

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION PUBLIC HEARING
MARCH 13, 2017
MONDAY
6:30 P.M.
AGENDA**

CALL TO ORDER:

PLEDGE OF ALLEGIANCE:

ELECTION OF OFFICERS:

APPROVAL OF AGENDA:

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

OPEN PUBLIC HEARING #1...Review of site plan application and impact assessment for a proposed 101 room 4 story “Hampton Inn and Suites” hotel located southwest of the Grand Oaks Drive and Latson Road intersection. The property is located within the Livingston Commons Phase 2 PUD on parcel #11-08-200-020. The request is petitioned by Howell Hospitality Inc.

Planning Commission recommendation of petition:

- A. Recommendation of Impact Assessment (2-21-17)
- B. Recommendation of Site Plan (2-21-17)

ADMINISTRATIVE BUSINESS:

- *Staff Report*
- *Approval of November 14, 2016 Planning Commission meeting minutes*
- *Annual Report - 2016*
- *Member discussion*
- *Adjournment*



GENOA CHARTER TOWNSHIP
Application for Site Plan Review
GENOA TOWNSHIP
FEB - 2 2017
RECEIVED

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: Howell Hospitality, Inc., 26100 American Drive Ste 605 Southfield, MI 48034
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: Howell Hospitality, Inc., 26100 American Drive Ste 605 Southfield, MI 48034

SITE ADDRESS: Vacant Parcel PARCEL #(s): 47-11-08-200-020

APPLICANT PHONE: 248 281-4168 OWNER PHONE: Same

OWNER EMAIL: akramnamouhosp@aol.com

LOCATION AND BRIEF DESCRIPTION OF SITE: Property is located on the south side of Grand Oaks Drive along the shared access drive within the Livingston Commons Phase 2 development.

BRIEF STATEMENT OF PROPOSED USE: Proposed Hampton Inn & Suites 4-story hotel with associated parking.

THE FOLLOWING BUILDINGS ARE PROPOSED: Proposed Hampton Inn & Suites 4-story hotel

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: 

Akram Namou-President

ADDRESS: 26100 American Drive Suite #605 Southfield, MI 48034

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

1.) Andy Andre of Bud Design & Engineering at andy@buddesign.com
Name Business Affiliation E-mail Address

FEE EXCEEDANCE AGREEMENT

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

SIGNATURE: Akram Namou DATE: 01/31/2017
PRINT NAME: Akram Namou PHONE: 248-281-4168
ADDRESS: 26100 American Drive Suite #605 Southfield, MI 48034

REQUIRED SITE PLAN CONTENTS

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

<u>SUBMITTED</u>	<u>NOT APPLICABLE</u>	<u>ITEM</u>												
☒	☐	Application form and fee: A completed application form and payment of a non-refundable application fee. (A separate escrow fee may be required for administrative charges to review the site plan submittal.)												
☒	☐	Applicant information: The name and address of the property owner and applicant, interest of the applicant in the property, the name and address of the developer, and current proof of ownership of the land to be utilized or evidence of a contractual ability to acquire such land, such as an option or purchase agreement.												
☒	☐	Scale: The site plan should be drawn at an engineers scale on sheets measuring 24x36 inches at the scale noted below.												
		<table><tr><th><u>ACREAGE</u></th><th><u>SCALE</u></th></tr><tr><td>160 or more</td><td>1" = 200'</td></tr><tr><td>5- 159.9</td><td>1" = 100'</td></tr><tr><td>2- 4.99</td><td>1" = 50'</td></tr><tr><td>1- 1.99</td><td>1" = 30'</td></tr><tr><td>0- .99</td><td>1" = 20'</td></tr></table>	<u>ACREAGE</u>	<u>SCALE</u>	160 or more	1" = 200'	5- 159.9	1" = 100'	2- 4.99	1" = 50'	1- 1.99	1" = 30'	0- .99	1" = 20'
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0- .99	1" = 20'													
<u>COVER SHEET CONTAINING</u>														
☒	☐	The name and address of the project.												
☒	☐	The name, address and professional seal of the architect, engineer, surveyor or landscape architect responsible for preparation of the site plan.												
☒	☐	A complete and current legal description and size of property in acres and square feet. Where a metes and bound description is used, lot line angles or bearings shall be indicated on the plan. Lot line dimensions and angles or angles or bearings shall be based upon a boundary survey and shall correlate with the legal description.												
☒	☐	A small location sketch of sufficient size and scale to locate the property within the Township.												
☒	☐	Title block with north arrow, date of preparation and any revisions.												
<u>EXISTING CONDITION SHEETS ILLUSTRATING</u>														
☒	☐	All existing lot lines and dimensions, including setback lines and existing or proposed easements.												
☒	☐	Existing topography (minimum contour interval of two feet)												
☒	☐	Existing natural features such as streams, marshes, ponds; wetlands labeled with size and type (upland, emergent, etc)												
☐	☒	Existing woodlands shall be shown by an approximate outline of the total canopy; individual deciduous trees of eight inch caliper or larger and individual evergreen trees six feet in height or higher, where not a part of a group of trees, shall be accurately located and identified by species and size (caliper for deciduous, height for evergreen).												

☒	☐	Soil characteristics of the parcel to at least the detail as provided by the Soil Conservation Service Soil Survey of Livingston County. A separate map or overlay at the same scale as the site plan map may be used.
☒	☐	Zoning and current land use of applicant's property and all abutting properties and of properties across any public or private street from the site.
☒	☐	Indication of existing drainage patterns, surface or water bodies.
☐	☒	The limits of any wetland regulated by the MDEQ, including attachment of any MDEQ approved wetland determination or documentation that an application for an MDEQ review has been submitted. If an MDEQ regulated wetland is to be impacted, an indication of the status of application for an MDEQ wetland permit or copy of a permit including description of any wetland migration required attached.
☒	☐	Aerial photograph indicating the limits of the site, surrounding land uses and street system.
<u>PROPOSED PROJECT INFORMATION</u>		
☒	☐	Base information: The location of all existing buildings, structures, street names and existing right-of-way, utility poles, towers, drainage ditches, culverts, pavement, sidewalks, parking areas and driveways on the property and within one-hundred feet of the subject property (including driveways on the opposite side of any street). Notes shall be provided indicating those which will remain and those which are to be removed.
☒	☐	Building information: Footprints, dimensions, setbacks, typical floor plans, and a sketch of any rooftop or ground mounted equipment to scale.
☒	☐	Building elevations: Elevation drawings shall be submitted illustrating the building design and height, and describing construction materials for all proposed structures. Elevations shall be provided for all sides visible from an existing or proposed public street or visible to a residential district. The Planning Commission may require color renderings of the building. Proposed materials and colors shall be specified on the plan and color chips or samples shall also be provided at the time of site plan review. These elevations, colors, and materials shall be considered part of the approval site plan (as amended 4/15/95).
☒	☐	Building and lot coverage: Percentage of building coverage and impervious surface ratio (all paved areas and building v. total lot area) compared to the percentages specified in the Table of Dimensional Standards Article 4.
☐	☒	For residential developments: Number of units for each project phase divided by acreage exclusive of any public right-of-way or private road access easement; lot area for each lot; and a description of the number of each unit by size and number of bedrooms; if a multi-phase development is proposed, identification of the areas included in each phase.
☒	☐	For commercial and office uses: The Gross Floor Area and Useable Floor Area of each use or lease space. For industrial uses: The floor area devoted to industrial uses and the area intended for accessory office use.
☒	☐	Streets, driveways, and circulation: The layout and dimensions of proposed lots, streets and drives (including grades, existing or proposed right-of-way or easement and pavement width, number of lanes and typical cross section showing surface and sub base materials and dimensions,



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



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



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



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



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



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



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



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

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



March 7, 2017

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	Hampton Inn & Suites – Site Plan Review #2
Location:	Vacant property southwest of the Grand Oaks Drive and Latson Road intersection
Zoning:	NR-PUD Non-Residential Planned Unit Development District

Dear Commissioners:

At the Township's request, we have reviewed the revised site plan (most recently dated 2/22/17) proposing a new hotel for a vacant 2.56-acre site located southwest of the Grand Oaks Drive and Latson Road intersection.

The site is immediately southwest of the recent USA-2-Go development and is part of the Livingston Commons 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 this property.

A. Summary

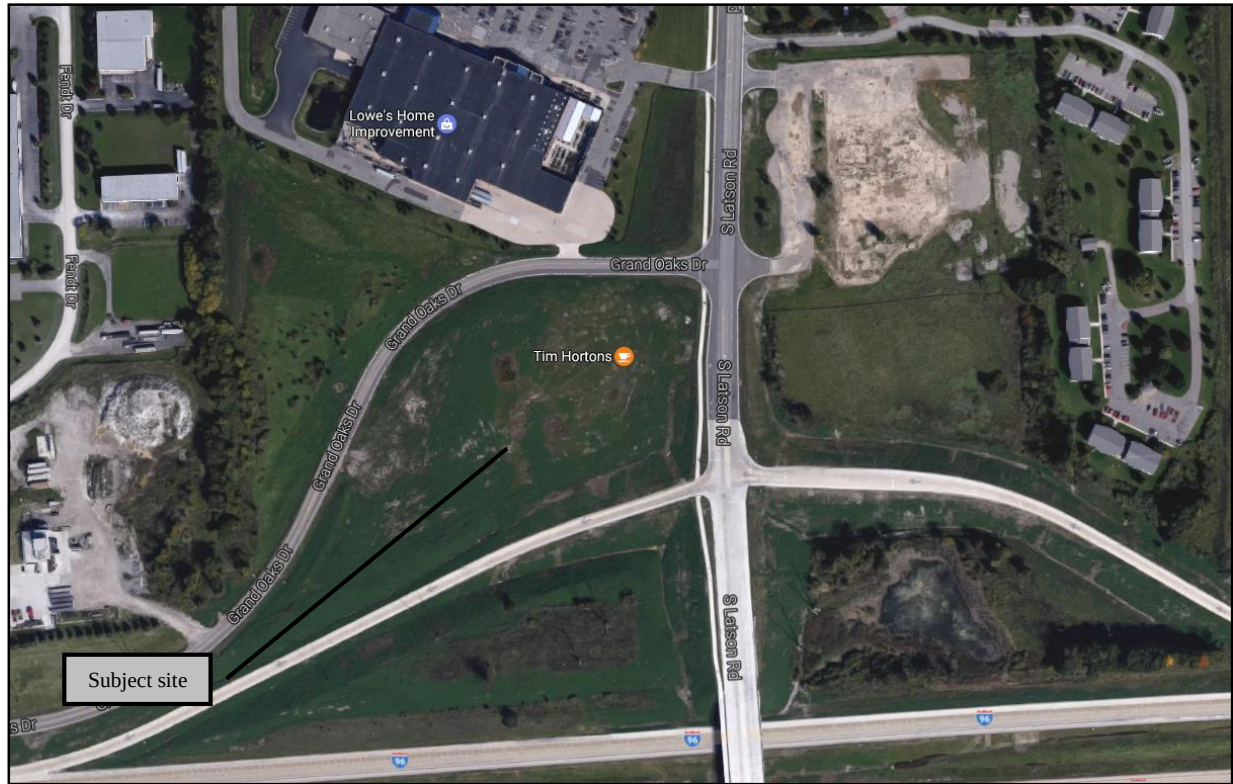
1. The Planning Commission has approval authority over the building elevations, including materials and colors. The applicant has indicated that a color rendering and material samples will be presented at the upcoming Planning Commission meeting.
2. The amount of CMU exceeds the Ordinance limitation for building materials.
3. We suggest some or all of the CMU be replaced with stone.
4. The applicant must provide details of the proposed storage building.
5. We are concerned with future vehicular circulation patterns due to the odd lot shapes of the site and the remaining vacant land to the north, east and west. We suggest the applicant evaluate alternative circulation patterns taking into account safe and convenient access to the future development sites.
6. The proposed lighting underneath the entrance canopy exceeds the maximum on-site lighting intensity – 10 footcandles allowed maximum; 16.6 footcandles proposed maximum.
7. Portions of the southerly buffer zone are deficient in width and this area does not include the required wall or berm; however, Section 12.02.13 allows the Township discretion to waive or modify these requirements.
8. A separate permit/approval will be required for the proposed signage.

B. Proposal

The applicant requests site plan review and approval of a new 101-room hotel. The proposed building is 4 stories tall with a footprint of 17,934 square feet.

Hotel and convention centers are permitted uses in Phase II of the Livingston Commons PUD. As such, site plan review is the only process needed.

However, since this is a final PUD plan, procedurally the Planning Commission is to make a recommendation to the Township Board on both the Environmental Impact Assessment and Site Plan Review.



Aerial view of site and surroundings (looking north)

C. Site Plan Review

- 1. Dimensional Requirements.** As shown in the table below, the proposal complies with the dimensional requirements for Phase II of the Livingston Commons PUD (Zone 2):

District	Lot Size		Minimum Setbacks (feet)				Max. Height	Lot Coverage
	Lot Area (acres)	Width (feet)	Front Yard	Side Yard	Rear Yard	Parking		
NR-PUD (Zone 2)	1	120	20	10	20	20 front 10 side/rear	75' 5 stories	35% building 85% impervious
Proposal	2.56	182	76.9 (E)	46 (N) 59.4 (S)	64.5 (W)	20 front 10 side/rear	57'-2" 4 stories	16.1% building 65.7% impervious

- 2. Building Materials and Design.** The proposed elevations, including colors and materials, are subject to review and approval by the Planning Commission. Building elevation drawings are found on Sheet A5.00. The revised submittal also notes that the applicant will present the Commission with a color rendering and material samples at the upcoming meeting.

Building materials include decorative CMU, brick, EIFS and cast stone. The design includes a variety of projections, vertical columns, horizontal bands and material changes to break up the large building expanse, as required.

The PUD Agreement for this site requires that all wall surfaces contain at least 80% natural materials. The Zoning Ordinance (Table 12.01.03) provides additional regulations.

The revised drawings include building material calculations demonstrating that the amount of EIFS proposed is compliant; however, we are concerned about the amount of CMU proposed.

The north and south elevations exceed the Ordinance limit of 25% and since it is confined to the first floor, it will be a highly visible element of this building. In our opinion, the proposal would benefit from additional stone that could replace all or part of the CMU.

Lastly, the site plan shows a “storage building” adjacent to the waste receptacle; however, we were unable to find any details. The applicant must provide this information.

3. **Parking.** Per Section 14.04, 107 parking spaces are required, while 114 are proposed, including the 5 required barrier free spaces. The parking spaces and drive aisles meet or exceed the dimensional standards of Section 14.06 and the revised plan notes the use of looped (double striped) spaces, as required.
4. **Pedestrian Circulation.** The site plan identifies a 7-foot wide concrete sidewalk around the building. The revised plan also includes crosswalk striping and 5-foot wide concrete sidewalks providing pedestrian connections to future developments north and east of the site.
5. **Vehicular Circulation.** Vehicular access is proposed via an internal shared driveway that connects to Grand Oaks Drive and internal drive aisles meet or exceed the dimensional requirements of the Zoning Ordinance.

With that being said, due to the odd shape of the property, as well as the remaining vacant sites to the north, east and west, we are concerned with future connections and circulation patterns.

The goal should be to limit the need for additional curb cuts on Grand Oaks; however, the circulation provided via the shared drive will create awkward travel patterns for access to the property north and west of the subject site. We suggest the applicant evaluate alternative circulation patterns to improve this situation, taking into account safe and convenient access to these future development sites.

The Commission should also consider any comments provided by the Township Engineer and/or Fire Marshal with respect to vehicular access/circulation.

6. **Loading.** While there is no designated loading zone provided, guests of the hotel will use the space under the canopy for check-in/out and drop-off/pick-up. Additionally, there is ample room around the site to accommodate short-term deliveries.
7. **Waste Receptacle and Enclosure.** The project includes a new waste receptacle and enclosure in the southwest corner of the property. The proposed placement, base design and enclosure comply with the standards of Section 12.04.
8. **Exterior Lighting.** The submittal includes a lighting plan (Sheet C3.1), which proposes the installation of 6 light poles around the perimeter of the parking lot. The revised plan also shows the use of decorative building-mounted lighting and fixtures underneath the entrance canopy.

The proposed pole heights and fixture details comply with Township standards; however, the under-canopy lighting exceeds the maximum on-site intensity (16.6 footcandles proposed; 10 footcandles maximum).

We were unable to find an allowance to deviate from the lighting regulations in the PUD Agreement and, as such, the lighting plan must be revised for compliance.

- 9. Landscaping.** We have reviewed the landscape plan based on the conventional standards of Section 12.02. Due to the unique nature of the site, we applied buffer zone and parking lot landscaping requirements as follows:

Location	Requirements	Proposed	Comments
Buffer zone "C" (N – commercial to commercial)	10' width 20 canopy trees OR 20 evergreens OR 80 shrubs (OR combination thereof)	20' width 5 canopy trees 4 evergreen trees 44 shrubs	Requirements met
Buffer zone "B" (S – along I-96)	20' width 6' wall or 3' berm 14 canopy trees 14 evergreens 56 shrubs	10-40' width 14 canopy trees 14 evergreen trees 56 shrubs	Deficient by width and wall/berm. The PC has the discretion to waive or modify these requirements.
Buffer zone "C" (E – commercial to commercial)	10' width 13 canopy trees OR 13 evergreens OR 52 shrubs (OR combination thereof)	14' width 5 canopy trees 32 shrubs	Requirements met
Buffer zone "C" (W – commercial to commercial)	10' width 13 canopy trees OR 13 evergreens OR 52 shrubs (OR combination thereof)	10' width 7 canopy trees 2 evergreen trees 16 shrubs	Requirements met
Parking lot	10 canopy trees 1,000 SF landscaped area	10 canopy trees 1,837 SF landscaped area	Requirements met

- 10. Signs.** The building elevation drawings identify 2 wall signs – one on the north elevation and another on the south side.

While specific details are not provided, the signs appear to provide channel cut letters as opposed to panel signs, which are consistent with the PUD Agreement for this site.

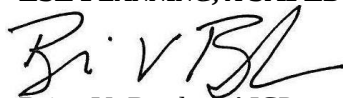
Our initial review noted that the sign on the south side was larger than permitted. In response, the applicant notes that the signs shown are "for reference only and a separate sign permit application will be made."

- 11. Impact Assessment.** The submittal includes an updated Impact Assessment (most recently dated February 21, 2017). In summary, the Assessment notes that the project is not anticipated to adversely impact natural features, public services/utilities, surrounding land uses or traffic.

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

Respectfully,

LSL PLANNING, A SAFE BUILT COMPANY



Brian V. Borden, AICP
Planning Manager



March 7, 2017

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

Re: Hampton Inn – Site Plan Review #2

Dear Ms. Van Marter:

We have reviewed the updated site plan documents from Bud Design & Engineering Services, Inc. dated February 22, 2017. The applicant is proposing to build an 18,000 sft hotel with access from Grand Oaks Drive. The hotel is located just north of the I-96 westbound access ramp in the southwest quadrant of the Latson Road and Grand Oaks Drive intersection. This area is zoned as NR-PUD and access to Grand Oaks drive is provided through a shared access easement. Our review comments are summarized below:

SUMMARY

1. Shared driveway and fire access clarifications

SITE PLAN

1. The proposed modifications on this site plan to address fire department access and maintain access through the development will not satisfy the requirements to meet the shared access provisions in the PUD. The number of curb cuts along Grand Oaks is restricted and in order to meet the shared access requirements, the proposed curb cut at the west side of the development should be made now and thereby provide access to the parcel fronting along grand Oaks and the parcel to the west.

This new driveway should be then be extended along the Hampton Inn property line to the existing shared access road on the east side of the site. The new western drive should be constructed perpendicular to and be aligned across from the proposed access drive to the Gilden Woods development on the north west side of Grand Oaks. A second access to the Hampton Inn development could be made on the west side of the development off this loop road and be configured to allow the required fire department access.

The access from the east side of the site could be adjusted to facilitate the shared access loop road while also accommodating the turn radii of the vehicles to be entering the site.

The petitioner should revise and resubmit the site plan to address the above comments prior to approval.

Tetra Tech

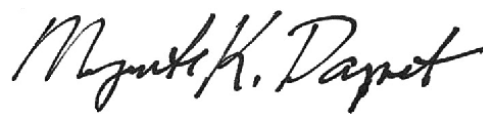
401 South Washington Square, Suite 100, Lansing, MI 48933
Tel 517.316.3930 Fax 517.484.8140 www.tetrattech.com

Ms. Kelly Van Marter
Re: Hampton Inn Site Plan Review
March 9, 2017
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Sincerely,



Greg M. [unclear]
CUM VICE PRESIDENT



Myranda K. Dapert
Project Engineer

copy: Andrew Andre, P.E., Bud Design & Engineering Services, Inc.



BRIGHTON AREA FIRE AUTHORITY

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

March 6, 2017

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: Hampton Inn & Suites
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 February 2, 2017 and the drawings are dated February 1, 2017. The project is based on the proposed construction of a new 4-story Hotel. The actual square footage is not shown on provided drawings but is estimated at 72,000 square feet. This plan review is based on the requirements of the International Fire Code (IFC) 2015 edition.

1. Hydrant locations and spacing are acceptable and shall be installed in accordance with MHOOG standards. **(Locations shown on Sheet C5.0 are approved)**

2. The building shall be provided with an automatic sprinkler system in accordance with NFPA 13R, *Standard for the Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height*. **(Note #1 on Sheet C3.0)**

IFC 903.3.1.2

- A. The FDC shall be located on the front of the building (Grand Oaks Dr.), and shall be located within 100' of a fire hydrant. The northeast corner of the building is recommended or immediately outside of the sprinkler riser room. Show FDC location on future submittals. **(Shown on Sheet C5.0 in correct location)**

3. The building shall include the building address on the building. The address shall be a minimum of 6" high letters of contrasting colors and be clearly visible from the street. The location and size shall be verified prior to installation. **(Note #2 on Sheet C3.0)**

IFC 505.1

4. The access road onto and around the site meets the minimum width requirements, however the entrance configuration must be revised for proper access and turning radius for emergency vehicles. The entrance should be straightened or the existing access road extended to be in line with the on-site access drive to allow for direct access to the fire lane. Access drive width of 26' must be measured from face of curb to face of curb. Both sides of the access drive where parking is not indicated 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 84,000 pounds. **(Entrance has been revised to provide improved turning radius for emergency vehicles for ingress and egress. An emergency vehicle circulation plan has been included and is sufficient for operations. An additional "No Parking Fire Lane" signs needs to be added to southeast corner on the outside of the curve. Note #4 on Sheet C3.0 indicates proper engineered load capability of driving surface and that they are to be maintained throughout construction.)**



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Hampton Inn & Suites
Grand Oaks Dr.
Site Plan Review

IFC D 102.1
IFC D 103.3
IFC D 103.6
IFC D 103.3

5. All turns along the access around building shall provide emergency vehicles with a turning radius of 50' Outside and 30' Inside to accommodate aerial apparatus. Radius around porte-cochere. **(An emergency vehicle circulation plan has been provided on Sheet C3.0 and appears to be in compliance with proper turning radius.)**
IFC D103.3
6. A minimum vertical clearance of 13½' shall be maintained around the structure including the porte-cochere which is shown as 13'4". **(Porte-cochere clear height has been revised to 14'4" and is shown on architectural exterior elevation Sheet A5.00)**
IFC 503.2.1
7. The front side of the structure is designated as an aerial apparatus access road that will require the road to be installed a minimum distance of 15' and a maximum distance of 30' from the entire side of the building. An exception is being made for the area where the porte-cochere is located. There are additionally a handful of areas along this side of building that are not compliant that need to be addressed. **(This appears to be revised based upon scaling of the provided drawing. It is within acceptable design as submitted)**
IFC D105.3
8. A secondary emergency vehicle access shall be provided to the structure and is required to be placed in a location remote from the primary entrance. The access shall be constructed under the same construction requirements of the primary access to the structure. **(Temporary emergency access is shown on Sheet C3.0 and proposed to access the site from the west off of Grand Oaks Dr. The access is proposed to be constructed of Grasspave2 pavers on top of compacted sand and gravel, then filled with limestone. This will be acceptable for use as long as engineering design criteria indicate that the surface is capable of supporting 84,000 pounds. The surface shall also be maintainable in all weather conditions.)**
IFC 503.1.2
IFC D104.1
IFC D104.2
IFC D104.3
9. A stairway access compliant with 1011.12 of the Michigan Building Code shall be provided to the roof of the structure. **(The stairway is shown on architectural Sheet A1.03 in Linen room)**
IFC 504.3
10. A key box (Knox Box) shall be indicated on future submittals. The Knox box will be located adjacent to the front door of the structure and installed in accordance with the manufacturer's instructions. **(The knox box is shown at the main entrance on Sheet C3.0)**
IFC 506.1
11. During the construction process the building will be evaluated for approved emergency responder radio coverage. If coverage is found to be inadequate, the contractor, building owner will be required to provide an approved system in the building. **(Indicated by Note #3 on Sheet C3.0)**
IFC 510



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Hampton Inn & Suites
Grand Oaks Dr.
Site Plan Review

12. The building is required to be provided with standpipe connections in each stairway, located at the intermediate landings for fire department operations. A standpipe connection should also be installed at the base of the roof access stairs. **(Noted on letter to be provided within the building)**
13. Future project submittals shall include the address of the project in the title block. **(To be included once an address number is assigned)**
IFC 105.4.2
14. Provide names, addresses, phone numbers, emails of contractor, and on-site project supervisor. **(Provided on cover sheet C1.0)**

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,

A handwritten signature in black ink, appearing to read "R. Boisvert".

Capt. Rick Boisvert, CFPS
Fire Inspector



Bud Design & Engineering Services, Inc.

10775 S. Saginaw St. Suite B | Grand Blanc, MI 48439 | Ph: 810.695.0793 | Fax: 810.695.0569 | www.buddesign.com

ENVIRONMENTAL IMPACT ASSESSMENT

HAMPTON INN & SUITES
GRAND OAKS DRIVE

A. Name and address of person responsible for preparation:

Andrew Andre, P.E.

Bud Design & Engineering Services, Inc.

10775 S. Saginaw St., Suite B

Grand Blanc, MI 48439

Mr. Andre is a professional engineering the State of Michigan and has 20-years of experience with site development projects. Several projects have been located within Genoa Township.

B. Map and written description/analysis of the project site:

The proposed project is a vacant parcel located south of Grand Oaks Drive and west of Latson Road. The property is bordered to the south by the new access entry to I-96 from Latson Road. Northeast of the subject property is the USA2GO/Tim Horton's development. The project is located within the development commonly known as "Livingston Commons Phase 2".

The property is 2.56-acres in size and within the NR-PUD zoning district. The proposed project is a 4-story Hampton Inn & Suites project, which a hotel is a permitted use within the NR-PUD district.





Bud Design & Engineering Services, Inc.

10775 S. Saginaw St. Suite B | Grand Blanc, MI 48439 | Ph: 810.695.0793 | Fax: 810.695.0569 | www.buddesign.com

C. Impact on natural features:

The existing site is presently vacant and is predominately covered with low-lying vegetation. No trees were located during the field survey. The existing topography is generally sloping from west to east. The subject area has been mass graded as part of the Grand Oaks Drive re-alignment and "Livingston Commons Phase 2" development. There are several areas of poor drainage that will be rectified as part of the project where positive drainage will be provided.

An existing Access Drive is provided to service the development from Grand Oaks Drive. A commercial driveway connection is proposed, thereby reducing the amount

Based on review of the USDA-NRCS Web Soil Survey for Livingston County, the predominant soil group over the project site is MoB (Miami-Loam) 2 to 6 percent slopes group. Included with this soil in mapping, in small depressions and in drainageways, are small wet areas of somewhat poorly drained Conover soils and poorly drained Brookston soils, and, in some of the depressions, very poorly drained Linwood soils. Also, included, on small higher knolls, are small areas of coarser textured Owosso soils and Spinks-Oakville loamy sands. Small areas that have a dark yellowish-brown surface layer are included. Surface runoff is slow, permeability is moderate, and the erosion hazard is slight.

The contractor shall practice dust control measures at all times during earth change activities in accordance with the standards for soil erosion and sedimentation control of the Livingston County Drain Commissioner. Typical measures include spraying the site with water to prevent dust migration.

Based on the existing conditions and proposed development, little impact on natural features is anticipated.

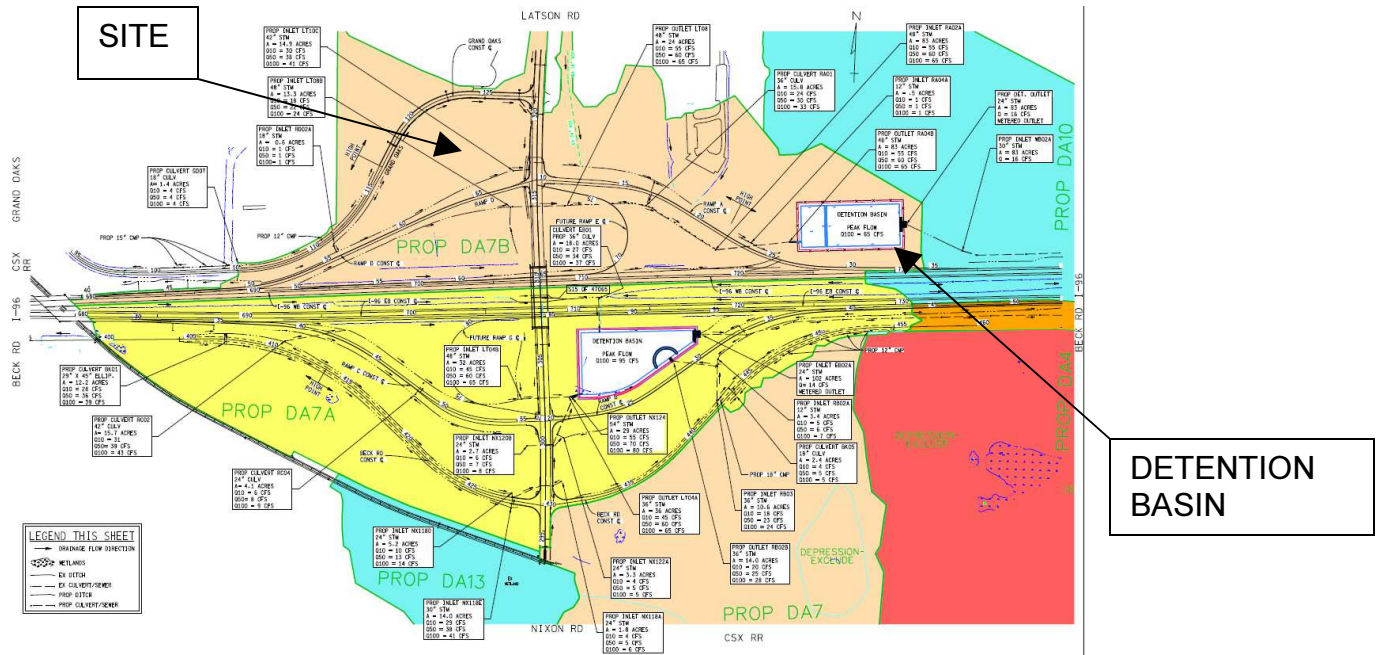
D. Impact on stormwater management:

The property is part of the drainage district that was incorporated within the "I-96 Interchange at Latson Road... Revised Final Drainage Study May 2011" that was completed as part of the MDOT project with I-96 and Latson Road. The entire site is tributary to a detention basin that was constructed as part of the MDOT interchange project. The property is part of the "PROP DA7B" sub-drainage area (refer to map below) within the overall tributary area. The detention basin was sized for the 100-year storm event to provide the necessary storage and restricted release. As a result of the property being part of the existing detention basin, no on-site detention is proposed as part of the hotel development. Connection to the existing storm sewer network that leads to the detention basin is proposed. No impact on the stormwater management system is anticipated based on the prior design and construction activities.



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E. Impact on surrounding land use:

The proposed project is part of the greater NR-PUD zoning within the immediate area and would be consistent with the surrounding commercial and retail developments. Landscaping within the parking lot and along the perimeter of the developed area will provide for an aesthetically pleasing visual appearance for the area. Landscaping along the southern portion of the property will provide buffering and screening with the I-96 entrance ramp. Increased screening and landscaping is provided with the project because the existing site is vacant and covered with low-quality low-lying vegetation.

As part of the project design, LED site lighting will be utilized in order to reduce off-site light trespass. In addition, photometric motion sensors will be installed on the exterior lighting that will reduce light levels within the parking lot when motion is not detected over a 15-minute time period. When motion is detected, the lighting will increase to normal levels and will then reduce again once no motion is detected. This lighting feature decreases unnecessary light levels for periods of time when the parking lot is not in use.

F. Impact on public facilities and services:

The surrounding area is a well-developed location with Genoa Township. Public services such as fire and police currently service the surrounding area and the development will be consistent with the similar developments. Access to the property is provided for both fire and police with full-circulation provided around the proposed building. Fire lanes of at least 26-feet have been provided. The proposed building will be fully suppressed with a fire protection system and fire hydrants have been proposed that would be used as necessary.



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G. Impact on public utilities:

Utilities for the Livingston Commons Phase 2 were originally designed by Fishbeck, Thompson, Carr & Huber, Inc., as noted in the Record Drawings, last dated 11/20/13. Adequate capacity and connectivity to public utilities are in the general vicinity of the project.

Water main was installed along Grand Oaks Drive and also extended along the Access Drive. It is proposed to extend the water main from an existing location along the eastern side of the Access Drive intended for extension. The water main will be extended within a dedicated water main easement to the proposed hotel property. A loop around the hotel is proposed for redundancy within the network and to provide adequate fire hydrant coverage. There are four (4) locations provided for the future connection and extension of the water main in order to service adjacent developments.

Sanitary sewer main is located along the south side of Grand Oaks Drive installed as part of the roadway re-alignment. The connection of a service lead from the hotel development via gravity flow is proposed as part of the project.

The franchise companies, such as gas, electric and telephone, have been contacted to coordinate service and extensions necessary for the proposed development.

H. Storage and handling of any hazardous materials:

No hazardous materials, as classified by National Fire Protection Association (NFPA), will be handled or stored as part of this project.

I. Impact on traffic and pedestrians:

The project site is located within the "Livingston Commons Phase 2" development. As part of the project, the re-alignment of Grand Oaks Drive was completed. In addition, the I-96 and Latson Road interchange has been completed in the recent past. The surrounding surface transportation network is well established and with the recent construction provides for adequate capacity for both the existing properties and planned development.

