By: BOSS ENGINEERING COMPANY Civil Engineers, Land Surveyors, Landscape Architects and Planners 3121 E. Grand River Howell, MI 48843 (517) 546-4836

Boss Engineering has been successfully providing engineering, surveying, planning and landscape architecture services on land development projects since 1969. Since its beginning, Boss Engineering has strived to provide unparalleled professional services with integrity and respect to every client. Today, Boss provides a complete lineup of consulting services for each project, ranging from conceptual design through final construction. The company currently employs a variety of professions including civil engineers, surveyors, landscape architects and sanitarians.

B. Map(s) and written description / analysis of the project site including all existing structures, manmade facilities, and natural features. The analysis shall also include information for areas within 10 feet of the property. An aerial photograph or drawing may be used to delineate these areas.

The site is located on the west side of South Latson Rd, approximately 1500 feet south of the Grand River Ave intersection. The property has 380 feet of frontage along South Latson Rd, the entire width of the site. To the east on the opposite side of South Latson Road is non-residential planned unit development use, planned to have a drive-in bank be built on it. To the north and west is a Lowe's Home Improvement. Further north is a Comerica Bank. South of the property is a Tim Hortons. The subject property is currently undeveloped, non-residential planned unit development (NRPUD).

C. Impact on natural features: A written description of the environmental characteristics of the site prior to development and following development, i.e., topography, soils, wildlife, woodlands, mature trees (eight inch caliper or greater), wetlands, drainage, lakes, streams, creeks or ponds. Documentation by a qualified wetland specialist shall be required wherever the Township determines that there is a potential regulated wetland. Reduced copies of the Existing Conditions Map(s) or aerial photographs may accompany written material.

The total site area is 1.43 acres. No right away exists on the property, making the total buildable acreage 1.43. There are no wetlands on the property. The site is relatively flat, but with a gradual slope in the southwest corner with an increasing slope at approximately 1.18%. The trees and shrubs/brush on site are minimal and located along the west property line on top of the minor ridge, while the remainder of the

site is open area. The USDA Soil Conservation Service soil classification for the site is Miami-Loam 2-6% slopes.

D. Impact on storm water management: Description of measures to control soil erosion and sedimentation during grading and construction operations and until a permanent ground cover is established. Recommendations for such measures may be obtained from County Soil Conservation Service.

Surface runoff during periods of construction will be controlled by proper methods set forth by the Livingston County Drain Commissioner, including silt fence, inlet protection devices, and seed and mulch.

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.

The Site Plan documents show the proposed locations of all site improvements along with detailed soil erosion control information. The plans will be reviewed by the Livingston County Drain Commissioner's office for compliance with their regulations prior to issuance of a Soil Erosion Control permit.

E. Impact on surrounding land use: Description of the types of proposed uses and other man made facilities, including any project phasing, and an indication of how the proposed use conforms or conflicts with existing and potential development patterns. A description shall be provided of any increases of light, noise or air pollution which could negatively impact adjacent properties.

To the north is an existing driveway that connects to both the parking lot for Lowes, and the Comerica Bank. It will connect to the north end of the proposed Genoa Plaza. The proposed drive-in bank construction will take place at the property to the east, on the other side of Latson Rd.

With the proposed use being a coffee shop, sit down restaurant, and hair salon, most of the activity on the property would be weekdays 7 AM to 6 PM. Unlike a commercial use, there would be limited evening or weekend traffic with hours of operation being limited.

The increase in light, noise or air pollution would be far less than what is typically associated with a commercial development. Developing a two smaller buildings on the property will have minimal impact on surrounding properties.

F. Impact on public facilities and services: Description of number of expected residents, employees, visitors, or patrons, and the anticipated impact on public schools, police protection and fire protection.

Letters from the appropriate agencies may be provided, as appropriate.

The anticipated occupancy of 18 employees plus the customers, will have very little negative impact to nearby properties, but may even help the neighboring businesses with additional subsidiary patronage.

There is no expected impact on Howell Area Schools and very minimal impact on the police and fire departments.

G. Impact on public utilities: Description of the method to be used to service the development with water and sanitary sewer facilities, the method to be used to control drainage on the site and from the site, including runoff control during periods of construction. For sites service with sanitary sewer, calculations for pre- and post development flows shall be provided in equivalents to a

single family home. Where septic systems are proposed, documentation or permits from the Livingston County Health Department shall be provided.

The development is to be served by both public water and sanitary sewer. The public water is provided by MHOG Sewer and Water Authority, where the sanitary sewer collection is provided by the G-O Sewer Authority.

The development will tap into an 8" existing water main south of the site along the access drive to provide water service. For sanitary, gravity sewer will be used from an existing manhole south of the site, located at the back of curb for Grand Oaks Drive.

The following is the estimated water usage of the proposed development:

- 2,117 SF Coffee Shop 2.6 REU per premise
- 2,819 SF Sit-Down Restaurant (assume no liquor license) 2.4 REU per 1,000 SF = 6.76 REU
- 1,501 SF Hair Salon 0.38 REU per booth, 0.30 REU per mani/pedi/spa station (need more information)

The pre-development sanitary flow from this site is zero. Post-development flows will be calculated during the engineering review of the project.

With regards to storm water management, the project will be required to meet all local, county and state storm water and erosion control requirements. All of the required information is included in the Site Plan documents. Most storm water runoff will be directed to the surrounding existing storm sewer systems, located all around the site.

H. Storage or handling of any hazardous materials: Description of any hazardous substances expected to be used, stored or disposed of on the site. The information shall describe the type of materials, location within the site and method of containment. Documentation of compliance with federal and state requirements, and a Pollution Incident Prevention Plan (PIPP) shall be submitted, as appropriate.

There will be no hazardous materials used or disposed of on this site, such as gas cans, striping paint, etc.

I. Impact on traffic and pedestrians: A description of the traffic volumes to be generated based on national reference documents, such as the most recent edition of the Institute of Transportation Engineers Trip Generation Manual, other published studies or actual counts of similar uses in Michigan.

According to the Institute of Transportation Engineers Trip Generation 6th addition, the number of trips generated by this development would be an average of 1146 trips per day (39.92 trips per unit per 1,000sf) during the week days, or 5732 trips per 5-day work week. This is based on a shopping center.

J. A detailed traffic impact study shall be submitted for any site over ten (10) acres in size which would be expected to generate 100 directional vehicle trips (i.e. 100 inbound or 100 outbound trips) during the peak hour of traffic of the generator or on the adjacent streets.

The site is under 10 acres. Therefore, a detailed traffic impact study is not necessary.

K. Special Provisions: General description of any deed restrictions, protective covenants, master deed or association bylaws.

None at this time.

### L. A list of all sources shall be provided.

Genoa Township's *Submittal Requirements for Impact Assessment*Genoa Township Zoning Ordinances
Soil Survey of Livingston County, Michigan, U.S.D.A. Soil Conservation Service
National Wetland Inventory Plan, United States Department of the Interior, Fish and Wildlife Service
Trip Generation manual, 6th edition, Institute of Transportation Engineers



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

### **MEMORANDUM**

**TO:** Thom Dumond, Boss Engineering

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

Director

DATE: October 6, 2016

**RE: ESTIMATED** Genoa Plaza Sewer and Water Tap Fees

This memo will describe the connection fees required for a new 2,117 sq. ft. Coffee Shop, a 2,819 sq. ft. Restaurant (without liquor license), and a 1,501 sq. ft. Hair Salon located on part of parcel 11-08-200-017 at the northwest corner of Grand Oaks Drive and Latson Road. For the purposes of estimating the potential fees I assume 6 booths for the Hair Salon. *The figures below are subject to change once we have actual tenant data.* 

2,117 sq. ft. Coffee Shop @ 2.6 REU per premise = 2.6 REU
2,819 sq. ft. Sit-down Restaurant (no alcohol) @ 2.4 REU per 1,000 sq. ft. = 6.8 REU
1,501 sq. ft. Hair Salon @ 0.38 REU per Booth, assume 6 booths = 2.3 REU

TOTAL REU NEW BUILDINGS = 11.7 REU

**OPTION 1 – PAYMENT:** If the owner is not transferring REU credits to the development the following fees would be applicable:

11.7 REU x \$7,200 per Sewer REU =	\$ 84,240.00
11.7 REU x \$7,900 per Water REU =	\$ 92,430.00
TOTAL DUE =	\$176,670.00

**OPTION 2 – CREDIT TRANSFER:** There is an existing balance of 7 REU's associated with this property. The owner can dedicate the credits for use by the development if so desired. This would have the following effect:

	Water REU	Sewer REU
Credits	7	7
Estimate for 3 uses from above:	11.7	11.7
REMAINING BALANCE	4.7	4.7
Per REU Fee:	x \$7,900	x \$7,200
TOTAL DUE EACH:	\$37,130.00	\$33,840.00
COMBINED TOTAL AMOUNT DUE:	\$70,970.00	

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

A meter package may also need to be purchased including the appropriate sized meter and a MIU (meter interface unit). Should you have any questions please feel free to contact me at 810-227-5225.

### 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

### PROPERTY DESCRIPTION:

### PROPERTY DESCRIPTION AS SUPPLIED:

PART OF THE NORTHEAST 1/4 OF SECTION 8, T2N-R5E, GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SECTION 8; THENCE ALONG THE NORTH LINE OF SECTION 8, S 87°16'42" W, 3.27 FEET, TO THE CONSTRUCTION CENTERLINE OF LATSON ROAD; THENCE ALONG THE CONSTRUCTION CENTERLINE OF LATSON ROAD, THE FOLLOWING THREE (3) COURSES: 1) SOUTHERLY ALONG AN ARC RIGHT, HAVING A LENGTH OF 159.72 FEET, A RADIUS OF 10000.00 FEET, A CENTRAL ANGLE OF 00°54'55", AND A LONG CHORD WHICH BEARS S 00°40'20" W, 159.72 FEET; 2) S 01°07'48" W, 913.15 FEET; 3) SOUTHERLY ALONG AN ARC LEFT, HAVING A LENGTH OF 148.82 FEET, A RADIUS OF 10000.00 FEET, A CENTRAL ANGLE OF 00°51'10", AND A LONG CHORD WHICH BEARS S 00°42'13" W, 148.82 FEET, TO THE POINT OF INTERSECTION OF THE CONSTRUCTION CENTERLINE OF LATSON ROAD AND THE CONSTRUCTION CENTERLINE OF RELOCATED GRAND OAKS DRIVE; THENCE ALONG THE CONSTRUCTION CENTERLINE OF RELOCATED GRAND OAKS DRIVE, S 89°48'26" W, 159.53 FEET; THENCE N 00°15'45" E, 40.00 FEET, TO THE POINT OF BEGINNING OF THE PARCEL TO BE DESCRIBED; THENCE ALONG THE NORTHERLY RIGHT OF WAY LINE OF RELOCATED GRAND OAKS DRIVE, S 89°48'26" W, 105.82 FEET; THENCE N 10°21'54" E, 317.42 FEET; THENCE N 12°59'10" E, 332.05 FEET; THENCE S 79°09'02" E, 22.66 FEET; THENCE N 11°14'53" E, 360.22 FEET; THENCE ALONG THE WESTERLY RIGHT OF WAY LINE OF LATSON ROAD, THE FOLLOWING TWO (2) COURSES: 1) S 01°07'48" W, 874.11 FEET; 2) SOUTHERLY ALONG AN ARC LEFT, HAVING A LENGTH OF 10.59 FEET, A RADIUS OF 10060.00 FEET, A CENTRAL ANGLE OF 00°03'37", AND A LONG CHORD WHICH BEARS S 01°05'59" W, 10.59 FEET; THENCE ALONG A LIMITED ACCESS RIGHT OF WAY LINE, S 45°17'49" W, 142.07 FEET, TO THE POINT OF BEGINNING, CONTAINING 2.31 ACRES, MORE OR LESS, AND INCLUDING THE USE OF LATSON ROAD AND GRAND OAKS DRIVE. ALSO SUBJECT TO ANY OTHER EASEMENTS OR RESTRICTIONS OF RECORD.

# SITE PLAN FOR GENOA PLAZA

PART OF NE QUARTER, OF SECTION 8
GENOA TOWNSHIP, LIVINGSTON COUNTY, MI

### **CONSTRUCTION NOTES**

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING NOTES AND ANY WORK INVOLVED SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

1. THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

- 2. DO NOT SCALE THESE DRAWINGS AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
- 3. A GRADING PERMIT FOR SOIL EROSION-SEDIMENTATION CONTROL SHALL BE OBTAINED FROM THE GOVERNING AGENCY PRIOR TO THE START OF CONSTRUCTION.
- 4. IF DUST PROBLEM OCCURS DURING CONSTRUCTION, CONTROL WILL BE PROVIDED BY AN APPLICATION OF WATER, EITHER BY SPRINKLER OR TANK TRUCK.
  5. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS AND SPECIFICATIONS.
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS AND SPECIFICATIONS.
   THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED TOWNSHIP. COUNTY, AND STATE OF MICHIGAN PERMITS.
- 7. PAVED SURFACES, WALKWAYS, SIGNS, LIGHTING AND OTHER STRUCTURES SHALL BE MAINTAINED IN A SAFE, ATTRACTIVE CONDITION AS ORIGINALLY DESIGNED AND CONSTRUCTED.
- 8. ALL BARRIER-FREE FEATURES SHALL BE CONSTRUCTED TO MEET ALL LOCAL, STATE AND A.D.A. REQUIREMENTS.
- 9. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN
- HEREON BEFORE BEGINNING CONSTRUCTION.

  10. THE CONTRACTOR SHALL CONTACT ALL OWNERS OF FASEMENTS, UTILITIES AND RIGHTS-OF-WAY, PUBLIC OR PRIVATE, PRIOR TO THE STAR
- 10. THE CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHTS-OF-WAY, PUBLIC OR PRIVATE, PRIOR TO THE START OF CONSTRUCTION.
- 11. THE CONTRACTOR SHALL COORDINATE WITH ALL OWNERS TO DETERMINE THE LOCATION OF EXISTING LANDSCAPING, IRRIGATION LINES & PRIVATE UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING LANDSCAPING, IRRIGATION LINES, AND PRIVATE UTILITY LINES.

  12. THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT.
- 13. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE
- 14. THE CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
- 15. THE CONTRACTOR SHALL CALL MISS DIG A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.

  16. ALL EXCAVATION UNDER OR WITHIN 3 FEET OF PUBLIC PAVEMENT, EXISTING OR PROPOSED SHALL BE BACKFILLED AND COMPACTED WITH SAND (MDC CLASS II)
- 17. ALL PAVEMENT REPLACEMENT AND OTHER WORKS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWNSHIP, INCLUDING THE LATEST MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) SPECIFICATIONS FOR HIGHWAY
- 18. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.
- 19. NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY DELAY OR INCONVENIENCE DUE TO THE MATERIAL SHORTAGES OR RESPONSIBLE DELAYS DUE TO THE OPERATIONS OF SUCH OTHER PARTIES DOING WORK INDICATED OR SHOWN ON THE PLANS OR IN THE
- SPECIFICATION OR FOR ANY REASONABLE DELAYS IN CONSTRUCTION DUE TO THE ENCOUNTERING OR EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.
- 20. DURING THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT PERFORM WORK BY PRIVATE AGREEMENT WITH PROPERTY OWNERS ADJACENT TO THE PROJECT.
- 21. IF WORK EXTENDS BEYOND NOVEMBER 15, NO COMPENSATION WILL BE DUE TO THE CONTRACTOR FOR ANY WINTER PROTECTION MEASURES THAT MAY BE REQUIRED BY THE ENGINEER.
- 22. NO TREES ARE TO BE REMOVED UNTIL MARKED IN THE FIELD BY THE ENGINEER.
- 23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE CONSTRUCTION LIMITS INCLUDING BUT NOT LIMITED TO EXISTING FENCE, LAWN, TREES AND SHRUBBERY.
- 24. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE NORMAL CONSTRUCTION LIMITS OF THE PROJECT SHALL BE SODDED OR SEEDED AS SPECIFIED OR DIRECTED BY THE ENGINEER.
- 25. ALL ROOTS, STUMPS AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED AND THE HOLE BACKFILLED WITH SUITABLE MATERIAL. WHERE GRADE CORRECTION IS REQUIRED, THE SUBGRADE SHALL BE CUT TO CONFORM TO THE CROSS-SECTION AS SHOWN IN THE PLANS.
- CORRECTION IS REQUIRED, THE SUBGRADE SHALL BE CUT TO CONFORM TO THE CROSS-SECTION AS SHOWN IN THE PLANS.

  26. TRAFFIC SHALL BE MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SIGNS AND TRAFFIC CONTROL DEVICES. FLAG PERSONS SHALL BE PROVIDED BY THE CONTRACTOR IF DETERMINED NECESSARY BY THE ENGINEER. ALL SIGNS SHALL CONFORM TO
- THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AT NO COST TO THE TOWNSHIP. NO WORK SHALL BE DONE UNLESS THE

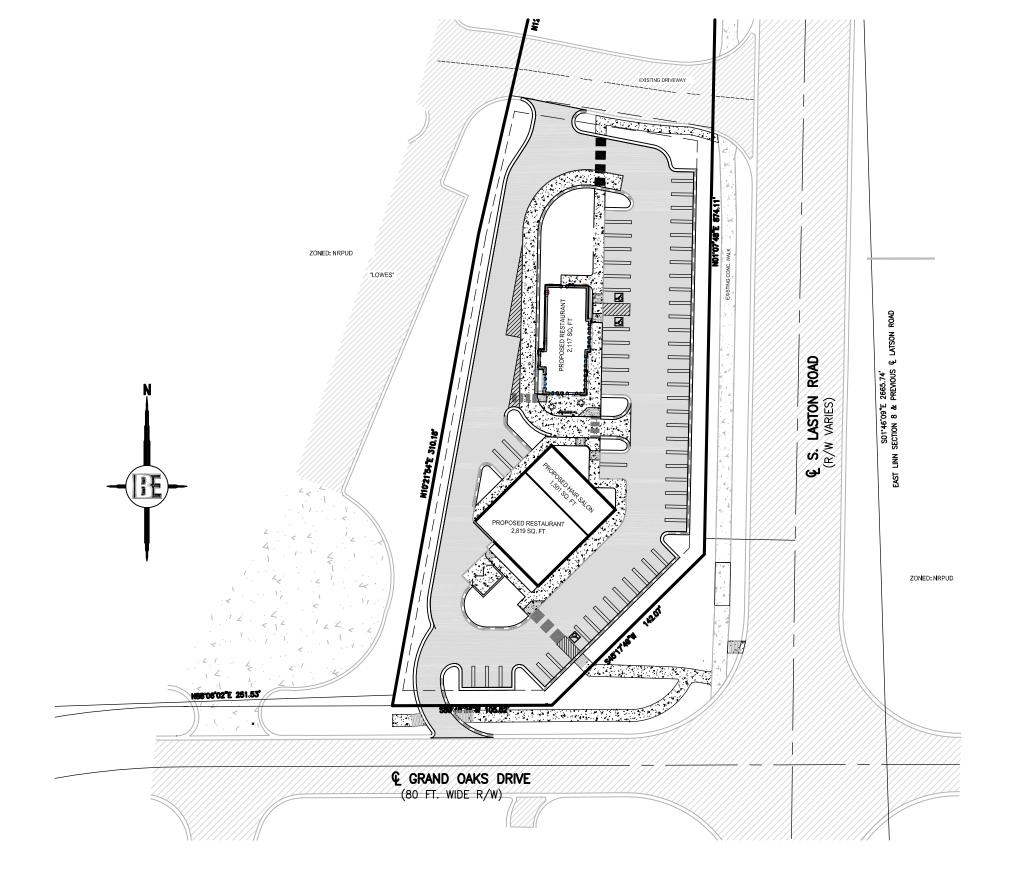
  APPROPRIATE TRAFFIC CONTROL DEVICES ARE IN PLACE.

