

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

CALL TO ORDER:

PLEDGE OF ALLEGIANCE:

APPROVAL OF AGENDA:

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

OPEN PUBLIC HEARING #1...Review of site plan 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.

Planning Commission disposition of petition:

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

ADMINISTRATIVE BUSINESS:

- *Staff Report*
- *Approval of October 11, 2016 Planning Commission meeting minutes*
- *Member discussion*
- *Adjournment*



GENOA CHARTER TOWNSHIP GENOA TOWNSHIP

Application for Site Plan Review OCT 26 2016

RECEIVED

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: Dr. Howard Lipkin, 3172 Interlaken St., W. Bloomfield, MI 48323

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

OWNER'S NAME & ADDRESS: Dr. Howard Lipkin, 3172 Interlaken St., W. Bloomfield, MI 48323

SITE ADDRESS: 6888 Grand River Ave., Brighton, MI 48114 PARCEL #(s): 4711-14-200-023

APPLICANT PHONE: 810) 220-4422 OWNER PHONE: 810) 220-4422

OWNER EMAIL: marysue@brightondermatology.com

LOCATION AND BRIEF DESCRIPTION OF SITE: Located on the south side of Grand River Ave.

between Remax Platinum and Kil's Tae Kwon Do. A 8,000 s.f. medical building

with associated parking and detention system were recently completed

on the property.

BRIEF STATEMENT OF PROPOSED USE: Expand the parking in order to meet the
needs of the staff and visitors for the existing medical building.

THE FOLLOWING BUILDINGS ARE PROPOSED: Future 8,000 s.f. building towards
the back of the property.

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

BY: Thom Dumond / Boss Engineering


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

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

1.) Thom Dumond of Boss Engineering at thom@bosseng.com
Name Business Affiliation E-mail Address

FEE EXCEEDANCE AGREEMENT

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

SIGNATURE:  DATE: 10-26-16
PRINT NAME: Thomas H. Dumond PHONE: 517-861-9387
ADDRESS: 3121 E. Grand River Ave., Howell, MI 48843



November 8, 2016

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, MI 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	Lipkin Medical Office parking lot expansion – Site Plan Review #1
Location:	6888 Grand River Avenue – south side of Grand River, west of Hubert Road
Zoning:	NSD Neighborhood Services District

Dear Commissioners:

At the Township’s request, we have reviewed the site plan (dated 10/26/16) proposing development of 34 new parking spaces for the existing 8,000 square foot medical office building. We have reviewed the proposal in accordance with the applicable provisions of the Genoa Township Zoning Ordinance and provide the comments below for your consideration.

A. Summary

1. Planning Commission approval is needed for the amount of parking proposed (235% of the minimum requirement). The submittal indicates that the additional parking is needed given parking shortages during peak business hours.
2. We suggest that the applicant utilize the southernmost spaces for employees until such time as the Phase II building is constructed.
3. Given the extreme distance from the entrance to the existing building, we question the need for the 2 new barrier free spaces until the Phase II building is constructed.
4. The applicant must plant all landscaping that was required as part of Phase I, which is essentially the remainder of the property south of the existing parking lot. We suggest the applicant work with staff to develop a planting plan/schedule to finalize the Phase I landscaping.
5. The landscape plan must be updated to identify existing versus proposed plantings. The parking lot landscaping calculations must also be updated to include the proposed expansion.
6. The applicant may wish to incorporate new lighting into the expanded parking lot.
7. The Impact Assessment states that 40 new spaces are proposed, while the site plan identifies only 34 new spaces.

B. Proposal/Process

The applicant requests site plan review and approval for 34 new parking spaces. These spaces, along with a second 8,000 square foot building were shown as Phase II activities in the originally approved site plan from 2014.

The request at this time is only for the parking lot expansion. As a reminder to the applicant, at such time as the Phase II building is submitted for review, special land use approval will also be required given the total square footage of medical office space.