No direct access to Grand Oaks Drive or Latson Road is proposed. There is an existing Access Drive that connects to the south side of Grand Oaks Drive. Multiple commercial developments are intended to utilize this Access Drive, thereby providing for minimal direct access to the existing roadway network.

There are no existing sidewalks along Grand Oaks Drive, Access Drive, or as part of the USA2GO/Tim Horton's property. In the event that sidewalks are incorporated along either, connection could provided from the proposed hotel development.

Future Site Trip Generation

The number of AM and PM peak hour trips that would be generated by the proposed developments was forecast based on data published by ITE in the "Trip Generation Manual", 9th



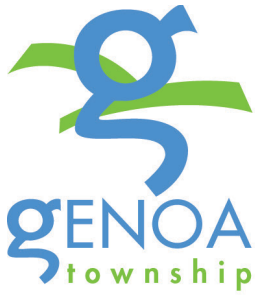
Bud Design & Engineering Services, Inc.

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Edition. The number of trips expected to be generated by the proposed project during the weekday AM peak and PM peak was calculated. The trip generation shown represents the trip generation using ITE Land use code, as shown in Table 1. The development is estimated to generate 48 trips in the AM Peak and 54 trips in the PM peak.

Table 1

Land Use	Land Use Code	Unit	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Hampton Inn & Suites	310	101 Rooms	28	20	48	28	26	54



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

MEMORANDUM

TO: Andy Andre, Bud Design and Engineering

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

DATE: March 8, 2017

RE: Hampton Inn and Suites Hotel

This memo will describe the connection fees required for a new 17,934 sq. ft. hotel with 101 rooms located on parcel 11-08-200-020 southwest of the Grand Oaks Drive and Latson Road intersection. The hotel also includes 580 sq. ft. swimming pool.

101 Rooms @ .38 per bedroom =	38.38 REUs
580 sq.ft. Swimming Pool @ 3 REUs per 1,000 sq.ft.=	1.74 REUs
TOTAL REU NEW HOTEL =	40.12 REUs

40.12 REU x \$7,200 per Sewer REU =	\$ 288,864.00
40.12 REU x \$7,900 per Water REU =	\$ 316,948.00
TOTAL DUE =	\$ 605,812.00

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

Bill Rogers

CLERK

Paulette A. Skolarus

TREASURER

Robin L. Hunt

TRUSTEES

Jean W. Ledford

H. James Mortensen

Terry Croft

Diana Lowe

MANAGER

Michael C. Archinal

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

TELEPHONE/CABLE	GAS AND ELECTRIC
TELEPHONE: AT&T (800) 464-7928	ELECTRIC: DTE ENERGY (800) 477-4747
CABLE: COMCAST (800) 266-2278	GAS: CONSUMERS ENERGY (800) 477-5050

GENOA TOWNSHIP
2911 DORR ROAD
BRIGHTON, MICHIGAN 48116
(810) 227-5225

ZONED- NRPUD (NON-RESIDENTIAL PLANNED UNIT
 DEVELOPMENT)
 SETBACKS-
 FRONT: -
 REAR: -
 SIDE: -

CHICAGO TITLE INSURANCE COMPANY
COMMITMENT NO. 16089864
COMMITMENT DATE: OCTOBER 3, 2016 @ 8:00 AM

N. GAS STORAGE AGREEMENT AND OIL AND GAS LEASE
BETWEEN HENRY J. ITSELL AND EFFIE L. ITSELL, HIS WIFE, AS
LESSOR, AND PANHANDLE EASTERN PIPE LINE COMPANY, AS
LESSEE, DATED SEPTEMBER 22, 1961, AND RECORDED
OCTOBER 12, 1961 IN LIBER 400, PAGE 278, AND AS
AMENDED BY RELEASE OF SURFACE RIGHTS, DATED NOVEMBER
17, 1983 AND RECORDED IN LIBER 1090, PAGE 9, AND
AFFIDAVIT OF NOTICE OF INTENTION TO RETAIN MINERAL
RIGHTS, DATED SEPTEMBER 26, 1984 AND RECORDED IN LIBER
1106, PAGE 848. BLANKET EASEMENT

O. TERMS, CONDITIONS, AND PROVISIONS WHICH ARE RECITED IN PLANNED UNIT DEVELOPMENT AS RECORDED IN LIBER 2609, PAGE 205, INSTRUMENT NO. 2009R-023916 AND INSTRUMENT NO. 2015R-021742. NOT A SURVEY MATTER

P. EASEMENTS AND THE TERMS, CONDITIONS, AND PROVISIONS THEREOF WHICH ARE RECITED IN DECLARATION OF RESTRICTIONS AND EASEMENTS AS RECORDED IN LIBER 2652, PAGE 82, LIBER 2764, PAGE 262, LIBER 3993, PAGE 419 AND INSTRUMENT NO. 2015R-036623. DOES NOT APPEAR TO CROSS SUBJECT PROPERTY.

Q. TERMS, CONDITIONS, AND PROVISIONS WHICH ARE RECITED IN AGREEMENT FOR ADDING LANDS TO AN EXISTING COUNTY DRAIN AND DRAINAGE DISTRICT AS RECORDED IN INSTRUMENT NO. 2013R-023228. BLANKET EASEMENT

R. TERMS, CONDITIONS, AND PROVISIONS WHICH ARE RECITED IN AGREEMENT REGARDING SHARED ACCESS DRIVE AS RECORDED IN INSTRUMENT NO. 2014R-033945. AS SHOWN

S. TERMS, CONDITIONS, AND PROVISIONS WHICH ARE RECITED
IN DECLARATION OF USE RESTRICTIONS AS RECORDED IN
INSTRUMENT NO. 2014R-033946. BLANKET EASEMENT

T. UNDERGROUND EASEMENT GRANTED TO DTE ELECTRIC COMPANY AS SET FORTH IN INSTRUMENT RECORDED IN INSTRUMENT NO. 2015R-036189. AS SHOWN

U. EASEMENTS AND THE TERMS, CONDITIONS, AND PROVISIONS THEREOF WHICH ARE RECITED IN DECLARATION OF RESTRICTIONS AND EASEMENTS AS RECORDED IN INSTRUMENT NO. 2016R-016340. DOES NOT APPEAR TO CROSS SUBJECT

D&M SITE INC.
Surveying • Inspection • Testing • Engineering
401 BALSAM STREET PO BOX 159, CARROLLTON, MICHIGAN 48722
PHONE (989) 752-6500 • FAX (989) 752-6600



R=51.50'
Arc Length: 78.87'
Chord: 71.39'
Course: N 26°16'26" E
Delta: 87°44'-44"

R=940.0'
Arc Length: 301.01'
Chord: 299.73'
Course: N 34°06'32"E
Delta: 18°20'47"

LINE	BEARING	DISTANCE
L-1	N 17°35'54" W	10.72'
L-2	N 12°24'06" E	20.00'
L-3	N 72°24'06" E	84.00'
L-4	N 61°39'33" E	39.34'
L-5	N 72°24'04" E	28.77'
L-6	N 84°01'59" E	36.37'

B.M. #1 ARROW ON OPERATING NUT OF HYDRANT SOUTH OF
WEST ENTRANCE OF TIM HORTON CAFE EASTSIDE OF
SERVICE DRIVE SOUTH OF GRAND OAKS DRIVE
ELEV. 1020.73 NAVD 83

B.M. #2 ARROW ON OPERATING NUT OF HYDRANT WEST OF
SOUTH ENTRANCE TO LOWE'S ON NORTH SIDE OF
GRAND OAKS DRIVE
ELEV. 1016.17 NAVD 83

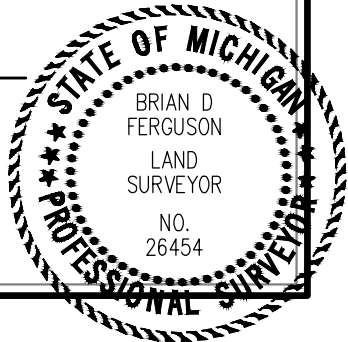
TOWNSHIP OF GENOA
LIVINGSTON COUNTY, MICHIGAN
MAP NUMBER: 260930C0309D
AREAS LIE WITHIN A NON-PRINTED FLOOD MAP BOUNDARY

TO: HOWELL HOSPITALITY, INC. AND CHICAGO TITLE INSURANCE
COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA **NSPS** LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5 6(A), 6(B), 7(A), 7(B)(1), 7(C), 8, 9, 10, 11, 13, 14, 16, 17, 18, AND 19 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON 08/22/2016.

DATE OF PLAT OR MAP. 10-06-16

BRIAN D FERGUSON RS #26454
401 BALSAM ROAD P.O. 159
CARROLLTON, MI 48724
PHONE: (989) 752-6500



NOT TO SCALE

	MONUMENT / SECTION CORNER
	FOUND PROPERTY IRON
	SET PROPERTY IRON
	EXISTING CATCHBASIN
	EXISTING MANHOLE/CATCHBASIN
	EXISTING MANHOLE
	EXISTING HYDRANT
	EXISTING VALVE
_____ SAN _____	EXISTING SANITARY SEWER
_____ STORM _____	EXISTING STORM SEWER
_____ WATER _____	EXISTING WATERMAIN
_____ FENCE _____	EXISTING FENCE LINE
_____ X _____	EXISTING UNDERGROUND ELECTRIC LINE
_____ GAS _____	EXISTING UNDERGROUND GAS LINE
_____ TELE _____	EXISTING UNDERGROUND TELEPHONE LINE
_____ _____	EXISTING CENTERLINE
___ // _____ // ___	EXISTING OVERHEAD ELECTRICAL WIRES
	EXISTING MAILBOX / NEWSPAPER BOX
_____ SIGN _____	EXISTING SIGN
	EXISTING DECIDUOUS TREES
	EXISTING CONIFEROUS TREES
	EXISTING UTILITY POWER POLE
	EXISTING TELEPHONE RISER
	EXISTING GAS VALVE
	EXISTING ELECTRIC TRANSFORMER
	EXISTING WATER SHUTOFF VALVE
	EXISTING LIGHT POLE
_____ MAILBOX _____	EXISTING MAILBOX

CHICAGO TITLE INSURANCE COMPANY
COMMETMENT NO. 16089864
COMMTMENT DATE: OCTOBER 3, 2016 @ 8:00 AM

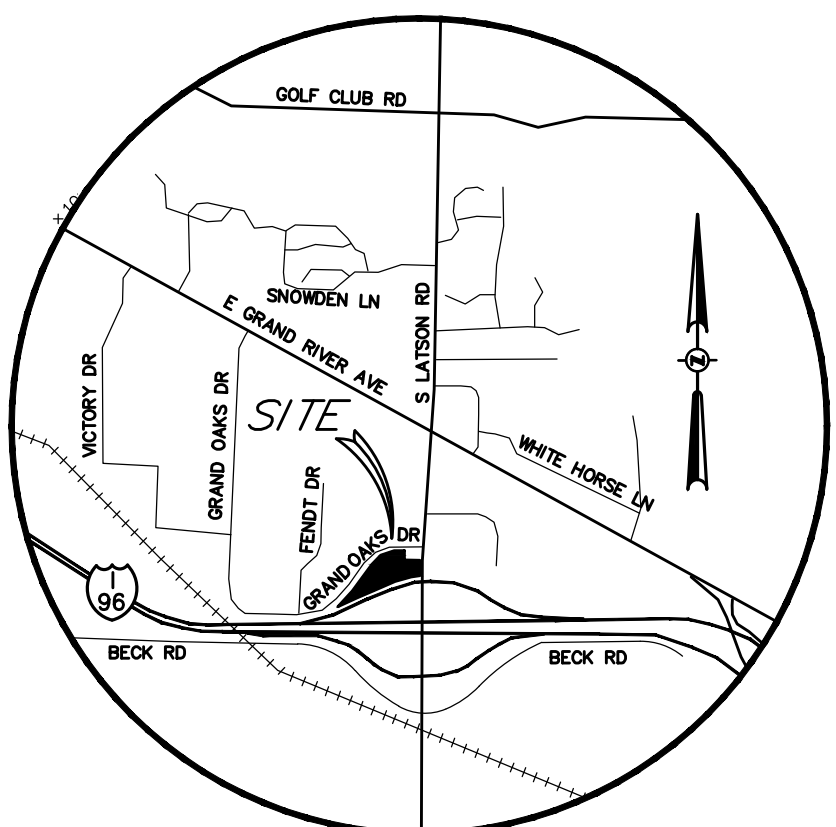
THE LAND REFERRED TO IN THIS COMMITMENT IS DESCRIBED AS
FOLLOWS:
LAND SITUATED IN THE TOWNSHIP OF GENOA, COUNTY OF
LIVINGSTON, STATE OF MICHIGAN, DESCRIBED AS:

LAND SITUATED IN THE TOWNSHIP OF GENOA, COUNTY OF LIVINGSTON, STATE OF MICHIGAN, DESCRIBED AS: SECTION 8, TOWNSHIP 4 NORTH, RANGE 12 EAST, COMMENCING AT THE NORTHEAST CORNER THENCE SOUTH 87 DEGREES 16 MINUTES 42 SECONDS WEST 3.27 FEET; THENCE ALONG ARC OF A CURVE, CHORD BEARING SOUTH 00 DEGREES 40 MINUTES 20 SECONDS WEST 159.72 FEET; THENCE SOUTH 01 DEGREES 07 MINUTES 48 SECONDS WEST 913.15 FEET; THENCE ALONG ARC OF A CURVE LEFT, CHORD BEARING SOUTH 00 DEGREES 42 MINUTES 13 SECONDS WEST 148.82 FEET; THENCE SOUTH 89

SOUTH 00 DEGREES 15 MINUTES 45 SECONDS WEST
 40.00 FEET; THENCE SOUTH 45 DEGREES 13 MINUTES 54
 SECONDS EAST 112.71 FEET; THENCE ALONG ARC OF A CURVE
 100 FEET RADIUS, CHORD BEING 100 FEET, CHORD BEING
 SOUTH EAST 192.62 FEET; THENCE SOUTH 35 DEGREES 12
 MINUTES 51 SECONDS WEST 16.78 FEET; THENCE SOUTH 89
 DEGREES 51 MINUTES 51 SECONDS WEST 10.00 FEET; THENCE
 POINT OF BEGINNING; THENCE SOUTH 14 DEGREES 21 MINUTES
 05 SECONDS EAST 182.73 FEET TO THE NORTHERLY RIGHT OF
 THE FOREGOING CURVE, CHORD BEING 182.73 FEET, CHORD
 BEING SOUTH 04 SECONDS WEST 156.85 FEET ALONG SAID RIGHT
 OF WAY LINE; THENCE SOUTH 63 DEGREES 09 MINUTES 06
 SECONDS WEST 263.25 FEET; THENCE NORTH 17 DEGREES 35
 MINUTES 51 SECONDS EAST 100.00 FEET; THENCE ALONG
 THE ARC OF A CURVE TO THE RIGHT, AN ARC DISTANCE OF 78.87
 FEET, SAID CURVE HAVING A RADIUS OF 51.50 FEET, CHORD
 BEING 78.87 FEET, CHORD BEING SOUTH 12 DEGREES 28
 MINUTES EAST 71.39 FEET; THENCE NORTH 17 DEGREES 35
 SECONDS 54 SECONDS WEST 10.72 FEET; THENCE NORTH 12
 DEGREES 28 MINUTES 51 SECONDS EAST 100.00 FEET; THENCE
 NORTH 72 DEGREES 24 MINUTES 06 SECONDS EAST 84.00 FEET
 THENCE NORTH 61 DEGREES 39 MINUTES 33 SECONDS EAST
 39.34 FEET; THENCE NORTH 72 DEGREES 24 MINUTES 04
 SECONDS EAST 100.00 FEET; THENCE NORTH 72 DEGREES 01
 MINUTES 59 SECONDS EAST 36.37 FEET; THENCE NORTH 72
 DEGREES 24 MINUTES 02 SECONDS EAST 202.29 FEET; THENCE
 NORTH 72 DEGREES 01 MINUTES 54 SECONDS EAST 72.82 FEET
 TO THE POINT OF BEGINNING.

VEHICLES WITH A PERPETUAL NON-EXCLUSIVE EASEMENT FOR VEHICULAR AND PEDESTRIAN ACCESS, INGRESS AND EGRESS, OVER THE SHARED ACCESS DRIVE, AS DESCRIBED IN THE AGREEMENT REGARDING SHARED ACCESS DRIVE, DATED NOVEMBER 26, 2014, RECORDED DECEMBER 1, 2014 IN INSTRUMENT NO. 2014R-033945.

NOTE FOR INFORMATIONAL PURPOSES ONLY: COMMONLY KNOWN AS: VACANT LAND TAX ID NUMBER: 4711-08-200-015



HOWELL HOSPITALITY, INC.
GRAND OAKS DRIVE
GENOA TOWNSHIP, LIVINGSTON CO, MI

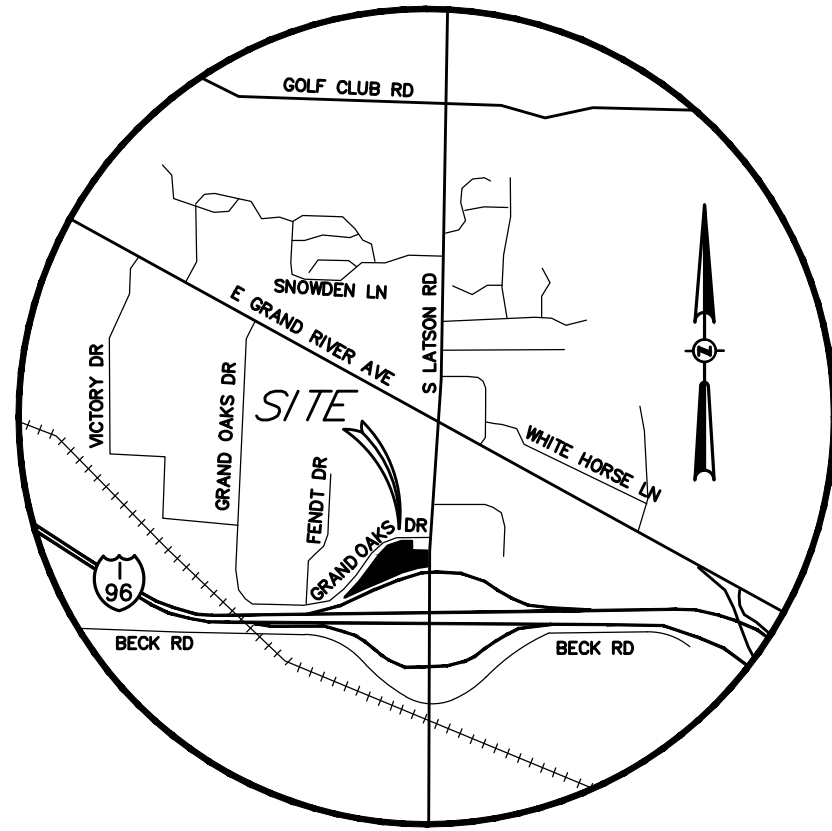


10775 S. Saginaw St. Suite B
Grand Blanc, MI 48439
(PH) 810.695.0793
(FAX) 810.695.0569
Web: www.buddesign.com

ISSUED FOR	DATE
SPA	02.01.17
SPA	02.22.17

DATE :
DRAWN : ACA
CHECKED : JT
SCALE : 1"=40'
JOB NO : BD-16-237
SHEET TITLE :
**ALTA/ACSM LAND
TITLE SURVEY**
SHEET

C2.0



LOCATION MAP
NOT TO SCALE

GENERAL NOTES

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

SITE INFORMATION

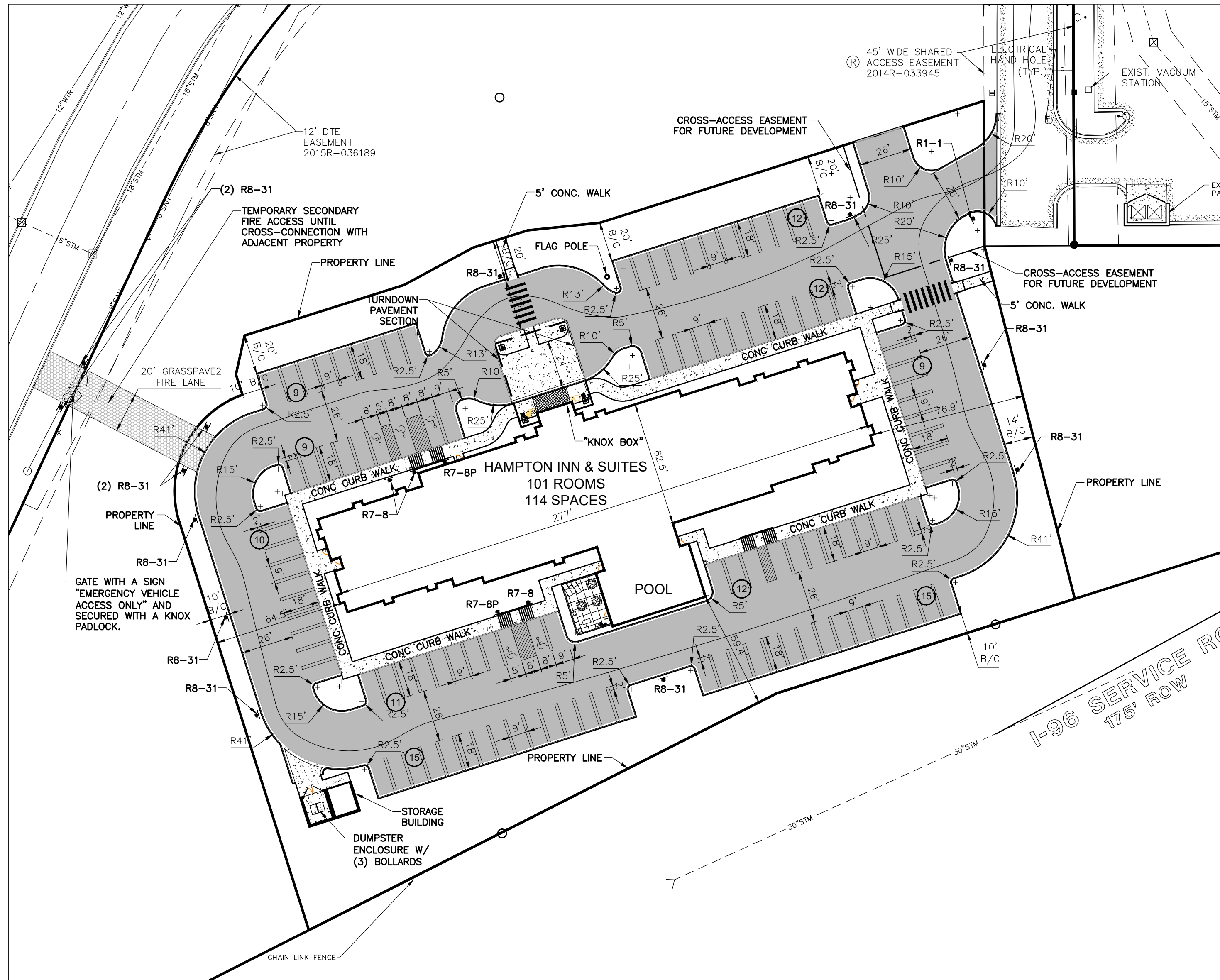
ZONING:
NRPUD

PROPERTY:
47-11-08-200-020
2.560-ACRES

BUILDING INFORMATION:
GROSS FOOTPRINT AREA = 17,934 S.F.
LOT AREA = 2.56-ACRES = 111,513.60 S.F.
BUILDING LOT COVERAGE = 17,934 / 111,513.60 = 16.1%

IMPERVIOUS INFORMATION:
IMPERVIOUS SURFACE (BUILDING & PAVEMENT) = 73,266 S.F.
LOT AREA = 111,513.60 S.F.
IMPERVIOUS COVERAGE = 65.7%

PARKING DATA:
REQUIRED
1 SPACE PER GUEST ROOM
REQUIRED = 101 ROOMS / 1 = 101 SPACES
TOTAL REQUIRED = 101 SPACES
PROVIDED
ACCESSIBLE SPACES (8'x18') = 5
STANDARD SPACES (9'x18') = 109
TOTAL = 114 SPACES



PAVEMENT INFORMATION

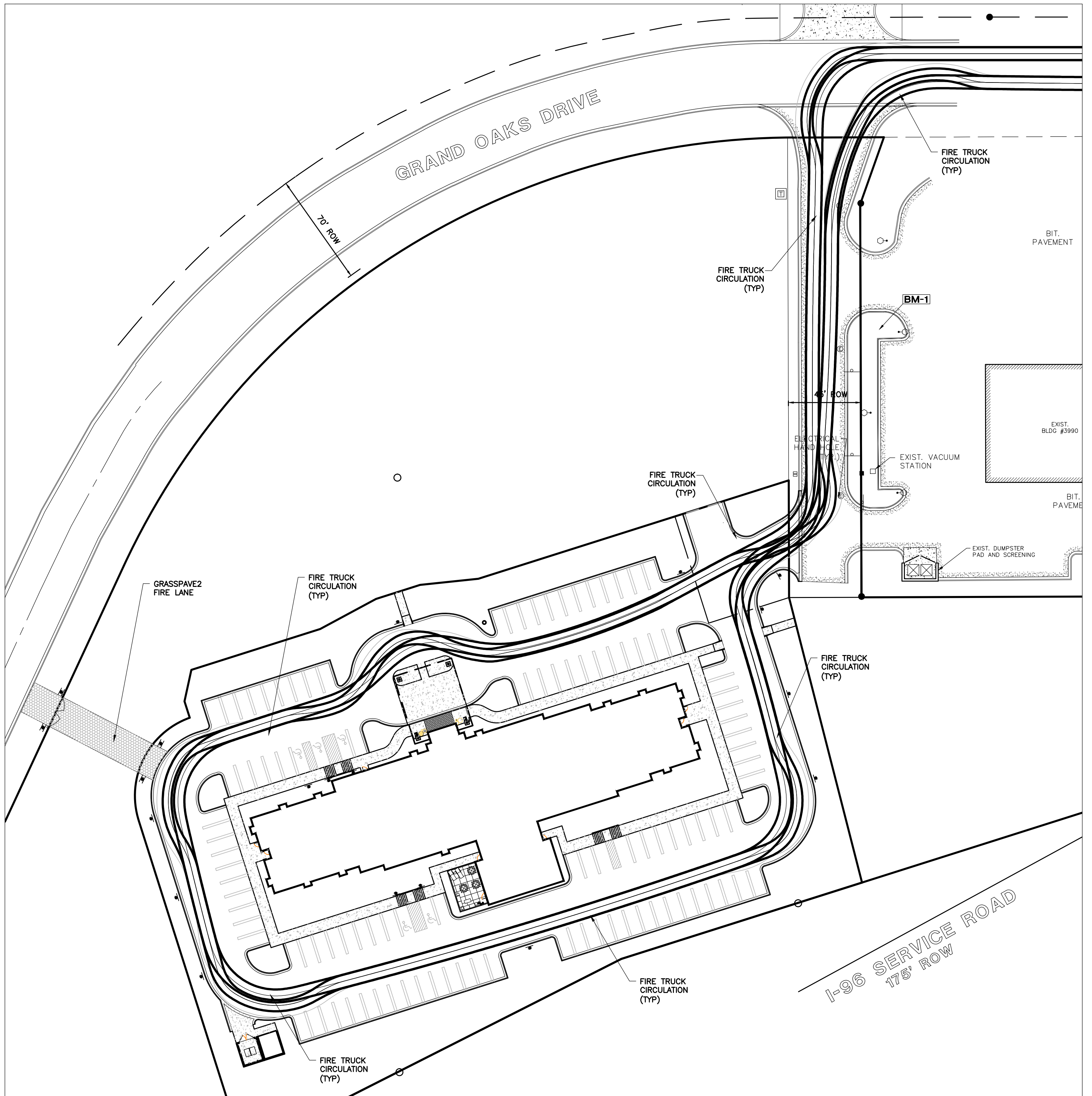
	BITUMINOUS PAVEMENT
	CONCRETE PAVEMENT

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

ALL TRAFFIC SIGNAGE SHALL COMPLY WITH THE CURRENT MMUTCD STANDARDS.



R8-31 SIGN DETAIL
NO SCALE

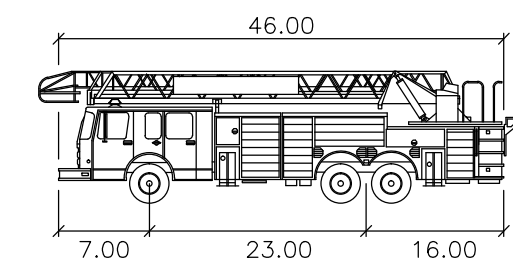


FIRE TRUCK CIRCULATION

SCALE: 1" = 40'

GENOA TOWNSHIP FIRE DEPARTMENT NOTES

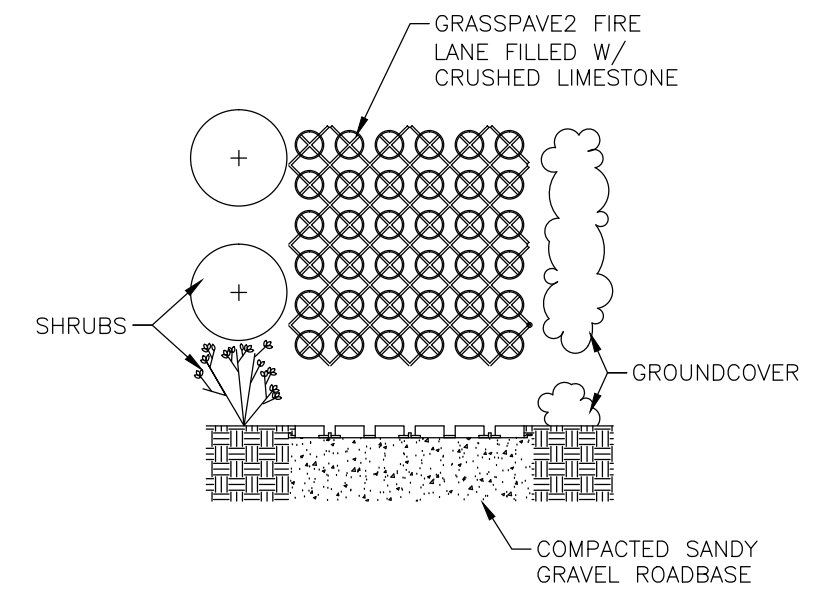
1. THE BUILDING IS PROVIDED WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13, STANDARD FOR THE INSTALLATION OF AUTOMATIC SPRINKLER SYSTEMS.
2. THE BUILDING SHALL INCLUDE THE BUILDING ADDRESS ON THE BUILDING. THE ADDRESS SHALL BE A MINIMUM OF 6-INCH HIGH LETTERS OF CONTRASTING COLORS AND BE CLEARLY VISIBLE FROM THE STREET. THE LOCATION AND SIZE SHALL BE VERIFIED PRIOR TO INSTALLATION.
3. DURING THE CONSTRUCTION PROCESS THE BUILDING WILL BE EVALUATED FOR APPROVED EMERGENCY RESPONDER RADIO COVERAGE. IF COVERAGE IS FOUND TO BE INADEQUATE, THE CONTRACTOR, BUILDING OWNER WILL BE REQUIRED TO PROVIDE AN APPROVED SYSTEM IN THE BUILDING.
4. ACCESS ROADS TO THE 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 84,000 POUNDS.



GENOA TOWNSHIP FIRE TRUCK

Width : 8.25'
Max Wheel Angle : 45°

FIRE TRUCK



GRASSPAVE2 FIRE LANE

SCALE: NTS



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

HOWELL HOSPITALITY, INC.
GRAND OAKS DRIVE
GENOA TOWNSHIP, LIVINGSTON CO, MI

SECTION 8, T2N, R5E

NOTE: EVERYTHING SHOWN ON THESE PLANS IS BASED ON RECORDS PROVIDED BY THE UTILITY OWNERS AND VISIBLE EVIDENCE OBTAINED IN THE FIELD. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED TO THE COMPLETENESS OR ACCURACY THEREOF.

ISSUED FOR	DATE
SPA	02.01.17
SPA	02.22.17

DATE:	
DRAWN: ACA	
CHECKED: JT	
SCALE: 1"=40'	
JOB NO: BD-16-237	
SHEET TITLE:	
SITE LAYOUT AND PAVING PLAN	
SHEET	

C3.0

Project Name: _____

Type: _____

DIMENSIONS

Technical drawing of the AVOLED LED module. It shows a side view with dimensions: 1.2" MAX. Cable Thickness, 5.5" (length), and 1.2" (height). A top view shows a 3.0" width. A detailed view of the LED chip is shown with dimensions: 1.2" (length), 0.8" (width), and 0.4" (height). The LED chip is labeled "LED" and "AVOLED".

Celling Cut At 4" x 4"

FEATURES

Spysen Powered LED Module

A high efficiency LED source with integrated optics. Standard light distribution at 110° for the best quality light output via a reflector or fixture. Spysen efficiency 90-93% lumens per-watt. This fixture features an 1100, 2000, 3000 lumens per-foot LED module available in 2700, 3000, 3500 and 4000 Kelvin color temperatures. Please consult factory. Spysen's patented LED state of the art maximum efficiency and enhanced system performance.

Benefits:

- 93-98 for excellent light color rendering
- 5 Step Modifiers combined with a CRI of 95 provides excellent high quality lighting
- System efficiency of 90-93 lumens per watt for a highly energy efficient lighting system
- 120° Beam Spread Down to 100° light output standard. Optional 10°V Downlight to 18° Optional Downlight 27° only
- All electrical components are covered by a 5 Year Warranty.

Frame

Heavy duty galvanized steel components including frame, adjustable mounting arm and junction box. Fixture is pre-wired and grounded with an access from below. Used for branch circuit wiring. Standard mounting bars include pre-drilled and rigid frame down sections and include clip positioning holes. Integral slots, available options. 1/8" slots are holes for locking to grid using angle-iron spacers (supplied by others). Mounting arm will accept our standard bar 1/4" x 4" and optional CAD 1/8" x 27" and other mounting methods.

Recessed bar will accept 7" deep from frame. Label for damp locations.