  27. ALL DEMOLISHED MATERIALS AND SOIL SPOILS SHALL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST, AND DISPOSED OF IN ACCORDANCE WIT
- 27. ALL DEMOLISHED MATERIALS AND SOIL SPOILS SHALL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST, AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
- 29. ALL GRADING IN THE PLANS SHALL BE DONE AS PART OF THIS CONTRACT. ALL DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SUBGRADE PRIOR
- TO COMPACTING.
  30. NO SEEDING SHALL BE DONE AFTER OCTOBER 15 WITHOUT APPROVAL OF THE ENGINEER.

28. AFTER REMOVAL OF TOPSOIL, THE SUBGRADE SHALL BE COMPACTED TO 95% OF ITS UNIT WEIGHT.

- 31. ANY EXISTING APPURTENANCES SUCH AS MANHOLES, GATE VALVES, ETC. SHALL BE ADJUSTED TO THE PROPOSED GRADE AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- INCIDENTAL TO THE CONTRACT.

  32. SOIL EROSION MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL VEGETATION HAS BEEN RE-ESTABLISHED.
- 33. ALL PERMANENT SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE MICHIGAN MUTCD MANUAL
- AND SHALL BE INCIDENTAL TO THE CONTRACT.
- 34. ACCESS ROADS TO THE SITE SHALL BE MAINTAINED DURING CONSTRUCTION AND SHALL BE CONSTRUCTED TO BE CAPABLE OF SUPPORTING THE IMPOSED LOAD OF FIRE APPARATUS WEIGHING AT LEAST 75,000 POUNDS.



OVERALL SITE MAP
NO SCALE

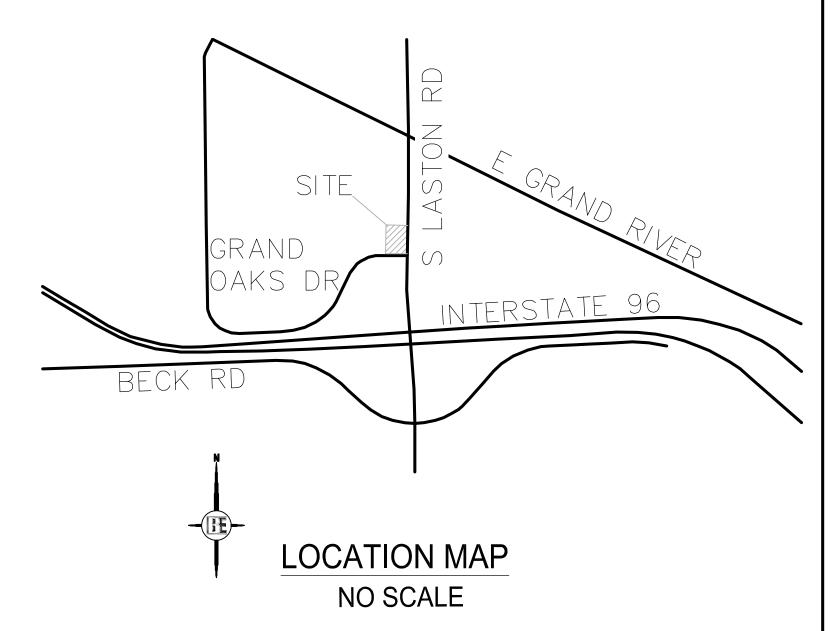


### ARCHITECT:

ROOR RACHITECTS ENGINEERS PLANNERS

NORR
150 W. JEFFERSON AVE., SUITE 1300
DETROIT, MI 48226
CONTACT: BRIAN COBURN

PHONE: 313.324.3140 EMAIL: BRIAN.COLBURN@NORR.COM



	SHEET INDEX
SHEET NO.	DESCRIPTION
C1 C2 C3 C4 C5 C6 C7 C8 C9 C10	COVER SHEET EXISTING CONDITIONS/DEMOLITION PLAN SITE PLAN GRADING & DRAINAGE PLAN UTILITY PLAN LANDSCAPE PLAN LIGHTING PLAN SOIL EROSION CONTROL PLAN CONSTRUCTION DETAILS CONSTRUCTION DETAILS & STORM CALCS
	DRAWINGS PREPARED BY ARCHITECT
A2-01 A2-02 A1 A2	BUILDING 'A' — FLOOR PLAN BUILDING 'B' — FLOOR PLAN BUILDING 'A' EXTERIOR ELEVATIONS BUILDING 'B' EXTERIOR ELEVATIONS

### GENOA PLAZA

### PREPARED FOR:

USA 2 GO 28265 BECK ROAD, SUITE C-2 WIXOM, MI 48393 CONTACT: KEVIN BAHNAM 248.773.7992

### PREPARED BY:

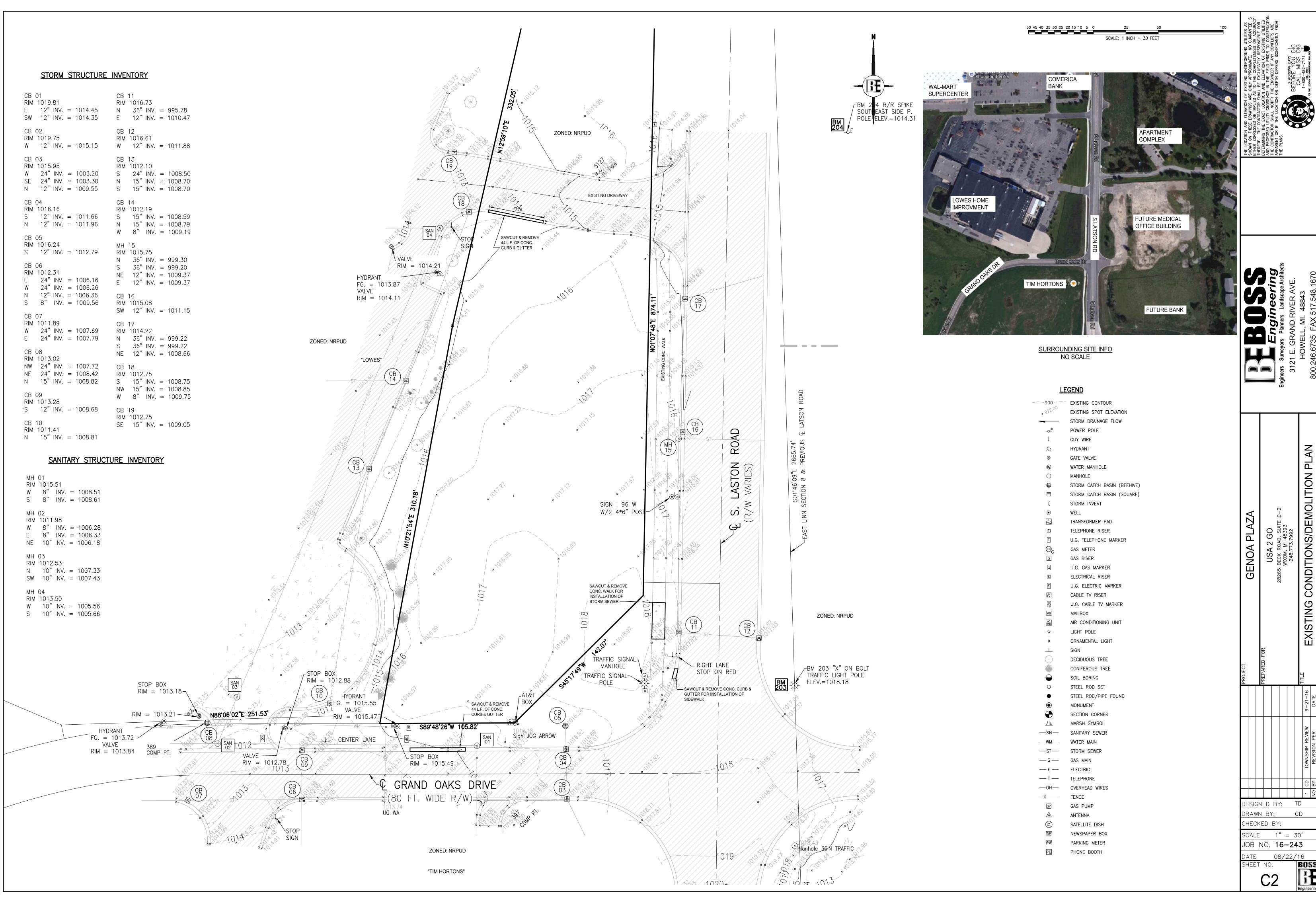


3121 E. GRAND RIVER AVE. HOWELL, MI. 48843 800.246.6735 FAX 517.548.1670 CONTACT: THOM DUMOND

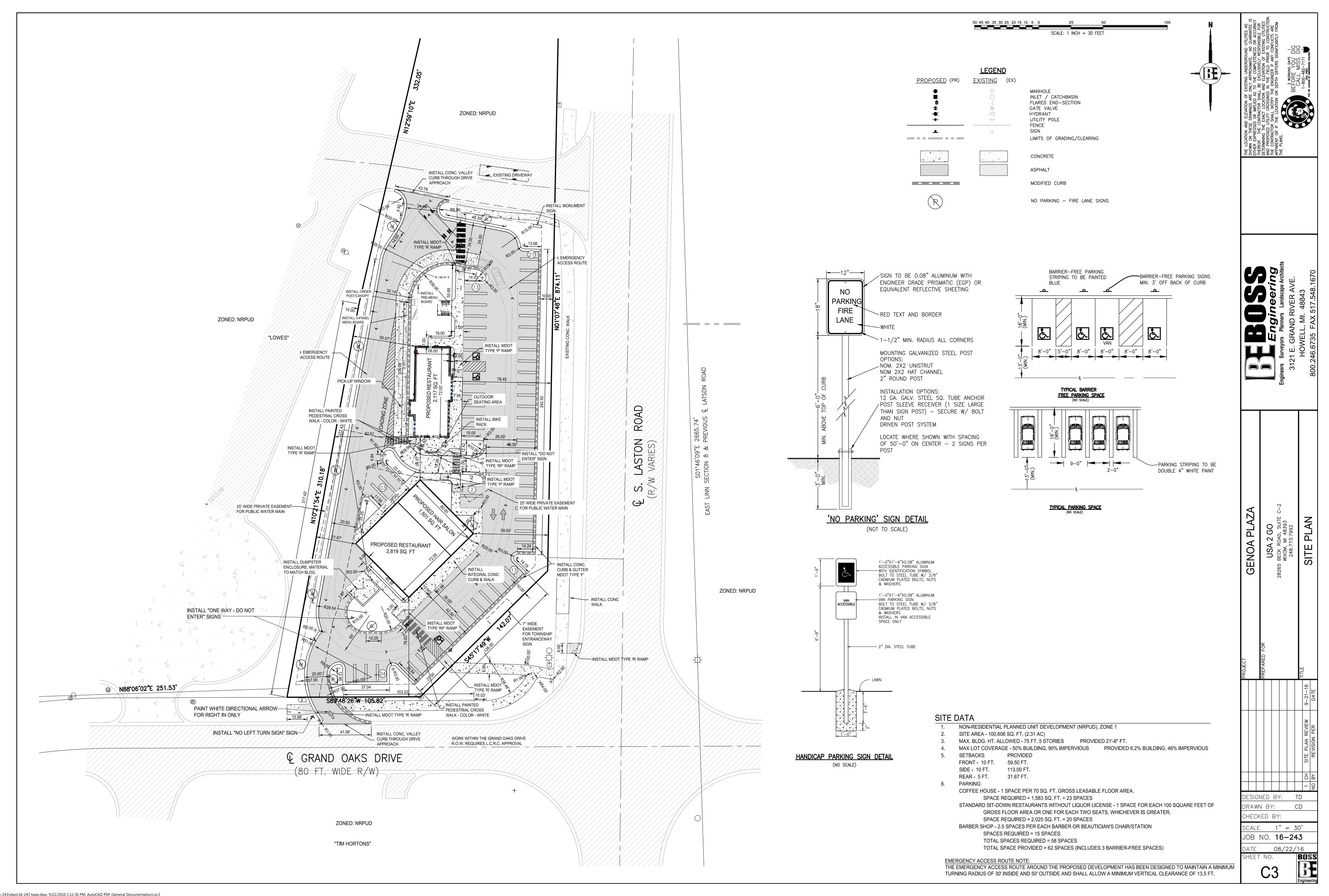
					C1
					-
1	CD		TOWNSHIP REVIEW	9-21-16	ISSUE DATE: 8/22/16
NO	BY	CK	REVISION	DATE	JOB NO. 16-243

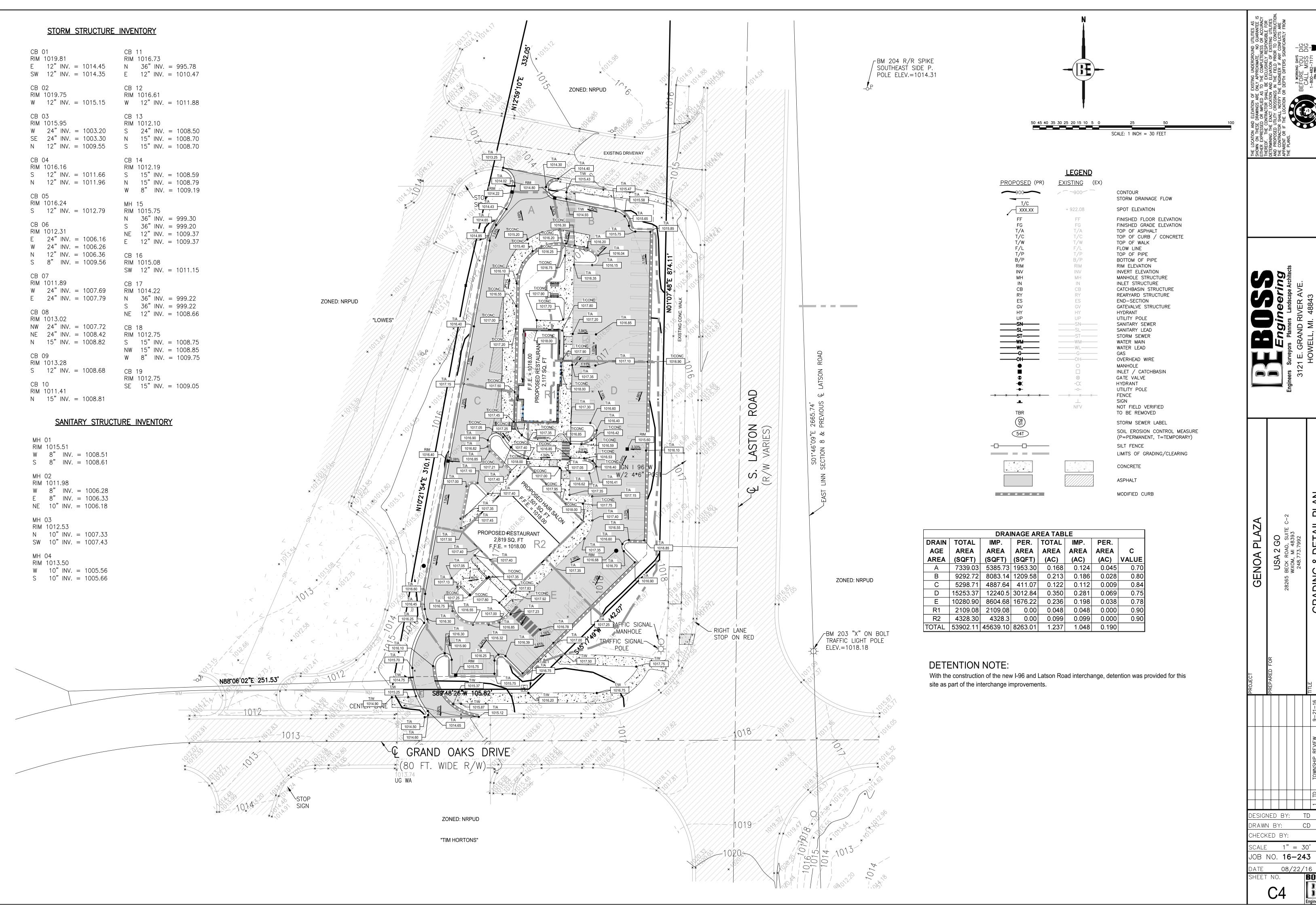
### INDEMNIFICATION STATEMENT

THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

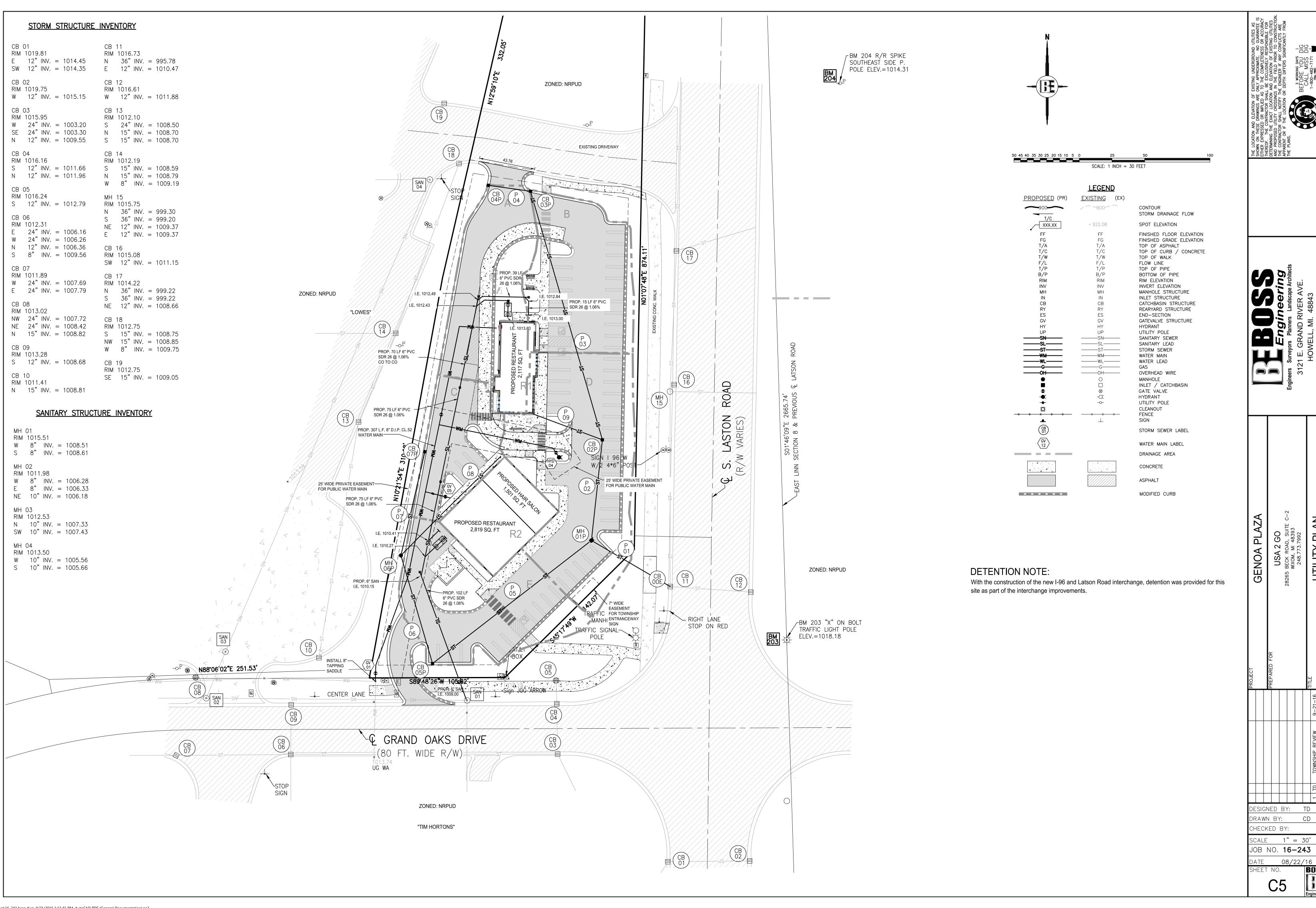


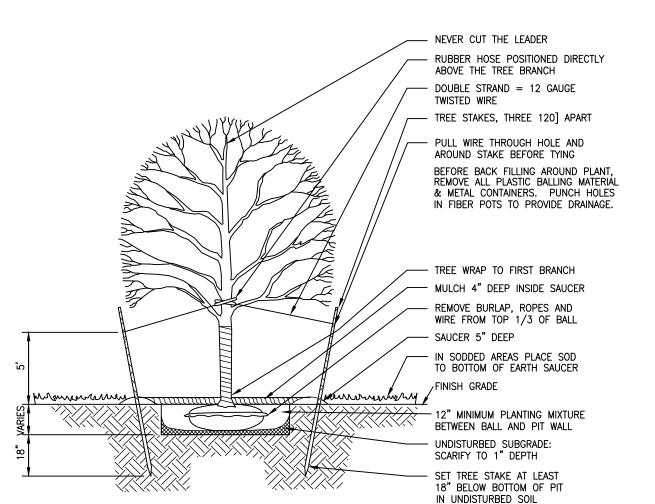
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GRADING



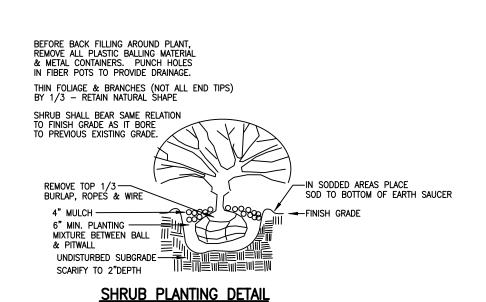


### DECIDUOUS TREE PLANTING DETAIL (NO SCALE)

BEFORE BACK FILLING AROUND PLANT, REMOVE ALL PLASTIC BALLING MATERIAL & METAL CONTAINERS. PUNCH HOLES IN FIBER POTS TO PROVIDE DRAINAGE. NEVER PRUNE EVERGREENS TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE TO PREVIOUS EXISTING GRADE RUBBER HOSE 1/2 UP TREE POSITIONED DIRECTLY ABOVE TREE BRANCH GUYING CABLE @ 3 GUYS PER TREE (120] APART) DOUBLE STRAND = 12GAUGE TWISTED WIRE EARTH SAUCER -5" DEEP IN SODDED AREAS PLACE 2"X4"X30" BELOW FIN. GRADE REMOVE TOP 1/3 OF BURLAP, RÓPES & PLANTING MIX SUBGRADE-SCARIFY TO 4" 6" COMPACTED PLANTING MIX UNDER BALL

**EVERGREEN TREE PLANTING DETAIL** 

(NO SCALE)



### NOTES:

**TREES** 

SHRUBS CD

TOE

**PERENNIALS** 

PLANT LIST

49

KEY QUAN. BOTANICAL NAME

Magnolia x soulangeand

Picea glauca 'Densata'

Callicarpa dichotoma

Fothergilla 'Mount Airy'

Tilia cordata

Prunus serrulata 'Kwanzan'

Pyrus calleryana 'Cleveland Select'

Spirea japonica 'Little Princess'

Thuja occidentalis 'Golden Globe

Calamagrostis acutiflora 'Karl Foerster'

Thuja occidentalis 'Emerald'

Coreopsis 'Cosmic Eye'

Hemerocallis 'Stella D'Oro'

Hosta 'Francee'

Isotoma fluviatilis

21 Nipponanthemum nipponicum

1. 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.

(NO SCALE)

ALL LANDSCAPE AREAS ARE TO BE WATERED BY AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.

COMMON NAME

Saucer Magnolia

Kwanzan Cherry

Littleleaf Linden

Purple Beautyberry

Mount Airy Fothergilla

Little Princess Spirea

Big Bang Coreopsis

Stella D'Oro Daylily

Blue Star Creeper

Francee Hosta

Montauk Daisy

Emerald Green Arborvitae

Golden Globe Arborvitae

Karl Foerster Feather Grass

Black Hills Spruce

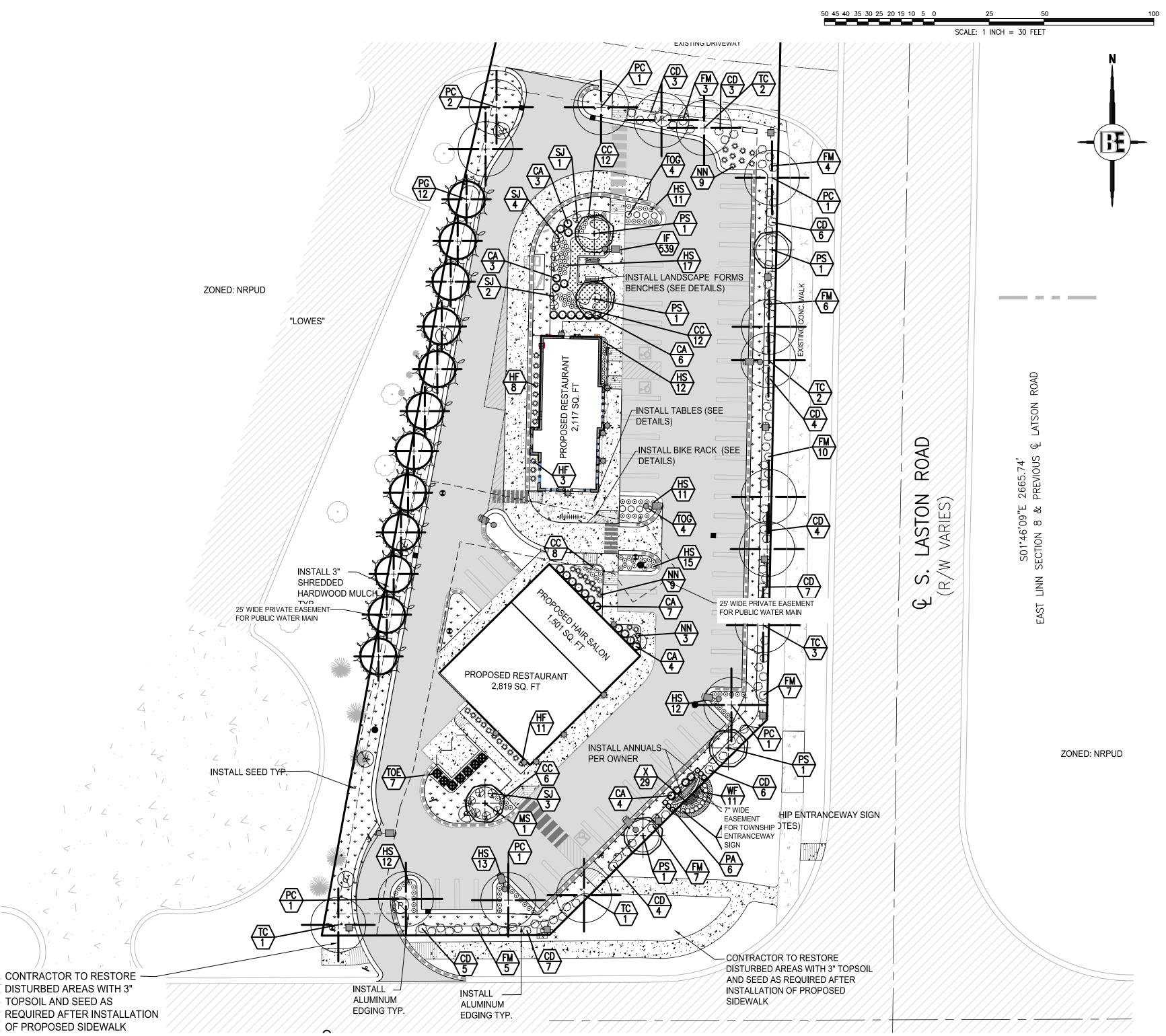
Cleveland Select Pear

2" cal.

2" cal.

30" ht.

24" ht.



### (NRPUD) NON-RESIDENTIAL PLANNED UNIT DEVELOPMENT LANDSCAPE REQUIREMENTS

ONE PARKING LOT TREE SHALL BE PROVIDED FOR EACH 2000 SQFT OF PAVED PARKING, INCLUDING AISLES, SERVICE AREAS, DRIVEWAYS, AND DRIVES.

TREES REQUIRED: 37,000 SQFT OF PAVED SURFACE / 2000 SQFT = 19 TREES

TREES PROVIDED: 20 TREES

AN EXTENSIVELY LANDSCAPED GREENBELT SHALL BE PROVIDED ALONG EXISTING PUBLIC STREETS. SAID GREEN BELT SHALL INCLUDE CLOSELY SPACED STREET TREES AND HEDGE ROWS TO SCREEN THE PARKING LOT.

PEDESTRIAN GATHERING AND SEATING PLAZAS, GREENWAYS, AND TREE LINED DRIVES SHALL BE WITHIN PARKING LOTS AND THROUGHOUT THE SITE TO PROVIDE AN INVITING PEDESTRIAN ENVIRONMENT, PROTECTION OF OF THE PEDESTRIAN FROM VEHICULAR CIRCULATION, FOR IMPROVED TRAFFIC OPERATION, AND VIEWS.

CONTRACTOR TO RESTORE

DISTURBED AREAS WITH 3"

TOPSOIL AND SEED AS

OF PROPOSED SIDEWALK

B-B

B-B

B-B

B-B

B-B

B-B

Cont.

B-B

Cont.

Cont.

Cont,

Cont.

Cont.

36 cell/flats

- TOWNSHIP ENTRANCEWAY SIGN SHALL BE LOCATED WITHIN PROPERTY LINES OF THE SITE. PLANTINGS MAY EXTEND INTO ROAD COMMISSION RIGHT OF WAY AS SHOWN AS LONG AS LINE OF SIGHT
- IS MAINTAINED AND PLANTS DO NOT EXCEED 2 FT. IN HEIGHT. TOWNSHIP TO INSTALL AND MAINTAIN ENTRANCEWAY SIGN.
- DUE TO UNKNOWN SIZE OF TOWNSHIP ENTRANCEWAY SIGN DIMENSIONS HAVE BEEN ASSUMED AT THE SIZE SHOWN. PLANTING ARRANGEMENTS ARE ALSO BASED UPON ASSUMED SIZE SO, ONCE SIGN IS DIMENSIONED THE PLANTING ARRANGEMENT MAY NEED TO BE ALTERED.
- ALL LANDSCAPING SHALL BE WATERED BY AN UNDERGROUND IRRIGATION SYSTEM. WEED BARRIER FABRIC SHALL BE PLACED IN ALL PLANTING BED AREAS.

PLANT	LIST- TOWNSHIP ENTE	RANCEWAY SIGN		
KEY QUAN. SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
TOD 11 WF 11 PERENNIALS	Thuja occidentalis 'Danica' Weigelia florida 'My Monet'	Danica Arborvitae My Monet Weigelia	24" ht. 24" ht.	B–B B–B
CA 4 PA 6 PO 29	Calamagrostis acutiflora 'Karl Foerster' Pennisetum alopecuroides 'Hameln' Papaver orientale 'Helen Elizabeth'	Karl Foerster Feather Grass Dwarf Hameln Grass Helen Elizabeth Poppy	2 gal. 2 gal. 1 gal.	Cont. Cont. Cont.

### **GENERAL LANDSCAPE NOTES:**

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
ANSI Z60 STANDARDS. ALL PLANT MATERIAL SHALL BE OF SELECTED SPECIMEN
QUALITY AND HAVE A NORMAL HABIT OF GROWNTH. 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.

ALL PLANT BEDS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND OTHER EXTRANEOUS OBJECTS AND POOR SOILS TO A MINIMUM DEPTH 12 INCHES AND BACKFILLED TO GRADE WITH PLANTING MIX (SEE

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

3 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.

ALL LANDSCAPE BEDS SHALL BE EDGED WITH BLACK ALUMINUM EDGING, 1/8" X 4". INSTALL PER MANUFACTURER'S INSTRUCTIONS. ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRREGULARITIES.

9. SOD SHALL BE DENSE, WELL ROOTED TURF, FREE OF WEEDS. SHALL BE COMPRISED OF A BLEND OF AT LEAST TWO KENTUCKY BLUEGRASSES AND ONE FESCUE, IT SHALL HAVE A UNIFORM THICKNESS OF 3/4 INCH, AND CUT IN UNIFORM STRIPS NOT LESS THAN 10 INCHES BY 18 INCHES, SOD SHALL BE KEPT MOIST AND LAID WITHIN 36 HOURS AFTER CUTTING.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ALL SODDED AREAS THAT BROWN OUT OR HAVE NOT FIRMLY KNITTED TO THE SOIL BASE WITHIN A PERIOD OF ONE MONTH SHALL BE REPLACED BY THE CONTRACTOR, AT NO COST TO THE OWNER.

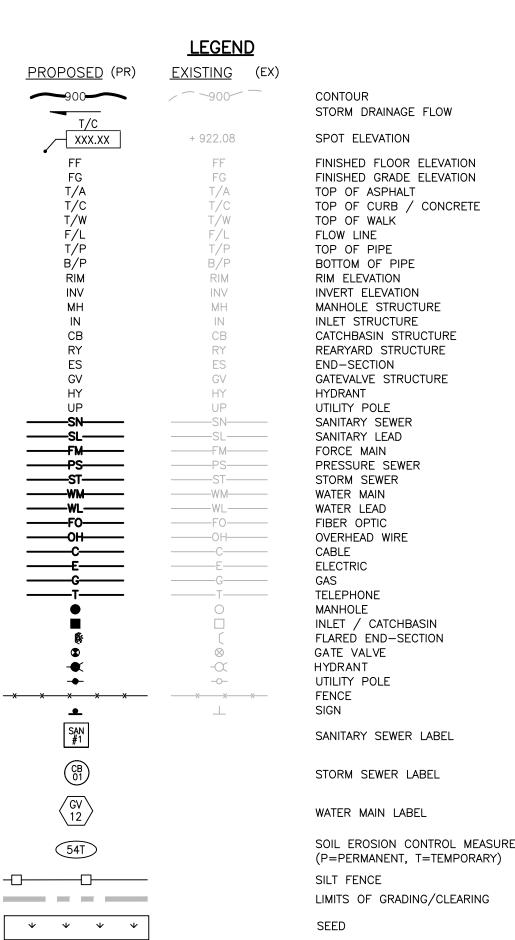
10. ALL AREAS OF THE SITE THAT BECOME DISTURBED DURING CONSTRUCTION AND ARE NOT TO BE PAVED, STONED, LANDSCAPED, OR SODDED SHALL BE SEEDED AND MULCHED.

SEED MIXTURE SHALL BE AS FOLLOWS: KENTUCKY BLUEGRASS (CHOOSE 3 VARIETIES: ADELPHI, RUGBY, GLADE OR PARADE) 30% RUBY RED OR DAWSON RED FINE FESCUE 30% ATLANTA RED FESCUE 20% PENNFINE PERENNIAL RYE

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 10-0-10

10% NITROGEN: A MINIMUM OF 25% FROM A UREAFORMALDEHYDE SOURCE 0% 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 RESEEDED AND SUCH RESEEDING SHALL CONTINUE UNTIL A DENSE LAWN IS ESTABLISHED. DAMAGE TO SEEDED AREAS RESULTING FROM EROSION SHALL BE REPAIRED BY THE CONTRACTOR. 11. ALL PLANT MATERIALS SHALL BE FREE OF WEEDS, INSECTS AND DISEASE.