REFLECTOR KIT

OPEN - LED - ROUND

LED

6" Aperture

LA80

6" LED Open Round

Finish Options

SC - Scratch/ Clear "Alloy"

SG - Soft Glow Clear

BS - Black

WH - White Reflector

Options

PF -

Polished Baffle

OPEN RAFFED - LED - ROUND

LED

6" Aperture

LA80

6" LED Open Ruffed Round

Finish Options

Specify reflector finish option - see above, then add baffle color

BS - Black Baffle

WH - White Baffle

All items supplied standard with white painted flange.

Technical drawing of the AVOLED LED module. It shows a side view with dimensions: 1.2" MAX. Cable Thickness, 5.5" (length), and 1.2" (height). A top view shows a 3.0" width. A detailed view of the LED chip is shown with dimensions: 1.2" (length), 0.8" (width), and 0.4" (height). The LED chip is labeled "LED" and "AVOLED".

Manufactured and Labeled in LA, USA, ETL and CSA standards.
 Suitable for Dry locations. Not suitable for wet or corrosive.

EXAMPLE: AVOLED-1117K-LA80B-R-SGC

ORDERING INFORMATION

Wiring	LED	Length	Volage	LED	Color	Finish	Beam	Options
See Chart Below	AVOLED	1	-11 - 1100	27K - 2700K	LA800	SCL	SL	DOM
		2	-30 - 3000	30K - 3000	RA800	SCL	WH	EM
			-30 - 3000	30K - 3000	LA800	ECL	SL	EM
				40K - 4000K		WH		RE
								ZOM

Lenses

Wattage

1 - 1100 Watts

2 - 2700 Watts

3 - 3000 Watts - Please Consult Factory

* Please Specify Lens Color

Options

DOM - Clear Diffusing 27° Only

EM - Emergency Battery

EM - Emergency Battery with

Internal Motion Sensor

PF - Polished Baffle

R - Removable

Rm - Remov

ZOM - 2700 Watts 15

RE - Recessed

ZOM - 2700 Watts 15

Warranty: Includes 5 year light source components. Fixture or design defects in material which does not alter the installed equipment or performance and electrical function.

See LED-SPY for Assortment lists and accessories.
 a See factory for other options and finishes.

VANTAGE LIGHTING INC.

VANTAGE-LED.COM

REV 11

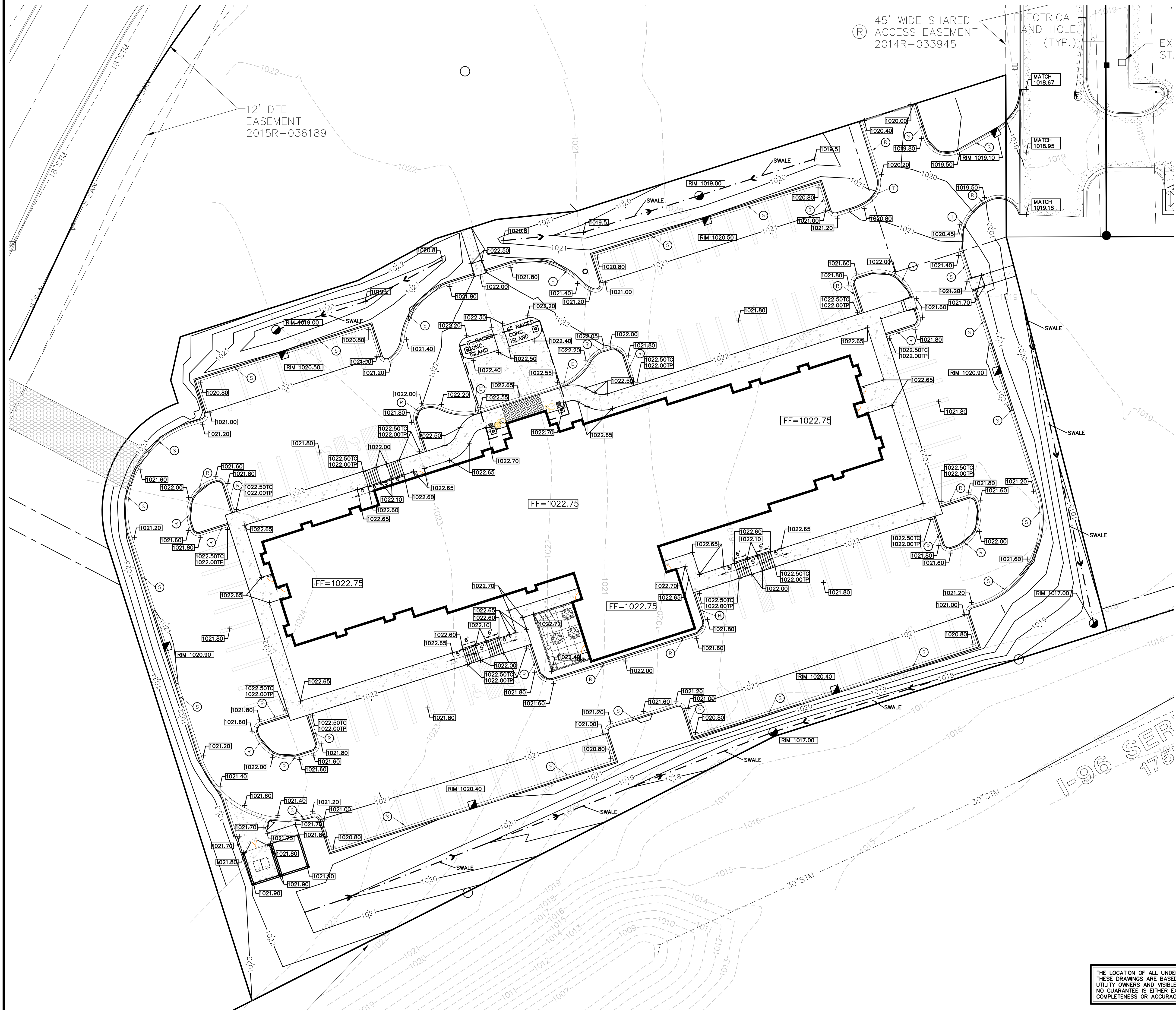
ILLUMITEX®

VERONA 24™

FEATURES & SPECIFICATIONS

MECHANICAL CONSTRUCTION Precision CNC machined from 6063-T8 aluminum. Stainless steel hardware and high-temperature silicone gaskets protect against the environment. Clear acrylic lenses are factory sealed. Die-cut, foam gasket provides a water-tight seal between the mounting plate and building surface. LEDs 50° Aduro VH™ or 15° Artax™ LEDs or a combination of both. 3000K CCT, 4000K CCT and blue LED options in both LED types. Illumitex's patented Digital Distribution™ delivers up to 90% of the lumens within the beam angle in a highly uniform, square pattern. IP68 ingress protection rated against dust and water entry. ELECTRICAL Class 2, integral driver attached to the back of the 6-inch-square machined mounting plate. Driver recesses into a standard 4-inch square junction box. 120-277VAC, 50/60Hz universal input. 18-gauge power and ground wires. FINISH Two-step architectural anodized finish provides superior resistance to weather and fading. Available in black, bronze, champagne and clear. Polished, clear finish is also available for inside use only.	WEIGHT 6.1 lbs. TESTING AND COMPLIANCE • ETL and cETL listed for wet locations • -35°C to 40°C operating temperature range • IP68 ingress protection rating • L70 at 50,000 hours • RoHS compliant • 5-year warranty  
--	---

[illegible]



GRADING NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT GENOA TOWNSHIP, LIVINGSTON COUNTY AND MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
- SPOT ELEVATIONS INDICATE TOP OF PAVEMENT UNLESS OTHERWISE INDICATED:
TC = TOP OF CURB
TP = TOP OF PAVEMENT
- CURB AND GUTTER LEGEND
(S) = STANDARD CURB AND GUTTER
(R) = REVERSE SLOPE CURB AND GUTTER
(T) = 5' TRANSITION BETWEEN STND AND REV
(E) = CURB END TRANSITION

BENCHMARKS

- B.M. #1 ARROW ON OPERATING NUT OF HYDRANT SOUTH OF WEST ENTRANCE OF TIM HORTON CAFE EASTSIDE OF SERVICE DRIVE SOUTH OF GRAND OAKS DRIVE
ELEV. 1020.73 NAVD 88
- B.M. #2 ARROW ON OPERATING NUT OF HYDRANT WEST OF SOUTH ENTRANCE TO LOWE'S ON NORTH SIDE OF GRAND OAKS DRIVE
ELEV. 1016.17 NAVD 88

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

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

0' 20' 40' 60'
SCALE: 1" = 20'

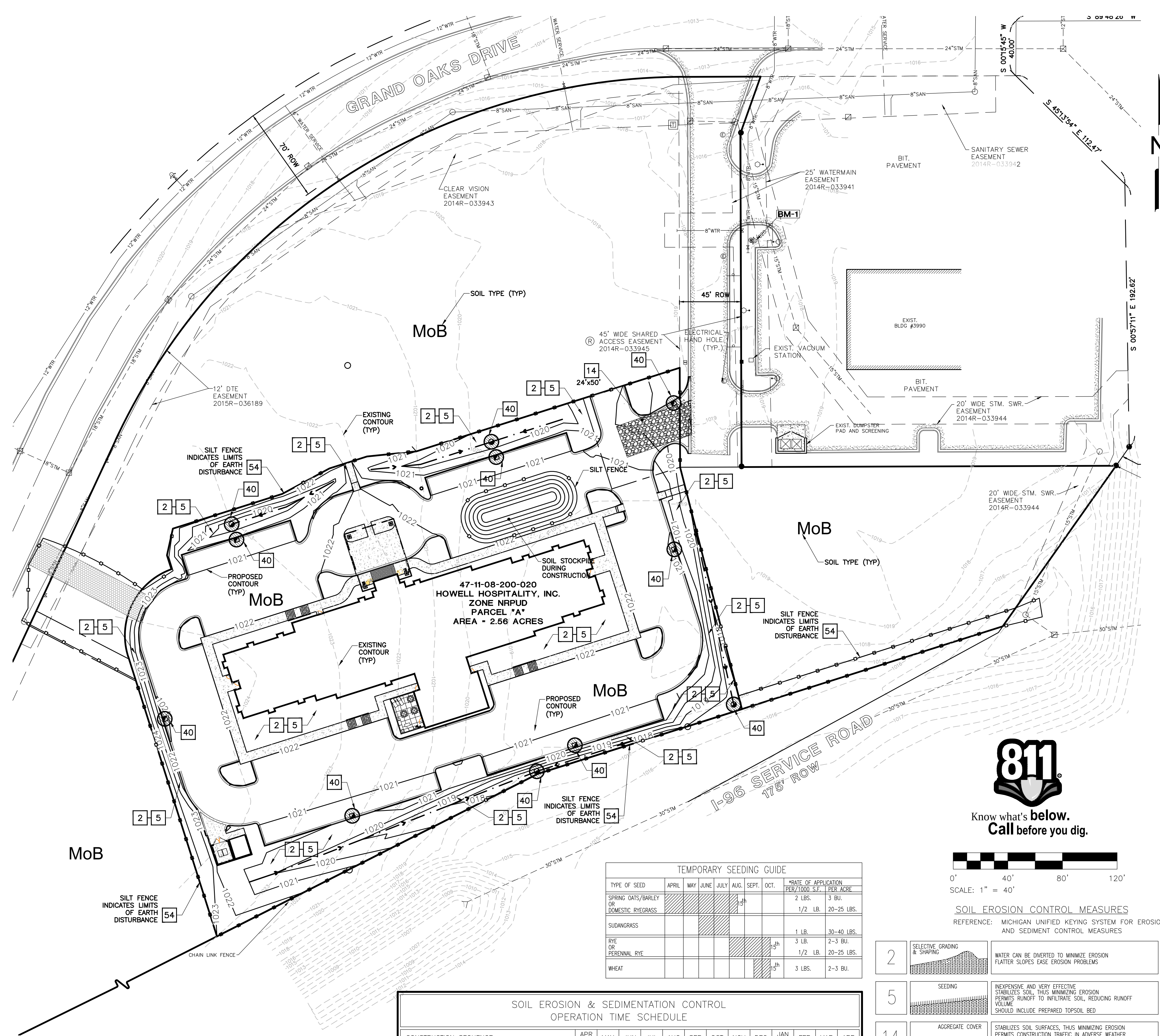
Bud Design & Engineering Services, Inc.
Architecture | Engineering | Interior Design
10775 S. Saginaw St., Suite B
Grand Blanc, MI 48439
(PH) 810.695.0793
(FAX) 810.695.0569
Web: www.budesign.com

HOWELL HOSPITALITY, INC.
GRAND OAKS DRIVE
GENOA TOWNSHIP, LIVINGSTON CO, MI

SECTION 8, T2N, R5E

DATE: _____
DRAWN: ACA
CHECKED: JT
SCALE: 1"=20'
JOB NO: BD-16-237
SHEET TITLE: **GRADING PLAN**
SHEET

C4.0



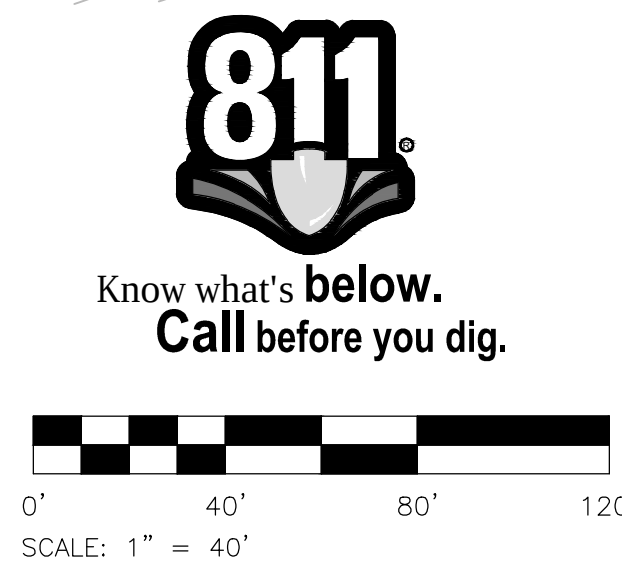
SEEDING, FERTILIZER AND MULCH BARE GROUND RATIO
THIS INFORMATION SHALL BE DETAILED ON THE CONSTRUCTION PLANS.
TOP-SOIL 3" IN DEPTH
GRASS SEED 217.84LBS PER ACRE
FERTILIZER 150LBS PER ACRE
STRAW MULCH 3" IN DEPTH (ALL MULCHING MUST HAVE A TIE DOWN (ASPHALT TACKIFIER, NET BINDING, ETC.)
HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%, IN SUCH CASES STABILIZATION SHALL BE DONE WITH SEED AND STRAW MULCH WITH A TACKIFIER.

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

PROPERTY OWNER
HOWELL HOSPITALITY, INC.
26100 AMERICAN DRIVE #605
SOUTHFIELD, MI 48034
PH 248-281-4168

SOIL EROSION & SEDIMENTATION CONTROL OPERATION TIME SCHEDULE												
CONSTRUCTION SEQUENCE	APR 2017	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN 2018	FEB	APR
TEMPORARY EROSION CONTROL MEASURES												
STRIP & STOCKPILE TOPSOIL / ROUGH GRADE												
STORM SEWER												
FOUNDATION / BLDG. CONSTRUCTION												
SANITARY SEWER & WATER MAIN												
INSTALL ALL OTHER UTILITIES												
SITE CONSTRUCTION & PAVEMENT												
PERMANENT EROSION CONTROL MEASURES												
FINISH GRADING												
LANDSCAPING												
DISTURBED AREA = 2.8± ACRES												

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



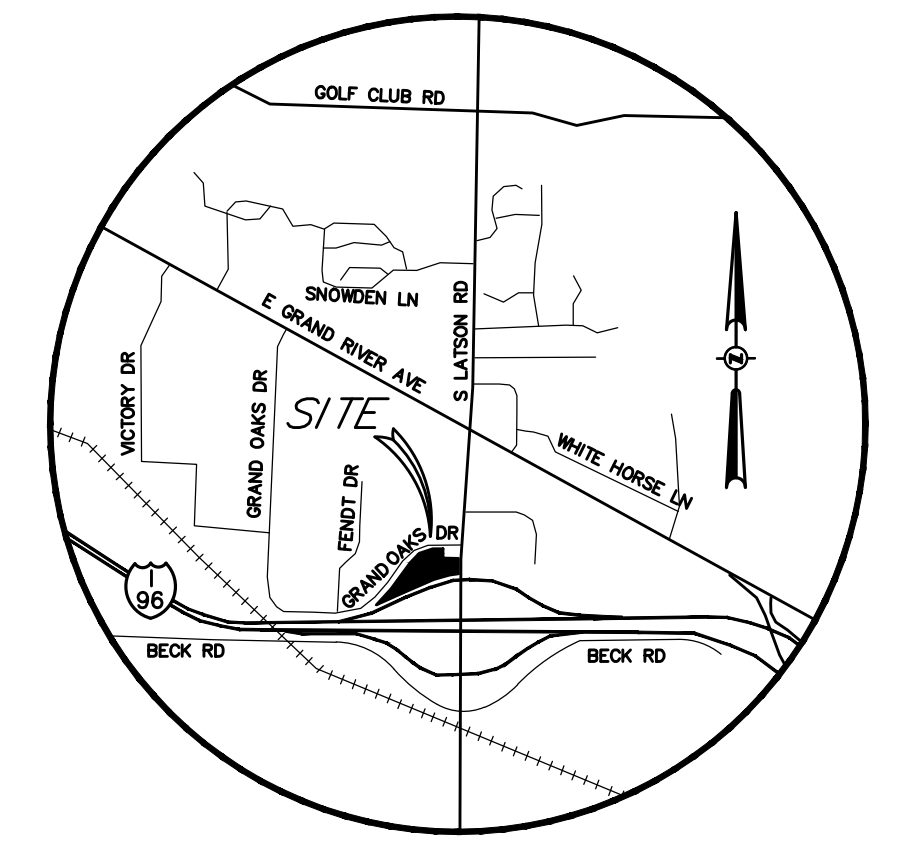
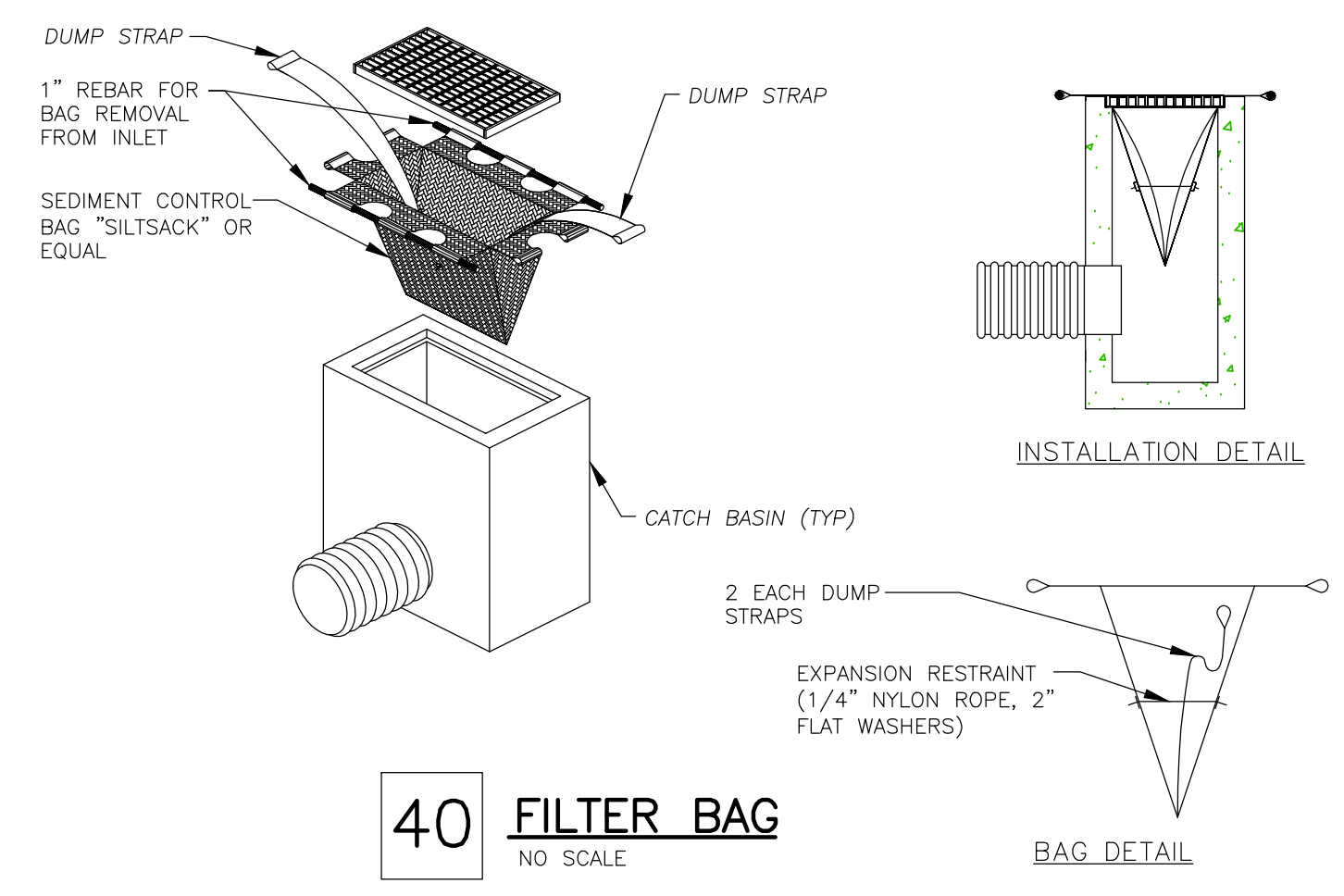
SOIL EROSION CONTROL MEASURES
REFERENCE: MICHIGAN UNIFIED KEYING SYSTEM FOR EROSION AND SEDIMENT CONTROL MEASURES

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

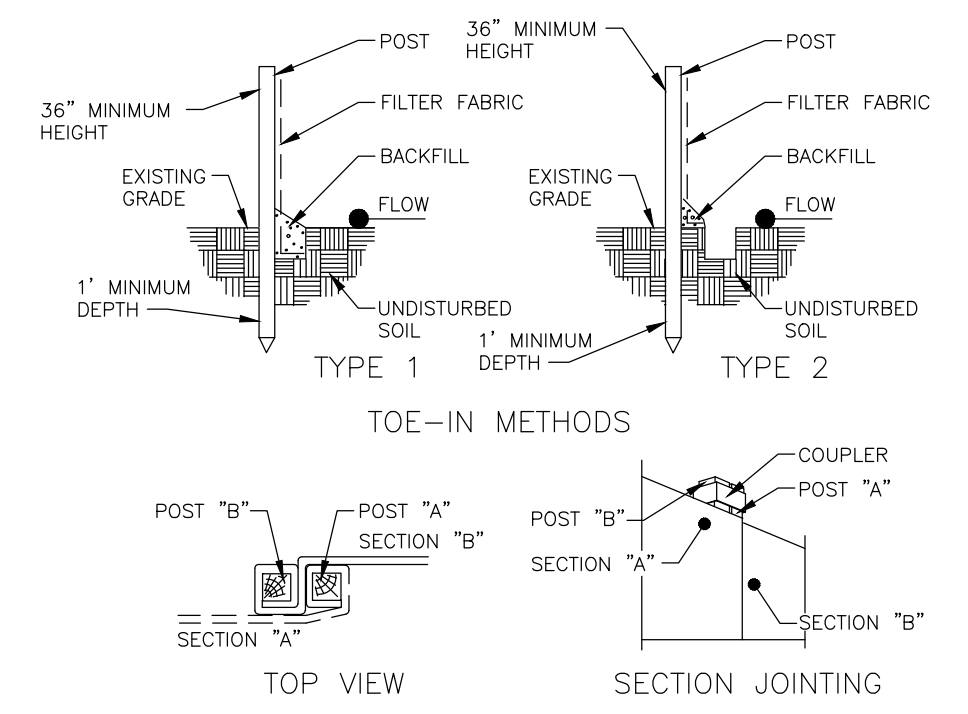
SOIL CONDITIONS	
USDA NRCS WEB SOIL SURVEY LIVINGSTON COUNTY, MICHIGAN (MI093)	
MoB: MIAMI LOAM, 2 TO 6 PERCENT SLOPES	

- SOIL EROSION & SEDIMENTATION CONTROL NOTES**
- A. ALL EROSION SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE LIVINGSTON COUNTY DRAIN COMMISSIONER AND THE CITY OF BRIGHTON.
- B. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR FOR EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
- C. EROSION AND ANY SEDIMENTATION FROM WORK ON THE SITE SHALL BE CONTAINED WITHIN THE WORK AREA AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES, PONDS AND WETLANDS.
- D. THE CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS DIRECTED ON THESE PLANS AND WHERE OTHERWISE REQUIRED BY THE WORK. THE CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER CHANGES HAVE BEEN ACCOMPLISHED.
- E. SOIL EROSION CONTROL PRACTICES WILL BE ESTABLISHED IN EARLY STAGES OF CONSTRUCTION BY THE CONTRACTOR. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF DIRT OFF THE WORK AREA.
- F. THE CONTRACTOR SHALL PRESERVE OFF-SITE NATURAL VEGETATION AS MUCH AS POSSIBLE.
- G. PROTECT ALL EXISTING TREES, INCLUDING THEIR BRANCHES AND ROOTS, FROM DAMAGE DUE TO THIS WORK UNLESS SPECIFICALLY IDENTIFIED FOR REMOVAL.
- H. STABILIZATION OF ALL DISTURBED AREAS SHALL BE ESTABLISHED USING THE APPROPRIATE VEGETATION WITHIN 5 DAYS OF COMPLETION OF FINAL GRADING.
- I. THE CONTRACTOR SHALL SWEEP THE EXISTING STREETS SURROUNDING THE PROJECT SITE AS NEEDED.
- J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL AND SHALL PROVIDE ALL EQUIPMENT AND MATERIAL TO KEEP DUST IN CHECK AT ALL TIMES. THE CONTRACTOR SHALL RESPOND IMMEDIATELY TO ANY AND ALL COMPLAINTS.
- K. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NPDES PERMIT AND ENSURING COMPLIANCE WITH ALL APPLICABLE PERMIT REGULATIONS, INCLUDING BUT NOT LIMITED TO, INSPECTION, RESTORATION AND RECORD KEEPING REQUIREMENTS. REPORTS FROM THE CERTIFIED STORM WATER OPERATOR SHALL BE MADE AVAILABLE TO THE TOWNSHIP.

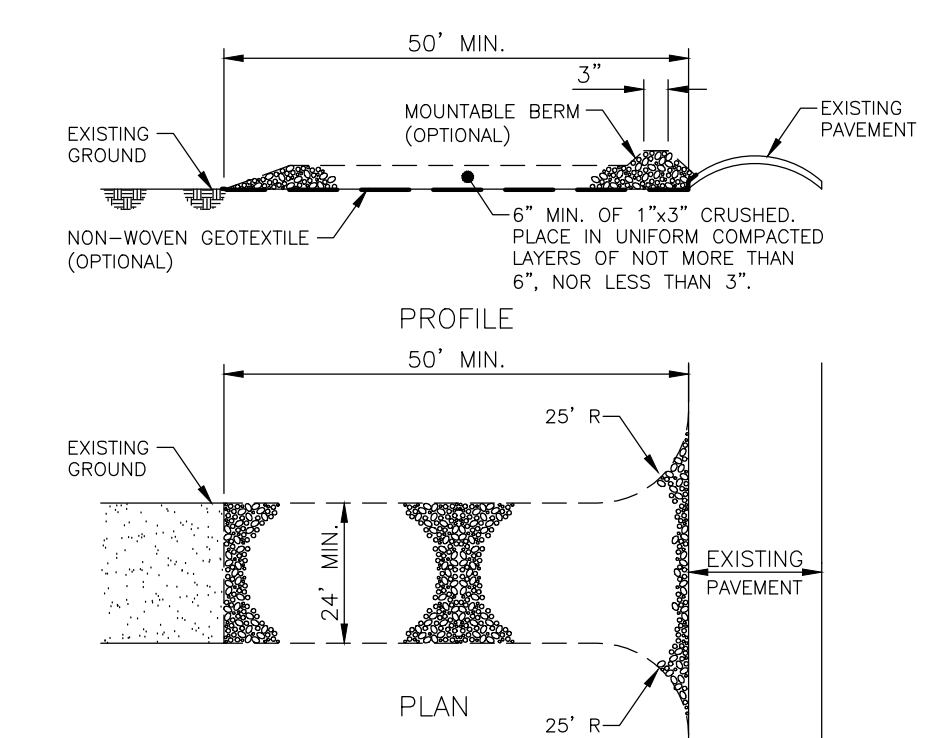
- MAINTENANCE NOTES**
1. **SOIL STOCKPILES**
PERIODIC INSPECTIONS SHOULD BE DONE TO ENSURE EXCESSIVE EROSION HAS NOT OCCURRED. IF RUNOFF OR WIND EROSION HAS OCCURRED, REDUCE THE SIDE SLOPES OF THE SPOIL PILE, OR RE-STABILIZE THE STOCKPILE BY PROVIDING TEMPORARY SEEDING.
- WHEN FILTER FENCING IS USED AROUND A SPOIL PILE, PERIODIC CHECKS SHOULD BE MADE TO ENSURE THAT PILING HAS NOT OCCURRED UNDER THE FENCING, AND TO ENSURE THE FENCE HAS NOT COLLAPSED DUE TO SOIL SURPGE OR ACCESS BY CONSTRUCTION EQUIPMENT. REPAIR ANY DAMAGED FENCING IMMEDIATELY.
- BERMS AT THE BASE OF THE SPOIL PILE WHICH BECOME DAMAGED SHOULD BE REPLACED.
2. **DUST CONTROL**
TO PREVENT DUST FROM BECOMING A PUBLIC NUISANCE AND CAUSING OFF-SITE DAMAGES, DUST CONTROL SHOULD BE ONGOING DURING EARTH CHANGE ACTIVITIES.
3. **SILT FENCE**
SILT FENCE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- SILT FENCES SHOULD BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND SEVERAL TIMES DURING PROLONGED RAINFALLS.
- IF THE FENCE IS SAGGING OR THE SOIL HAS REACHED ONE HALF (1/2) THE HEIGHT OF THE FABRIC, THE SOIL BEHIND THE FABRIC MUST BE REMOVED AND DISPOSED OF IN A STABLE UPLAND SITE. THE SOIL CAN BE ADDED TO THE SPOIL STOCKPILE.
- IF THE FABRIC IS BEING UNDERCUT (I.E. IF WATER IS SEEPING UNDER THE FENCE), THE FENCE SHOULD BE REMOVED AND REINSTALLED FOLLOWING THE PROCEDURES GIVEN ABOVE.
- FABRIC WHICH DECOMPOSES OR OTHERWISE BECOMES INEFFECTIVE SHOULD BE REMOVED AND REPLACED WITH NEW FILTER FABRIC IMMEDIATELY.
- SILT FENCES SHOULD BE REMOVED ONCE VEGETATION IS WELL ESTABLISHED AND THE UP-SLOPE AREA IS FULLY STABILIZED.
4. **SEEDING**
NEWLY SEEDED AREAS NEED TO BE INSPECTED FREQUENTLY FOR THE FIRST FEW MONTHS TO ENSURE THE GRASS IS GROWING. IF THE SEEDED AREA IS DAMAGED DUE TO RUNOFF, ADDITIONAL STORMWATER MEASURES MAY BE NEEDED. SPOT SEEDED CAN BE DONE ON SMALL AREAS TO FILL IN BARE SPOTS WHERE GRASS DIDN'T GROW PROPERLY.
5. **MULCHING**
MULCHED AREAS SHOULD BE CHECKED FOLLOWING EACH RAIN TO ENSURE THE MULCH IS STAYING IN PLACE. ADDITIONAL MULCHING MATERIALS OR NETTING MAY NEED TO BE APPLIED TO HOLD THE MULCH IN PLACE.
6. **CONSTRUCTION ENTRANCE**
PROPER MAINTENANCE MAY INCLUDE ADDING ADDITIONAL LAYERS OF STONE WHEN THE ORIGINAL STONE BECOMES COVERED WITH MUD. AFTER EACH STORM EVENT, INSPECT THE ROAD FOR EROSION AND MAKE ANY NECESSARY REPAIRS. ALL SEDIMENT DROPPED OR ERODED ONTO PUBLIC RIGHT-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY SWEEPING.