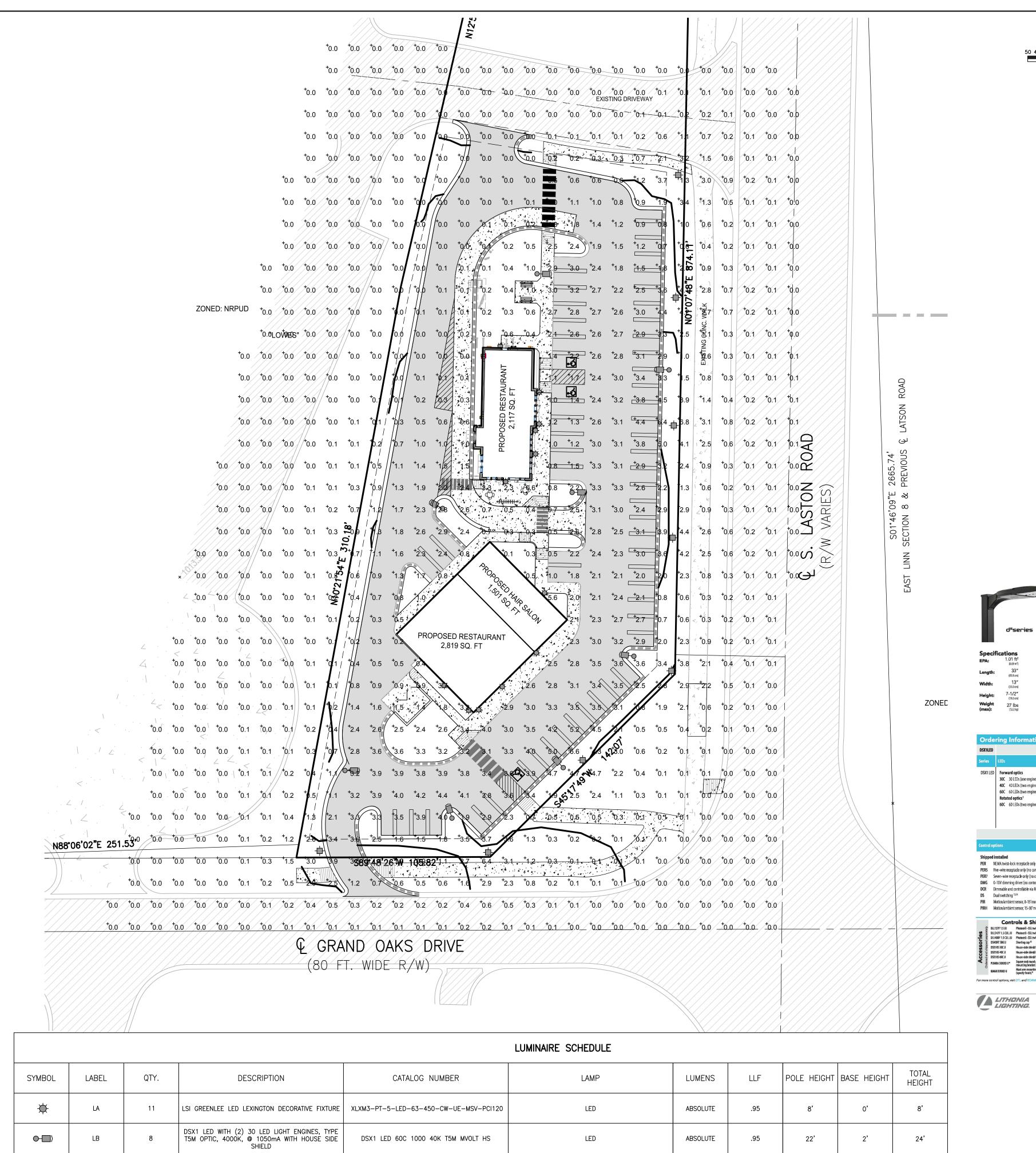


GROUNDCOVER

문용트로트요로운 문

SIGNED BY: TD CD RAWN BY: HECKED BY: 1" = 30'JOB NO. **16-243** 08/22/16 BOSS

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LED

LED

**ABSOLUTE** 

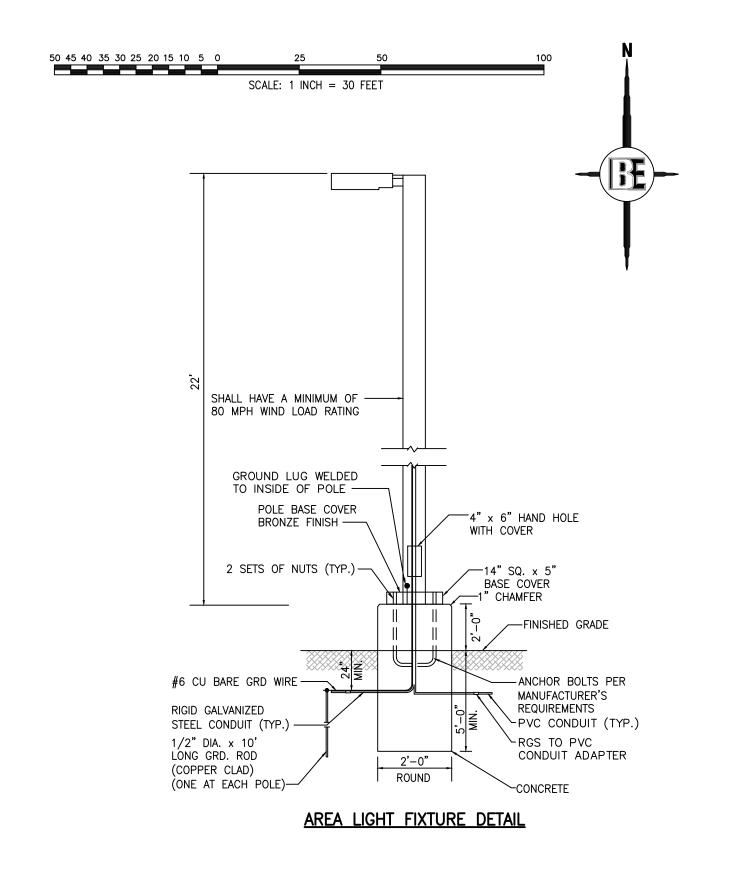
**ABSOLUTE** 

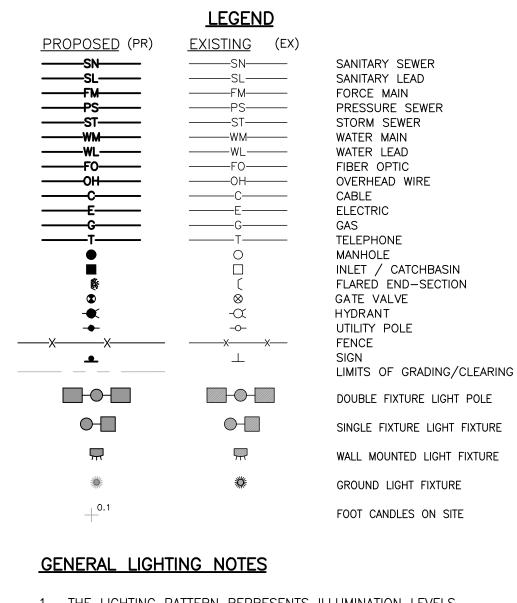
12'

12'

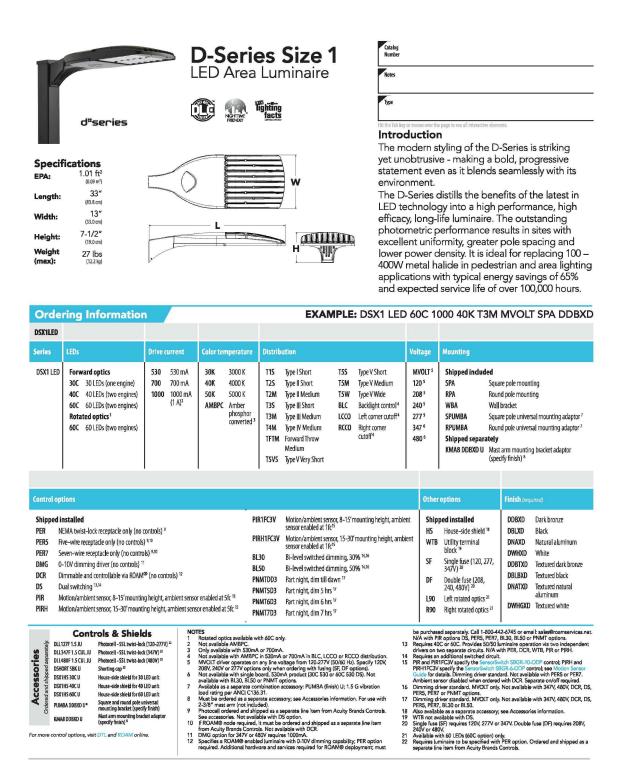
12'

12'



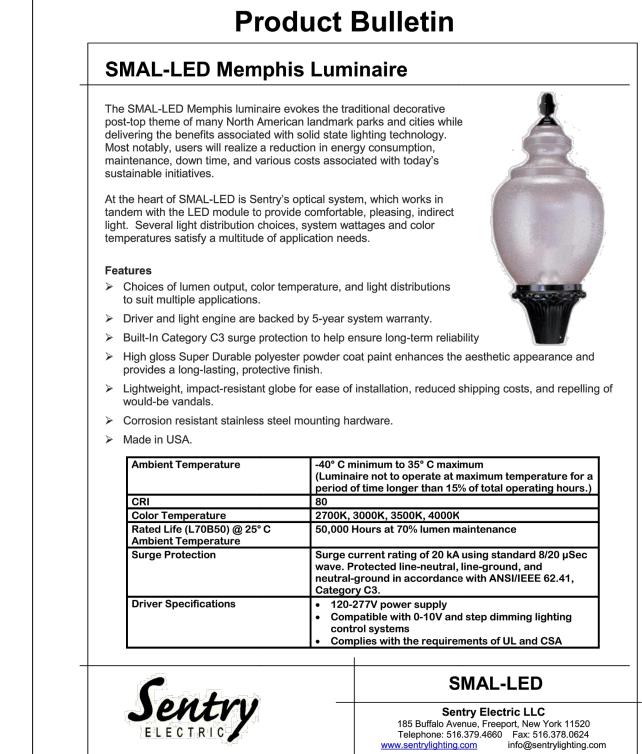


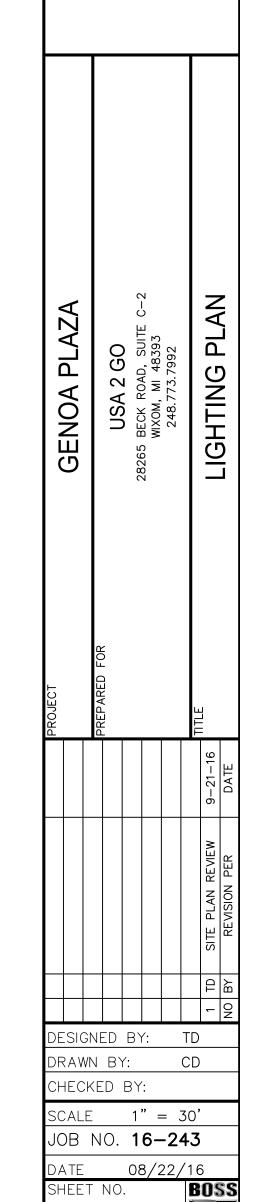
- 1. THE LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS.
- 2. ALL POLES ARE TO BE MOUNTED ON CONCRETE PEDESTALS 2' ABOVE GRADE IN PARKING LOTS AS SHOWN IN DETAIL.
- 3. ALL POLES LOCATED OUTSIDE OF THE PARKING AREA SHALL BE LOCATED 3' FROM BACK OF CURB OR EDGE OF SIDEWALKS.
- 4. 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.



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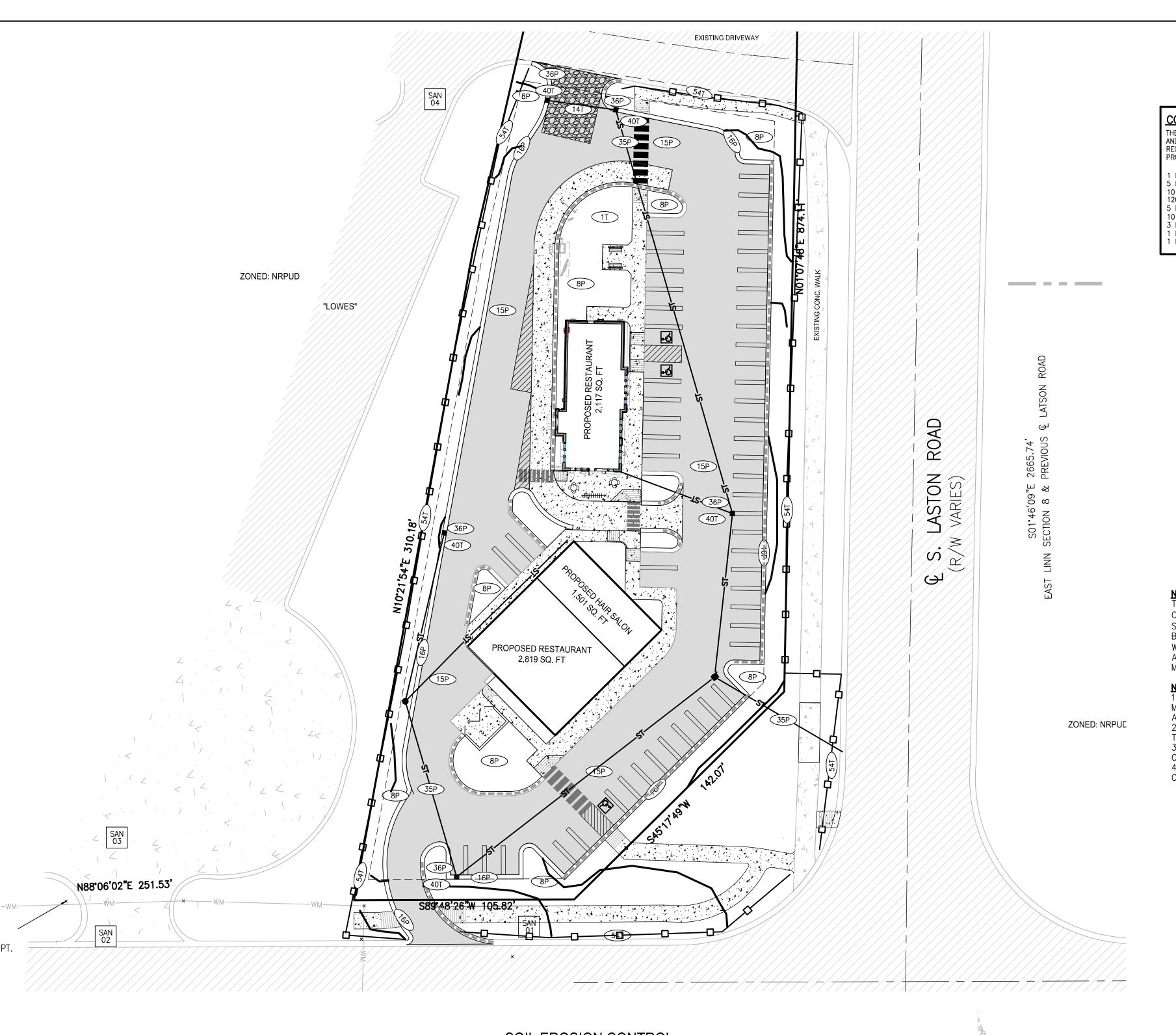
 $\Box$ 

GENERAL PURPOSE LED CAST FLUSH MOUNT

SENTRY ELECTRIC SMAL-LED MEMPHIS LUMINAIRE

OLCFM 15D

SMAL-50LEDV29-1.4A-840-SPR5-BPC120V-BK



SCALE: 1 INCH = 30 FEET **CONSTRUCTION SEQUENCE** THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT EROSION IS MINIMIZED AND THAT COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES IS MAINTAINED THROUGHOUT EXECUTION OF THIS INSTALL SILT FENCE AND STORM DRAINAGE PROTECTION. SITE DEMOLITION 10 DAYS INSTALL STORM SEWER, & INLET PROTECTION 120 DAYS 4. BEGIN BUILDING CONSTRUCTION 5 DAYS ROUGH GRADE INSTALL PAVEMENT AND WALKS 10 DAYS FINE GRADE, SPREAD TOPSOIL AND SEED. REMOVE ALL EROSION CONTROL STRUCTURES. REMOVE ACCUMULATED SILT FROM ALL EXISTING DRAINAGE.

CONTROLS &	MEASURES NARRATIVE
ACTIVITY	DESCRIPTION
MAINTAIN LANDSCAPING, REPLACE MULCH	COLLECT GRASS, TREE, AND SHRUB CLIPPINGS. DISPOSE IN APPROVED CONTAINER. REPLACE DEAD SOD, TREES AND SHRUBS.
CLEAN INLETS	REMOVE LITTER, SEDIMENT, AND DEBRIS. DISPOSE OF IN APPROVED LANDFILL.
COLLECT LITTER	DISPOSE OF WITH INLET DEBRIS.
SWEEP PARKING LOT	REMOVE MUD, DIRT, GREASE AND OIL WITH PERIODIC SWEEPING
DUST CONTROL	SPRINKLE WATER AS NEEDED

CONTROLS & MEASURES POST CONSTRUCTION SEQUENCE						
ACTIVITY	DAILY	WEEKLY	MONTHLY	AS REQUIRED		
MAINTAIN LANDSCAPING, REPLACE MULCH		Х	Х	X		
CLEAN INLETS		Х	Х	Χ		
COLLECT LITTER		Х		Х		
SWEEP PAVED AREAS		Х	X	Χ		
SCRAPE PAVED AREAS	Х			Χ		

NOTE:
THE TIMING IN THE CONSTRUCTION SEQUENCE IS AN APPROXIMATION OF THE AMOUNT OF TIME NEEDED FOR EACH STEP/PROCESS. SOME STEPS WILL BE GOING ON CONCURRENTLY WITH OTHERS (IE. THE BUILDING WILL BE AMIDST CONSTRUCTION WHILE CURB AND GUTTER WILL BE INSTALLED) BUT THE OVERALL ORDER OF EVENTS WILL BE AS LISTED TO ENSURE PROPER SITE CONSTRUCTION ACTIVITY MAINTENANCE.

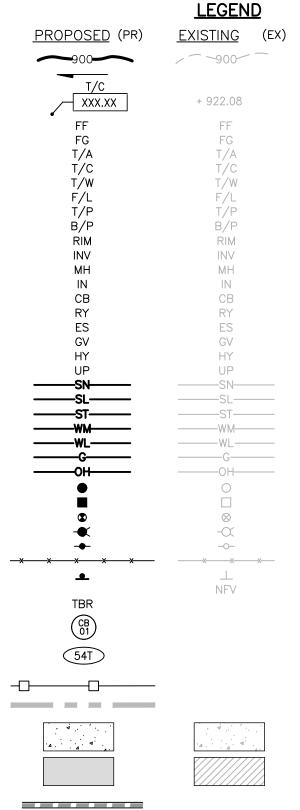
NOTE:

1. STRUCTURAL SEDIMENT CONTROLS NEED TO BE INSPECTED AND

STRUCTURAL SEDIMENT CONTROLS NEED TO BE INSPECTED AND

STRUCTURAL SEDIMENT CONTROLS NEED TO BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS AS WELL AS WITHIN 24 HOURS AFTER A STORM EVENT. 2. CONTRACTOR TO INSTALLED MULCH BLANKETS FOR ALL AREAS TO BE SEEDED WITH SLOPES EXCEEDING 1:4. 3. CONTRACTOR TO INSTALL MULCH BLANKET ALONG BOTTOM OF CHANNEL AT REAR OF PROPERTY. 4. CONTRACTOR TO INSTALL INLET SEDIMENT FILTERS ON ALL CATCH BASINS AND INLETS UNLESS OTHERWISE NOTED.

> **SOILS INFORMATION:** • MIAMI LOAM 2-6% SLOPES



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 RIM ELEVATION INVERT ELEVATION MANHOLE STRUCTURE INLET STRUCTURE CATCHBASIN STRUCTURE REARYARD STRUCTURE END-SECTION GATEVALVE STRUCTURE UTILITY POLE SANITARY SEWER SANITARY LEAD STORM SEWER WATER MAIN WATER LEAD OVERHEAD WIRE MANHOLE INLET / CATCHBASIN GATE VALVE HYDRANT UTILITY POLE FENCE NOT FIELD VERIFIED TO BE REMOVED STORM SEWER LABEL SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY) SILT FENCE LIMITS OF GRADING/CLEARING **ASPHALT** 

T= TEMPORARY, P = PERMANENT TOTAL AREA TO BE DISTURBED = 57,287 S.F. (1.25 AC.)