LOCATION MAP
NOT TO SCALE



54 SILT FENCE
NO SCALE



14 GRAVEL ACCESS DRIVE
NO SCALE

40 FILTER BAG
NO SCALE

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

HOWELL HOSPITALITY, INC.
GRAND OAKS DRIVE
GENOA TOWNSHIP, LIVINGSTON CO, MI

ISSUED FOR: **SPA** DATE: **02.01.17**
SPA DATE: **02.22.17**

DATE: _____
DRAWN: ACA
CHECKED: JT
SCALE: 1"=40'
JOB NO: BD-16-237
SHEET TITLE: **EROSION CONTROL PLAN** SHEET
C4.1



10775 S. Saginaw St. Suite B
Grand Blanc, MI 48439
(PH) 810.695.0793
(FAX) 810.695.0569

Web: www.buddesign.com



SANITARY USE CALCULATION

USAGE	AREA	UNIT FACTOR	R.E.U.
Hotel	101 rooms	0.38 units per room	38.38

POPULATION EQUIVALENT =	3.5	Persons per R.E.U.	
POPULATION =	134.3	Persons	
AVERAGE FLOW RATE =	100	Gallons per capita per day	
AVERAGE FLOW =	13,433.00	GPD	
PEAK FACTOR =	$18 + \sqrt{\text{QRT}(\text{P})} / 4 + \sqrt{\text{QRT}(\text{P})}$	=	4.21
PEAK FLOW =	56,502.17	GPD =	0.085 CFS
			6" @ 1.00%(cfs) = 0.73

WATER MAIN BASIS OF DESIGN

USAGE	AREA	UNIT FACTOR	R.E.U.
Hotel	101 rooms	0.38 units per room	38.38

POPULATION EQUIVALENT = 3.5	Persons per R.E.U.
POPULATION = 134.3	Persons
AVERAGE FLOW RATE = 100	Gallons per capita per day
INITIAL DESIGN AVERAGE FLOW =	13,433.00 GPD = 0.01343 MGD
PEAK FACTOR = $18 + \sqrt{\text{QRT}(P)} / 4 + \sqrt{\text{QRT}(P)}$	= 4.21
TOTAL DESIGN MAXIMUM FLOW =	56,502.17 GPD = 0.0565 MGD

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENOA TOWNSHIP AND M.H.O.G. STANDARDS AND SPECIFICATIONS.
2. SHOP DRAWINGS SHALL BE SUBMITTED BY THE UNDERGROUND CONTRACTOR FOR ALL WATER AND SANITARY INSTALLATION.
3. CONTRACTOR SHALL SUBMIT RECORD "AS-BUILT" PLANS AFTER CONSTRUCTION.
4. MAINTAIN A MINIMUM HORIZONTAL SEPARATION BETWEEN WATER SERVICE AND ANY OTHER UTILITY OF 10- FEET. THE MINIMUM VERTICAL CLEARANCE BETWEEN A WATER MAIN AND A SEWER SHALL BE 18-INCHES.
5. NO GROUNDWATER, STORM WATER, CONSTRUCTION WATER, DOWNSPOUT DRAINAGE OR WEEP TILE DRAINAGE SHALL BE ALLOWED TO ENTER ANY SANITARY SEWER INSTALLATION.
6. REFER TO PLUMBING PLANS TO VERIFY BUILDING UTILITY CONNECTION LOCATIONS, SITE UTILITY LOCATIONS TO TERMINATE 5' OUTSIDE OF BUILDING.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS AND POST ALL BONDS PRIOR TO CONSTRUCTION, OR ENSURE THAT ALL REQUIRED PERMITS AND BONDS HAVE BEEN OBTAINED PRIOR TO CONSTRUCTION.
8. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING MISS-DIG AT 1-800-482-7171 AT LEAST 3 WORKING DAYS PRIOR TO EXCAVATION.
9. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED WITH LIKE MATERIAL. THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE LOCATED BY HAND DIGGING.
10. DIMENSIONS ARE TO FACE OF CURB, OUTSIDE FACE OF BUILDING, EDGE OF PAVEMENT, CENTER OF STRUCTURE OR OTHERWISE INDICATED.
11. CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION AND REPORT ALL FINDINGS TO ENGINEER.

SECTION 8. T2N. R5E

ALL EVERY ATTEMPT HAS BEEN MADE TO PRODUCE EXACT FREE DOCUMENTS, IT IS THE RESPONSIBILITY OF THE BUYER AND/OR THE CLIENT TO VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, MATERIALS, CODE COMPLIANCE, AND SPECIFICATIONS. EXISTING COMMITMENT OF WORK PRIOR TO ACQUISITION OF THESE DOCUMENTS. THE BUYER HAS FULL RESPONSIBILITY FOR DAMAGES AND LOSSES AND/OR REPAIRS, BUT IS RELEASED OF THESE RESPONSIBILITIES FOR THESE DOCUMENTS. THESE DOCUMENTS ARE THE PROPERTY OF BLD DESIGN AND ORIGINALLY HAVE BEEN ACQUIRED BY WAY OF CLIENT DONATION. THE DESIGN AND ORIGINALLY ARE THE PROPERTY OF THIS PROJECT FROM THE PROPERTY OF BLD DESIGN AND ORIGINALLY. THESE ARE FOR ANY ADDITIONAL PERSONS OR PARTIES MAY USE THIS DESIGN AND/OR DRAWINGS FOR ANY OTHER PURPOSE WITHOUT THE CONSENT OF BLD DESIGN AND ENGINEERING SERVICES, INC., AND GARY N. BAERENFATH.

ISSUED FOR	DATE
SPA	02.01
SPA	02.22

DATE : _____

DRAWN : ACA

CHECKED: JT

SCALE: 1"=40'

JOB NO : BD-16-237

QUEST TITLE :

UTILITY PLAN

UTILITY PLAN

SHEET

C50

CS.0



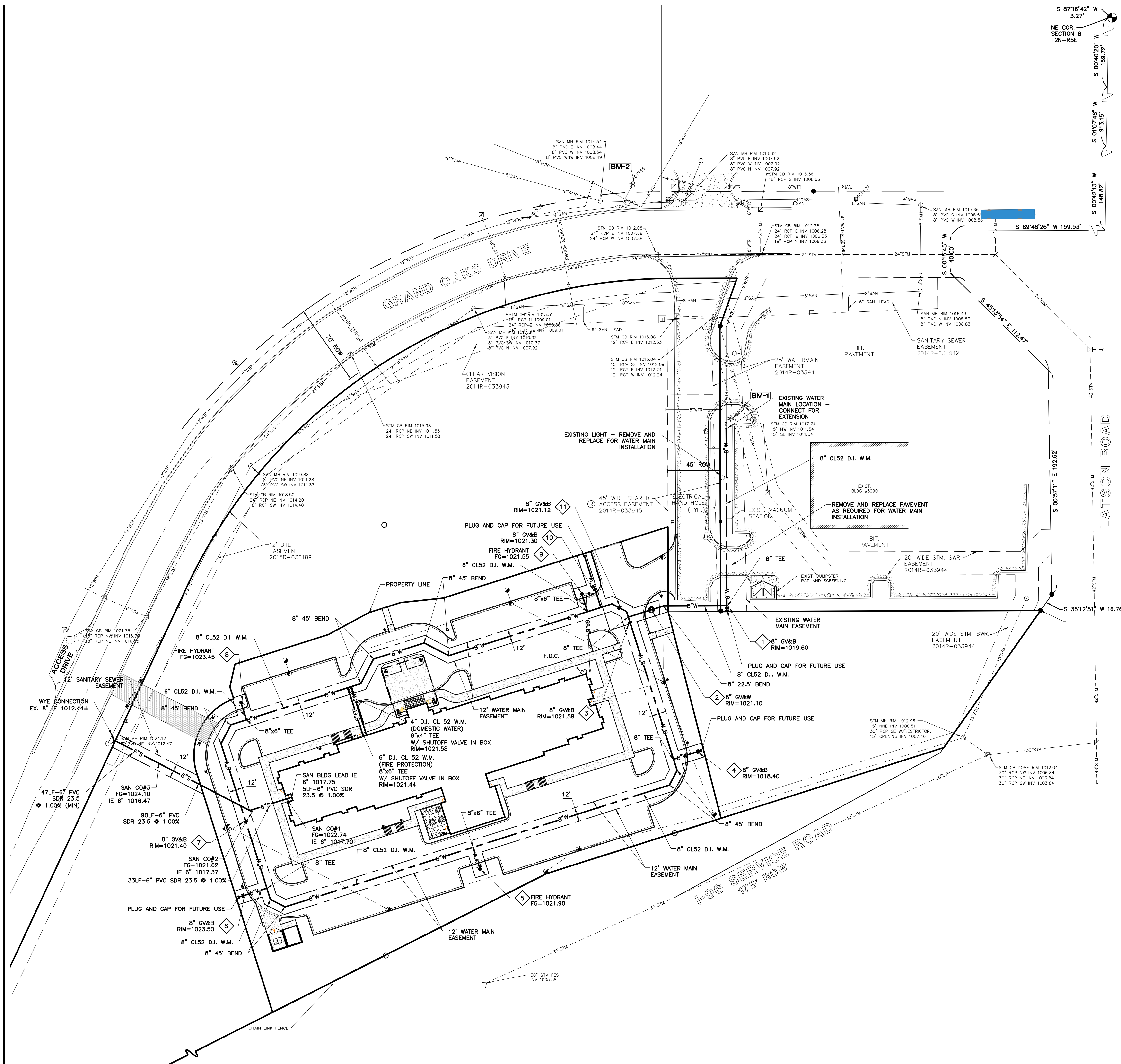
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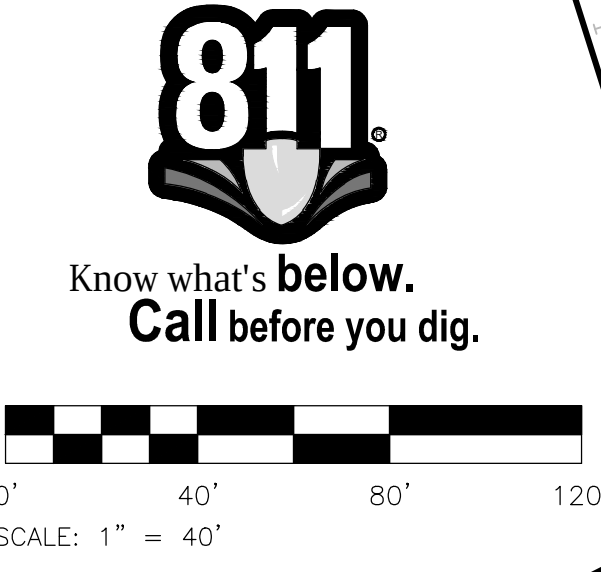
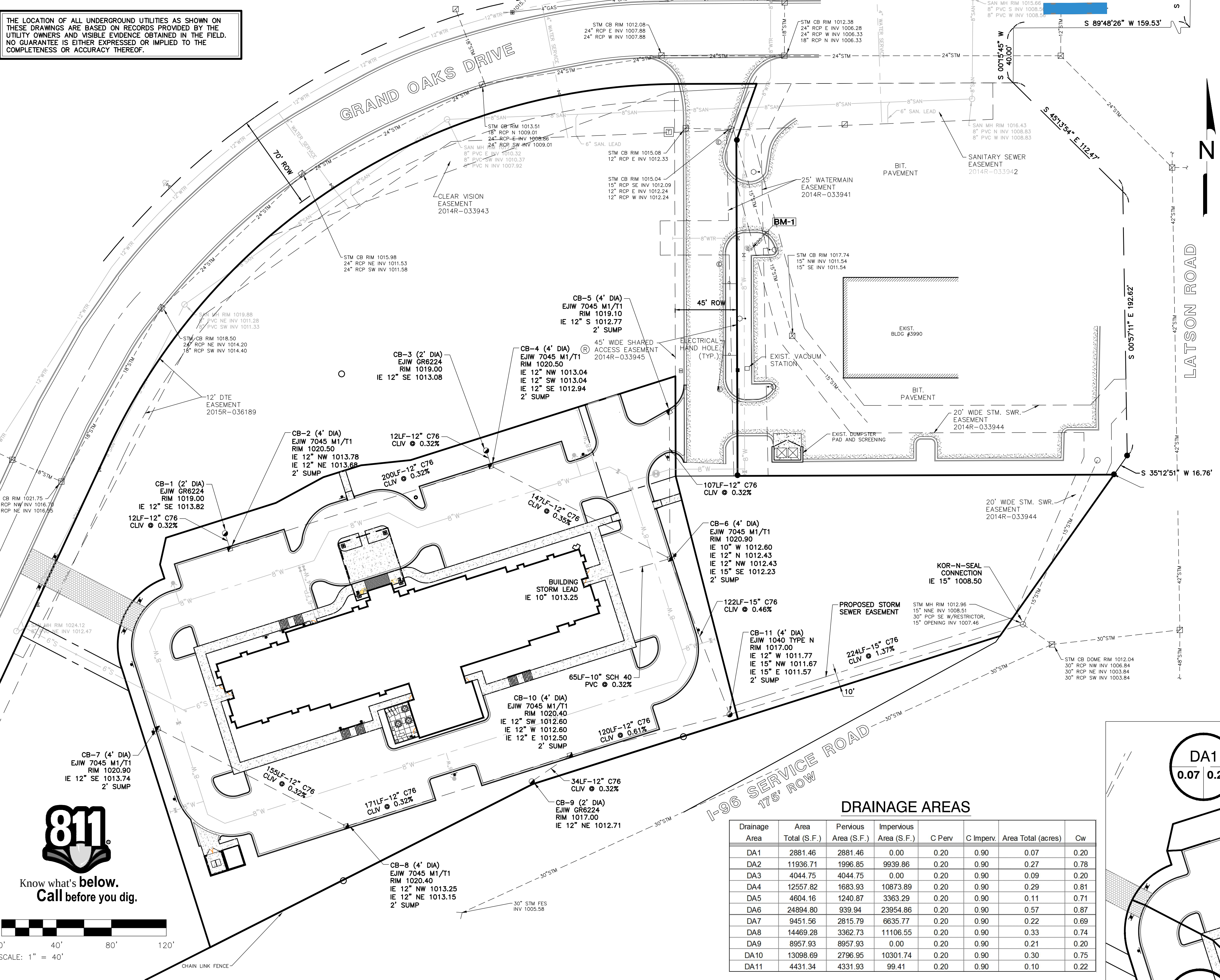
0' 40' 80' 120'

SCALE: 1" = 40'

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



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



$Q_R = C \cdot I \cdot A$
 $Q_p = A \times 1.486/n \times R^{2/3} \times S^{1/2}$
 $I = 175/((t+25))$ for 10 year storm event

STORM SEWER CALCULATIONS

(C imp = 0.90 / C perv = 0.20)																							H.G.L.		INVERT ELEV.	
AREA NO.	FROM MH/CB	TO MH/CB	AREA A	COEFF. C * acres	A x C acres	AREA TOTAL At acres	COEFF. Vt Cw	At x Cw	TIME t _c min.	INT. I in/ft	n	FLOW Q _R Cu-GA c.f.s.	PIPE CAP. Q _p c.f.s.	PIPE LENGTH ft.	PIPE DIA. in.	PIPE SLOPE %	VEL. FULL ft/sec	TIME FLOW min.	RIM ELEV HIGH ft	RIM ELEV LOW ft	HIGH END HGL	LOW END HGL	HIGH END INV	LOW END INV		
DA1	1	2	0.07	0.20	0.01	0.07	0.20	0.01	15.00	4.38	0.013	0.06	2.02	12	12	0.32%	2.57	0.08	1019.00	1020.50	1015.81	1015.76	1013.82	1013.78		
DA2	2	4	0.27	0.78	0.21	0.34	0.67	0.23	15.08	4.37	0.013	0.99	2.02	200	12	0.32%	2.57	1.30	1020.50	1020.50	1015.66	1014.83	1013.68	1013.04		
DA3	3	4	0.09	0.20	0.02	0.09	0.20	0.02	15.00	4.38	0.013	0.08	2.02	12	12	0.32%	2.57	0.08	1019.00	1020.50	1014.88	1014.83	1013.08	1013.04		
DA4	4	6	0.29	0.81	0.23	0.72	0.66	0.48	16.38	4.23	0.013	2.02	2.11	147	12	0.35%	2.68	0.91	1020.50	1020.90	1014.73	1014.07	1012.94	1012.43		
DA5	5	6	0.11	0.71	0.08	0.11	0.71	0.08	15.00	4.38	0.013	0.33	2.02	107	12	0.32%	2.57	0.69	1019.10	1020.90	1014.51	1014.07	1012.77	1012.43		
DA6	6	11	0.57	0.87	0.50	1.40	0.75	1.05	17.29	4.14	0.013	4.36	4.38	122	15	0.46%	3.57	0.57	1020.90	1017.00	1013.87	1013.21	1012.23	1011.67		
DA7	7	8	0.22	0.69	0.15	0.22	0.69	0.15	15.00	4.38	0.013	0.66	2.02	155	12	0.32%	2.57	1.01	1020.90	1020.40	1015.75	1015.11	1013.74	1013.25		
DA8	8	10	0.33	0.74	0.24	0.55	0.72	0.39	16.01	4.27	0.013	1.69	2.02	171	12	0.32%	2.57	1.11	1020.40	1020.40	1015.01	1014.31	1013.15	1012.60		
DA9	9	10	0.21	0.20	0.04	0.21	0.20	0.04	15.00	4.38	0.013	0.18	2.02	34	12	0.32%	2.57	0.22	1017.00	1020.40	1014.45	1014.31	1012.71	1012.60		
DA10	10	11	0.30	0.75	0.23	1.06	0.63	0.66	17.12	4.16	0.013	2.75	2.78	120	12	0.61%	3.54	0.56	1020.40	1017.00	1014.21	1013.31	1012.50	1011.77		
DA11	11	EX MH	0.10	0.22	0.02	2.56	0.68	1.74	17.86	4.08	0.013	7.09	7.56	224	15	1.37%	6.16	0.61	1017.00	1012.96	1013.11	1009.75	1011.57	1008.50		

DRAINAGE AREAS

Drainage Area	Area Total (S.F.)	Pervious Area (S.F.)	Impervious Area (S.F.)	C Perv	C Imperv	Area Total (acres)	Cw
DA1	2881.46	2881.46	0.00	0.20	0.90	0.07	0.20
DA2	11936.71	1996.85	9939.86	0.20	0.90	0.27	0.78
DA3	4044.75	4044.75	0.00	0.20	0.90	0.09	0.20
DA4	12557.82	1683.93	10873.89	0.20	0.90	0.29	0.81
DA5	4604.16	1240.87	3363.29	0.20	0.90	0.11	0.71
DA6	24894.80	939.94	23954.86	0.20	0.90	0.57	0.87
DA7	9451.56	2815.79	6635.77	0.20	0.90	0.22	0.69
DA8	14469.28	3362.73	11106.55	0.20	0.90	0.33	0.74
DA9	8957.93	8957.93	0.00	0.20	0.90	0.21	0.20
DA10	13098.69	2796.95	10301.74	0.20	0.90	0.30	0.75
DA11	4431.34	4331.93	99.41	0.20	0.90	0.10	0.22

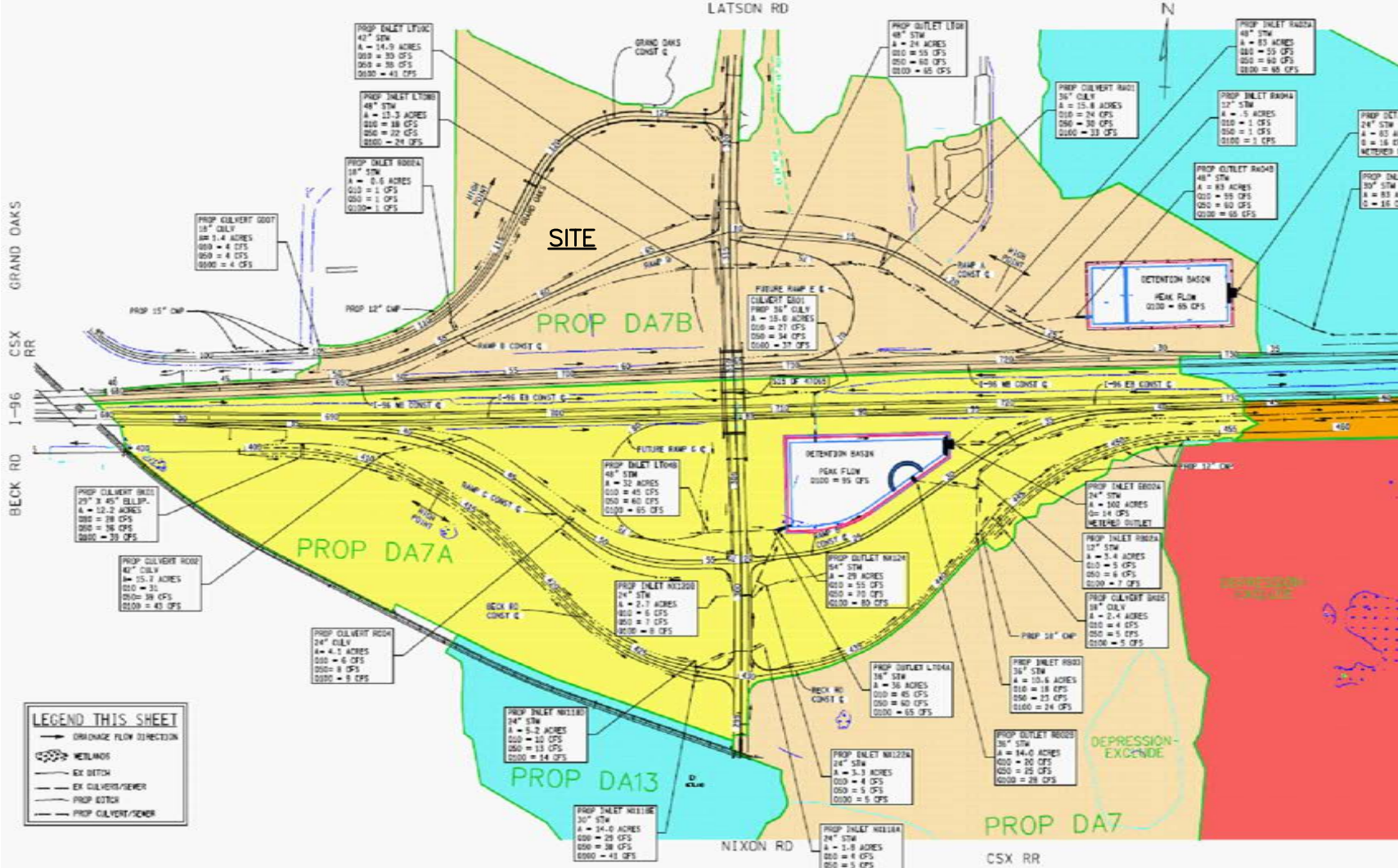
DRAINAGE NARRATIVE

THE PROPERTY IS PART OF THE DRAINAGE DISTRICT THAT WAS INCORPORATED WITHIN THE I-96/LATSON ROAD INTERCHANGE PROJECT. THE PROPERTY IS PART OF THE "PROP DA7B" SUB-DRAINAGE AREA WITHIN THE OVERALL "TRIBUTARY AREA". THE DETENTION BASIN WAS SIZED FOR THE 100-YEAR STORM EVENT. NO STORM DETENTION IS PROVIDED AS PART OF THE HAMPTON INN & SUITES PROJECT DUE TO THE ATTRIBUTABLE VOLUME ACCOUNTED FOR WITHIN THE EXISTING DETENTION BASIN.

THE SITE IS TRIBUTARY TO A DETENTION BASIN THAT WAS CONSTRUCTED AS PART OF THE I-96/LATSON ROAD INTERCHANGE PROJECT. THE PROPERTY IS PART OF THE "PROP DA7B" SUB-DRAINAGE AREA WITHIN THE OVERALL "TRIBUTARY AREA". THE DETENTION BASIN WAS SIZED FOR THE 100-YEAR STORM EVENT. NO STORM DETENTION IS PROVIDED AS PART OF THE HAMPTON INN & SUITES PROJECT DUE TO THE ATTRIBUTABLE VOLUME ACCOUNTED FOR WITHIN THE EXISTING DETENTION BASIN.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENOA TOWNSHIP AND LIVINGSTON COUNTY DRAIN COMMISSION STANDARDS AND SPECIFICATIONS.
2. SHOP DRAWINGS SHALL BE SUBMITTED BY THE UNDERGROUND CONTRACTOR FOR ALL WATER AND STORM INSTALLATION.
3. CONTRACTOR SHALL SUBMIT RECORD "AS-BUILT" PLANS AFTER CONSTRUCTION.
4. MAINTAIN A MINIMUM HORIZONTAL SEPARATION BETWEEN WATER SERVICE AND ANY OTHER UTILITY OF 10'-FEET. THE MINIMUM VERTICAL CLEARANCE BETWEEN A WATER MAIN AND A SEWER SHALL BE 18-INCHES.
5. NO GROUNDWATER, STORM WATER, CONSTRUCTION WATER, DOWNSPOUT DRAINAGE OR WEEP TILE DRAINAGE SHALL BE ALLOWED TO ENTER ANY SANITARY SEWER INSTALLATION.
6. REFER TO PLUMBING PLANS TO VERIFY BUILDING UTILITY CONNECTION LOCATIONS. SITE UTILITY LOCATIONS TO TERMINATE 5' OUTSIDE OF BUILDING.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS AND POST ALL BONDS PRIOR TO CONSTRUCTION, OR ENSURE THAT ALL REQUIRED PERMITS AND BONDS HAVE BEEN OBTAINED PRIOR TO CONSTRUCTION.
8. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING MISS-DIG AT 1-800-482-7171 AT LEAST 3 WORKING DAYS PRIOR TO EXCAVATION.
9. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED WITH LIKE MATERIAL. THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE LOCATED BY HAND DIGGING.
10. DIMENSIONS ARE TO FACE OF CURB, OUTSIDE FACE OF BUILDING, EDGE OF PAVEMENT, CENTER OF STRUCTURE OR OTHERWISE INDICATED.
11. STORM SEWER PIPE SHALL BE REINFORCED CONCRETE C76 CLV.
12. UNDERDRAINS SHALL BE FLEXIBLE 6" CORRUGATED POLYETHYLENE TUBING.
13. CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION AND REPORT ALL FINDINGS TO ENGINEER.

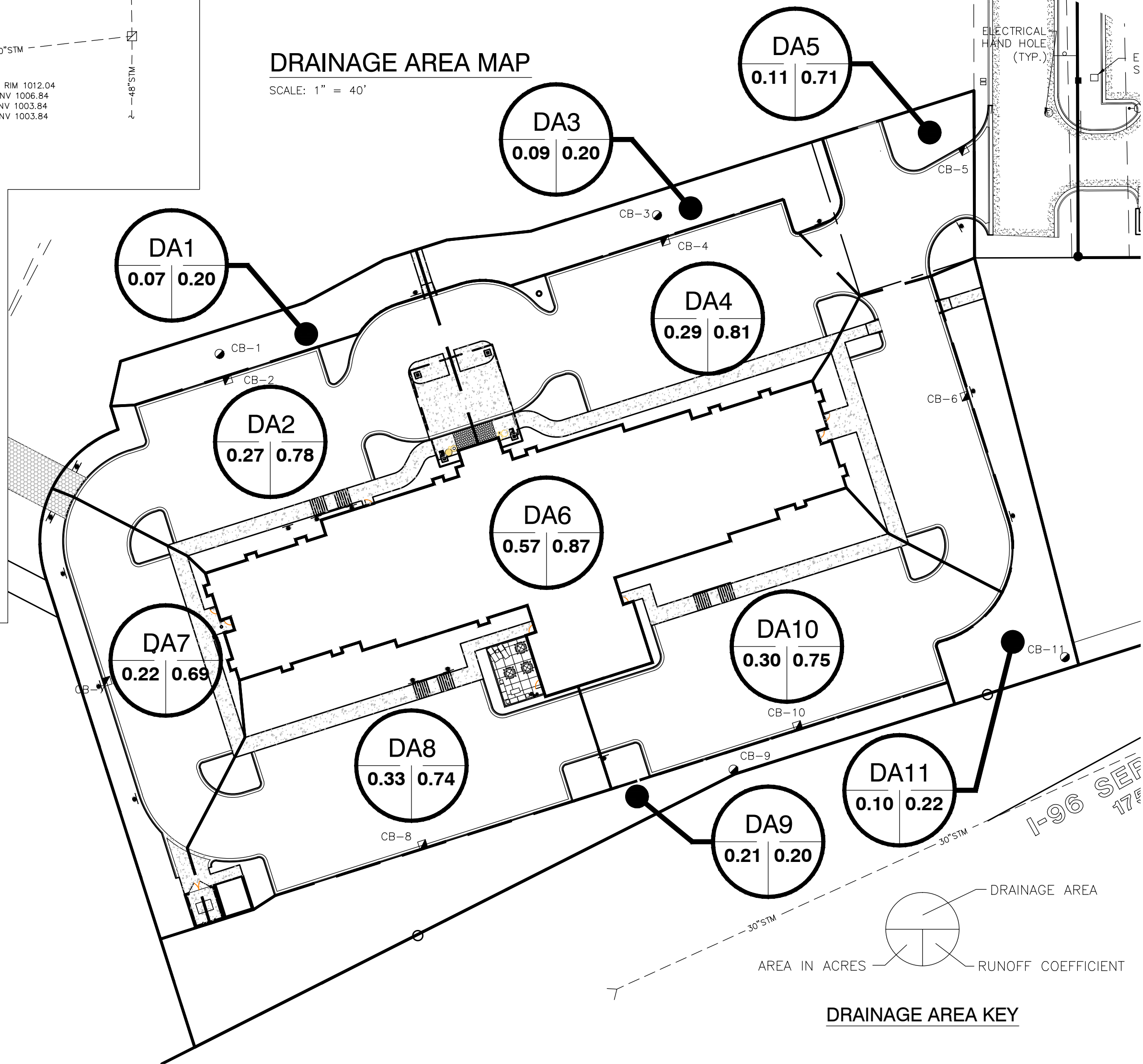


DRAINAGE VICINITY MAP

NOT TO SCALE

DRAINAGE AREA MAP

SCALE: 1" = 40'



DRAINAGE AREA KEY

AREA IN ACRES RUNOFF COEFFICIENT

HOWELL HOSPITALITY, INC.
GRAND OAKS DRIVE
GENOA TOWNSHIP, LIVINGSTON CO., MI

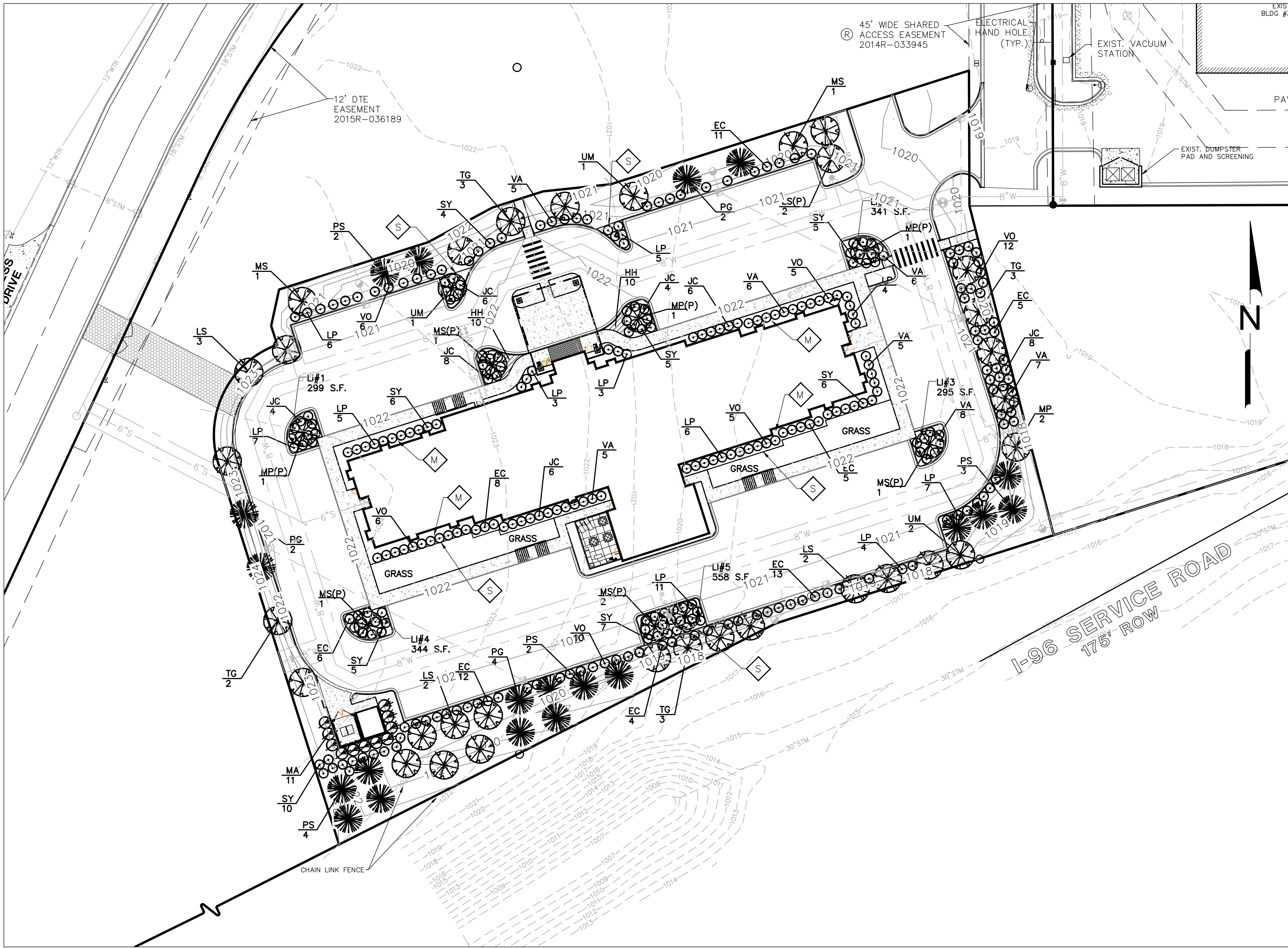
SECTION 8, T2N, R5E

WHILE EVERY EFFORT HAS BEEN MADE TO PREPARE THESE DRAWINGS, THE ENGINEER DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED HEREON. THE USER OF THESE DRAWINGS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR THE PROTECTION OF ALL EXISTING UTILITIES. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO OR LOSS OF ANY PROPERTY OR PERSONS ARISING FROM THE USE OF THESE DRAWINGS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO OR LOSS OF ANY PROPERTY OR PERSONS ARISING FROM THE USE OF THESE DRAWINGS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO OR LOSS OF ANY PROPERTY OR PERSONS ARISING FROM THE USE OF THESE DRAWINGS.

ISSUED FOR	DATE
SPA	02.01.17
SPA	02.22.17

DATE: _____
DRAWN: ACA
CHECKED: JT
SCALE: 1"=40'
JOB NO: BD-16-237
SHEET TITLE: STORM MANAGEMENT PLAN SHEET

C5.1



SITE INFORMATION

PARKING AREA LANDSCAPING
TOTAL SPACES = 115
REQUIRED
1 CANOPY TREE AND 100 S.F. LANDSCAPE AREA PER 12 SPACES
 $115 / 12 = 9.6 = 10$
REQUIRED TREES = 10
REQUIRED LANDSCAPE AREA = $10 * 100 = 1,000$ S.F.
PROVIDED
TREES = 10
LANDSCAPE AREA = 1,837 S.F.

CARE FOR PLANTS BEFORE PLANTING

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

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

PLANTING

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

MULCHING

ALL PLANT MATERIAL SHALL BE ENCIRCLED WITH A 4" MINIMUM COVERING OF NON-DYED SHREDDED BARK MULCH TO 6" OUTSIDE THE PLANTING HOLE, TAPERING MULCH TO 2" AROUND THE TRUNK OF ALL PLANTS. SUBMIT SAMPLE TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PLACEMENT. WOOD CHIPS SHALL NOT BE ALLOWED ON THIS JOB.