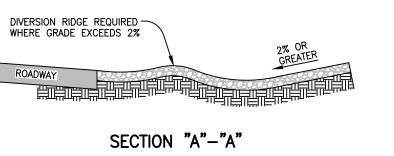
MODIFIED CURB

1	STRIPPING & STOCKPILING TOPSOIL	TOPSOIL MAY BE STOCKPILED ABOVE BORROW AREAS TO ACT AS A DIVERSION STOCKPILE SHOULD BE TEMPORARILY SEEDED
8	SODDING	PROVIDES IMMEDIATE PROTECTION CAN BE USED ON STEEP SLOPES WHERE SEED MAY BE DIFFICULT TO ESTABLISH EASY TO PLACE, MAY BE REPAIRED IF DAMAGED SHOULD INCLUDE PREPARED TOPSOIL BED
14	AGGREGATE COVER	STABILIZES SOIL SURFACE, THUS MINIMIZING EROSION PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS
15	PAVING	PROTECTS AREAS WHICH CANNOT OTHERWISE BE PROTECTED, BUT INCREASES RUNOFF VELOCITY IRREGULAR SURFACE WILL HELP SLOW VELOCITY
16	CURB & GUTTER	KEEPS HIGH VELOCITY RUNOFF ON PAVED AREAS FROM LEAVING PAVED SURFACE COLLECTS AND CONDUCTS RUNOFF TO ENCLOSED DRAINAGE SYSTEM OR PREPARED DRAINAGEWAY
35	C.B. STORM SEWER C.B.	SYSTEM REMOVES COLLECTED RUNOFF FROM SITE, PARTICULARLY FROM PAVED AREAS CAN ACCEPT LARGE CONCENTRATIONS OF RUNOFF CONDUCTS RUNOFF TO MUNICIPAL SEWER SYSTEM OR STABILIZED OUTFALL LOCATION USE CATCH BASINS TO COLLECT SEDIMENT
36	CATCH BASIN, DRAIN INLET	COLLECTS HIGH VELOCITY CONCENTRATED RUNOFF MAY USE FILTER CLOTH OVER INLET
40	INLET SEDIMENT FILTER	EASY TO SHAPE COLLECTS SEDIMENT MAY BE CLEANED AND EXPANDED AS NEEDED
54		uses geotextile fabric and post or poles. Easy to construct and locate . As necessary. (See Detail This Sheet)

TURNED UPSLOPE	AT EACH END TO FORM A "RETURN" IS NEEDED.
	STEEL OR WOOD POST
UNDISTURBED VEGETATION	WIRE FABRIC TO POSTS GEOTEXTILE FILTER FABRIC FASTENED ON UPHILL SIDE, TOWARDS EARTH DISRUPTION RIDGE OF COMPACTED EARTH ON UPHILL SIDE OF FILTER FABRIC  ANCHOR FABRIC SKIRT AS DIRECTED BY ENGINEER. TOTAL WIDTH SHALL BE A MIN. OF 36"

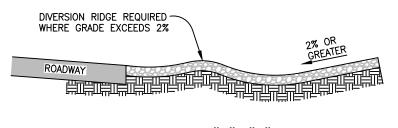
A SILT FENCE WITH AT LEAST ONE SECTION OF THE FENCE (6-8 FT)

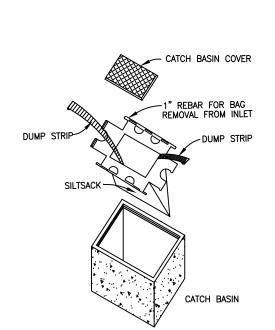
<u>SILT FENCE DETAIL</u>

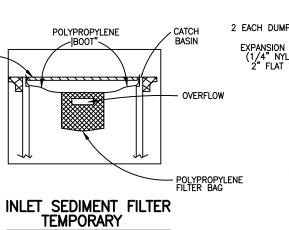


2"-3" (50-75mm) COURSE AGGREGATE, MIN. 6" (†50mm) THICK DIVERSION RIDGE TEMPORARY GRAVEL

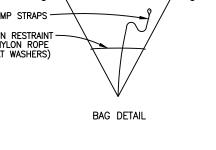
CONSTRUCTION ENTRANCE/EXIT (14T) NO SCALE







NO SCALE



TEMPORARY INLET SEDIMENT FILTER TO BE INSTALLED ON ALL PAVEMENT CATCH BASINS INLET FILTER TO BE SIMILAR TO "STREAMGUARD" AS MANUFACTURED BY STORMWATER SERVICES CORPORATION (206-760-0441) OR "SILTSACK" AS MANUFACTURED BY ATLANTIC CONSTRUCTION FABRICS IN (800-448-3636). CLEAN FILTER AS NEEDED.

ESIGNED BY:

DRAWN BY:

HECKED BY:

CALE 1" = 30'

JOB NO. **16-243** 

08/22/16

### SOIL EROSION CONTROL

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

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

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

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

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

BEEN IMPLEMENTED. ALL SITES SHALL BE STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES.

TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE REMOVED AFTER PERMANENT SOIL EROSION CONTROL MEASURES HAVE

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

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

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

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

EROSION AND SEDIMENTATION CONTROL MEASURES SHALL RECEIVE REGULAR MAINTENANCE TO ASSURE PROPER FUNCTIONING. THE PERMANENT SOIL EROSION CONTROLS WILL BE MAINTAINED BY USA 2 GO.

### SOIL EROSION CONTROL - SEQUENCE OF OPERATION (NEW CONSTRUCTION)

INSTALL CRUSHED CONCRETE ACCESS DRIVE AND TEMPORARY CULVERTS AT THE SITE ENTRANCE AS INDICATED ON THE PLANS. (ONE DAY)

INSTALL SILT FENCE OR SIMILAR APPROVED SILT BARRIER ALONG PROPERTY LINES AND AROUND SENSITIVE NATURAL FEATURES AS INDICATED ON THE PLANS. (ONE DAY)

IF INDICATED ON CONSTRUCTION PLANS, SEDIMENTATION BASINS, DETENTION POND, ETC., SHALL BE CONSTRUCTED PRIOR TO THE INSTALLATION OF ANY OTHER WORK.

STRIP EXISTING TOPSOIL, VEGETATION AND ORGANIC MATTER FROM BUILDING PAD AND PARKING AREAS. COMMENCE LAND BALANCE AND MASS GRADING OPERATIONS. MAINTAIN A MINIMUM BUFFER OF 15' OF EXISTING VEGETATION WHEREVER POSSIBLE AROUND SITE PERIMETER. STOCK PILES SHOULD BE LOCATED AWAY FROM EXISTING DRAINAGE FACILITIES. (TWO DAYS)

EXCAVATE AND INSTALL UNDERGROUND UTILITIES. INSTALL PEASTONE INLET FILTERS AROUND ALL NEW STORM SEWER FACILITIES AS INDICATED ON THE PLANS. EXISTING AND PROPOSED STORM SEWER FACILITIES SHALL BE PROTECTED FROM EROSION AND SEDIMENT INFILTRATION AT ALL TIMES. (FOUR DAYS)

COMMENCE FINAL GRADING AND TRIMMING OPERATIONS. PREPARE SUBGRADE FOR INSTALLATION OF PROPOSED PAVEMENT. (TWO DAYS)

SEED AND MULCH ALL DISTURBED SITE AREAS AND INSTALLED SITE LANDSCAPING. (ONE DAY)

REMOVE CONSTRUCTION DEBRIS AND JET VAC NEWLY INSTALLED STORM SEWER SYSTEM AS REQUIRED BY THE MUNICIPALITY. (TWO DAYS)

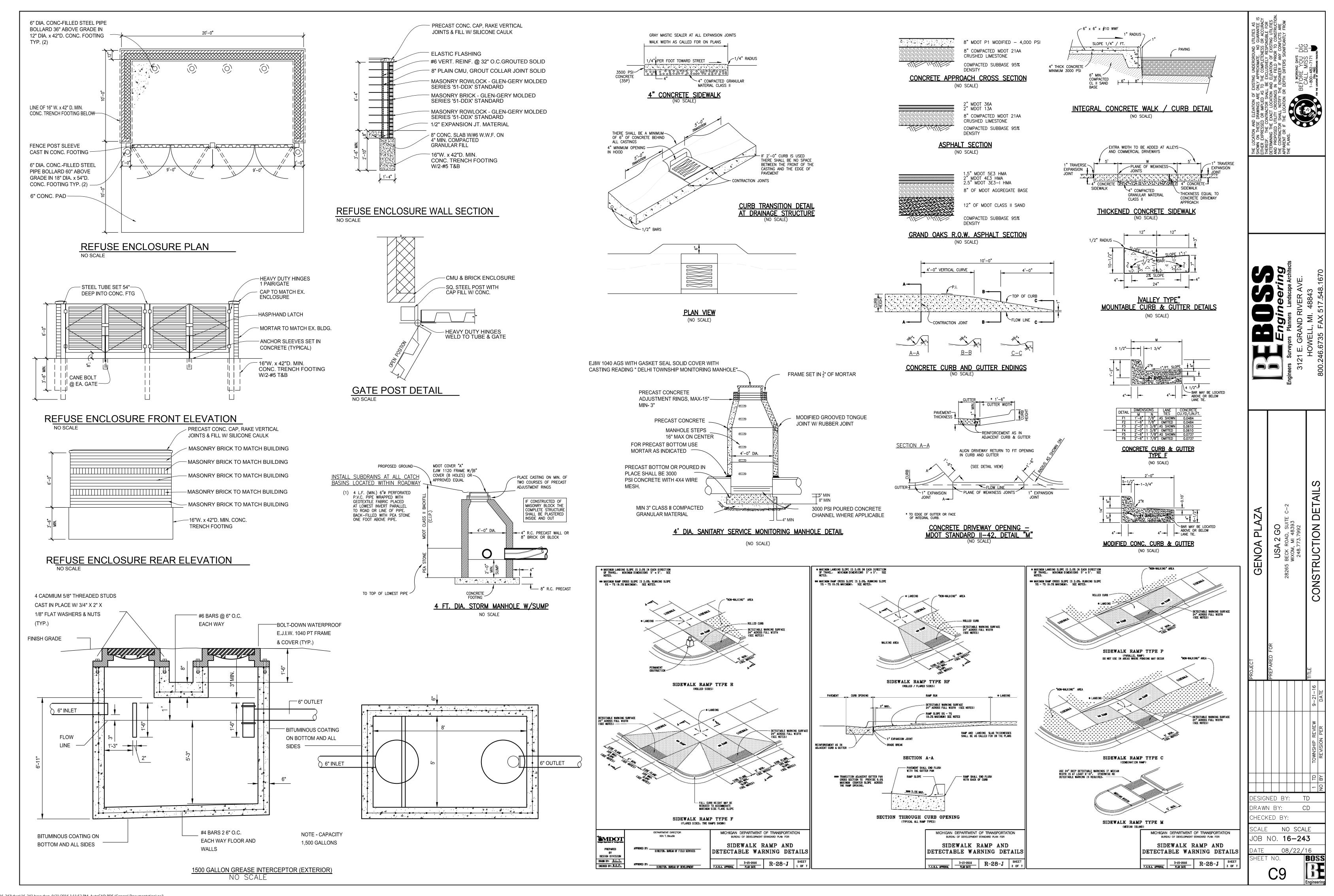
MEASURES ARE ESTABLISHED. (ONE DAY) WHENEVER POSSIBLE, THE SITE SHALL BE GRADED TO WITHIN SIX INCHES (6") OF THE PROPOSED FINISH GRADE PRIOR TO INSTALLATION OF UNDERGROUND FACILITIES.

REMOVE ALL REMAINING TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ONCE PERMANENT

STAGING OF PROPOSED WORK SHALL BE COMPLETED BY THE CONTRACTOR AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED AREAS.

THE TEMPORARY SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY RSP CONSTRUCTION AT PHONE NUMBER (248) 747-3773.

WATERCOURSE OR WETLAND.



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

NOTIFY LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE 24 HOURS PRIOR TO START OF GRADE WORK.

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

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.

ALL TEMPORARY EROSION CONTROL DEVICES AS NOTED ON PLANS SHALL BE INSTALLED PRIOR TO THE START OF MASSIVE EARTH DISTRIBUTION.

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.

SLOPES 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

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.

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. BURLAP AND PEA STONE FILTERS WILL NEED TO BE CHANGED AFTER

EACH RAINFALL. 10. 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. 11. ALL STORM DRAINAGE PIPE 30" IN DIAMETER OR LARGER SHALL BE POINTED, AT THE JOINTS ON THE INSIDE WITH MORTAR, AFTER BACKFILLING.

12. 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. STABILIZATION

13. 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 BIND OF THE HYDROSEEDING, WHICH WILL AFFECT THE

EFFECTIVENESS OF THIS PROCEDURE. 14. IN THE NON-GROWING SEASON, TEMPORARY STABILIZATION OF MASSIVELY EXPOSED AREAS FOR WINTER STABILIZATION SHALL BE DONE WITH STRAW MATTING.

15. 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.

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.

17. 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.

18. 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.

19. PER THE LIVINGSTON COUNTY DRAIN COMMISSIONER THE SEEDING, FERTILIZER AND MULCH MINIMUM QUANTITIES SHALL BE AS FOLLOWS:

TOP-SOIL 3" IN DEPTH GRASS SEED 210 LBS. PER ACRE 150 LBS. PER ACRE FERTILIZER

STRAW MULCH 3" IN DEPTH 1.5 TO 2 TONS PER ACRE (ALL MULCHING MUST HAVE A TIE DOWN, 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.

### SANITARY SEWERS

SANITARY SEWER TAP TO THE LIVINGSTON SANITARY COUNTY DRAIN, SHALL ONLY BE MADE AFTER SECURING IN WRITING CLEARANCE FROM GENOA TOWNSHIP AND A SEWER TAP PERMIT FROM THE LIVINGSTON COUNTY DEPARTMENT OF BUILDING &

A TAP PERMIT WILL BE NEEDED BY THE OWNER/DEVELOPER OF THIS PROJECT TO TAP TO THE LEGALLY ESTABLISHED COUNTY STORM DRAIN. THE OWNER/DEVELOPER SHALL MAKE A WRITTEN REQUEST TO THE DRAIN COMMISSIONER TO REQUEST THE TAP TO THE STORM SEWER. THE FEES FOR SUCH TAP ARE AS FOLLOWS:

NON REFUNDABLE ADMINISTRATIVE FEE OF \$50.00, TO BE PAID AT THE TIME OF APPLICATION.

INSPECTION FEES ARE BASED ON TIME AND MATERIAL BASIS FROM PORT TO PORT FOR THE ON-SITE INSPECTOR. INSPECTORS RATE, VEHICLE MILEAGE, AND 0.5 HOURS OF REPORT PREPARATION TIME WILL BE CHARGED, AS WELL AS ANY NECESSARY MATERIALS. TIME AND MATERIAL FEES ARE PAID AT THE COMPLETION OF THE TAP INSTALLATION.

MASTER: 16-243

STORM SEWER DESIGN COMPUTATIONS DATE 8/22/2016 PROJECT: GENOA COMMERCIAL CENTER DESIGNER CTD LOCATION: GENOA TOWNSHIP

					AREA	AREA I	RUNOFF	EQUIV.	INTEN-	TIME OF	ADD'L	RUNOFF	PIPE	PIPE	VELOCITY	HYDRAULIC	ACTUAL	MANNING	MANNING'S		HG ELEV	HG ELEV	RIM ELE\	/ INVERT	INVERT	DROP	RIM-	RIM-	PIPE	FLOW			
PIPE#	FROM	TO	DRAIN	ACRES	IMPERV	PERV	COEFF	AREA	SITY	CONC. F	RUNOFF	(CFS)	LENGTH	DIA.	FLOWING	GRADIENT	SLOPE	FLOW	VELOCITY	TIME	UPPER	LOWER	UPPER	UPPER	LOWER	DISTANCE	INV	HG	COVER	THRU			
			AREA	Α	0.9	0.15	С	A * C	1	$T_C$	Q	Q	(LF)	(IN)	FULL (FPS)	SLOPE %	USED	CAPACITY	(FT/SEC)	(MIN)	END	END	END	END	END	(FT)		>1	>2.667	COVER	PIPE (	COVERC	CALCS.
P04	CB04P	CB03P	Α	0.168	0.124	0.045	0.70	0.118	4.38	15.00		0.52	33	12	0.66	0.32%	0.32%	2.02	2.57	0.22	1011.13	1011.02	1014.22	1010.33	1010.22		3.89	3.09	2.89	0.52	3.8	,9	2.89
P03	CB03P	CB02P	В	0.213	0.186	0.028	0.80	0.1712	4.35	15.22		1.26	202	12	1.61	0.32%	0.32%	2.02	2.57	1.31	1011.02	1010.37	1014.80	1010.22	1009.57		4.58	3.78	3.58	0.74	3.5	8	3.58
P02	CB02P	MH01P	D	0.350	0.281	0.069	0.00	0	4.21	16.52	0.84	2.10	79	15	1.71	0.24%	0.24%	3.17	2.59	0.51	1010.37	1010.18	1015.60	1009.37	1009.18		6.23	5.23	4.98	0.00	5.0	/3	4.98
P01	MH01P	CB00E						0	4.16	17.03	0.84	2.94	71	15	2.40	0.21%	0.24%	3.17	2.59	0.46	1010.18	1010.00	1016.68	1009.18	1009.00		7.50	6.50	6.25	0.00	6.2	.5	6.25
P07	CB07P	MH06P	С	0.122	0.112	0.009	0.84	0.1024	4.38	15.00		0.45	83	12	0.57	0.32%	0.32%	2.02	2.57	0.54	1013.05	1012.78	1016.40	1012.25	1011.98		4.15	3.35	3.15	0.45	4.1	5	3.15
P06	MH06P	CB05P						0	4.32	15.54	0.39	0.84	88	12	1.07	0.32%	0.32%	2.02	2.57	0.57	1012.78	1012.49	1016.55	1011.98	1011.69		4.57	3.77	3.57	0.00	3.5	,7	3.57
P05	CB05P	MH01P	Е	0.236	0.198	0.038	0.00	0	4.26	16.11		0.84	157	12	1.07	0.32%	0.32%	2.02	2.57	1.02	1012.49	1011.98	1015.75	1011.69	1011.18	2.00	4.06	3.26	3.06	0.00	3.0	<sub>/</sub> 6	3.06
P09	ROOF 1	CB02P	R1	0.048	0.048	0.000	0.90	0.0436	4.38	15.00		0.19	58	6	0.97	1.00%	1.00%	0.56	2.87	0.34	1010.56	1009.97	1017.32	1010.16	1009.57		7.16	6.76	6.66	0.19	7.1	6	6.66
P08	ROOF 2	MH06P	R2	0.099	0.099	0.000	0.90	0.0894	4.38	15.00		0.39	110	6	1.99	1.00%	1.00%	0.56	2.87	0.64	1013.98	1012.88	1017.89	1013.58	1012.48	0.50	4.31	3.91	3.81	0.39	4.3	<i>i</i> 1	3.81

	S	TORM ST	RUCTURE IN	<b>VENTORY</b>		
C	B00E				CB04P	
4' DIA MANHO	LE, COVE	R 'EXIST'	4'	DIA CATC	H BASIN, CC	VEF
RIM	1016.7	3	RIM		1014.22	2
EX. INV. N	36	995.78	INV.	E	12	10
EX. INV. E	12	1010.47	2' SI	JMP		
INV. NW	15	1009.00				
2' SUMP					CB05P	
			4'	DIA CATC	H BASIN, CC	VEF
N	MH01P		RIM		1015.7	5
4' DIA MANI	HOLE, CO	VER 'A'	NV.	NE	12	10
RIM	1016.68	3	INV.	NW	12	10

15 1009.18

15 1009.18

12 1011.18

INV. SE

INV. N

INV. SW

			5.5 52								
4' DIA CAT	CB04P TCH BASIN, CO	VER 'K'	PIPE	LENGTH	SIZE	TYPE	SLOPE				
RIM INV. E 2' SUMP	1014.22 12		P01 P02 P03	71 FT. 79 FT. 202 FT.	15 IN. 15 IN. 12 IN.	RCP C-76 CL.IV RCP C-76 CL.IV RCP C-76 CL.IV	0.24% 0.24% 0.32%				
4' DIA CAT RIM INV. NE INV. NW 2' SUMP	CB05P TCH BASIN, CON 1015.75 12 12		P04 P05 P06 P07 P08 P09	33 FT. 157 FT. 88 FT. 83 FT. 110 FT. 58 FT.	12 IN. 12 IN. 12 IN. 12 IN. 12 IN. 6 IN. 6 IN.	RCP C-76 CL.IV RCP C-76 CL.IV RCP C-76 CL.IV RCP C-76 CL.IV PVC SCH 40 PVC SCH 40	0.32% 0.32% 0.32% 0.32% 1.00% 1.00%				
	MH06P			STRUCTI	IDE EDAME	S & COVERS					

NO SUMP			4' DIA MAN	HOLE, COV	ER 'A'
			RIM	1016.5	5
	CB02P		INV. SW	12	1011
4' DIA CATO	CH BASIN, C	OVER 'K'	INV. NW	6	1012
RIM	1015.60	0	INV. N	12	1011
INV. NW	12	1009.57	NO SUMP		
INV. W	6	1009.57			
INV. S	15	1009.37		CB07P	
2' SUMP			4' DIA CATC	H BASIN, CC	VER'
		,	RIM	1016.40	)
	CB03P		INV. E	12	1012
4' DIA CATO	CH BASIN, C	OVER 'D'	2' SUMP		
RIM	1014.80	0			
INV. SE	12	1010.22			
INV. W	12	1010.22			
2' SUMP					

Drawing: GR133-02

Dimensions are in inches | mm |

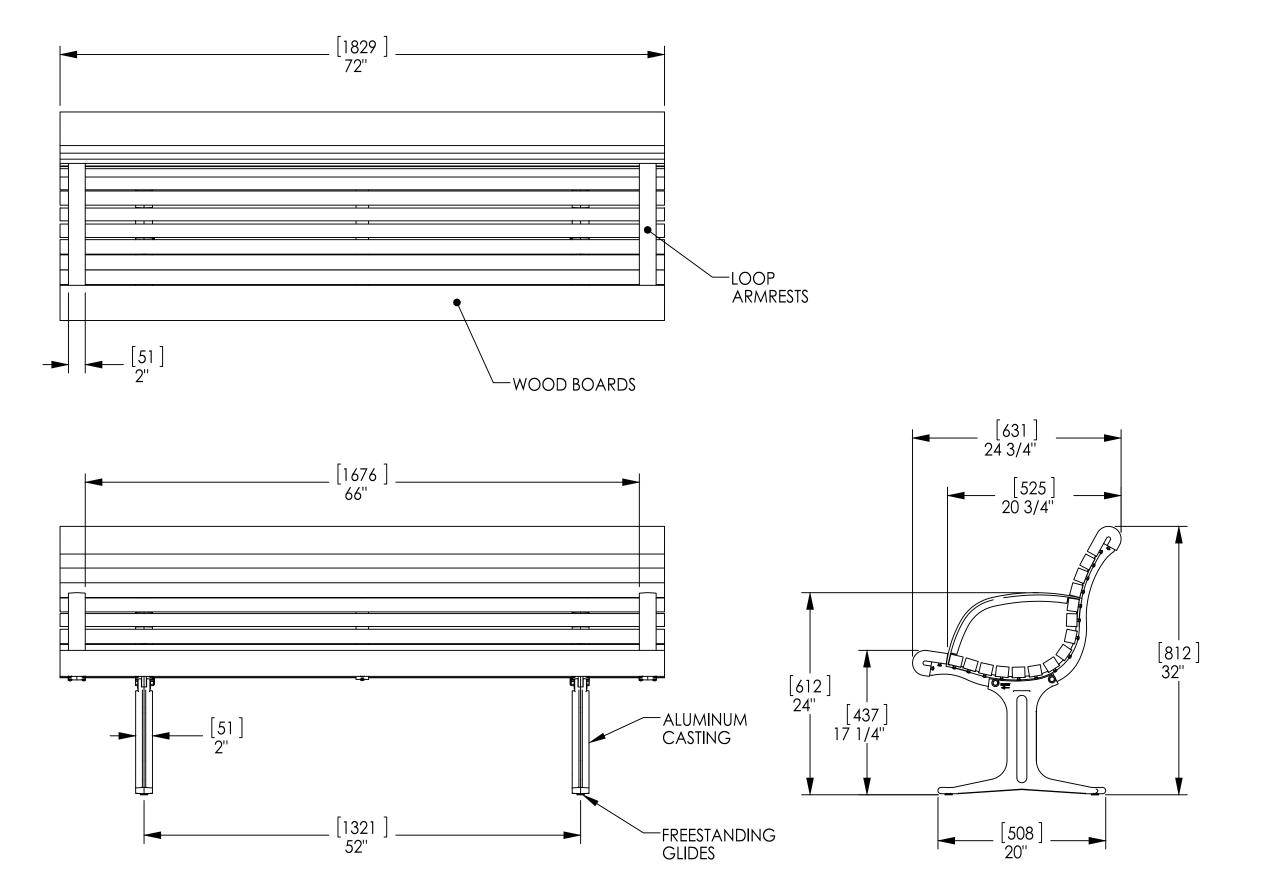
landscapeforms

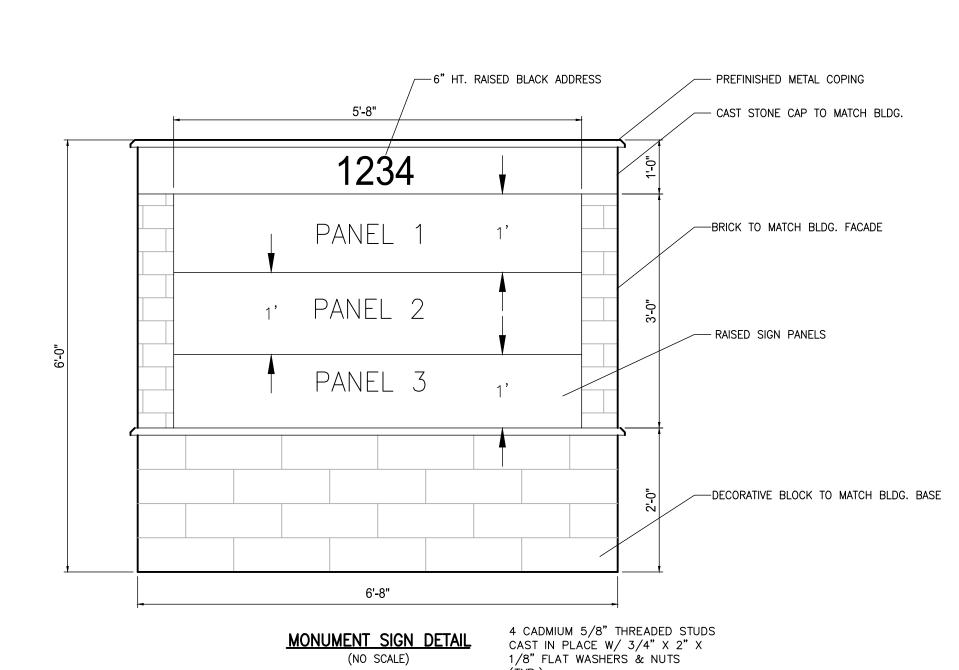
ER'A'		STRUCTURE FRAMES & COVERS								
1011.98		COVER	TYPE	USE	MANUFACTRE	R OR EQUAL	TYPE OF COVER OR			
1012.48 1011.98					EAST JORDAN	NEENAH	GRATE			
/ER 'K'		А	МН	ALL	1120	R-1415	SANITARY—SELF SEALING STORM—VENTED			
1012.25		D	CB & INLET	PARKIN G LOTS	1020-M	R-2560 -D	FLAT GRATE			
		К	CB & INLET	TYPE C & F CURB	7045	R-3031 -B	FLAT GRATE WITH VERT. 4" OPEN THROAT			

STORM SEWER PIPE SCHEDULE

Gretchen TM Backed Bench 72in, Freestanding / Surface Mount, Wood, with Loop Armrest Product Drawing www.landscapeforms.com

Date: 6/29/2011





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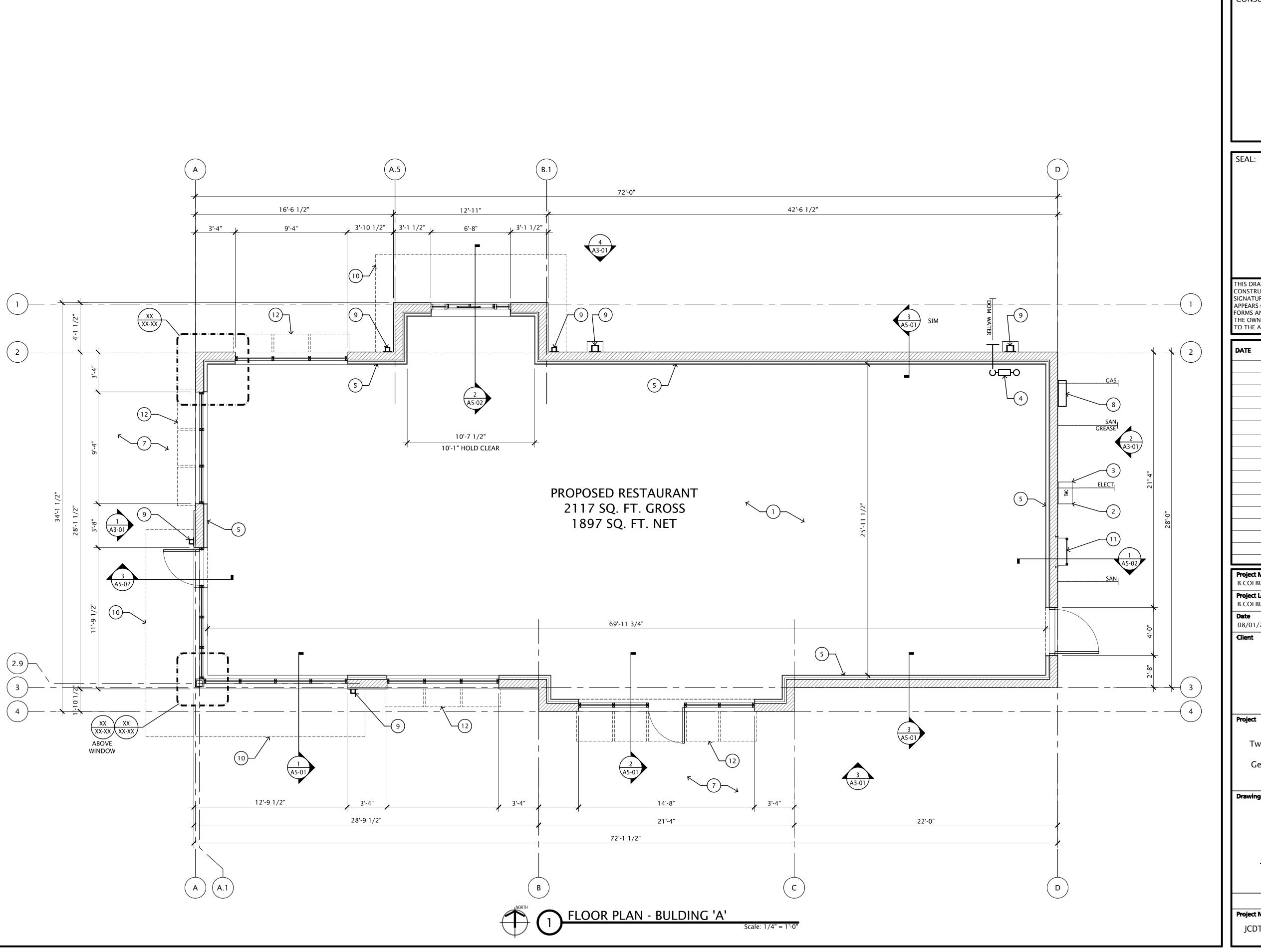
7 ENOA 

DESIGNED BY: CD

DRAWN BY: HECKED BY: SCALE NO SCALE JOB NO. **16-243** 

BOSS

08/22/16



# NORR

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DATE	ISSUED FOR	REV

B.COLBURN	J. BROCK
<b>Project Leader</b> B.COLBURN	Checked
<b>Date</b> 08/01/2016	Dept Mgr Approval
Client	