WRAPPING DECIDUOUS TREES

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

BRACING AND GUYING

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

STEEL LANDSCAPE EDGING

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

PRUNING

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

FINISHING AND CLEANING UP

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

WARRANTY

THE LANDSCAPE INSTALLATION CONTRACTOR SHALL REPLACE ALL UNHEALTHY VEGETATION AND PLANTINGS WITHIN TWO (2) YEAR OF INITIAL PLANTING OR SUBSEQUENT PLANTING PERIOD.

DESCRIPTION

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

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

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

SITE PREPARATION

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

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

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

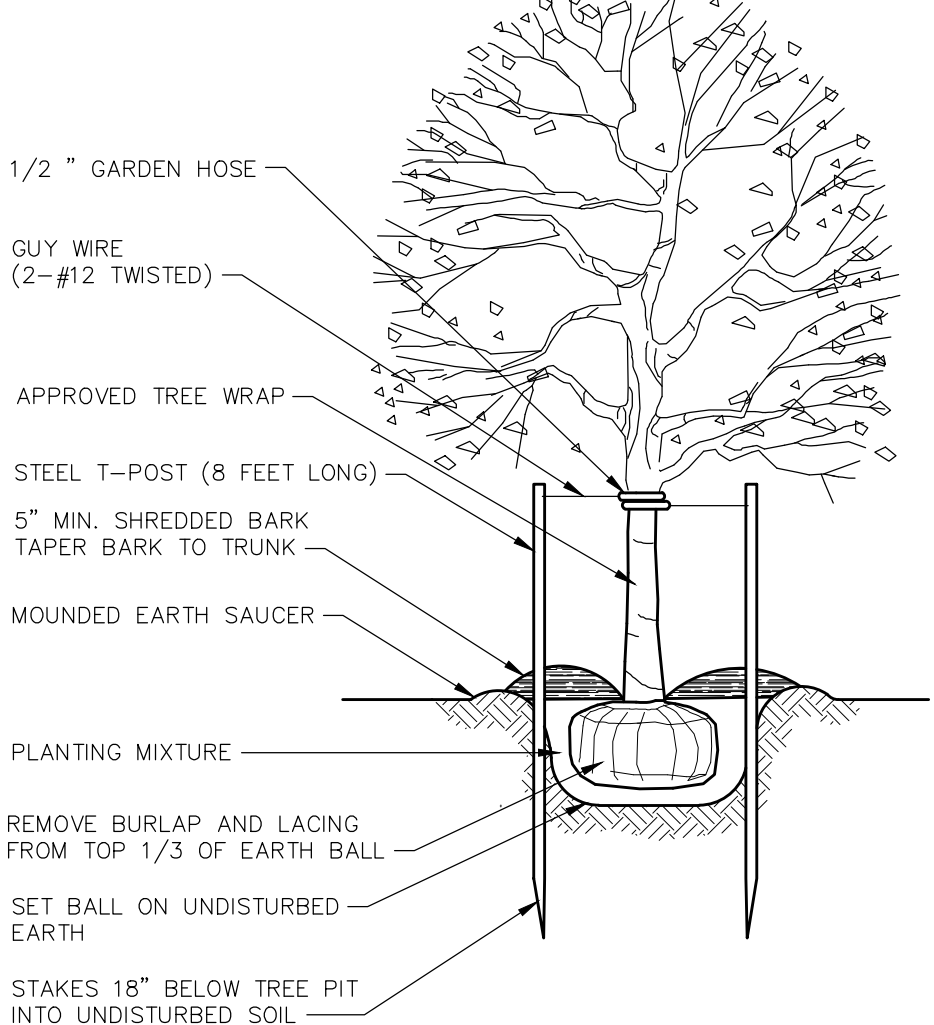
TOPSOIL SHALL AT FERTILE, FRIABLE NATURAL TOPSOIL OF CLAY LOAM CHARACTER CONTAINING AT LEAST 5% BUT NOT MORE THAN 20% BY WEIGHT OF ORGANIC MATTER WITH A PH RANGE FROM 6.0 TO 7.0. TOPSOIL SHALL BE FREE OF CLAY LUMPS, COARSE SAND, STONES, PLANT ROOTS, STICKS OR OTHER FOREIGN MATTER.



KEY NOTES

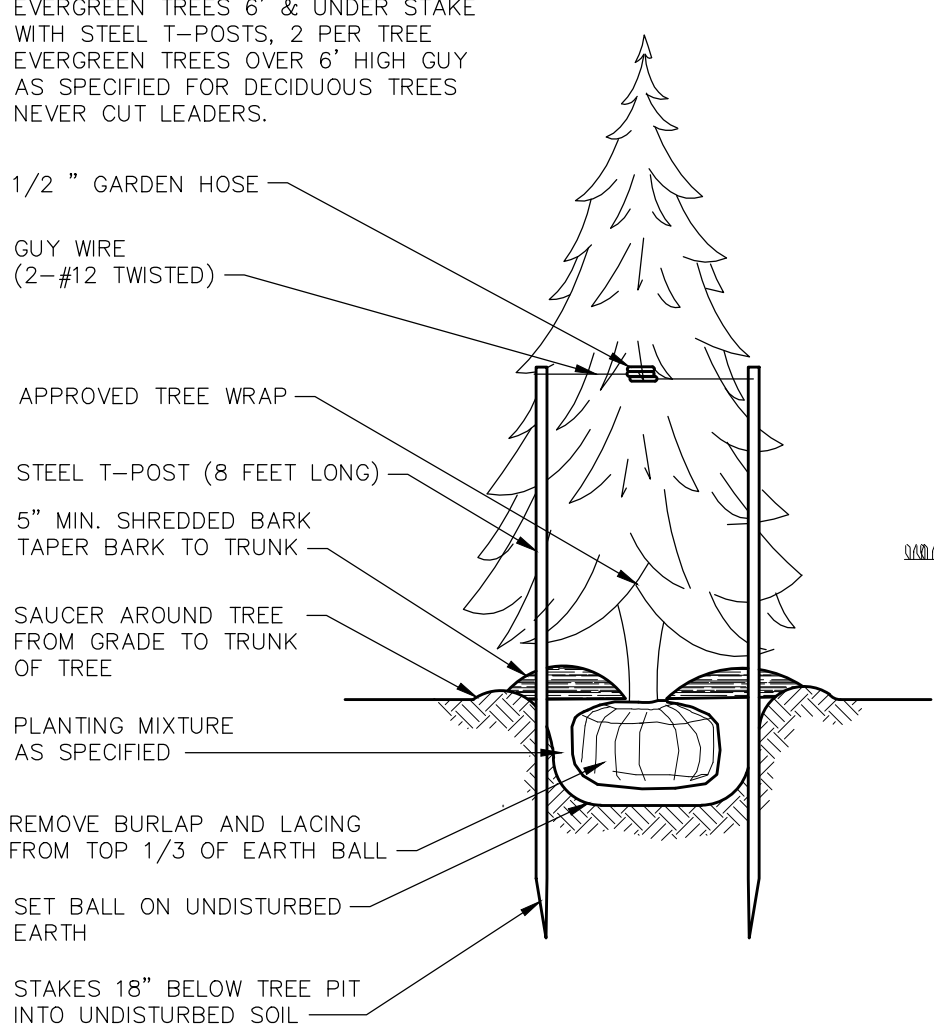
- M MULCH (SHREDDED BARK) 5" DEPTH
- S 4" STEEL EDGING

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



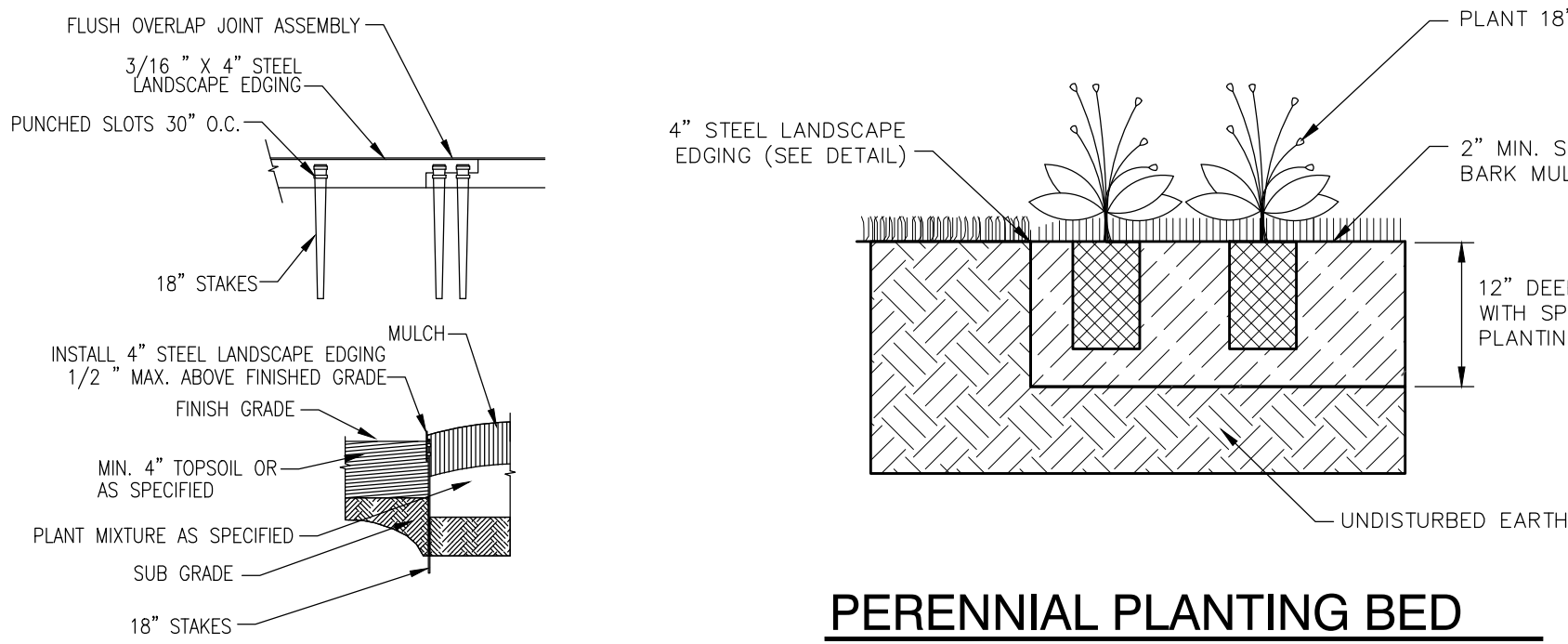
DECIDUOUS TREE PLANTING

SCALE: NONE



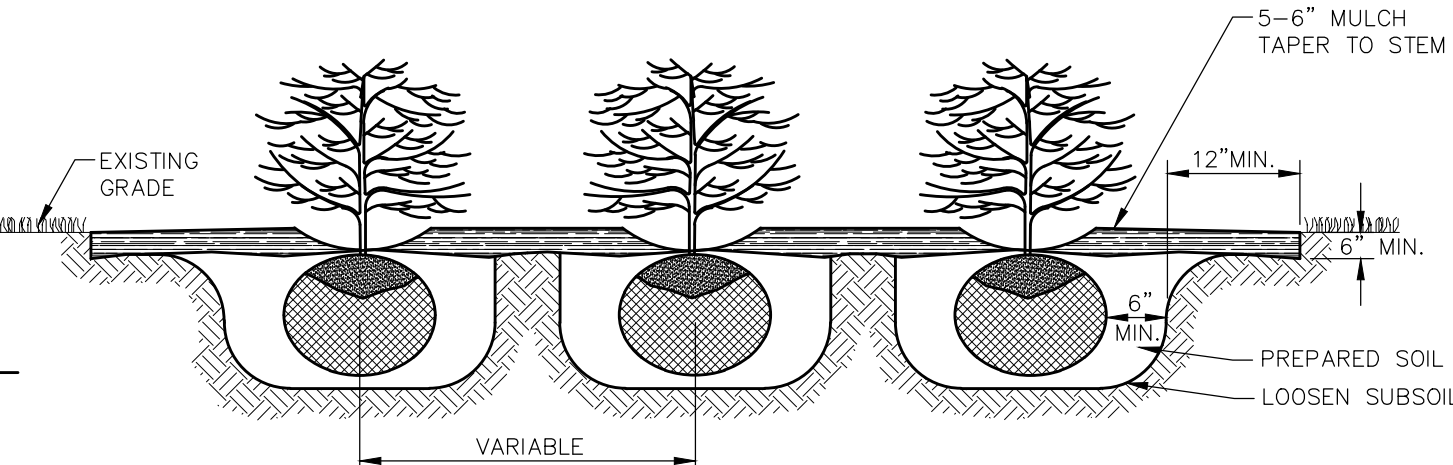
EVERGREEN TREE PLANTING

SCALE: NONE



4" STEEL LANDSCAPE EDGE

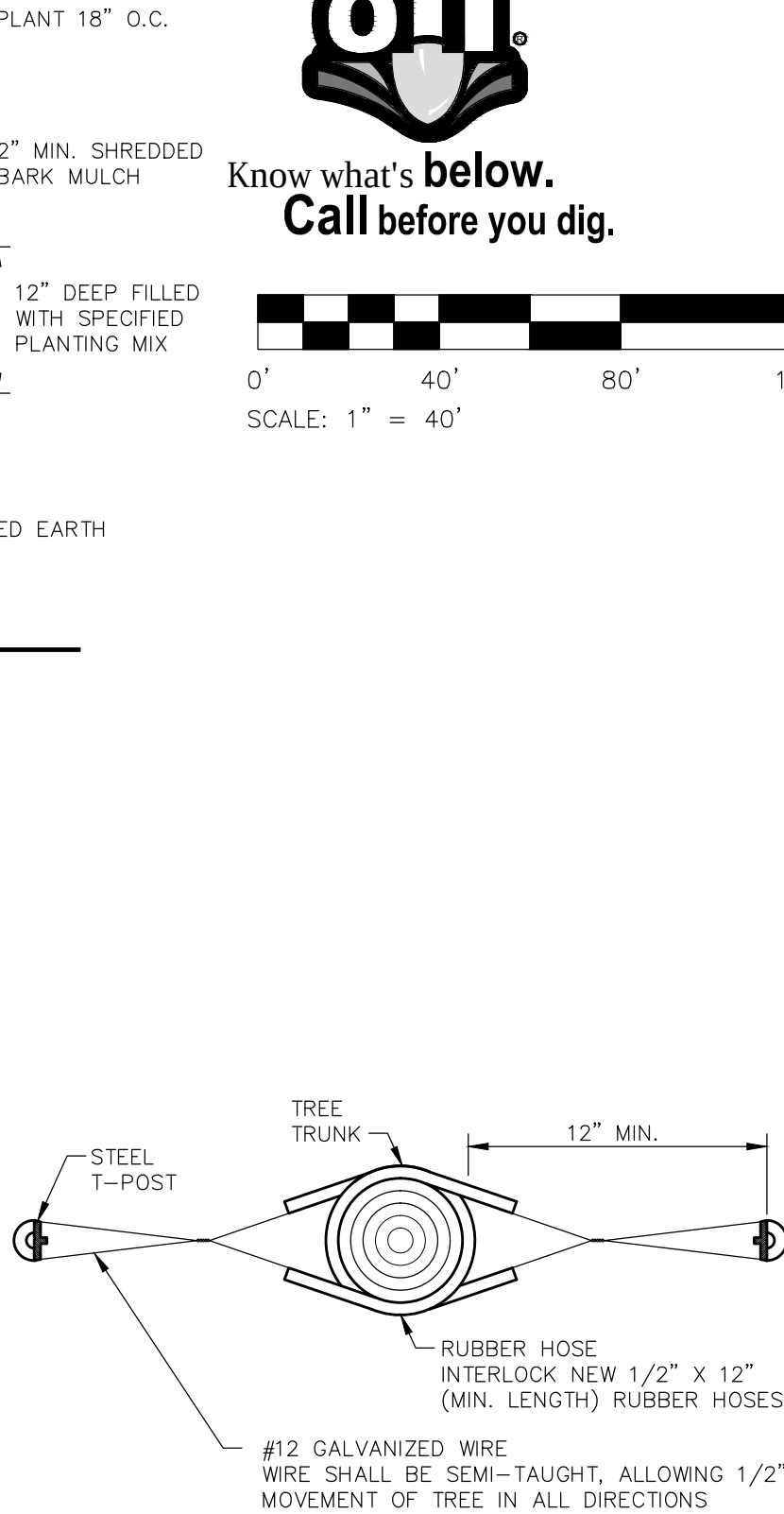
SCALE: NONE



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

SHRUB BED DETAIL

SCALE: NONE



BRACING DETAIL

SCALE: NONE

PLANT LIST

QUANTITY	KEY	BOTANICAL NAME	COMMON NAME	SIZE
49	SY	TAXUS S.M. 'SEBIAN'	SEBIAN YEW	24" HT B&B
61	LP	SPIRAEA JAPONICA 'LITTLE PRINCESS'	LITTLE PRINCESS SPIRAEA	24" HT B&B
44	VO	VIBURNUM OPULUS 'COMPACTUM'	COMPACT EUROPEAN CRANBERRY BUSH	24" HT B&B
60	EC	EUONYMUS ALATUS 'COMPACTUM'	DWARF BURING BUSH	24" HT B&B
36	VA	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	24" HT B&B
42	JC	JUNIPERUS C. 'SEAGREEN'	SEA GREEN JUNIPER	24" HT B&B
5	MP	MALUS 'PRAIRIEFIRE'	PRAIRIEFIRE CRABAPPLE	2" CAL B&B
7	MS	MALUS 'SNOWDRIFT'	SNOWDRIFT CRABAPPLE	2" CAL B&B
15	TG	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2-1/2" CAL B&B
4	UM	ULMUS AMERICANA 'VALLEY FORGE'	VALLEY FORGE AMERICAN ELM	2-1/2" CAL B&B
10	LS	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2-1/2" CAL B&B
12	PS	PINUS STROBUS	EASTERN WHITE PINE	6' HT.
8	PG	PICEA GLAUCA	WHITE SPRUCE	6' HT.
20	HH	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILLY	#1 POT
11	MA	THUJIA OCCIDENTALIS 'TECHNY'	MISSION ARBORVITAE	5' HT. B&B

GENERAL NOTES

- CONTRACTOR TO PROVIDE DESIGN AND INSTALLATION OF UNDERGROUND IRRIGATION SYSTEM IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND REGULATORY AGENCY REQUIREMENTS. ALL LANDSCAPING AND GRASS AREAS TO BE IRRIGATED. IRRIGATION CONTROL PANEL SHALL BE LOCATED WITHIN THE BUILDING AT DESIGNATED LOCATION.
- ALL GREEN SPACES AND PLANTING AREAS SHALL BE IRRIGATED. CONTRACTOR SHALL SUPPLY IRRIGATION DESIGN PLAN TO ENGINEER AS SUBMITTAL PRIOR TO CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS AND POST ALL BONDS PRIOR TO CONSTRUCTION.
- REFER TO PLUMBING PLANS FOR LOCATION OF IRRIGATION METER.
- ALL GRASS AREAS TO BE HYDRO-SEEDING.
SEED MIX
30% PERENNIAL RYEGRASS
20% PARK KENTUCKY BLUEGRASS
45% CREEPING RED FESCUE
5% ANNUAL RYEGRASS
SEEDING RATE: 4#/1000 S.F.
- SPACE ALL SHRUBS AT 5-FEET ON CENTER UNLESS OTHERWISE INDICATED ON THE PLANS
- ALL DISTURBED LAWN AREAS SHALL BE RESTORED TO AT LEAST PREVIOUS CONDITION IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
- THE LANDSCAPE CONTRACTOR SHALL INCLUDE TOPSOIL IN BASE BID. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE AMOUNT OF TOPSOIL AVAILABLE ON-SITE.



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GRAND OAKS DRIVE
GENOA TOWNSHIP, LIVINGSTON CO., MI

SECTION 8, T2N, R5E

WE HEREBY CERTIFY THAT THE DATA AND INFORMATION SUBMITTED TO US FOR THE PREPARATION OF THESE PLANS AND SPECIFICATIONS WERE OBTAINED FROM THE PERSONS OR AGENCIES NAMED THEREON, AND THAT WE BELIEVE THEM TO BE TRUE AND CORRECT. WE DO NOT GUARANTEE THE ACCURACY OF THE DATA AND INFORMATION SUBMITTED TO US, NOR DO WE GUARANTEE THE ACCURACY OF THE DATA AND INFORMATION OBTAINED BY US. WE DO NOT GUARANTEE THE ACCURACY OF THE DATA AND INFORMATION OBTAINED BY US. WE DO NOT GUARANTEE THE ACCURACY OF THE DATA AND INFORMATION OBTAINED BY US.

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DATE: 02.01.17
CHECKED: JT
DATE: 02.22.17

DRAWN: ACA
CHECKED: JT
SCALE: 1"=40'
JOB NO: BD-16-237

SHEET TITLE:
LANDSCAPE PLAN
AND DETAILS
SHEET

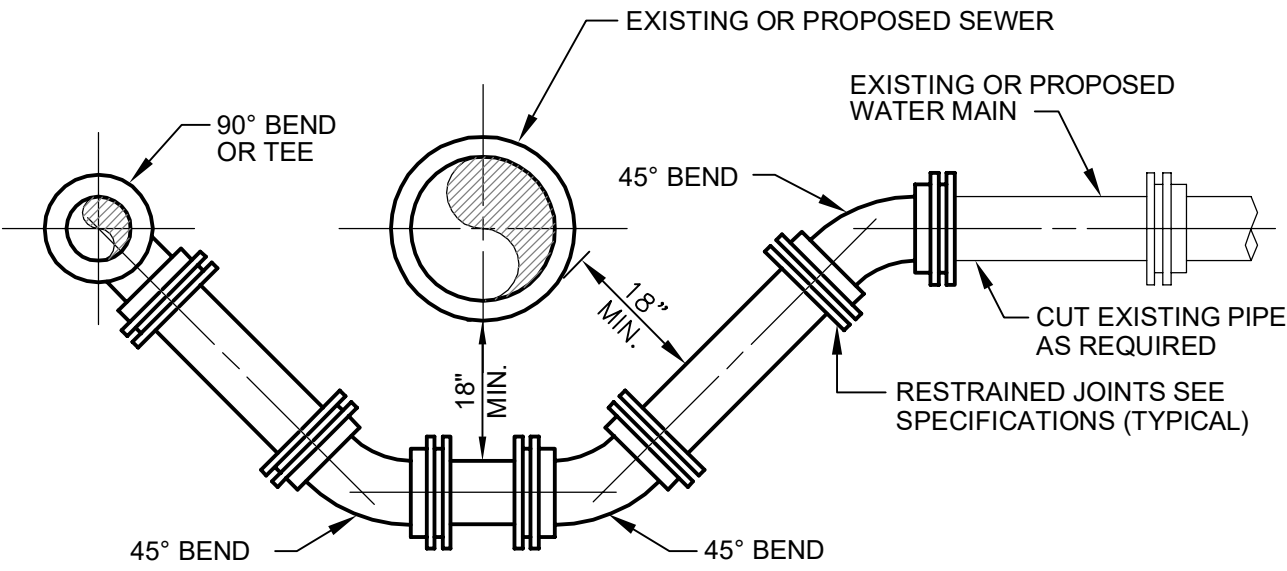
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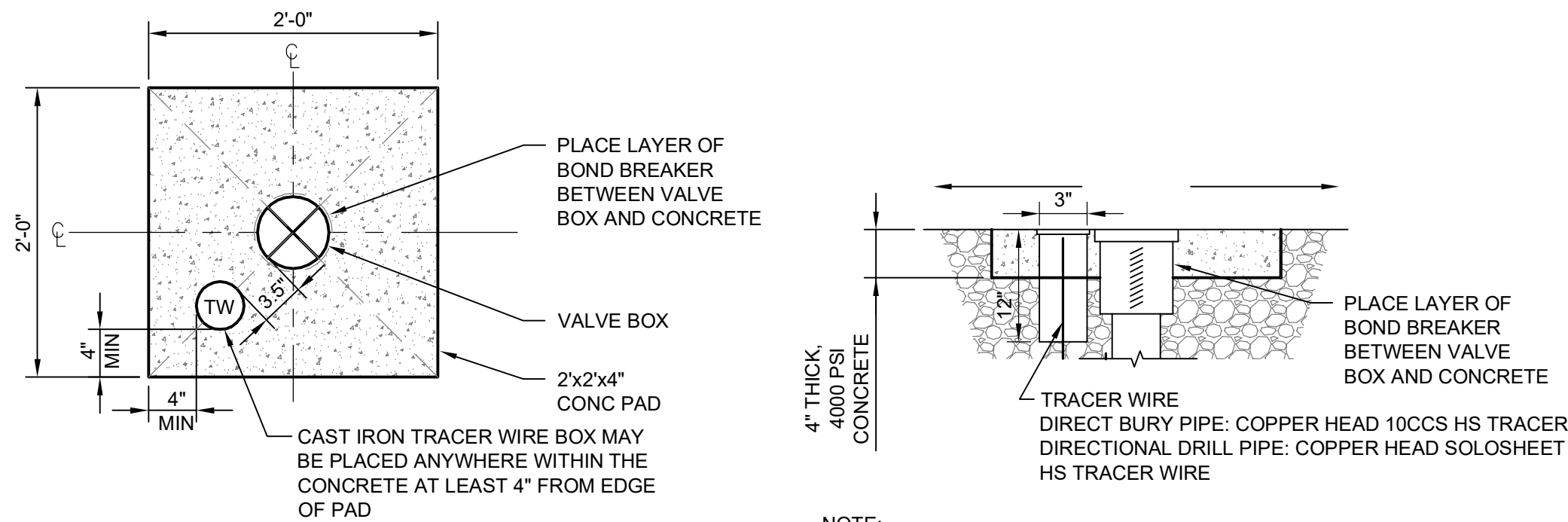
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PIPE RESTRAINT SCHEDULE							
GROUND BURIED PRESSURE PIPE - POLYETHYLENE ENCASED DUCTILE IRON PIPE							
PIPE DIAMETER	TEES, 90° BENDS	45° BENDS	22-1/2° BENDS	11-1/4° BENDS	DEAD ENDS	REDUCERS (ONE SIZE REDUCTION)*	REDUCERS (TWO SIZE REDUCTION)*
4	13	5	3	1	40	--	--
6	19	8	4	2	58	31	--
8	24	10	5	2	75	30	70
12	34	14	7	3	107	57	116
16	43	18	9	4	139	59	137
20	52	22	10	5	169	59	134
24	61	25	12	6	199	60	132
30	73	30	15	7	242	85	168
36	84	35	17	8	281	84	168

1. LENGTHS OF PIPE RESTRAINT ARE GIVEN IN FEET.
2. IF REQUIRED PIPE DIAMETER IS NOT LISTED IN THIS TABLE, THE NEXT LARGEST PIPE DIAMETER SHALL BE USED.
3. THIS TABLE IS BASED ON A TEST PRESSURE OF 180 PSI (OPERATING PRESSURE PLUS WATER HAMMER. FOR OTHER TEST PRESSURES, ALL VALUES TO BE INCREASED OR DECREASED PROPORTIONALLY.
4. THE VALUES PROVIDED OF RESTRAINT LENGTH ARE IN EACH DIRECTION FROM THE POINT OF DEFLECTION OR TERMINATION EXCEPT FOR TEES, AT WHICH ONLY THE BRANCH IN THE DIRECTION OF THE STEM.
5. IF TIE RODS ARE USED, USE FOUR RODS MINIMUM AND ADD 1/8-INCH TO BAR DIAMETER AS CORROSION ALLOWANCE.
* SIZE REDUCTION IS BASED UPON THE PIPE DIAMETER SHOWN IN THIS TABLE.
BASED UPON: INTERNAL PRESSURE: 180
PIPE DEPTH: 5
BEDDING CLASS: TYPE 4
SOIL TYPE: GOOD SAND
SAFETY FACTOR: 2

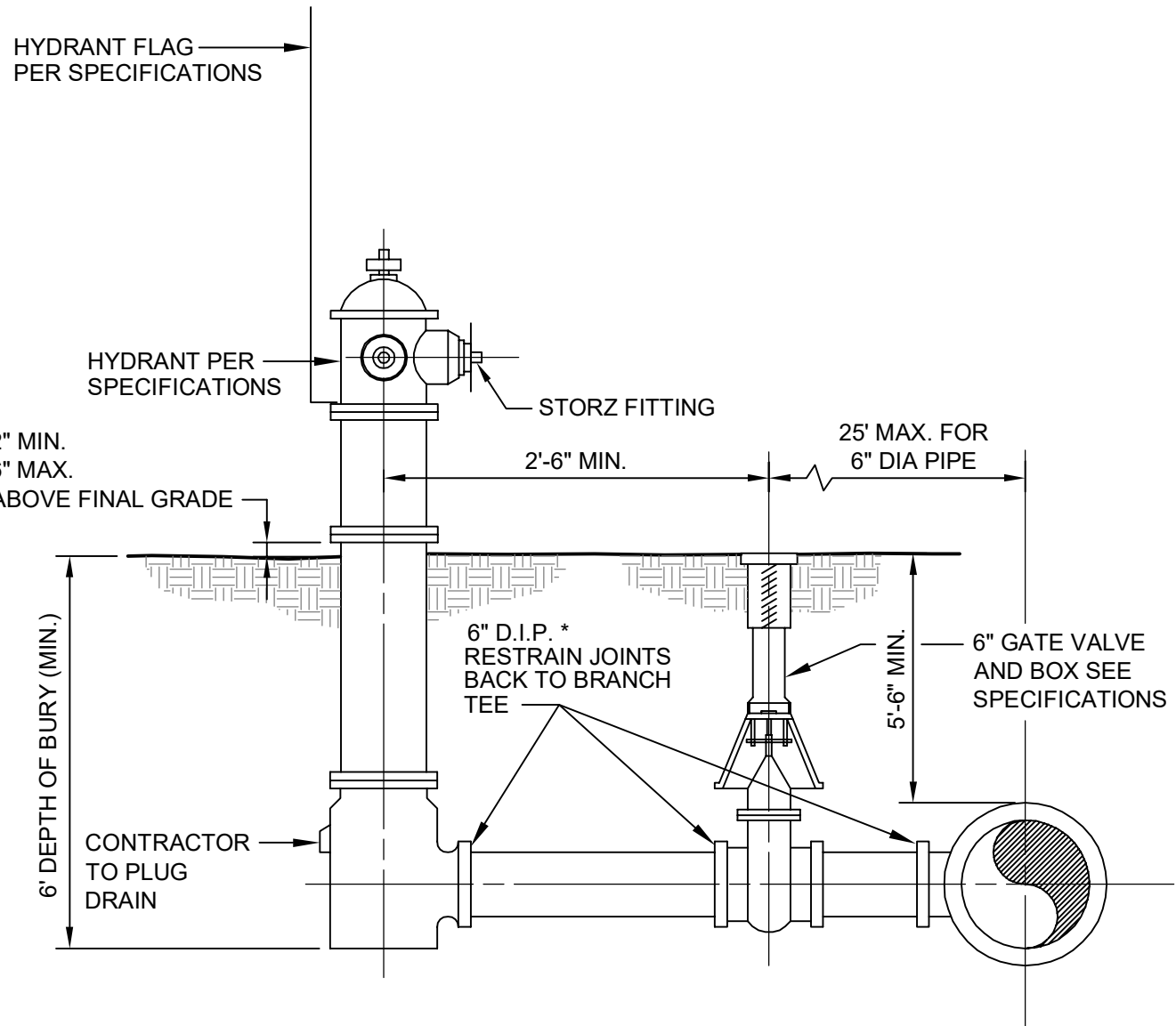


WATER MAIN UTILITY OFFSET



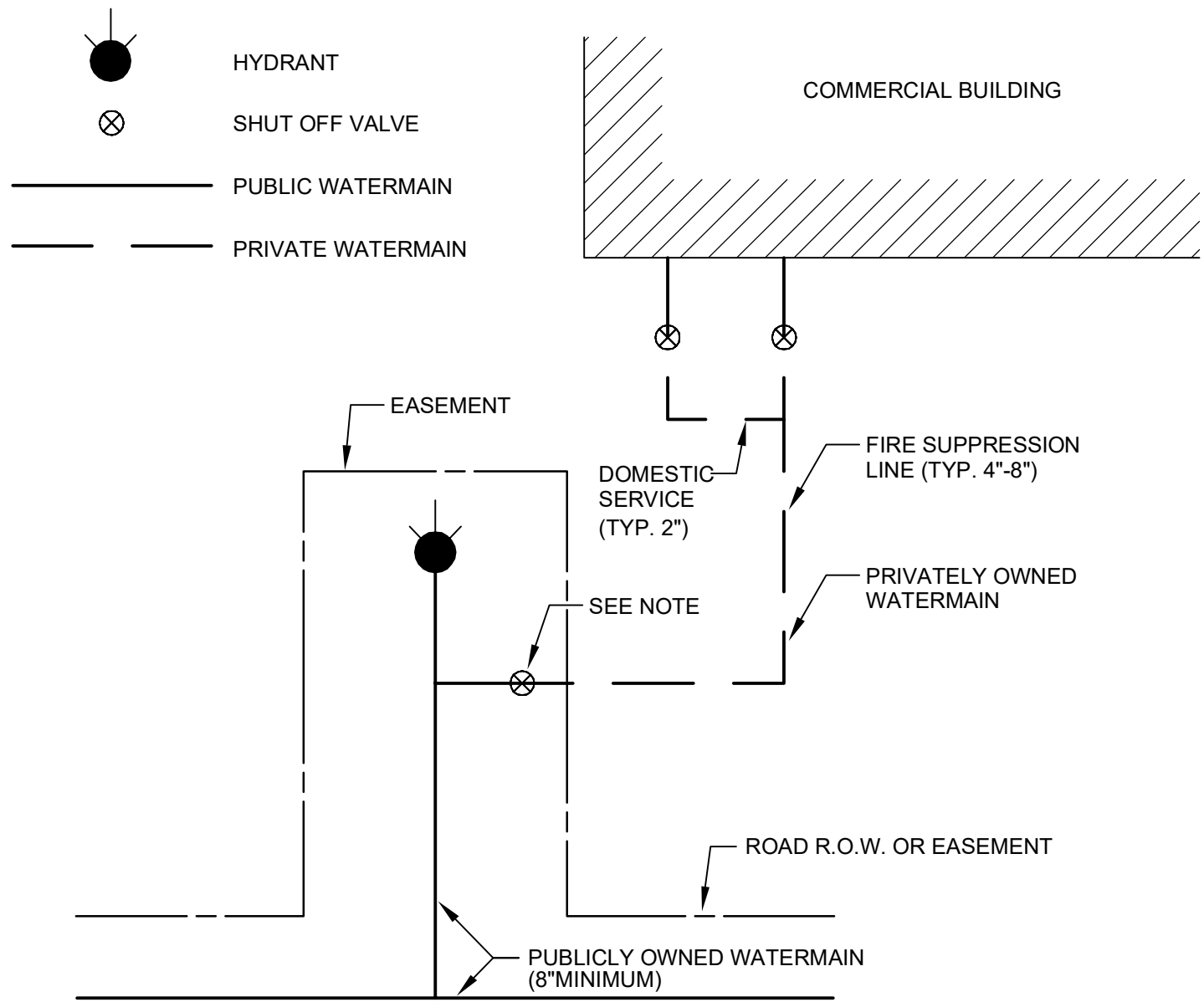
- NOTE: ALL BOXES & ADJOINING TW BOXES SHALL BE ENCASED IN A CONC. PAD UNLESS OTHERWISE DETERMINED BY MHOG.
- NOTE:
1. TRACER WIRE BOXES LOCATED WITHOUT A VALVE BOX ONLY REQUIRE AN 18" X 18" CONCRETE PAD.
2. TRACER WIRE BOX SHALL HAVE A LOCKING LID W/STANDARD AWWA PENTAGON KEY.
3. TRACER WIRE BOX SHALL BE COPPERHEAD RB14"TP IN ASPHALT INSTALLATIONS AND CD14"TP FOR ALL OTHER INSTALLATIONS.

PLAN
VALVE/TRACER WIRE BOX IN CONCRETE DETAIL
NO SCALE



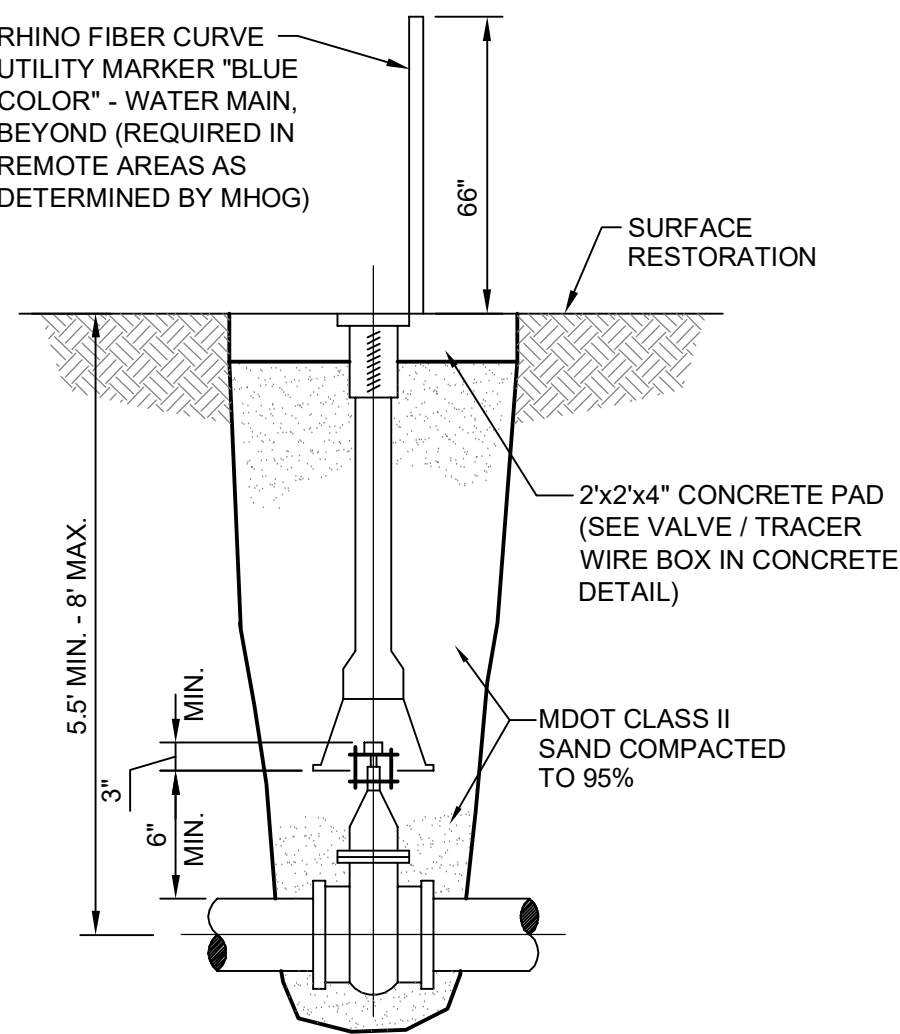
* THE LENGTH OF 6" PIPE FROM THE MAIN TO THE HYDRANT ASSEMBLY CANNOT EXCEED 25'. ANY PIPE OVER 25 FEET SHALL BE 8" DIAMETER MINIMUM AND DESIGNED PER MHOG SPECIFICATIONS.

FIRE HYDRANT ASSEMBLY



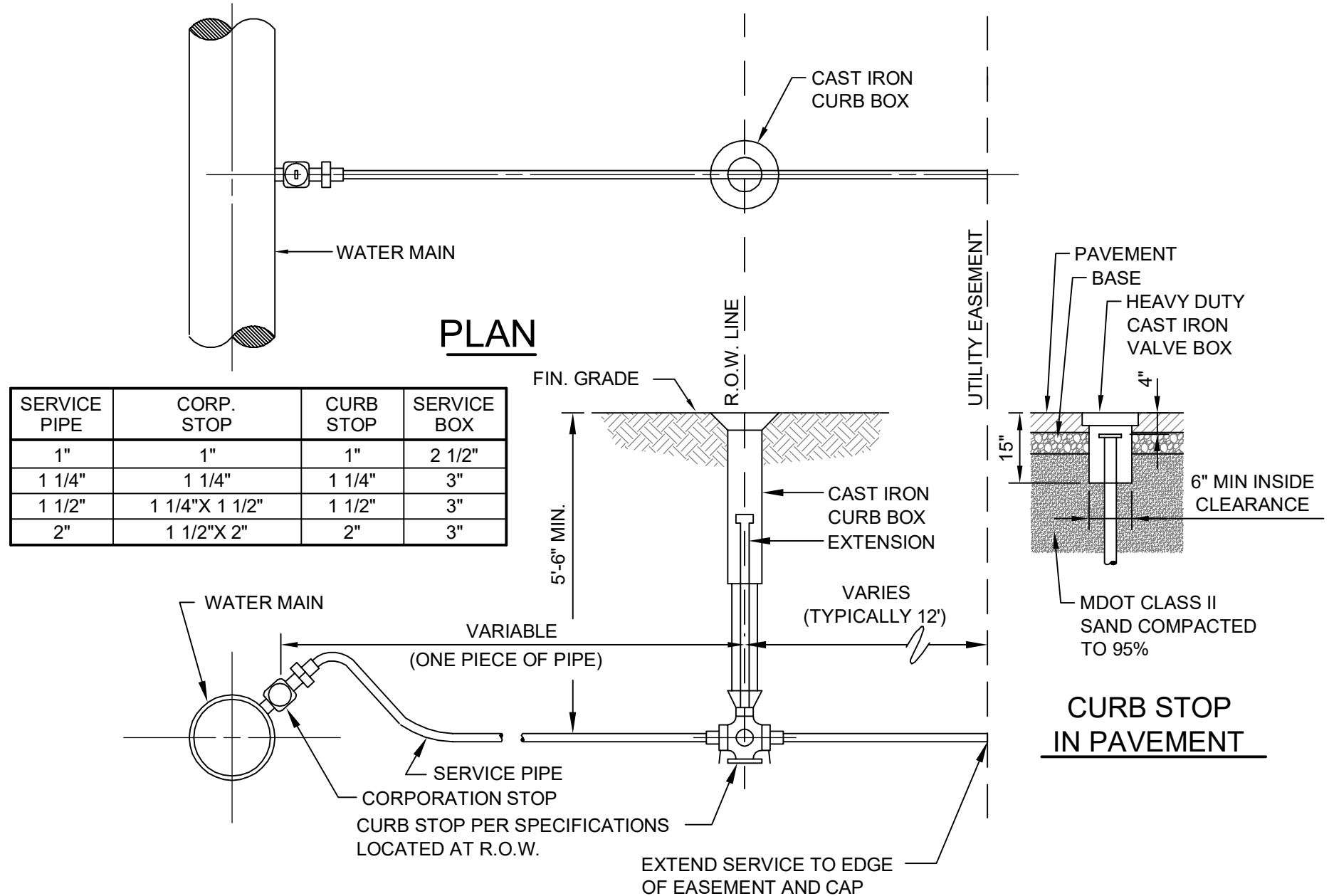
NOTE: PUBLICLY OWNED SHUT OFF VALVE TO BE LOCATED IN EASEMENT.

COMMERCIAL BUILDING WATER SERVICE LAYOUT



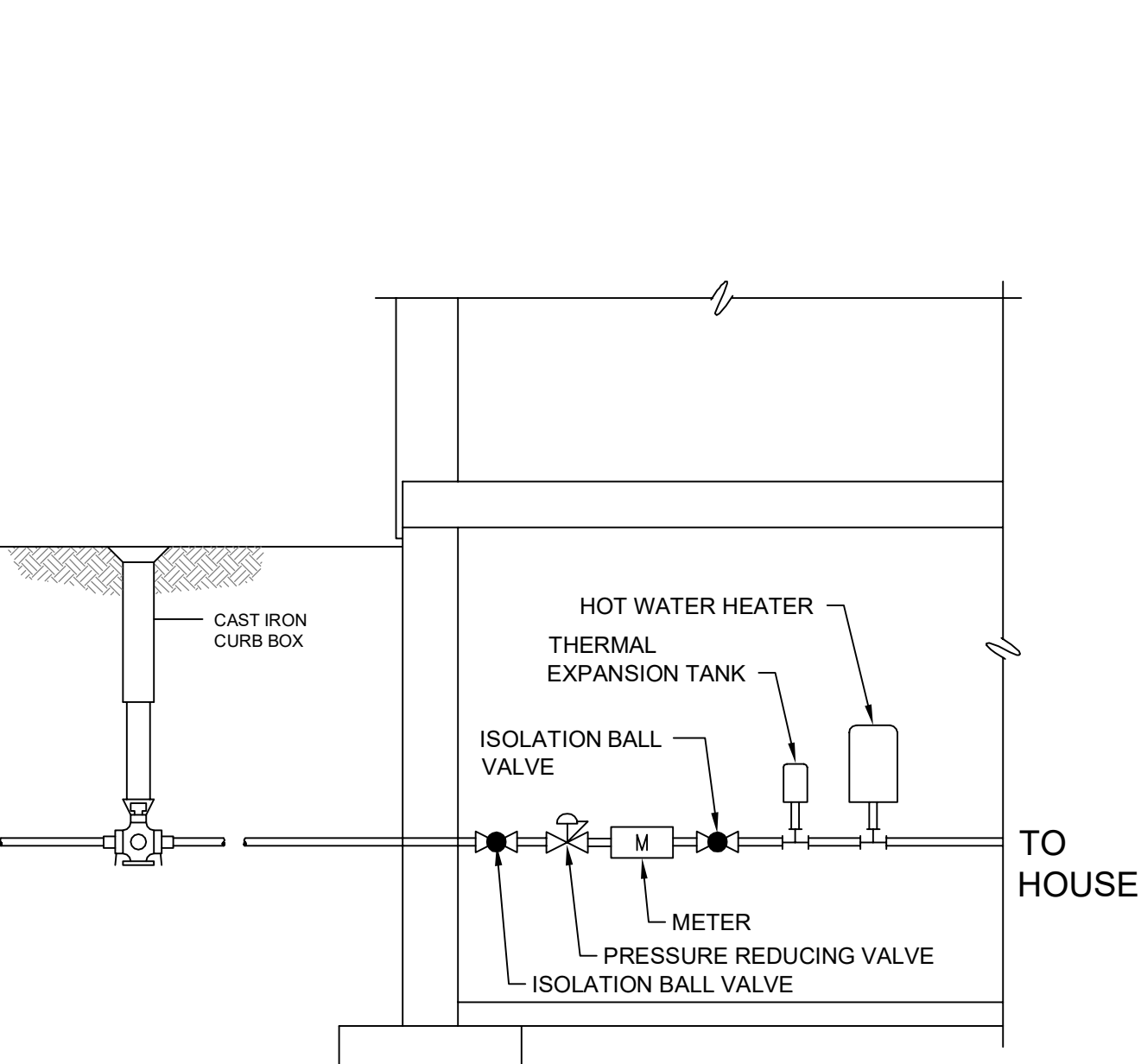
- NOTES:
1. VALVE BOX SHALL NOT REST ON VALVE OR MAIN LINE PIPE.
2. A VALVE STEM EXTENSION WITH CENTERING RING IS REQUIRED FOR VALVES BURIED DEEPER THAN 6'.

GATE VALVE AND BOX

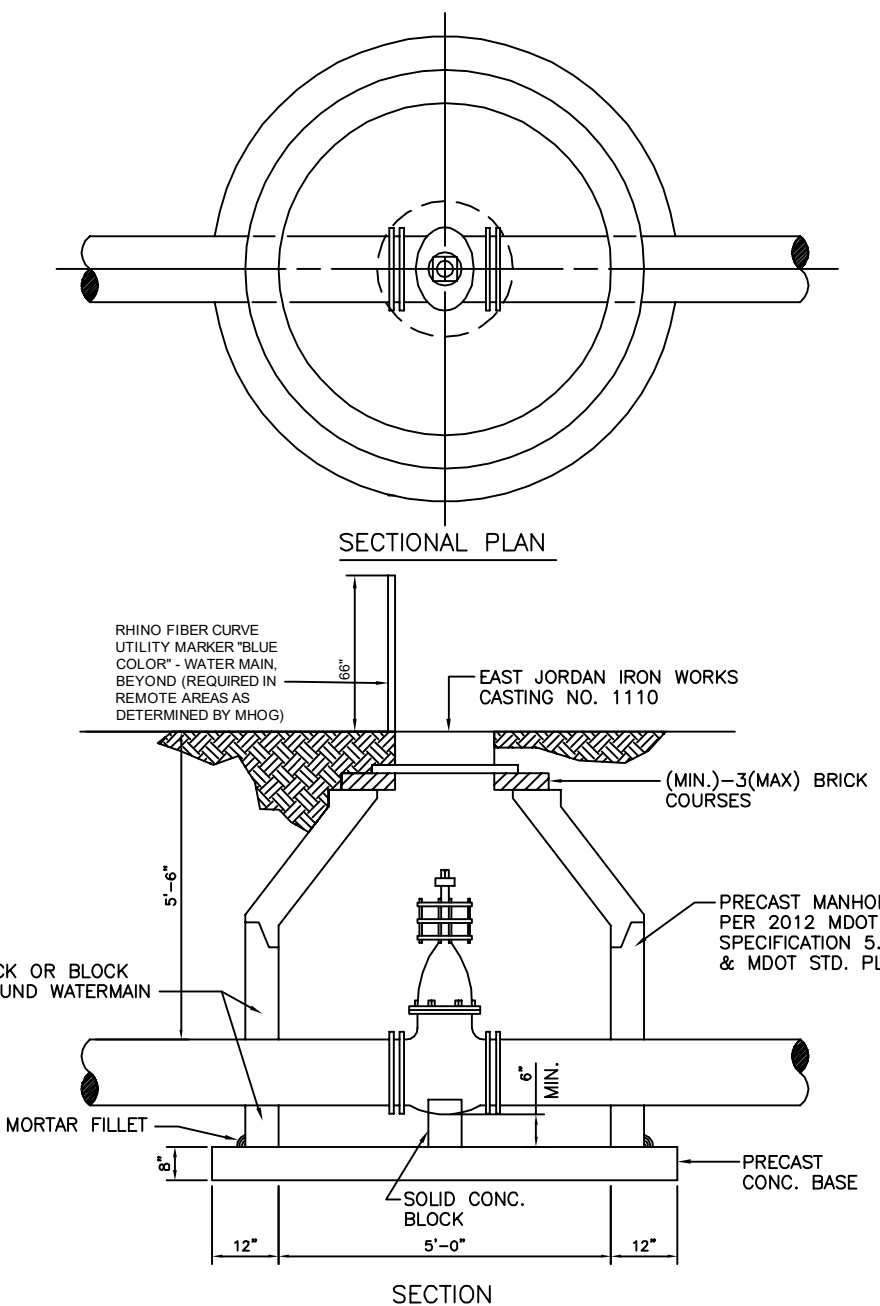


SERVICE PIPE	CORP. STOP	CURB STOP	SERVICE BOX
1"	1"	1"	2 1/2"
1 1/4"	1 1/4"	1 1/4"	3"
1 1/2"	1 1/4" X 1 1/2"	1 1/2"	3"
2"	1 1/2" X 2"	2"	3"

SECTION
WATER SERVICE LATERAL

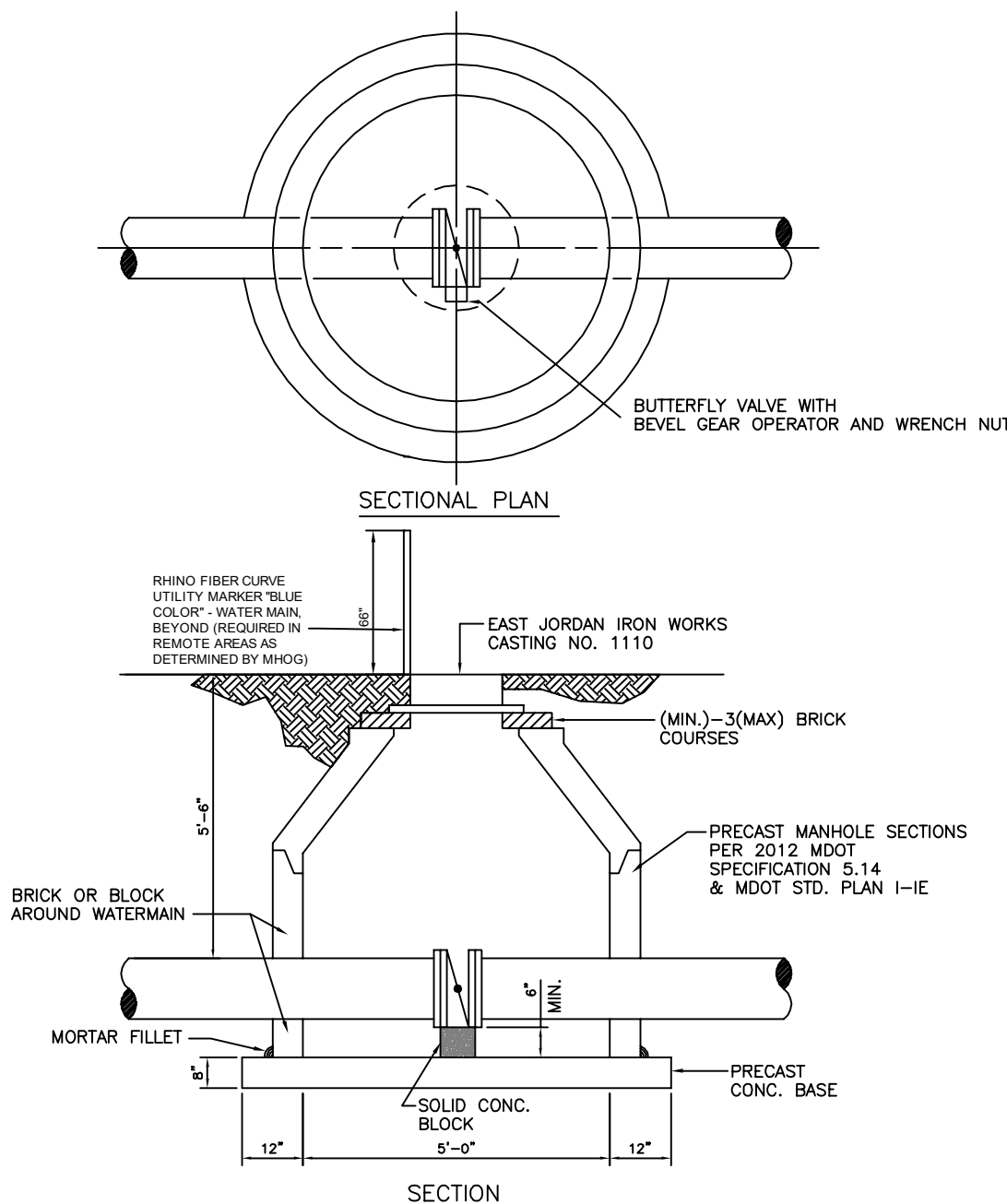


PRIVATE RESIDENCE
PRESSURE REDUCING VALVE (PRV)



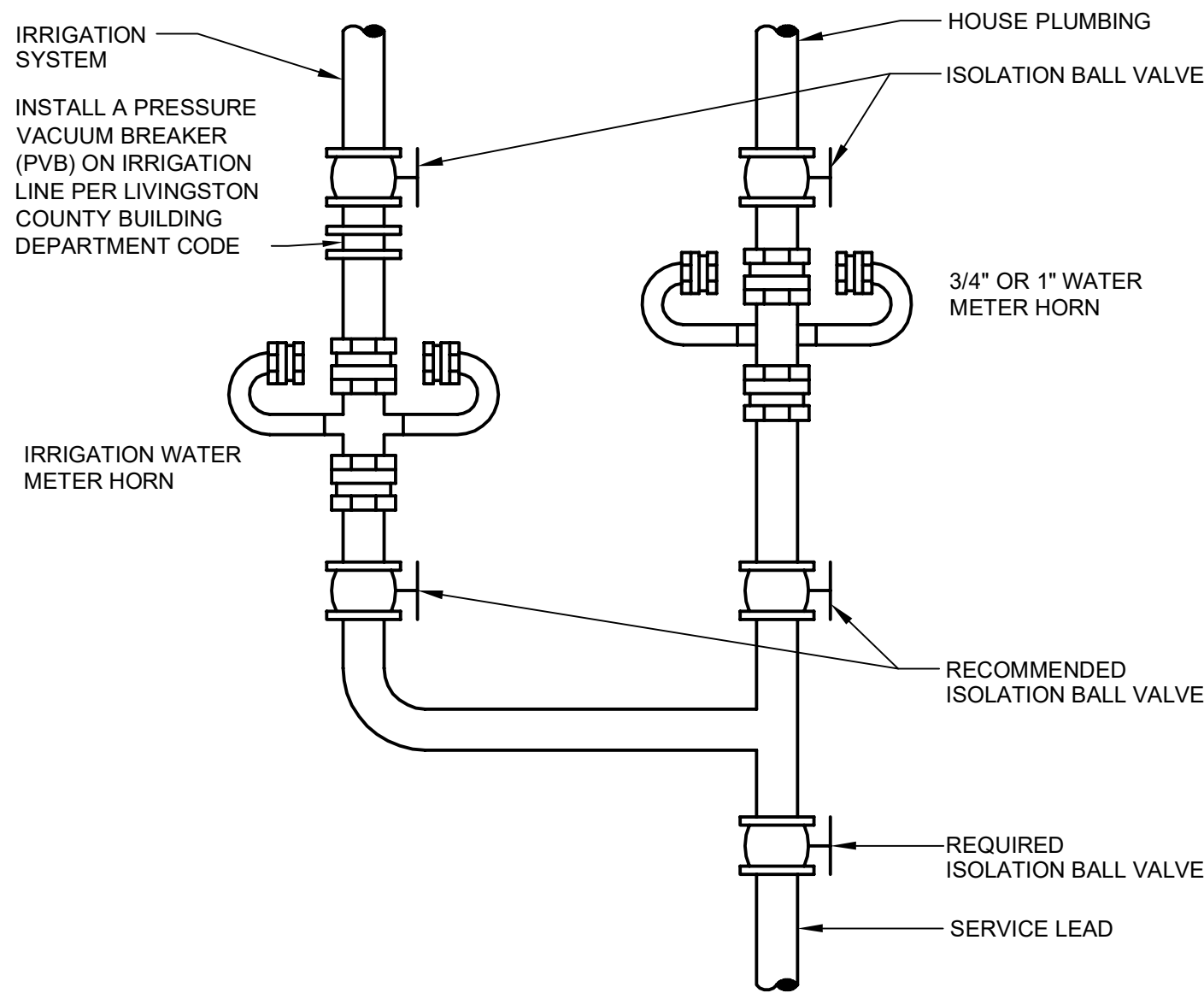
- NOTES:
1. ALL LIFT HOLES AND JOINTS SHALL BE MORTARED BOTH INSIDE AND OUTSIDE.
2. BLOCK MANHOLES TO BE USED ONLY WITH ENGINEERS PERMISSION.
3. NO STEPS PERMITTED.

GATE VALVE AND WELL



- NOTES:
1. ALL LIFT HOLES AND JOINTS SHALL BE MORTARED BOTH INSIDE AND OUTSIDE.
2. BLOCK MANHOLES TO BE USED ONLY WITH ENGINEERS PERMISSION.
3. NO STEPS PERMITTED.

BUTTERFLY VALVE AND WELL



- NOTES:
1. ALL METERS ARE TO BE INSTALLED HORIZONTALLY IN A DRY, CLEAN, SANITARY LOCATION THAT IS READILY ACCESSIBLE. THIS DRAWING IS NOT TO SCALE & IS ONLY A REPRESENTATION OF HOW THE METERS SHOULD BE INSTALLED. THE SECOND METER IS OPTIONAL FOR IRRIGATION USAGE. METERS SHOULD NOT BE INSTALLED IN LINE (ONE RIGHT AFTER THE OTHER).
2. PROPERTIES DESIGNATED "HIGH HAZARD" PER THE MHOG CROSS CONNECTION RULES MANUAL WILL REQUIRE THE INSTALLATION OF A REDUCED PRESSURE ZONE (RPZ) BACK FLOW PREVENTION DEVICE.

TYPICAL METER HORN INSTALLATION

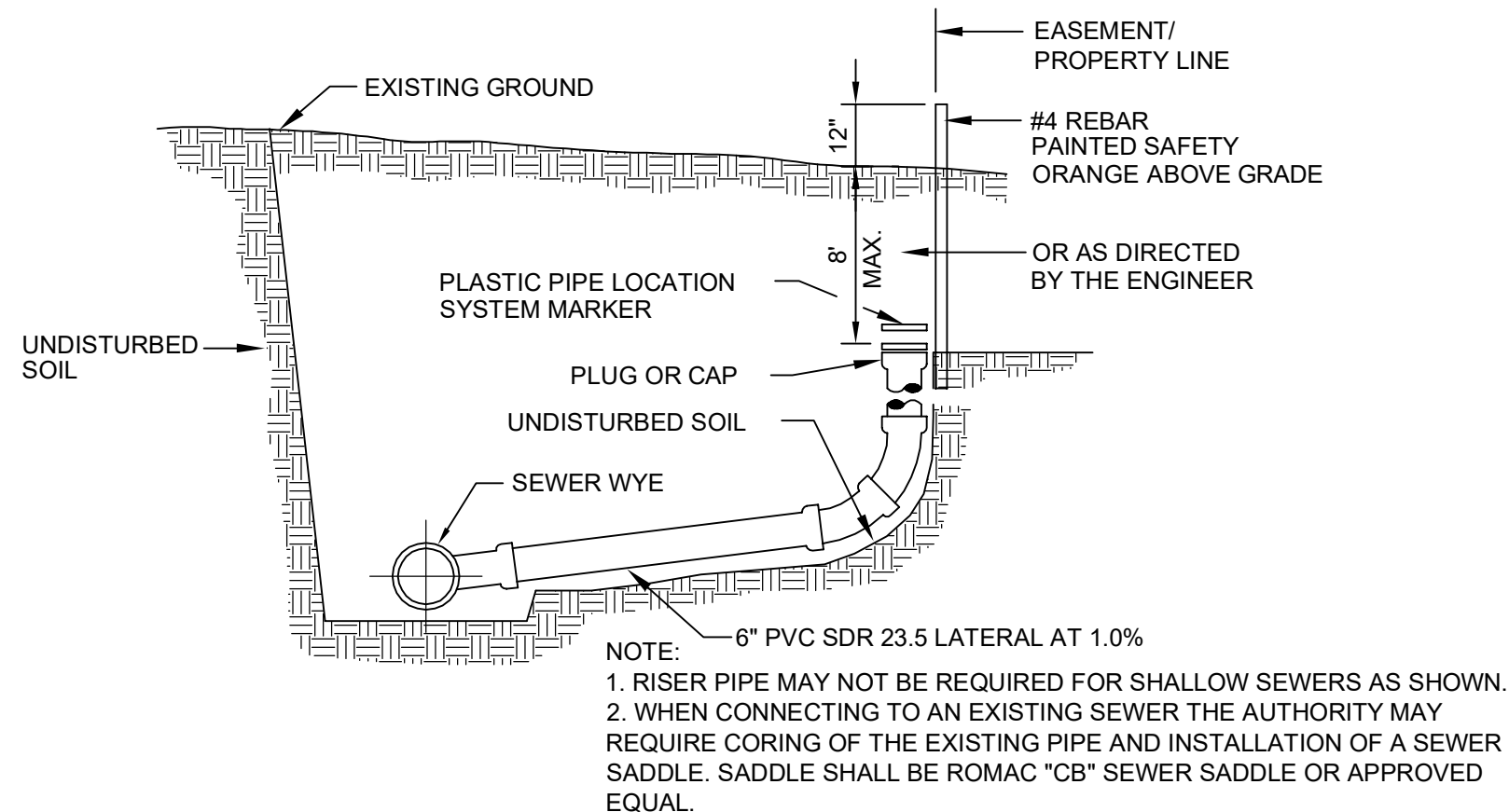
..\\MHOGLogo.jpg

MARION HOWELL OCEOLA GENOA
Sewer and Water Authority

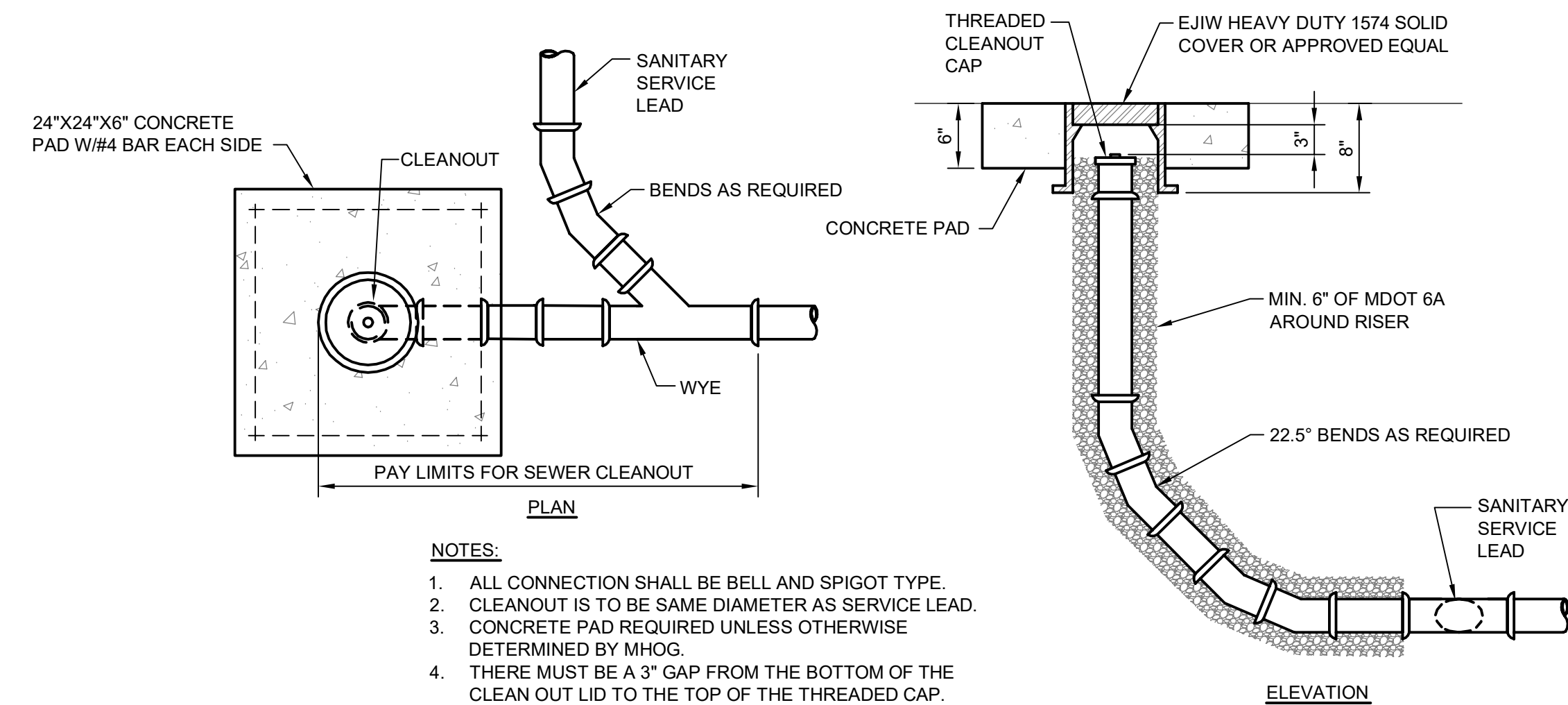
Scale: NONE
Issued Date JANUARY - 2014
UPDATED: MAY 2015
UPDATED: FEBRUARY 2016