Two Landlord Shell Building Development Genoa Township, Michigan

Drawing Title

BUILDING 'A' - FLOOR PLAN

DO NOT SCALE DRAWING

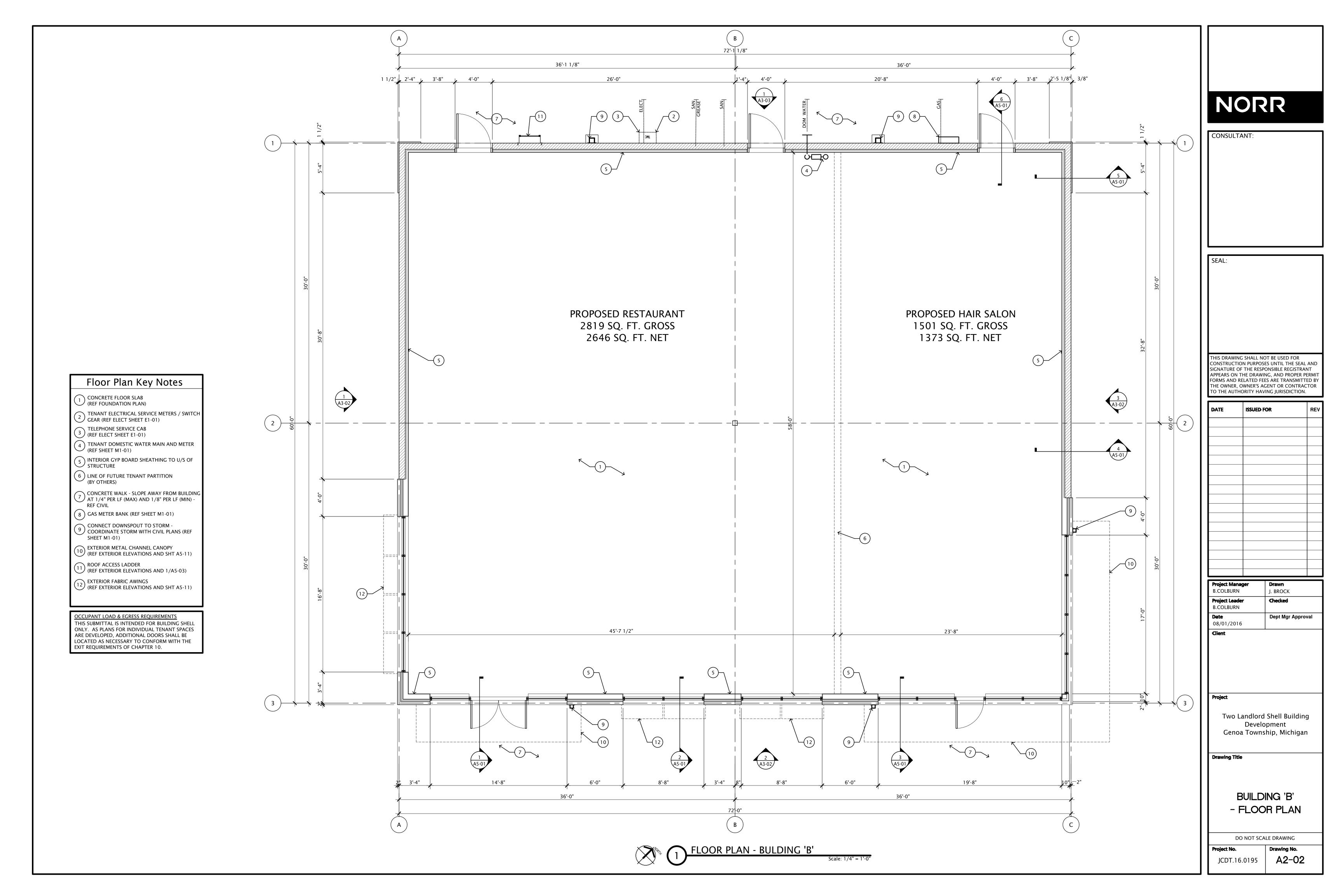
Drawing No. A2-01 JCDT.16.0195

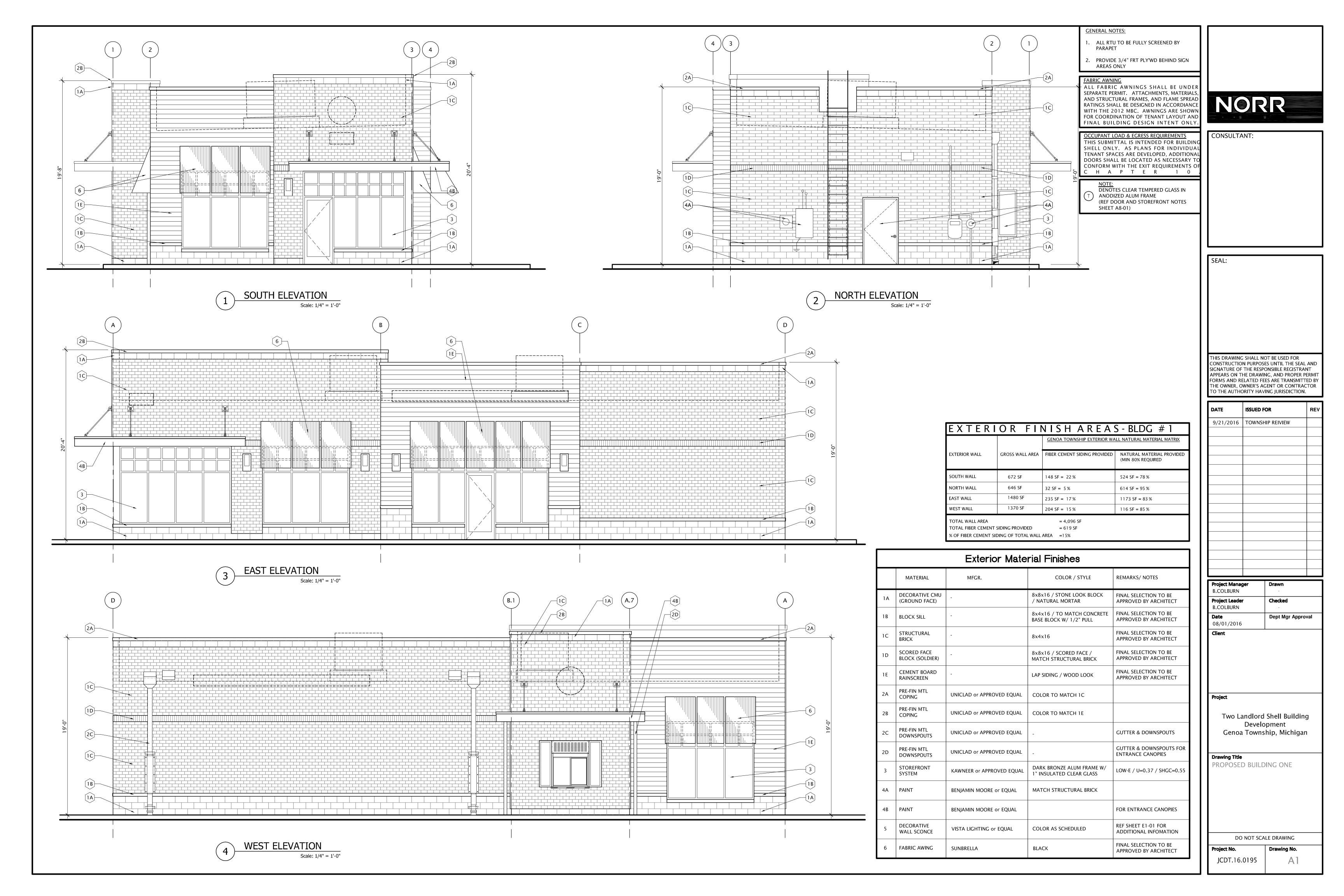
## Floor Plan Key Notes

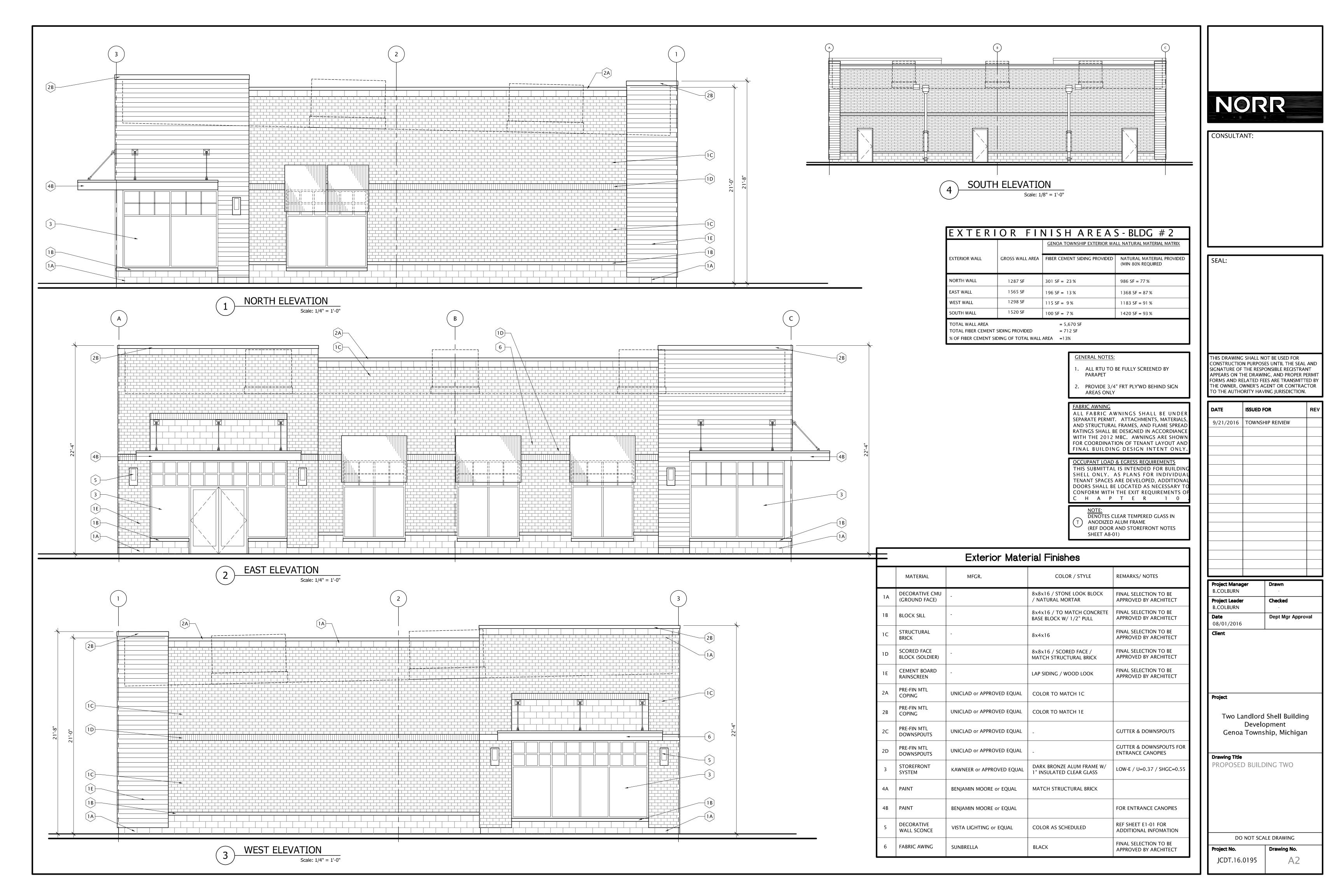
- CONCRETE FLOOR SLAB
  (REF FOUNDATION PLAN)
- TENANT ELECTRICAL SERVICE METERS / SWITCH GEAR (REF ELECT SHEET E1-01)
- TELEPHONE SERVICE CAB (REF ELECT SHEET E1-01)
- TENANT DOMESTIC WATER MAIN AND METER (REF SHEET M1-01)
- 5 INTERIOR GYP BOARD SHEATHING TO U/S OF STRUCTURE
- 6 LINE OF FUTURE TENANT PARTITION (BY OTHERS)
- 7 CONCRETE WALK SLOPE AWAY FROM BUILDING AT 1/4" PER LF (MAX) AND 1/8" PER LF (MIN) -
- REF CIVIL 8 GAS METER BANK (REF SHEET M1-01)
- 9 CONNECT DOWNSPOUT TO STORM -COORDINATE STORM WITH CIVIL PLANS (REF SHEET M1-01)
- EXTERIOR METAL CHANNEL CANOPY (REF EXTERIOR ELEVATIONS AND SHT A5-11)
- ROOF ACCESS LADDER (REF EXTERIOR ELEVATIONS AND 1/A5-03)
- EXTERIOR FABRIC AWINGS
  (REF EXTERIOR ELEVATIONS AND SHT A5-11)

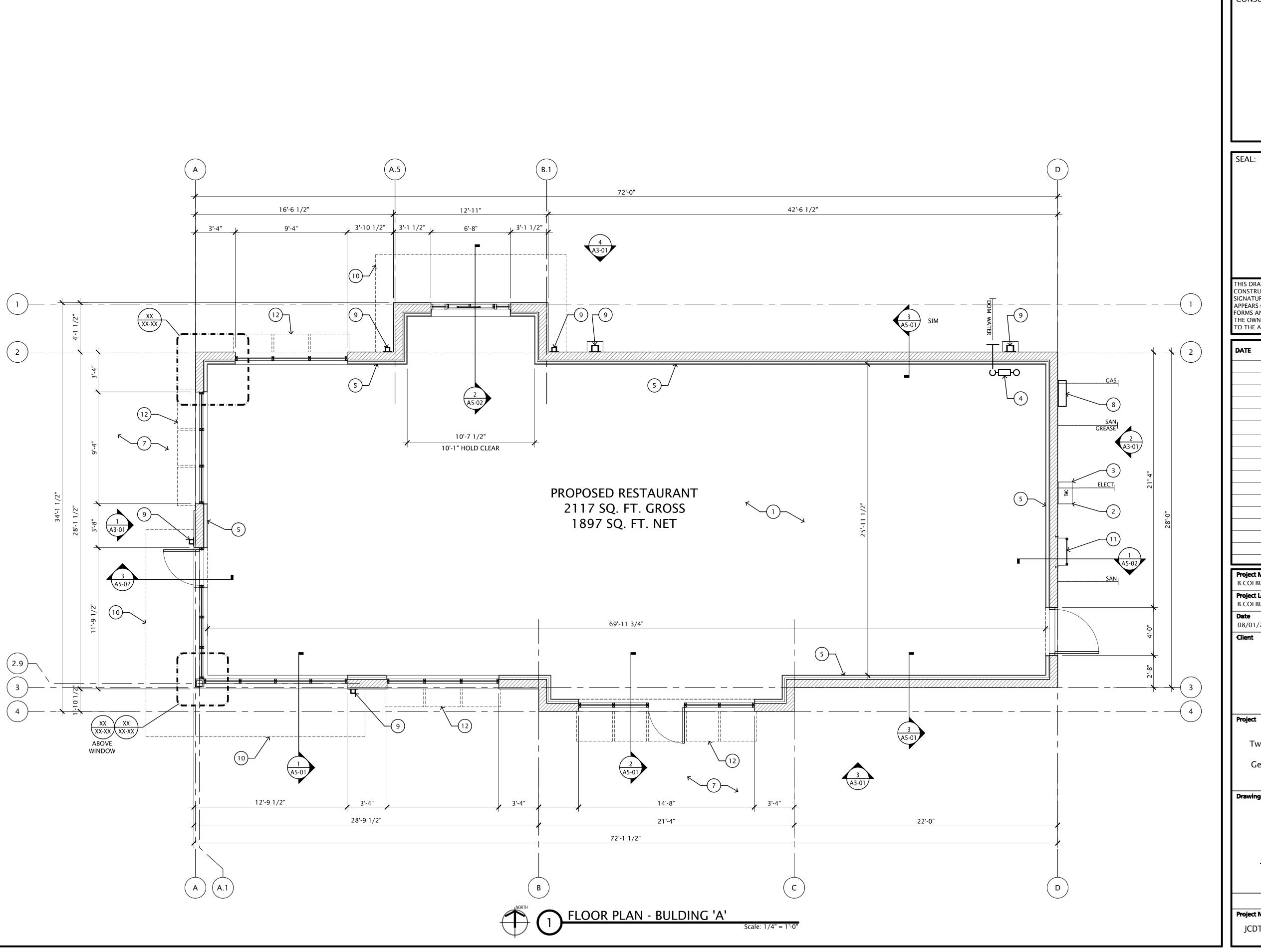
### OCCUPANT LOAD & EGRESS REQUIREMENTS

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# NORR

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DATE	ISSUED FOR	REV

B.COLBURN	J. BROCK
<b>Project Leader</b> B.COLBURN	Checked
<b>Date</b> 08/01/2016	Dept Mgr Approval
Client	

Two Landlord Shell Building Development Genoa Township, Michigan

Drawing Title

BUILDING 'A' - FLOOR PLAN

DO NOT SCALE DRAWING

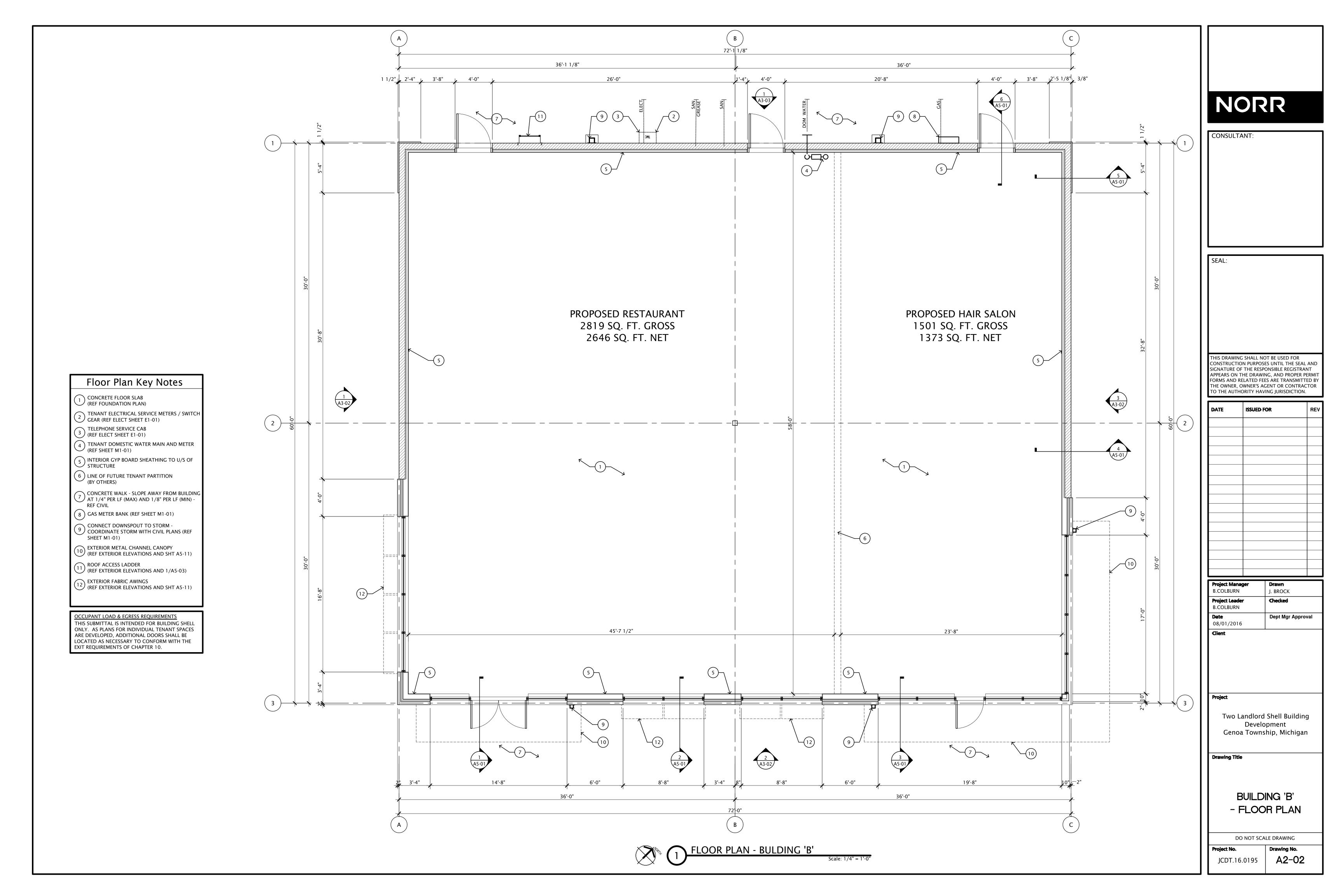
Drawing No. A2-01 JCDT.16.0195

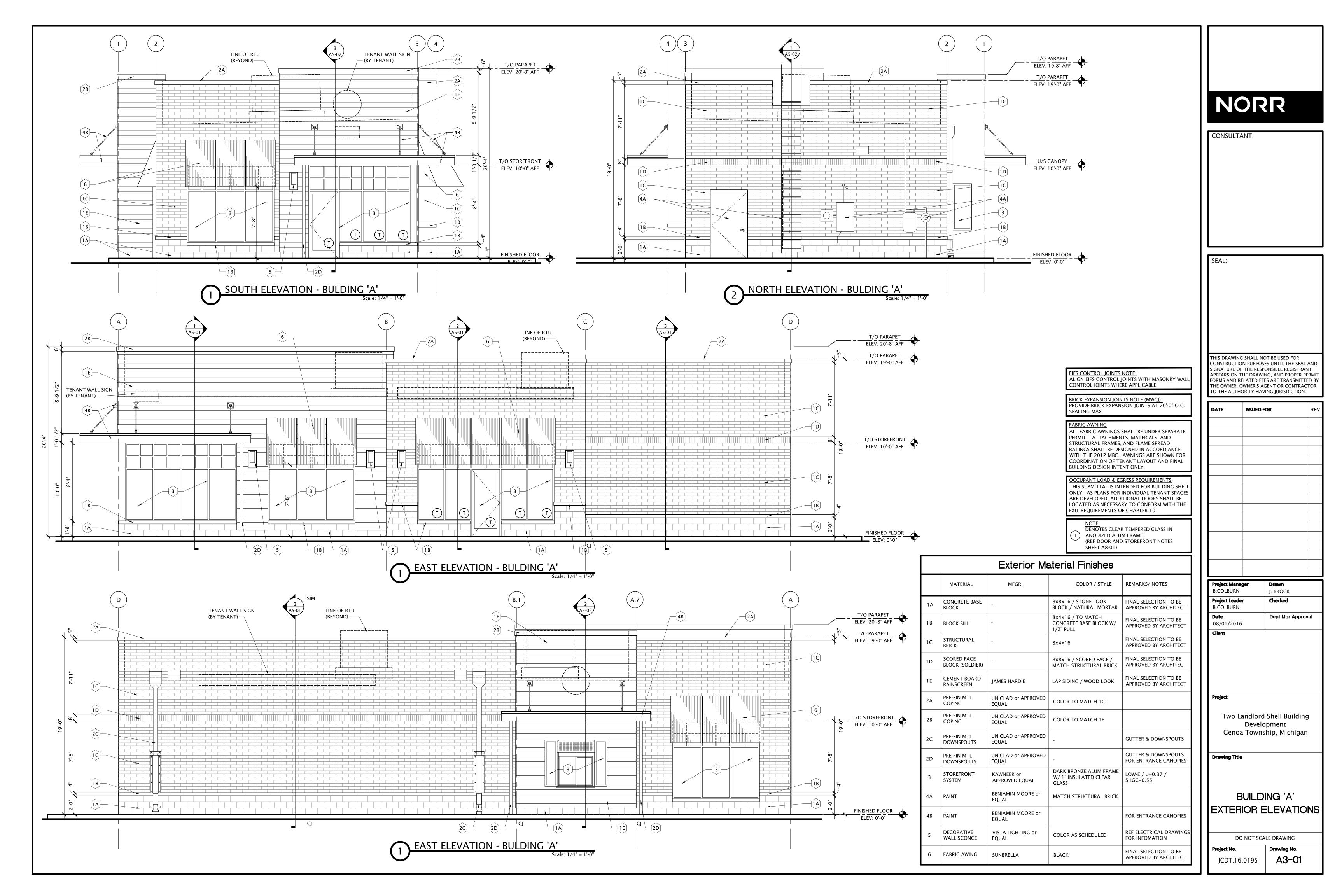
## Floor Plan Key Notes

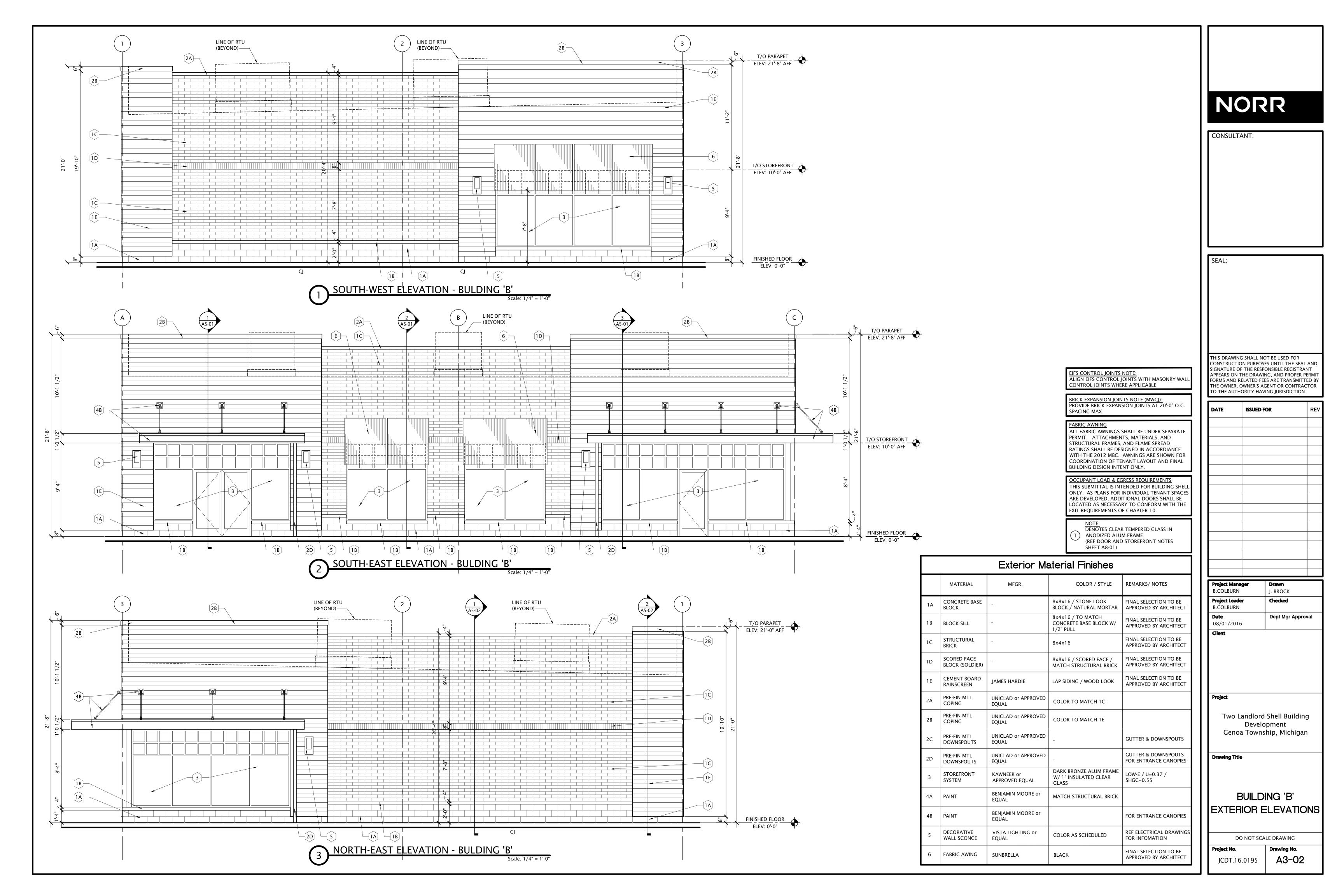
- CONCRETE FLOOR SLAB
  (REF FOUNDATION PLAN)
- TENANT ELECTRICAL SERVICE METERS / SWITCH GEAR (REF ELECT SHEET E1-01)
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- ROOF ACCESS LADDER (REF EXTERIOR ELEVATIONS AND 1/A5-03)
- EXTERIOR FABRIC AWINGS
  (REF EXTERIOR ELEVATIONS AND SHT A5-11)