STANDARD DETAILS

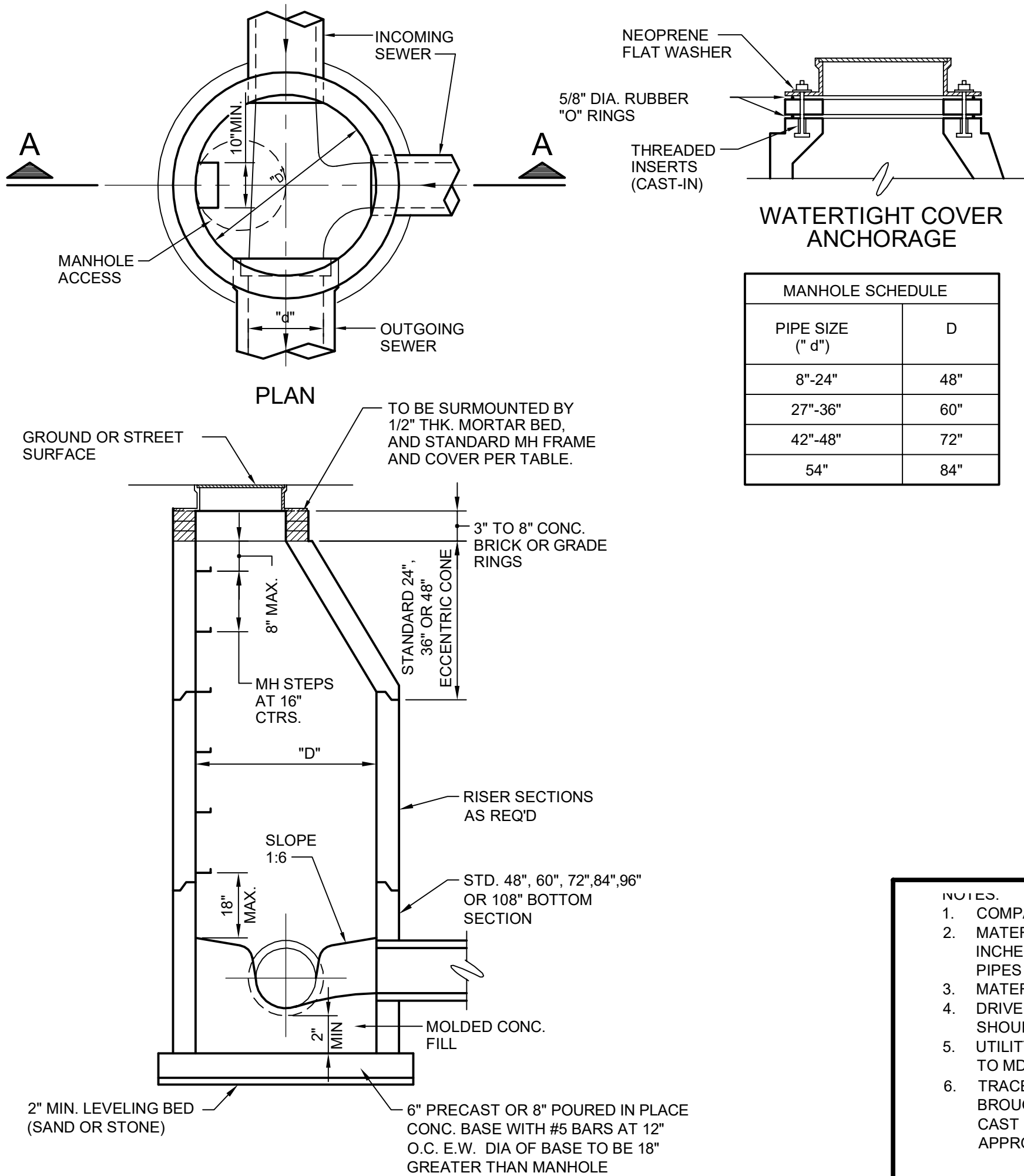
Tuesday, June 09, 2015 10:58:59 AM DRAWING: \\ERS008FS1\Library\CAD\blm\HOG\Hog-std.dwg



SANITARY SEWER LATERAL



SEWER CLEANOUT DETAIL

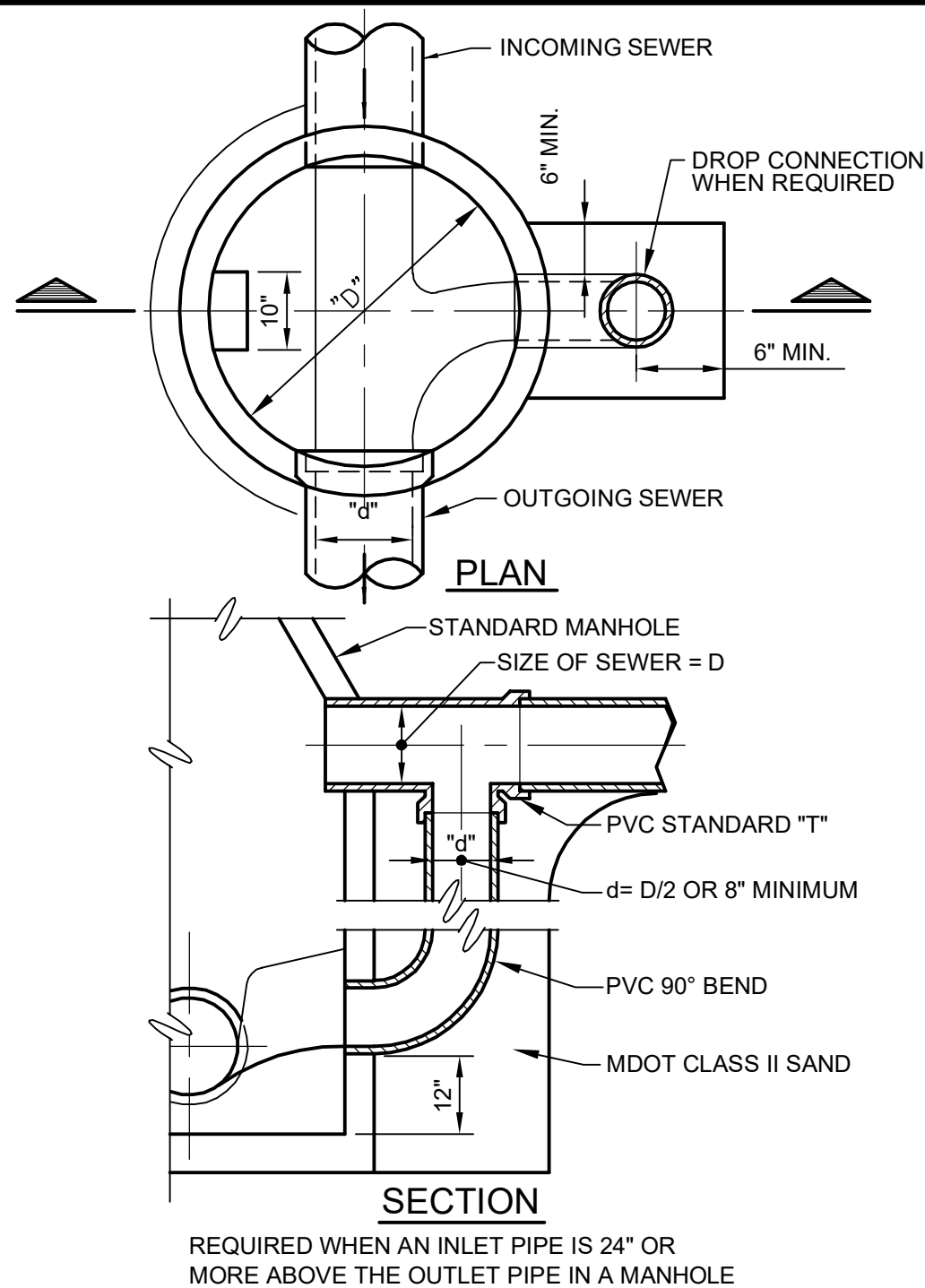


SECTION A-A

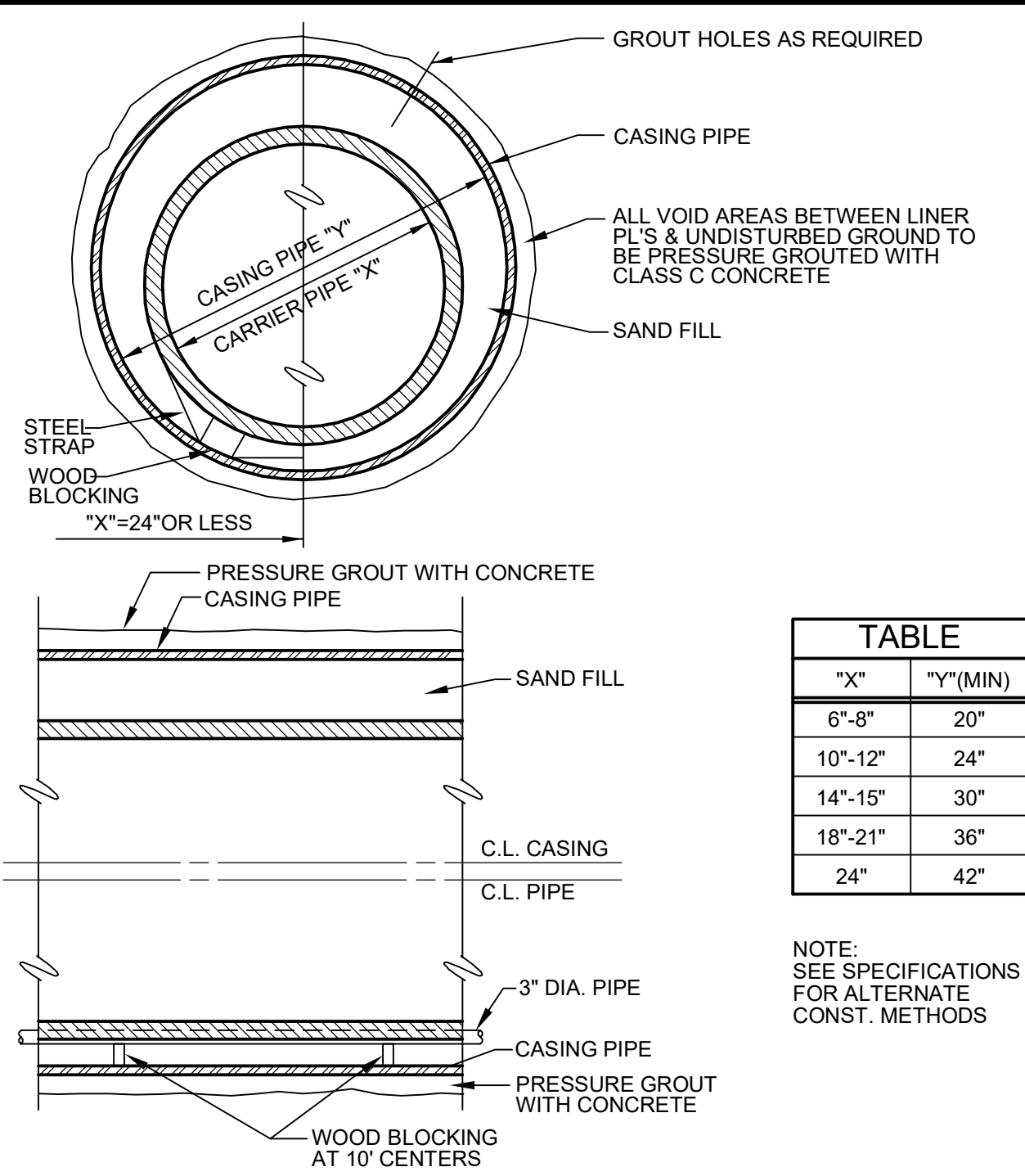
- NOTES:
1. ALL SANITARY MANHOLES TO BE PRECAST REINFORCED CONCRETE WITH PREMIUM JOINTS. SEE SPECIFICATIONS FOR BASE SLAB AND PIPE OPENINGS AND CONNECTIONS.
 2. MANHOLE CONES SHALL BE THE ECCENTRIC TYPE.
 3. PROVIDE 6" OF COMPACTED GRANULAR MATERIAL UNDER ALL PRECAST CONCRETE BASE SLPVC.
 4. FORCE MAINS CONNECT DIRECTLY TO A MANHOLE SHALL BE INSTALLED SO THAT THE ELEVATION OF THE PIPE CROWNS MATCH. THE FORCE MAIN SHALL BE DIRECTED DOWNWARD INTO THE FLOW CHANNEL.
 5. FOR SANITARY SEWERS ALL PIPES SHALL ENTER MANHOLE THROUGH RUBBER BOOTED CONNECTION.

FRAME & COVER FOR SANITARY SEWER MANHOLES				
TYPE	TYPE OF COVER	MANUFACTURER OR EQUAL		
		EAST JORDAN	NEENAH	
MH	SANITARY - SOLID SELF-SEALING	1040.0000	R-1642	
MH	SANITARY - SOLID WATERTIGHT	1040-APT	R-1916-F	
CO	SOLID	1574A	R-1973-A	

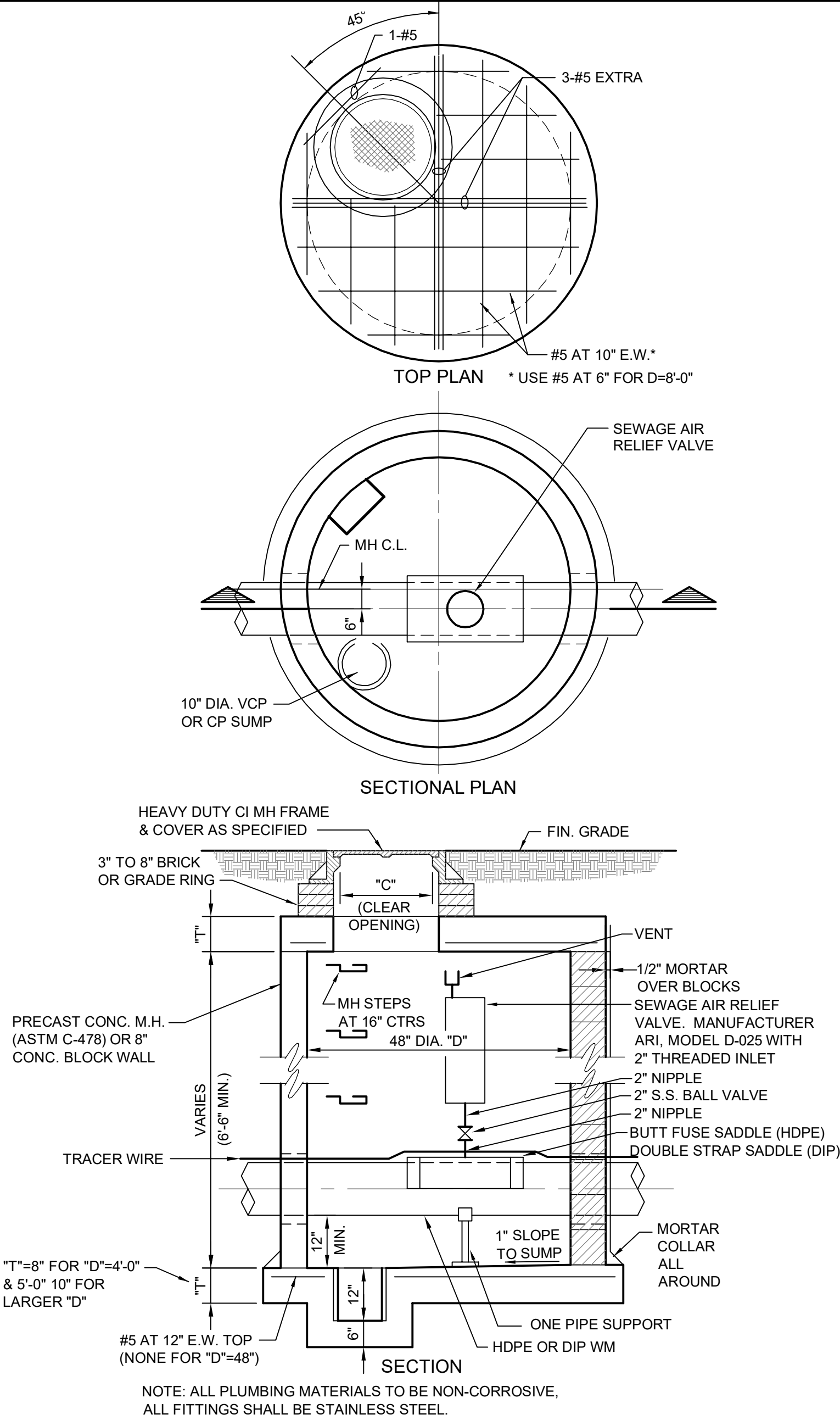
STANDARD MANHOLE



DROP CONNECTION

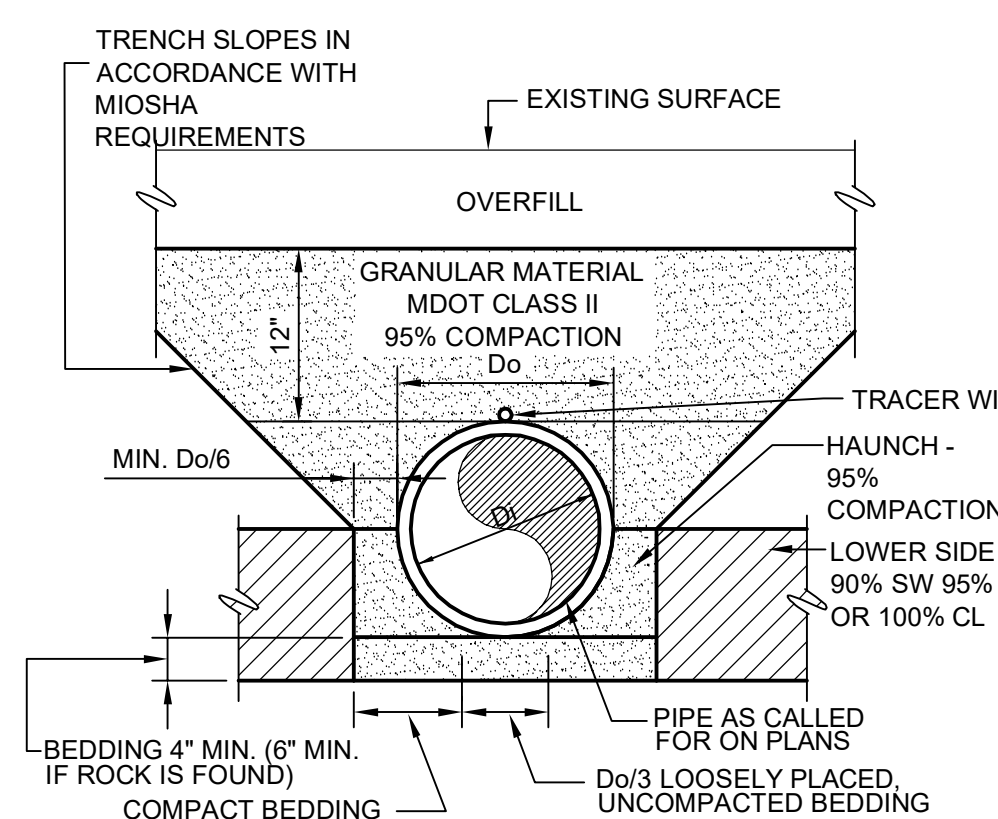


CASING PIPE

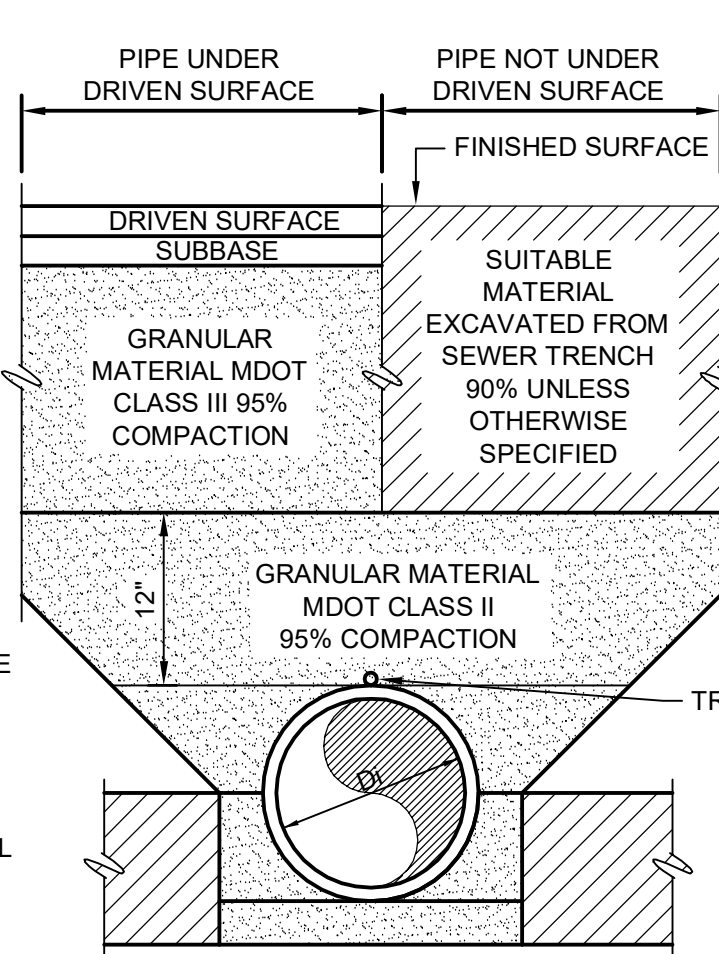


AIR RELIEF STRUCTURE

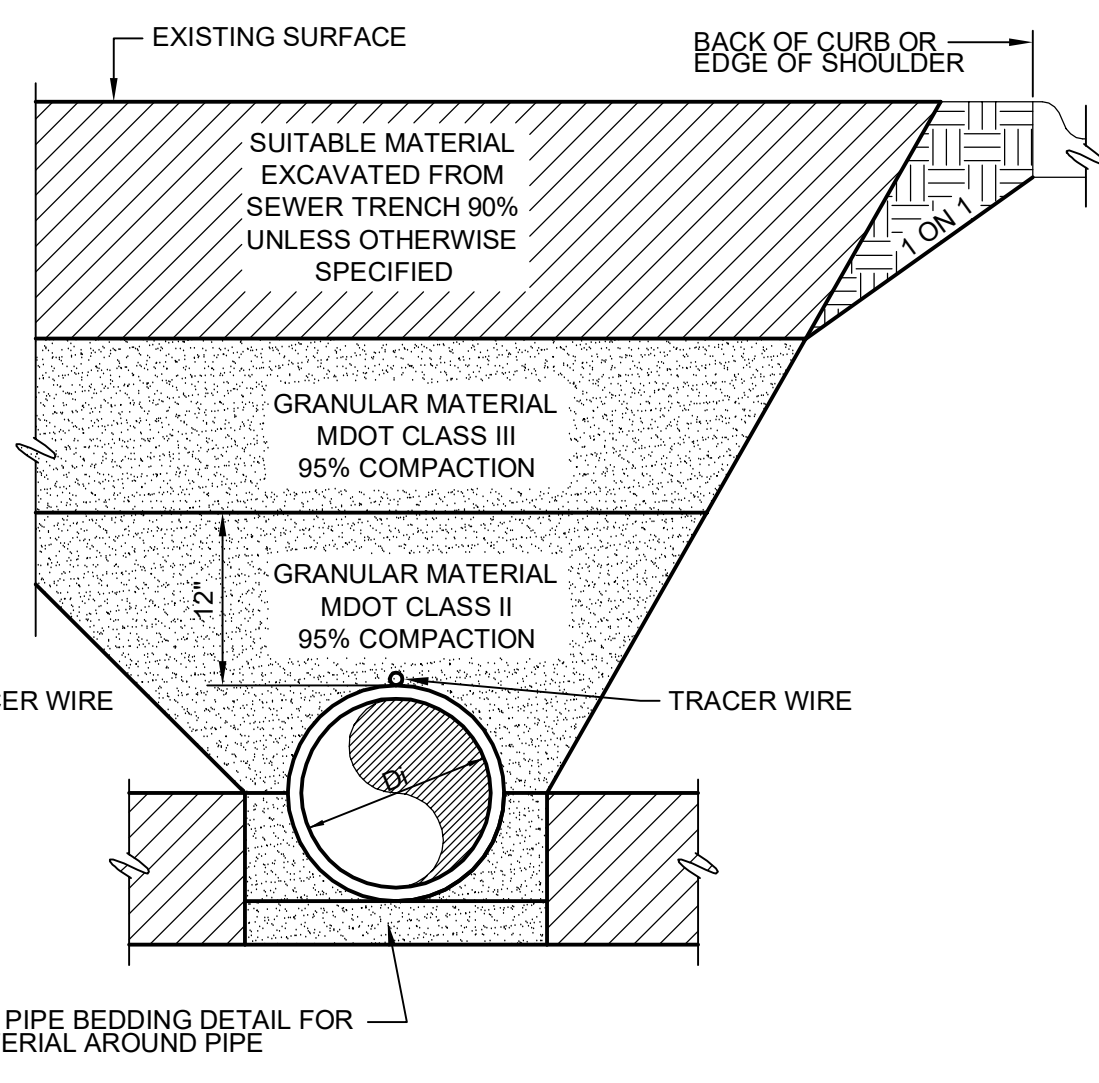
- NOTES:
1. COMPACTION PRESENTED AS MINIMUM STANDARD PROCTOR VALUES.
 2. MATERIALS AROUND THERMOPLASTIC PIPE WITH DIAMETER < 6 INCHES SHALL PASS 0.5 INCH SIEVE, MATERIALS AROUND OTHER PIPES SHALL PASS 1.5 INCH SIEVE.
 3. MATERIALS AROUND HDPE PIPE TO BE MDOT 6A OR 21AA.
 4. DRIVEN SURFACE IS DRIVEWAY, PARKING AREA, ROAD BED OR SHOULDER.
 5. UTILITY TRENCHES LOCATED WITHIN A MDOT ROW SHALL CONFORM TO MDOT STANDARD DETAIL R-83.
 6. TRACER WIRE IS REQUIRED ON FORCE MAIN ONLY AND SHALL BE BROUGHT TO GRADE AT A MINIMUM EVERY 1000 FEET IN A APPROVED CAST IRON TRACER WIRE BOX ENCASED IN CONCRETE OR WITH AN APPROVED GREEN MARKER POST.



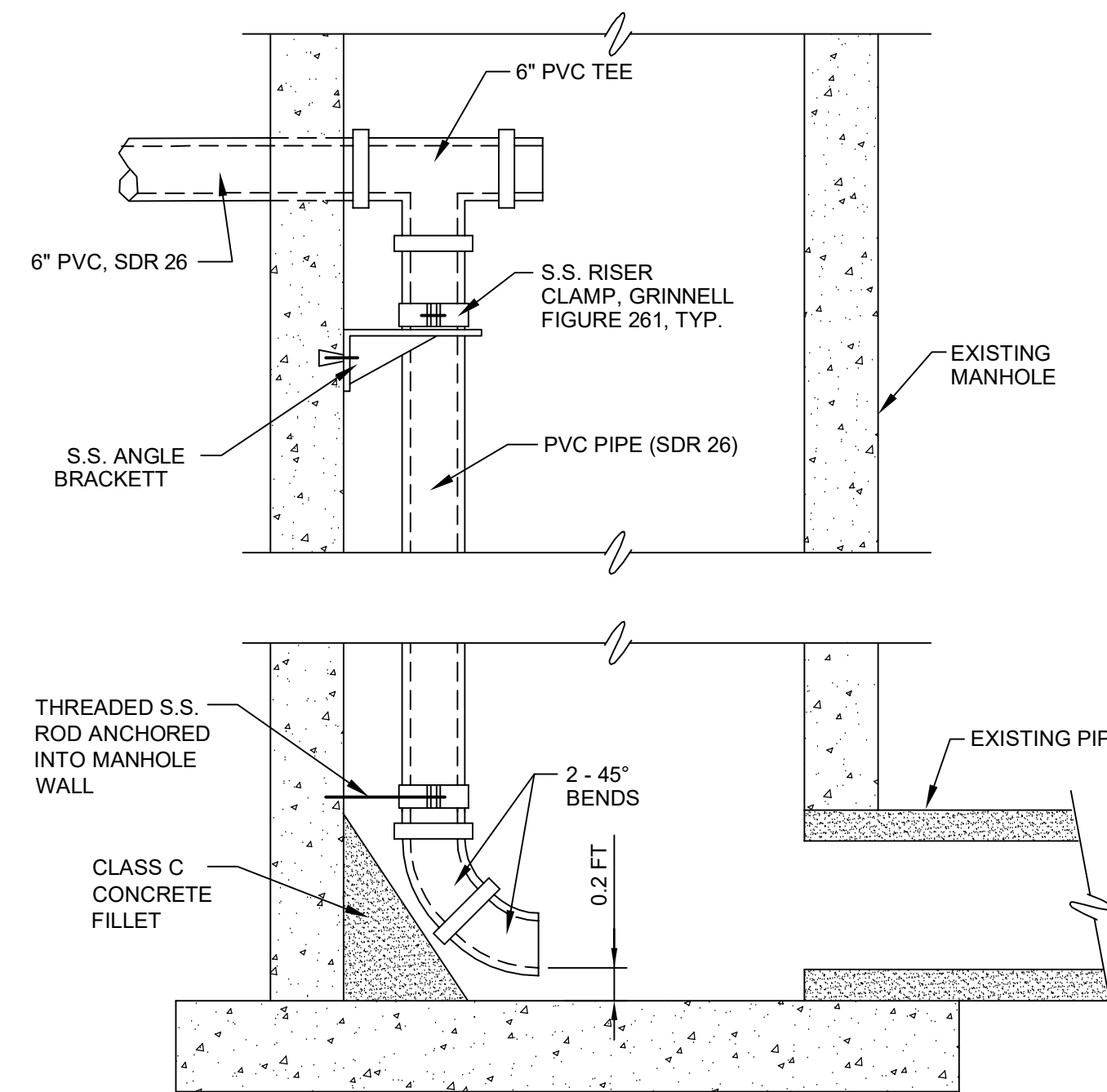
PIPE BEDDING



PIPE UNDER/NOT UNDER DRIVEN SURFACE



PIPE WITHIN INFLUENCE OF DRIVEN SURFACE



INTERIOR SEWER LATERAL DROP CONNECTION

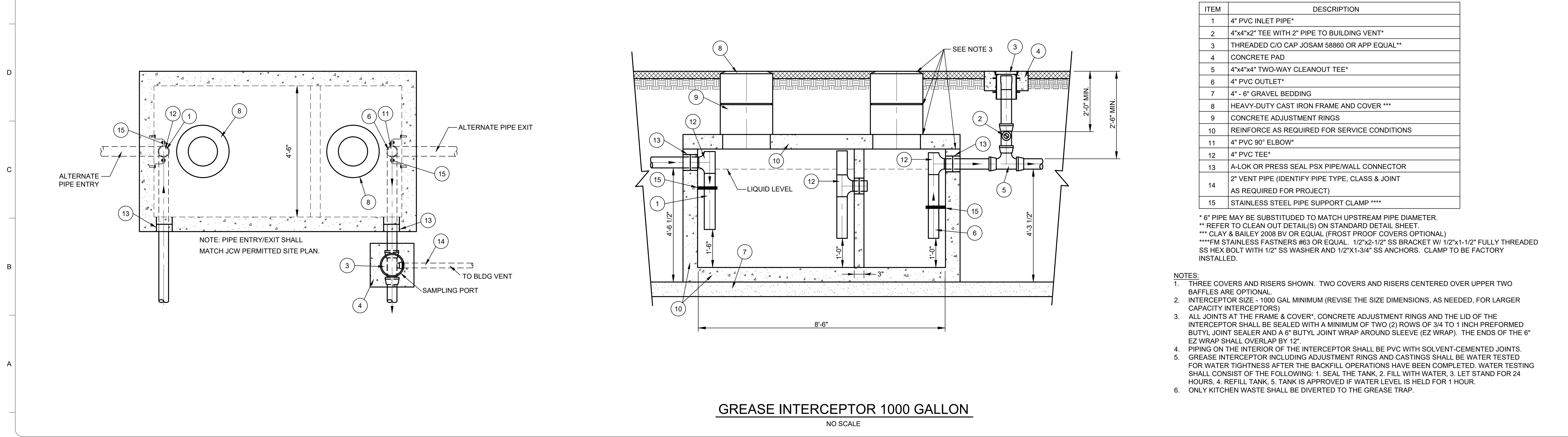
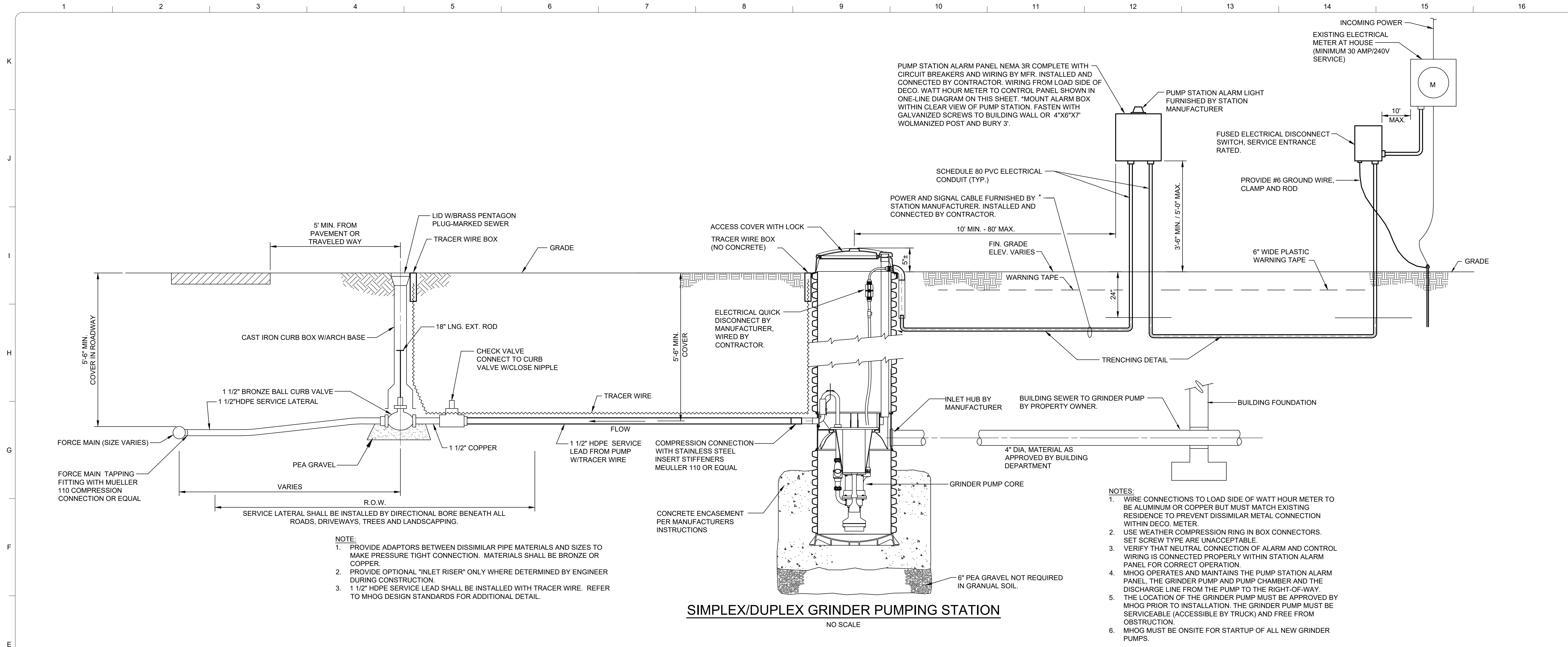