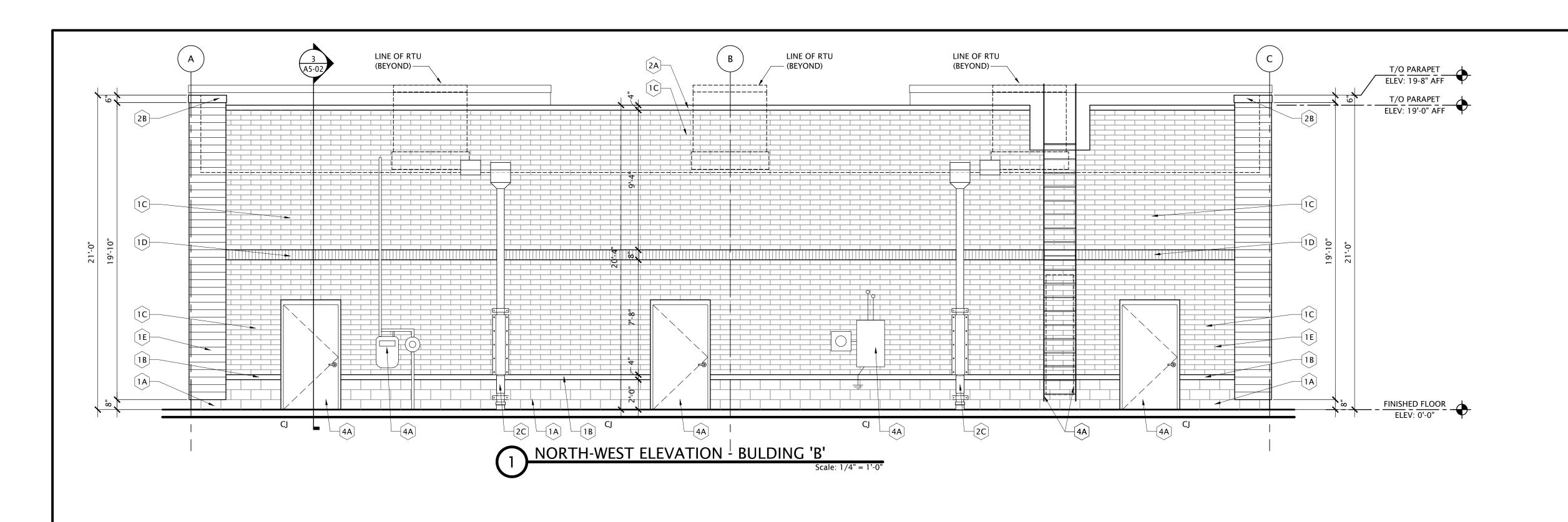
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EIFS CONTROL JOINTS NOTE:
ALIGN EIFS CONTROL JOINTS WITH MASONRY WALL

BRICK EXPANSION JOINTS NOTE (MWCJ):
PROVIDE BRICK EXPANSION JOINTS AT 20'-0" O.C.
SPACING MAX

CONTROL JOINTS WHERE APPLICABLE

### FABRIC AWNING

ALL FABRIC AWNINGS SHALL BE UNDER SEPARATE PERMIT. ATTACHMENTS, MATERIALS, AND STRUCTURAL FRAMES, AND FLAME SPREAD RATINGS SHALL BE DESIGNED IN ACCORDIANCE WITH THE 2012 MBC. AWNINGS ARE SHOWN FOR COORDINATION OF TENANT LAYOUT AND FINAL BUILDING DESIGN INTENT ONLY.

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EXIT REQUIREMENTS OF CHAPTER 10.

NOTE:
DENOTES CLEAR TEMPERED GLASS IN
ANODIZED ALUM FRAME
(REF DOOR AND STOREFRONT NOTES
SHEET A8-01)

			SHEET A8-01)	
		Exterior Ma	aterial Finishes	
	MATERIAL	MFGR.	COLOR / STYLE	REMARKS/ NOTES
1A	CONCRETE BASE BLOCK	-	8x8x16 / STONE LOOK BLOCK / NATURAL MORTAR	FINAL SELECTION TO BE APPROVED BY ARCHITECT
1 B	BLOCK SILL		8x4x16 / TO MATCH CONCRETE BASE BLOCK W/ 1/2" PULL	FINAL SELECTION TO BE APPROVED BY ARCHITECT
1C	STRUCTURAL BRICK	-	8x4x16	FINAL SELECTION TO BE APPROVED BY ARCHITECT
1D	SCORED FACE BLOCK (SOLDIER)	-	8x8x16 / SCORED FACE / MATCH STRUCTURAL BRICK	FINAL SELECTION TO BE APPROVED BY ARCHITECT
1 E	CEMENT BOARD RAINSCREEN	JAMES HARDIE	LAP SIDING / WOOD LOOK	FINAL SELECTION TO BE APPROVED BY ARCHITECT
2A	PRE-FIN MTL COPING	UNICLAD or APPROVED EQUAL	COLOR TO MATCH 1C	
2B	PRE-FIN MTL COPING	UNICLAD or APPROVED EQUAL	COLOR TO MATCH 1E	
2C	PRE-FIN MTL DOWNSPOUTS	UNICLAD or APPROVED EQUAL	-	GUTTER & DOWNSPOUTS
2D	PRE-FIN MTL DOWNSPOUTS	UNICLAD or APPROVED EQUAL	-	GUTTER & DOWNSPOUTS FOR ENTRANCE CANOPIES
3	STOREFRONT SYSTEM	KAWNEER or APPROVED EQUAL	DARK BRONZE ALUM FRAME W/ 1" INSULATED CLEAR GLASS	LOW-E / U=0.37 / SHGC=0.55
4A	PAINT	BENJAMIN MOORE or EQUAL	MATCH STRUCTURAL BRICK	
4B	PAINT	BENJAMIN MOORE or EQUAL		FOR ENTRANCE CANOPIES
5	DECORATIVE WALL SCONCE	VISTA LIGHTING or EQUAL	COLOR AS SCHEDULED	REF ELECTRICAL DRAWINGS FOR INFOMATION
6	FABRIC AWING	SUNBRELLA	BLACK	FINAL SELECTION TO BE APPROVED BY ARCHITECT

# NORR

CONSULTANT:

SEAL:

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TO THE AUTHO	oki i i i i i i i i i i i i i i i i i i	
DATE	ISSUED FOR	REV

Project Manager	Drawn
B.COLBURN	J. BROCK
Project Leader	Checked
B.COLBURN	
Date	Dept Mgr Approval
08/01/2016	bopt mg. Approva
Client	
Project	
•	
Two Landlord	Shell Building
Develo	pment
	hip, Michigan
delloa rowiis	inp, wiicingan
Drawing Title	
	INIO 'D'
RAILD	ING 'B'

EXTERIOR ELEVATIONS

DO NOT SCALE DRAWING

JCDT.16.0195

A3-03



1C 1B 1A

**GENERAL NOTES**: ALL RTU TO BE FULLY SCREENED BY PARAPET

PROVIDE 3/4" FRT PLY'WD BEHIND SIGN AREAS ONLY

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NOTE: DENOTES CLEAR TEMPERED GLASS IN ANODIZED ALUM FRAME (REF DOOR AND STOREFRONT NOTES SHEET A8-01)

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SIGNATURE OF THE RESPONSIBLE REGISTRANT APPEARS ON THE DRAWING, AND PROPER PERMIT

FORMS AND RELATED FEES ARE TRANSMITTED BY THE OWNER, OWNER'S AGENT OR CONTRACTOR TO THE AUTHORITY HAVING JURISDICTION.		
DATE	ISSUED FOR	REV
9/21/2016	TOWNSHIP REIVIEW	

<b>Project Manager</b> B.COLBURN	Drawn -
<b>Project Leader</b> B.COLBURN	Checked
<b>Date</b> 08/01/2016	Dept Mgr Approval

Two Landlord Shell Building Development Genoa Township, Michigan

Drawing Title PROPOSED BUILDING ONE

DO NOT SCALE DRAWING

JCDT.16.0195 A1

SOUTH ELEVATION NORTH ELEVATION



(2)	EAST ELEVATION
$\binom{3}{2}$	Scale: 1/4" = 1'-0"



WEST ELEVATION

		GENOA TOWNSHIP EXTERIOR WALL NATURAL MATERIAL MATRIX		
EXTERIOR WALL	GROSS WALL AREA	FIBER CEMENT SIDING PROVIDED	NATURAL MATERIAL PROVIDED (MIN 80% REQUIRED	
SOUTH WALL	672 SF	148 SF = 22 %	524 SF = 78 %	
NORTH WALL	646 SF	32 SF = 5 %	614 SF = 95 %	
EAST WALL	1480 SF	235 SF = 17 %	1173 SF = 83 %	
WEST WALL	1370 SF	204 SF = 15 %	116 SF = 85 %	

WEST WALL	1370 SF	204 SF = 15 %
TOTAL WALL AREA		= 4,096 SF
TOTAL FIBER CEMENT S	IDING PROVIDED	= 619 SF
% OF FIBER CEMENT SID	ING OF TOTAL WALL A	AREA =15%

	Exterior Material Finishes				
	MATERIAL	MFGR.	COLOR / STYLE	REMARKS/ NOTES	
1A	DECORATIVE CMU (GROUND FACE)	-	8x8x16 / STONE LOOK BLOCK / NATURAL MORTAR	FINAL SELECTION TO BE APPROVED BY ARCHITECT	
1B	BLOCK SILL	-	8x4x16 / TO MATCH CONCRETE BASE BLOCK W/ 1/2" PULL	FINAL SELECTION TO BE APPROVED BY ARCHITECT	
1C	STRUCTURAL BRICK	-	8x4x16	FINAL SELECTION TO BE APPROVED BY ARCHITECT	
1D	SCORED FACE BLOCK (SOLDIER)	-	8x8x16 / SCORED FACE / MATCH STRUCTURAL BRICK	FINAL SELECTION TO BE APPROVED BY ARCHITECT	
1E	CEMENT BOARD RAINSCREEN	-	LAP SIDING / WOOD LOOK	FINAL SELECTION TO BE APPROVED BY ARCHITECT	
2A	PRE-FIN MTL COPING	UNICLAD or APPROVED EQUAL	COLOR TO MATCH 1C		
2B	PRE-FIN MTL COPING	UNICLAD or APPROVED EQUAL	COLOR TO MATCH 1E		
2C	PRE-FIN MTL DOWNSPOUTS	UNICLAD or APPROVED EQUAL	-	GUTTER & DOWNSPOUTS	
2D	PRE-FIN MTL DOWNSPOUTS	UNICLAD or APPROVED EQUAL	-	GUTTER & DOWNSPOUTS FOR ENTRANCE CANOPIES	
3	STOREFRONT SYSTEM	KAWNEER or APPROVED EQUAL	DARK BRONZE ALUM FRAME W/ 1" INSULATED CLEAR GLASS	LOW-E / U=0.37 / SHGC=0.55	
4A	PAINT	BENJAMIN MOORE or EQUAL	MATCH STRUCTURAL BRICK		
4B	PAINT	BENJAMIN MOORE or EQUAL		FOR ENTRANCE CANOPIES	
5	DECORATIVE WALL SCONCE	VISTA LIGHTING or EQUAL	COLOR AS SCHEDULED	REF SHEET E1-01 FOR ADDITIONAL INFOMATION	
6	FABRIC AWING	SUNBRELLA	BLACK	FINAL SELECTION TO BE APPROVED BY ARCHITECT	





Scale: 1/8" = 1'-0"

EXTERIOR FINISH AREAS-BLDG #2				
		GENOA TOWNSHIP EXTERIOR WA	LL NATURAL MATERIAL MATRIX	
EXTERIOR WALL	GROSS WALL AREA	FIBER CEMENT SIDING PROVIDED	NATURAL MATERIAL PROVIDED (MIN 80% REQUIRED	
NORTH WALL	1287 SF	301 SF = 23 %	986 SF = 77 %	
EAST WALL	1565 SF	196 SF = 13 %	1368 SF = 87 %	
WEST WALL	1298 SF	115 SF = 9 %	1183 SF = 91 %	
SOUTH WALL	1520 SF	100 SF = 7 %	1420 SF = 93 %	
TOTAL WALL AREA		= 5.670 SF		

TOTAL WALL AREA = 5,670 SF
TOTAL FIBER CEMENT SIDING PROVIDED = 712 SF
% OF FIBER CEMENT SIDING OF TOTAL WALL AREA =13%

GENERAL NOTES:

ALL RTU TO BE FULLY SCREENED BY PARAPET

PROVIDE 3/4" FRT PLY'WD BEHIND SIGN AREAS ONLY

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C H A P T E R 1 0

T NOTE:
DENOTES CLEAR TEMPERED GLASS IN
ANODIZED ALUM FRAME
(REF DOOR AND STOREFRONT NOTES
SHEET A8-01)

2	EAST ELEVATION  Scale: 1/4" = 1'-0"
2A 2A	
1C	
1D	6
1E	
(3)-	WEST ELEVATION  Scale: 1/4" = 1'-0"

4B

1E

18

1A

Exterior Material Finishes				
	MATERIAL	MFGR.	COLOR / STYLE	REMARKS/ NOTES
1A	DECORATIVE CMU (GROUND FACE)	-	8x8x16 / STONE LOOK BLOCK / NATURAL MORTAR	FINAL SELECTION TO BE APPROVED BY ARCHITECT
1 B	BLOCK SILL	-	8x4x16 / TO MATCH CONCRETE BASE BLOCK W/ 1/2" PULL	FINAL SELECTION TO BE APPROVED BY ARCHITECT
1C	STRUCTURAL BRICK	-	8x4x16	FINAL SELECTION TO BE APPROVED BY ARCHITECT
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9/21/2016	TOWNSHIP REIVIEW	

Project Manager	Drawn
B.COLBURN	-
<b>Project Leader</b> B.COLBURN	Checked
<b>Date</b> 08/01/2016	Dept Mgr Approval
Client	

Project

Two Landlord Shell Building Development Genoa Township, Michigan

**Drawing Title**PROPOSED BUILDING TWO

DO NOT SCALE DRAWING

 Project No.
 Drawing No.

 JCDT.16.0195
 A2

GENOA CHARTER TOWNSHIP PLANNING COMMISSION PUBLIC HEARING SEPTEMBER 12, 2016 6:30 P.M. MINUTES

<u>CALL TO ORDER:</u> The meeting of the Genoa Charter Township Planning Commission was called to order at 6:30 p.m. Present were Chairman Doug Brown, Barbara Figurski, James Mortensen, Eric Rauch, John McManus, and Diana Lowe. Absent was Chris Grajek. Also present was Kelly VanMarter, Community Development Director/Assistant Township Manager, Gary Markstrom of Tetra Tech, and an audience of 0.

<u>PLEDGE OF ALLEGIANCE:</u> The pledge of allegiance was recited.

<u>APPROVAL OF AGENDA:</u> **Moved** by Commissioner Figurski, seconded by Commissioner Rauch, to approve the agenda as presented. **The motion carried unanimously.** 

CALL TO THE PUBLIC: The call to the public was made at 6:32 pm with no response.

**OPEN PUBLIC HEARING #1...**Review of Environmental Impact Assessment and Site Plan for proposed site grading on the balance of the land located south of the Providence Medical Center Project at the southeast corner of the Latson Road and Grand Oaks Drive intersection. The request is petitioned by Ascension Health for the purpose of raising grade to provide gravity fed sanitary sewer for future development.

- A. Recommendation of Impact Assessment (8-23-16)
- B. Disposition of Site Plant (8-24-16)

Mr. Markstrom reviewed his letter of August 29, 2016. He feels the plan has merit. He would like to ensure that the grading takes into consideration the water main that is going to be extended in this area. Also, if all of the out lots are going to be developed, then the grading should be adjusted so they can be serviced by the gravity-fed sanitary sewer.

The Environmental Impact Assessment should say "MDOT" instead of "MOOT".

Mr. Mark Yagerleander, the Regional Director of Real Estate for Ascension Health, stated they are raising the grade to allow for a gravity-fed sanitary sewer system. With regard to Mr. Markstrom's comments regarding the out lots, they are not sure if they are going to sell the one on the southeast corner as they are still working on the scope of the medical office building.

Mr. Gary Tressel of Hubble, Roth & Clark, Inc. stated they will be bringing in 60,000 tons of dirt fill for the site and are planning to bring the entire site up to the same grade. They will also ensure that the grade accommodates the future water main.

The call to the public was made at 6:51 pm with no response.

**Moved** by Commissioner McManus, seconded by Commissioner Mortensen, to recommend to the Township Board approval of the Impact Assessment dated 8-23-16 for grading at 1205 Latson Road, conditioned upon the following:

- "MOOT" shall be changed to "MDOT" anywhere it appears in the document.
- Any further approvals, beyond the Flagstar Bank, will require review of the master deed, if applicable. The motion carried unanimously.

**Moved** by Mortensen, seconded by McManus, to approve the Site Plan for grading at 1205 Latson Road conditioned upon the following:

- The requirements stated in the Township Engineer's letter of August 29, 2016 shall be met.
- The requirements stated in the Brighton Area Fire Authority's letter of September 1, 2016 shall be met.
- Approval of the Impact Assessment by the Township Board.

The motion carried unanimously.

### **Administrative Business:**

Staff Report

Ms. VanMarter stated that the developer of Lake Shore Village Place Phase III contacted her and stated that MSHDA, who is funding this project, has an issue with the natural gas pipeline and access road. They would like to see an Environmental Study. The developer would like to remove this area from the project by a land transfer. She feels this is an amendment to the approved site plan and it should be reviewed by the Planning Commission. The area in question was to be open space.

Commissioner Rauch stated this will change the density of the project.

All Commissioners agreed that if the plan is changed, it must come before the Planning Commission for review and approval.

Approval of the August 8, 2016 Planning Commission meeting minutes

**Moved** by Commissioner Figurski, seconded by Commissioner Lowe, to approve the minutes of the August 8, 2016 Planning Commission Meeting as presented. **The motion carried unanimously.** 

Member Discussion

Commissioner Mortensen stated that when the two properties from developer Harvey Weiss were presented to the Township Board, they had some changes that were different than what was approved by the Planning Commission. The Board reached an agreement with Mr. Weiss; however, Mr. Mortensen feels these changes should have been reviewed by the Planning Commission.

Commissioner Figurski gave a review of the August Zoning Board of Appeals meeting.

• Adjournment

**Moved** by Commissioner Figurski, seconded by Commissioner Lowe, to adjourn the meeting at 7:10 pm. **The motion carried unanimously.** 