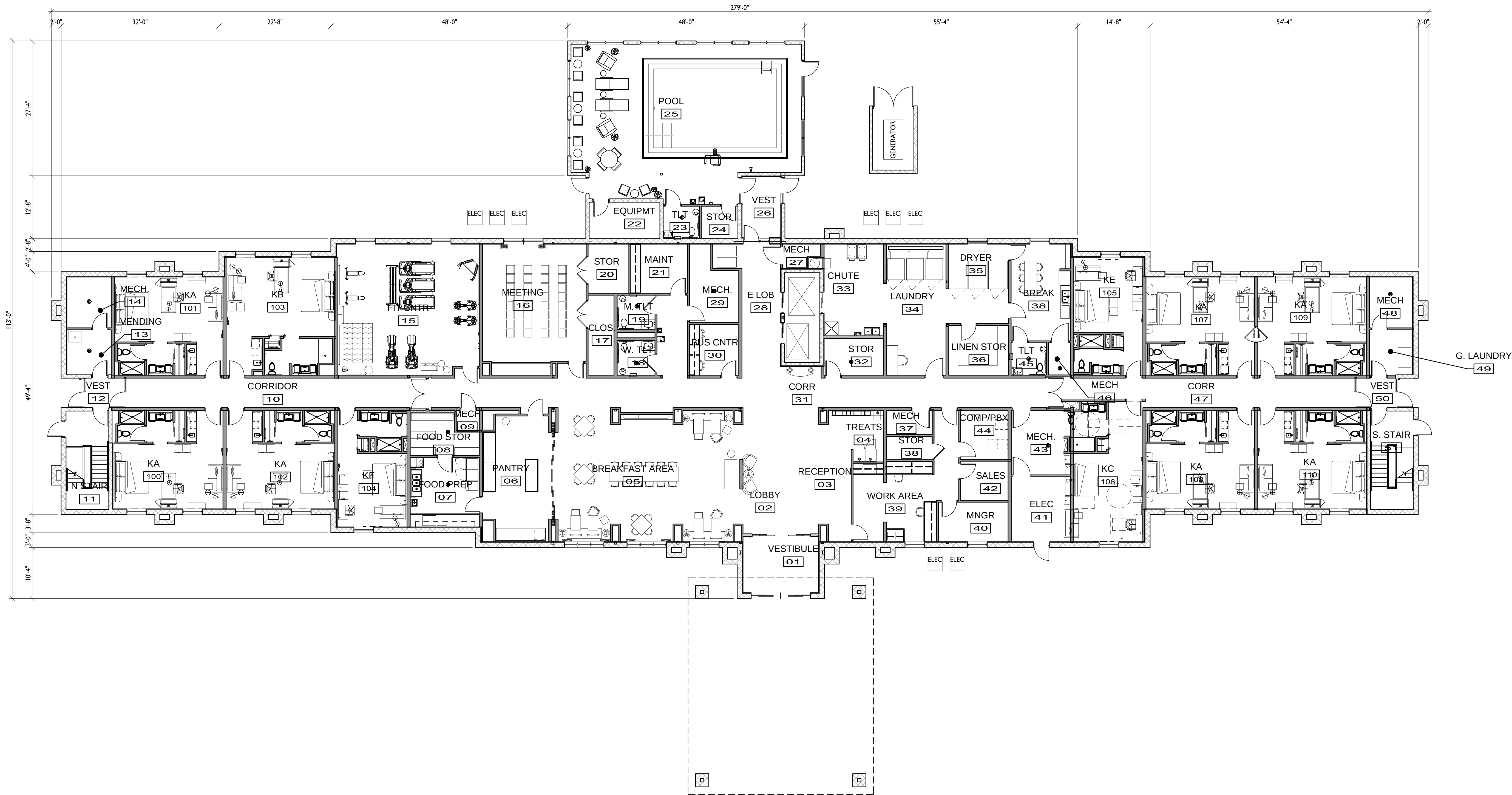
MARION HOWELL OCEOLA GENOA
Sewer and Water Authority

Scale: NONE
Issued Date: JANUARY - 2014
UPDATED MAY 2015

STANDARD DETAILS

Wednesday, June 29, 2016 9:53:01 AM DRAWING: P:\JER12719\200-12719-00-CAD\SheetFiles\mhog-std.dwg





FIRST FLOOR PLAN
SCALE: $\frac{1}{8}'' = 1'-0''$

BOWERS+ASSOCIATES
ARCHITECTURE DESIGN
2400 SOUTH HURON PARKWAY • ANN ARBOR, MI 48104
P: 734.975.2400 • F: 734.975.2410
WWW.BOWERSARCH.COM

CONSULTANT + NAME



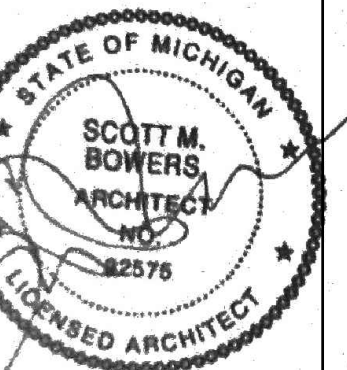
PROJECT + INFORMATION
3990 GRAND OAKS DRIVE
GENOA TOWNSHIP, MICHIGAN

PROJECT + NUMBER

17-204

ISSUE + DATE

31 JAN 2017 SITE PLAN
22 FEB 2017 SITE PLAN

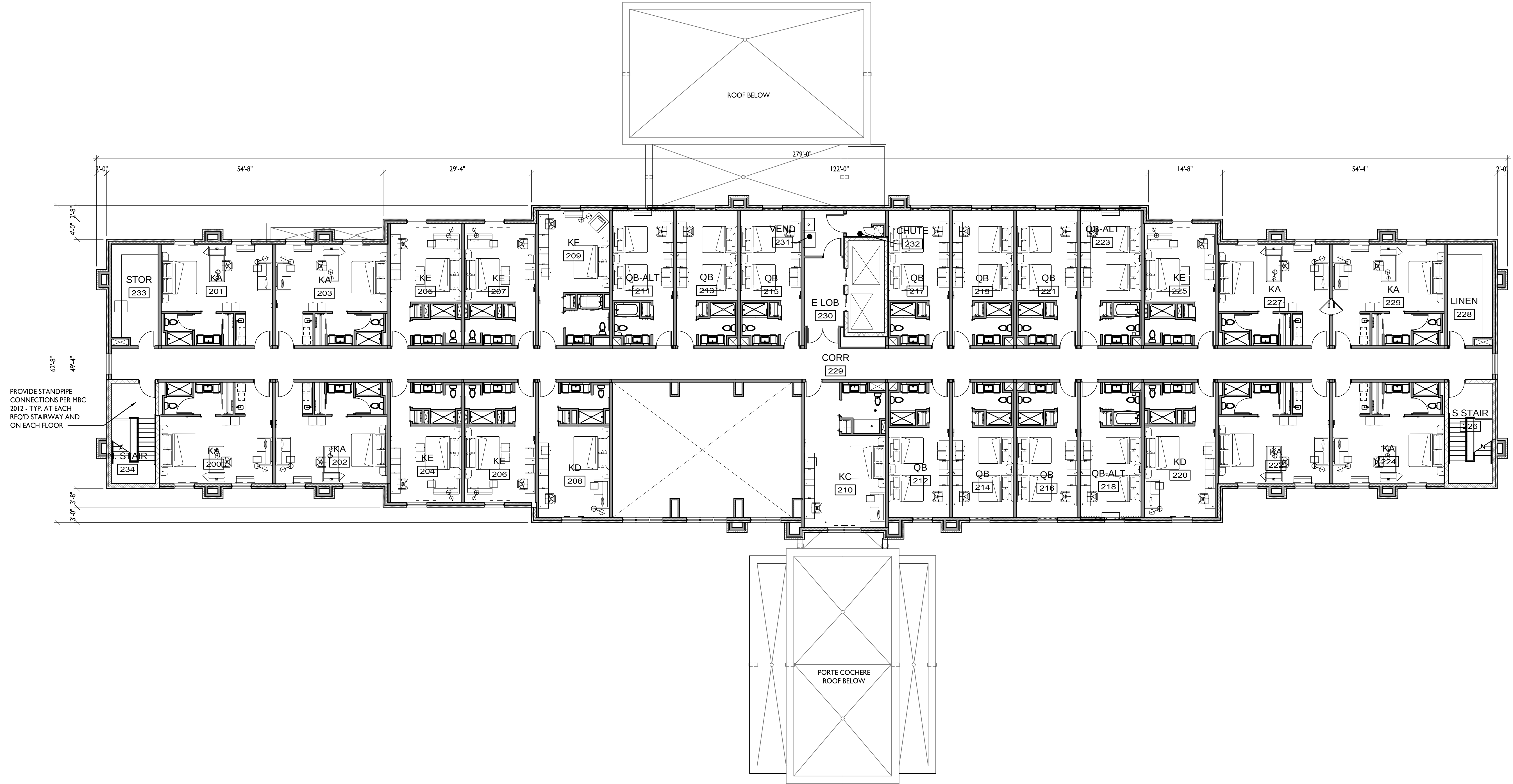


SHEET + TITLE
FIRST FLOOR
PLAN

17204MAST.dwg

SHEET + NUMBER

A1.00



SECOND FLOOR PLAN
SCALE: $\frac{1}{8}" = 1'-0"$

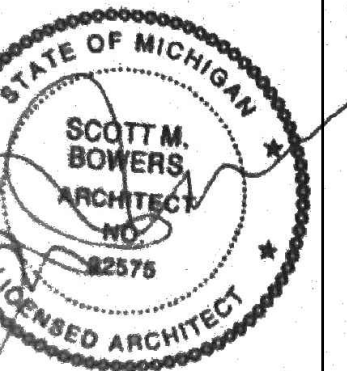
BOWERS+ASSOCIATES
ARCHITECTURE DESIGN
2400 SOUTH HURON PARKWAY • ANN ARBOR, MI 48104
P: 734.975.2400 • F: 734.975.2410
WWW.BOWERSARCH.COM

CONSULTANT + NAME

Hampton Inn & Suites
PROJECT + INFORMATION
3990 GRAND OAKS DRIVE
GENOA TOWNSHIP, MICHIGAN

PROJECT + NUMBER
17-204

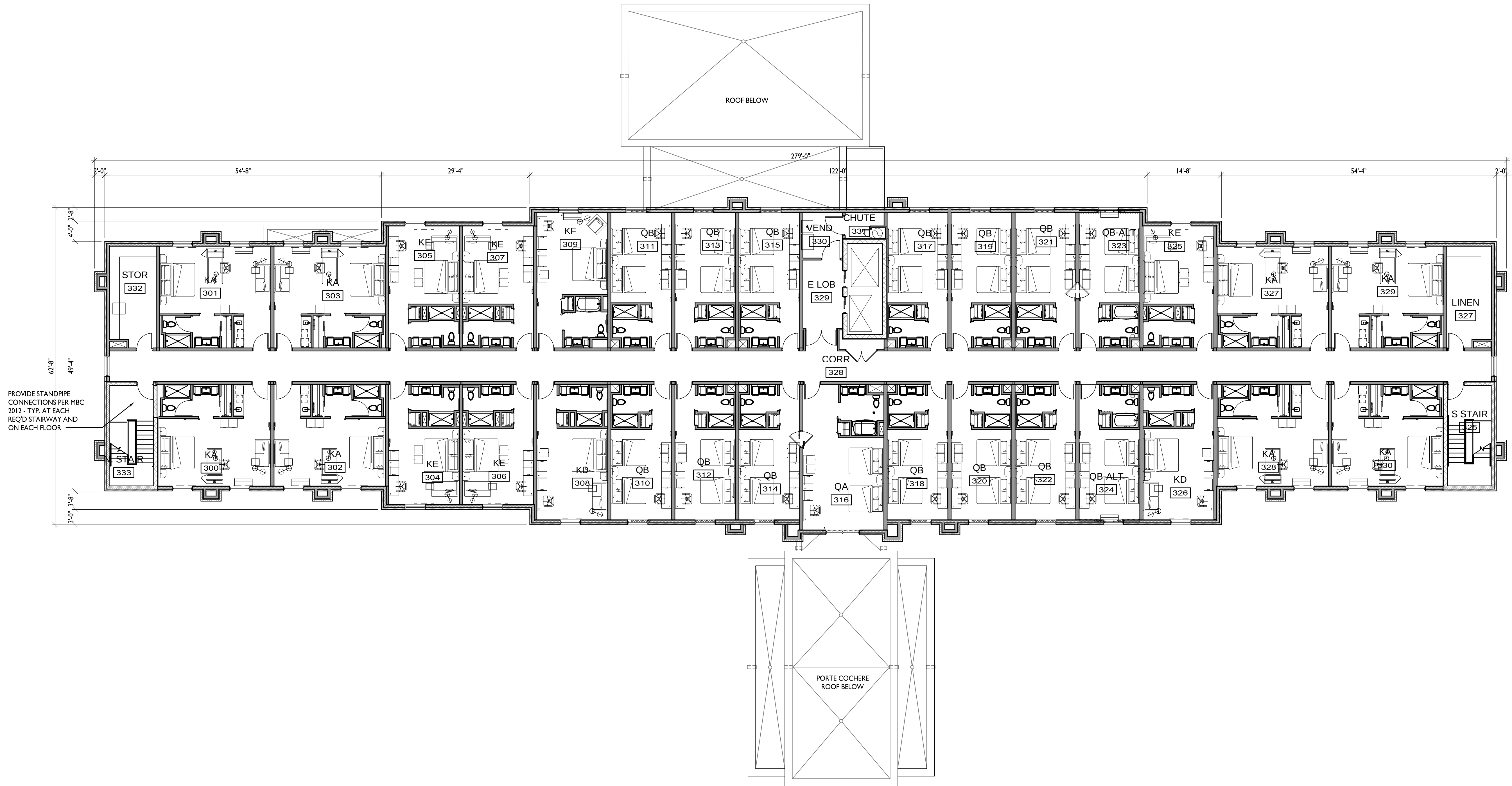
ISSUE + DATE
31 JAN 2017 SITE PLAN
22 FEB 2017 SITE PLAN



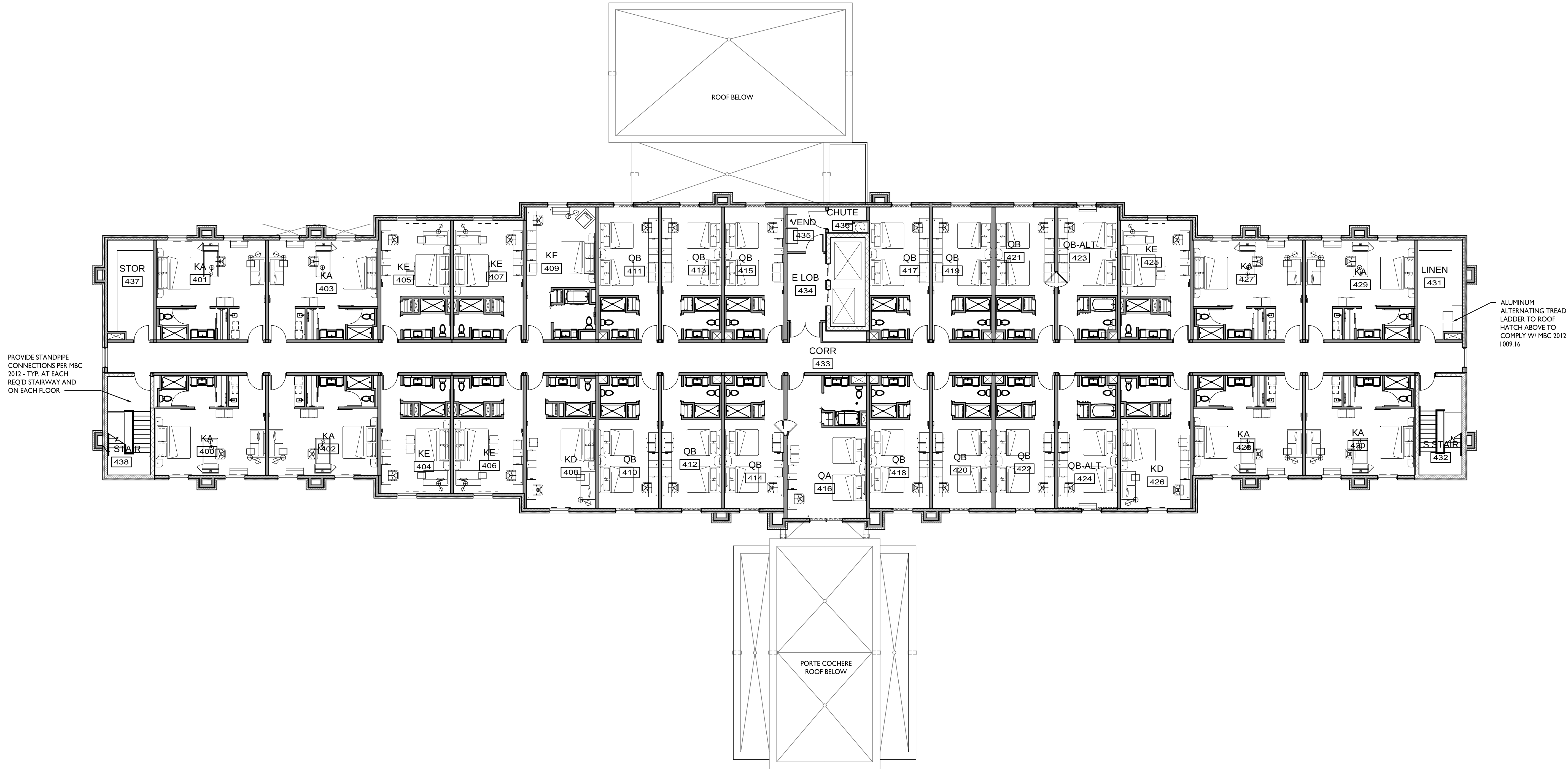
SHEET + TITLE
SECOND
FLOOR PLAN

17204MAST.dwg

SHEET + NUMBER
A1.01



THIRD FLOOR PLAN
SCALE: $\frac{1}{8}" = 1'-0"$



FOURTH FLOOR PLAN
SCALE: $\frac{1}{8}'' = 1'-0''$

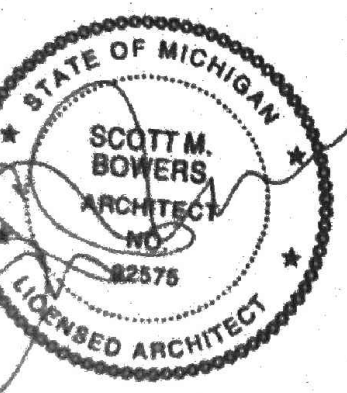
BOWERS+ASSOCIATES
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2400 SOUTH HURON PARKWAY • ANN ARBOR, MI 48104
P: 734.975.2400 • F: 734.975.2410
WWW.BOWERSARCH.COM

CONSULTANT + NAME

Hampton Inn & Suites
PROJECT + INFORMATION
3990 GRAND OAKS DRIVE
GENOA TOWNSHIP, MICHIGAN

PROJECT + NUMBER
17-204

ISSUE + DATE
22 FEB 2017 SITE PLAN



SHEET + TITLE
FOURTH FLOOR PLAN
17204MAST.dwg

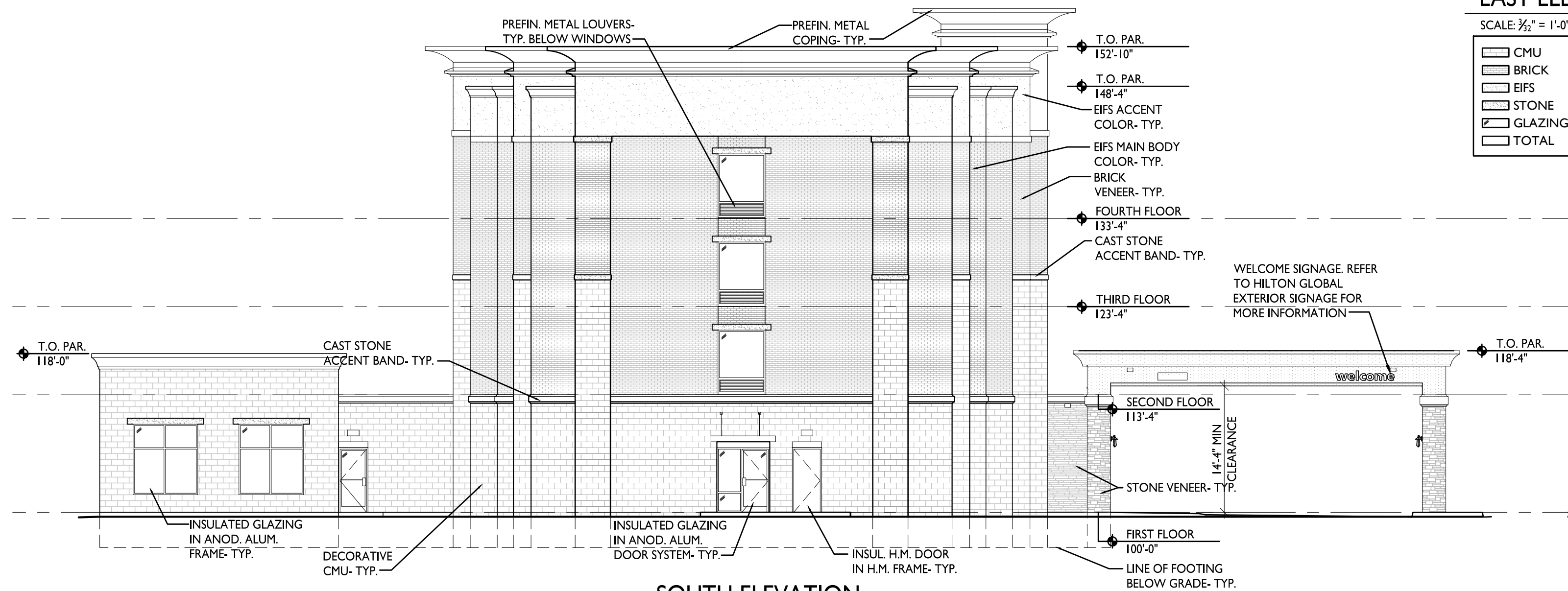
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EAST ELEVATION

SCALE: 1/2" = 1'-0"

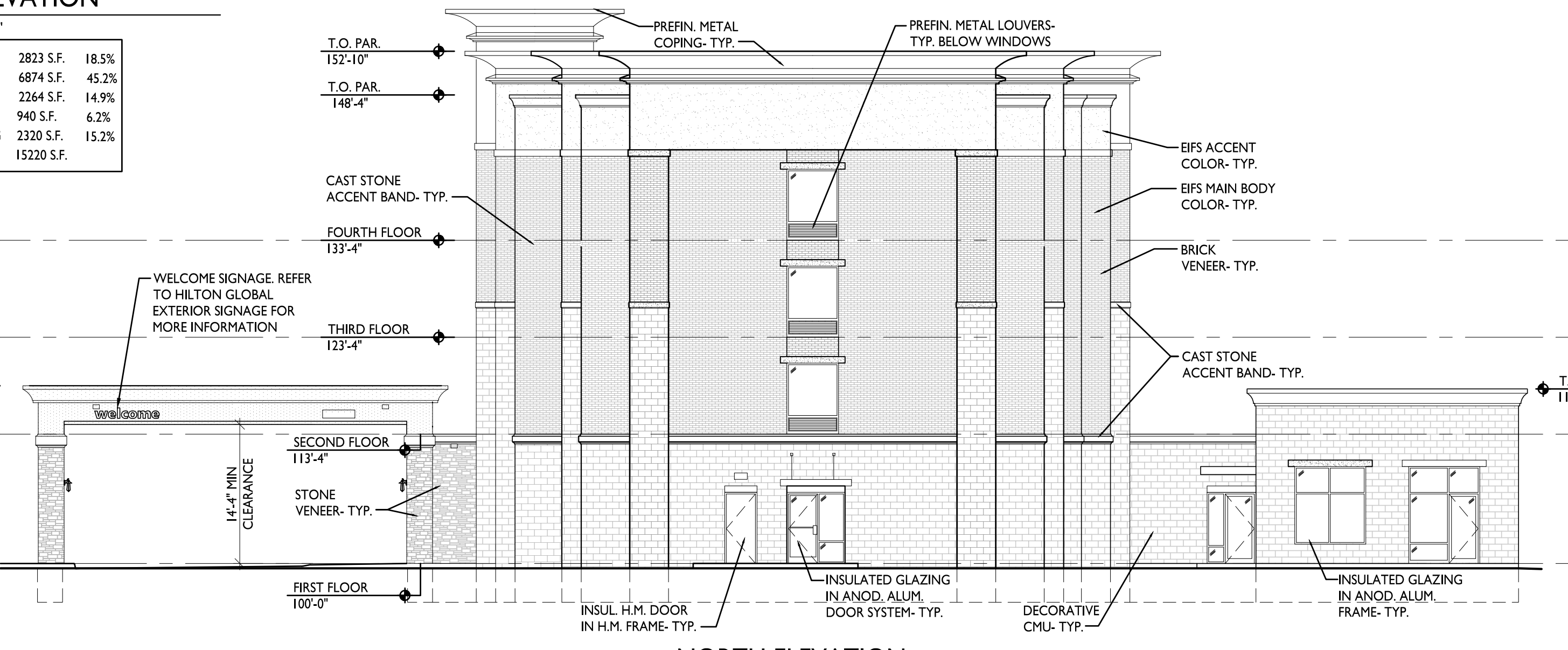
CMU	2823 S.F.	18.5%
BRICK	6874 S.F.	45.2%
EIFS	2264 S.F.	14.9%
STONE	940 S.F.	6.2%
GLAZING	2320 S.F.	15.2%
TOTAL	15220 S.F.	



SOUTH ELEVATION

SCALE: 1/2" = 1'-0"

CMU	1582 S.F.	32.4%
BRICK	1709 S.F.	35.0%
EIFS	918 S.F.	18.8%
STONE	339 S.F.	6.9%
GLAZING	336 S.F.	6.9%
TOTAL	4884 S.F.	



NORTH ELEVATION

SCALE: 1/2" = 1'-0"

CMU	1615 S.F.	32.9%
BRICK	1709 S.F.	34.8%
EIFS	910 S.F.	18.5%
STONE	306 S.F.	6.2%
GLAZING	364 S.F.	7.4%
TOTAL	4904 S.F.	



WEST ELEVATION

SCALE: 1/2" = 1'-0"

CMU	3544 S.F.	23.6%
BRICK	6884 S.F.	45.8%
EIFS	2001 S.F.	13.3%
STONE	714 S.F.	4.8%
GLAZING	1874 S.F.	12.5%
TOTAL	15018 S.F.	

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
NOVEMBER 14, 2016
6:30 P.M.
MINUTES**

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

PLEDGE OF ALLEGIANCE: The pledge of allegiance was recited.

APPROVAL OF AGENDA: **Moved** by Commissioner Lowe, seconded by Commissioner McManus, 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 Site Plan Application and Impact Assessment for an expansion of 34 parking spaces for an existing medical building located at 6888 Grand River Avenue, Brighton. The request is petitioned by Howard Lipkin.

- A. Recommendation of Impact Assessment (10-21-16)
- B. Disposition of Site Plan (10-26-16)

Thom Dumond of Boss Engineering stated they would like to add the additional parking lot and landscaping to the rear of the site. They are proposing to install 34 more parking spaces, for a total of 95. This may affect the future development of the site.

Mr. Borden reviewed his letter of November 8, 2016.

The requested increase in parking would bring the parking ratio to 235 percent of the maximum requirement by ordinance; however, the owner has showed that he does have a need for this amount of parking.

Much of the landscaping required for Phase I of the development has still not been planted and he would suggest the applicant work with Township staff to ensure this is completed. The fencing around the retention pond is also not installed. Ms. VanMarter stated that she has been working with the owner's staff. If the landscaping and fencing cannot be completed yet this year, she would like them to provide a performance bond so it can be done in the spring.

Additional landscaping will be required due to the new parking area. He suggested the applicant also work on this with Township staff.

He suggested that additional lighting be added to this new parking lot area.

Mr. Dumond stated they will comply with these requests.

The Impact Assessment needs to be amended so that the number of parking spaces matches what is shown on the site plan.

Mr. Markstrom reviewed his letter of November 7, 2016.

He would like temporary curbing installed near the retention pond. The notes on the site plan regarding water service need to be clarified.

Mr. Dumond stated he will comply with Mr. Markstrom's requests.

The call to the public was made at 6:58 pm with no response.

Moved by Commissioner McManus, seconded by Commissioner Grajek, to recommend to the Township Board approval of the Impact Assessment dated October 21, 2016 for an additional 34 parking spaces at 6888 Grand River for a total of 95 spaces with the following conditions:

- The Impact Assessment will be amended to correctly reflect the total number of parking spaces.
- The applicant will work with Township staff as it pertains to the landscaping and fencing around the retention pond with the possibility of a performance bond being required.

The motion carried unanimously.

Moved by Commissioner Mortensen, seconded by Commissioner Grajek, to approve the Site Plan for a parking expansion by Dr. Howard Lipkin dated October 26, 2016. While the proposed parking is 235 percent of the maximum required by ordinance, this Commission finds that it is appropriate to permit this expansion based on the experience of the petitioner. This approval is conditioned upon the following:

- The two barrier-free parking spaces will be constructed as normal parking spaces until the second building is constructed.
- Landscaping required as part of Phase I and additional landscaping as a result of the expansion of the parking lot will be coordinated with Township staff, including construction of the fence, which was in Phase I.
- A performance bond will be required to ensure that the landscaping and fence are installed.
- The applicant does not need to install the ramp island for the two barrier-free parking spaces.
- New lighting will be installed in the expanded parking lot and coordinated with Township staff.
- The requirements of the Township Engineer's letter dated November 11, 2016 shall be complied with, emphasizing a curb along the southern edge of the expanded parking lot.

The motion carried unanimously.

Administrative Business:

- Staff Report

Ms. VanMarter stated that Genoa Plaza is expected to be on the next meeting's agenda.

- Approval of the October 11, 2016 Planning Commission meeting minutes

Moved by Commissioner Lowe, seconded by Commissioner McManus, to approve the minutes of the October 11, 2016 Planning Commission Meeting as presented. **The motion carried unanimously.**

- Member Discussion
- Adjournment

Moved by Commissioner McManus, seconded by Commissioner Mortensen, to adjourn the meeting at 7:16 pm. **The motion carried unanimously.**

DRAFT



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

To: Township Board
Cc: Planning Commission
From: Kelly VanMarter, Assistant Township Manager/
Community Development Director
Date: February 9, 2017
Re: Planning Commission Annual Report for 2016

Manager Review:

In accordance with the Michigan Planning Enabling Act (P.A. 33 of 2008), as amended, MCL 125.3801 et seq, please find the attached annual report regarding Planning Commission activities for 2016. Please feel free to contact me if you have any questions. The report is provided as follows:

Special Use Permits: The Planning Commission recommended approval of 2 special use requests.

Sketch Plans: The Planning Commission approved 3 sketch plans.

Site Plans: The Planning Commission approved 15 site plans.

Site Plan Extensions: The Planning Commission approved 1 site plan extension.

PUD Agreements: The Planning Commission recommended approval of 2 amendments to a PUD agreement.

Rezoning: The Planning Commission recommended approval of 2 rezonings.

Sincerely,

Kelly VanMarter
Assistant Township Manager/Community Development Director

SUPERVISOR

Bill Rogers

CLERK

Paulette A. Skolarus

TREASURER

Robin L. Hunt

TRUSTEES

Jean W. Ledford

H. James Mortensen

Terry Croft

Diana Lowe

MANAGER

Michael C. Archinal

2016 Planning Commission Annual Report

Meeting Date Case # Project Name Review Type Action

Jan. 11		***Meeting Canceled***		
Feb. 8	16-01	CRW Plastics Outdoor Storage	Sketch/Special Use	Tbl 2-8-16 App 3-14-16
	16-02	Wal-Mart Storage Facility	Sketch Plan	Approved 2-8-16
March 14	16-03	Lakewood Village Ph. 3	Rezoning/Site Plan	Approved 3-14-16
	16-04	Gilden Woods Daycare	Site Plan	Approved 3-14-16
April 11	16-05	Howell Medical Center	Site Plan	Approved 4-11-16
	16-06	Flagstar Bank	Site Plan	Approved 4-11-16
	16-07	Wonderland Marine Storage Add.	Sketch Plan	Approved 4-11-16
May 9	16-08	Misty Meadows Private Road	Site Plan	Approved 5-9-16
	16-09	Mountain Top Extension	Site Plan Extension	Approved 5-9-16
June 13	16-10	Michigan Rod Products Addition	Site Plan	Approved 6-13-16
	16-11	Seaside Seawalls	Site Plan	Tabled 6-13-16
July 11	16-11	Seaside Seawalls	Site Plan, Special Use	Approved 7-11-16
	16-12	Maxey Ford Parking Expansion	Site Plan	Approved 7-11-16
	16-13	Wilson Marine Showroom/Storage	Site Plan	Approved 7-11-16
	16-14	Livingston County Complex Carport	Site Plan	Approved 7-11-16
	16-15	Oliveto Rezoning	Rezoning	Approved 7-11-16
	16-16	Brighton Nazarene Storage Building	Site Plan	Approved 7-11-16
August 8	16-17	Genoa Outlots PUD Amendment	PUD Amendment	Approved 8-8-16
	16-18	Grand River/Lawson PUD Amend	PUD Amendment	Approved 8-8-16
Sept. 12	16-19	Ascension Health Mass Grading	Site Plan	Approved 9-12-16
Oct. 11	16-20	Genoa Plaza	Site Plan	Tabled 10-11-16
Nov. 14	16-21	Lipkin Parking Addition	Site Plan	Approved 11-14-16
Dec. 12		***Meeting Canceled***		