Since the request is only to expand the parking lot, Planning Commission has review and approval authority over the site plan, although the Environmental Impact Assessment will be subject to review and approval by the Township Board (following a recommendation by the Planning Commission).



Aerial view of site and surroundings prior to Phase I development (looking south)

C. Site Plan Review

1. Dimensional Requirements. As described in the table below, the project complies with the applicable dimensional standards of the NSD:

District	Lot Size		Parking Setbacks	Lot Coverage
	Lot Area (acres)	Width (feet)		
NSD	1	100	10'	Governed by setbacks
Proposal	2.8	202	14.48' side (E) 11.83' side (W)	12.1% building 44.6% impervious

2. Parking. Medical offices require 1 parking space for each 200 square feet of gross floor area. Based on the size of the existing building, 40 spaces are required, while a total of 94 will be provided as a result of this proposal.

Section 14.02.06 requires Planning Commission approval for parking in excess of 120% of the minimum requirement. As proposed, the parking ratio will be 235% of the minimum requirement for the existing building. (If the Phase II building is constructed the ratio will be reduced to 117.5%.)

In order to grant the excess parking, the Commission must find “that such parking will be required, based on documented evidence, to accommodate the use on a typical day.”

In support of this request, the submittal indicates there are parking shortages during peak business hours, including several photos of a relatively full parking lot. Additionally, the original site plan approval included a parking ratio of 137.5% based on the stated needs of the applicant at that time.

The proposed parking spaces, drive aisles and number of barrier free spaces all meet or exceed the requirements of Article 14.

3. Pedestrian Circulation. A public sidewalk and connections between the parking lot and Phase I building were proposed in the original site plan approval from 2014. No changes are proposed as part of the current request, although areas for future sidewalk connections to the Phase II building are noted.

We suggest that the applicant utilize the southernmost spaces for employees until such time as the Phase II building is constructed. These spaces are approximately 275 feet from the nearest entrance of the Phase I building, which is relatively inconvenient for patrons. Given this distance, we also question the need for the 2 new barrier free spaces until the Phase II building is constructed.

4. **Vehicular Circulation.** No changes are proposed to access to/from Grand River. The drive aisle connections between the existing and proposed parking lot exceed dimensional standards; however, a truck turning template is provided showing the need for the drive aisle widths.
7. **Landscaping.** The greenbelt, detention pond and buffer zone requirements are not impacted by the proposed parking lot expansion. The originally approved landscape plan provided more than sufficient plantings to satisfy these requirements. However, it has come to our attention that the applicant has yet to plant all of the Phase I landscaping. Specifically, the area south of the existing parking lot, including the detention basin, does not include the landscaping required as part of the original site plan approval.

We suggest the applicant work with staff to develop a planting plan/schedule to finalize installation of the Phase I plantings. The Commission may wish to include this as a condition of site plan approval for the current request.

Additionally, the plan submitted does not differentiate between existing and proposed plantings and the parking lot landscaping calculations do not include the proposed expansion – this area results in the need for 4 canopy trees and 340 square feet of landscaped area within the parking lot. As such, the landscape plan must be updated to include this information.

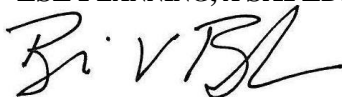
9. **Exterior Lighting.** The submittal includes the originally approved lighting plan; however, no new lighting is proposed for the project area. Given that the majority of the readings in the project area are less than 1.0-footcandle, the applicant may wish to incorporate new lighting into the expanded parking lot.
10. **Impact Assessment.** The submittal includes a new Impact Assessment (dated 10/21/16), which notes that the proposed project is not expected to adversely impact natural features, public services/utilities, surrounding land uses or traffic.

Our only comment is that the Assessment notes 40 new parking spaces, while the site plan shows only 34. The Assessment should be corrected for consistency.

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



November 7, 2016

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

**Re: Lipkin Parking Lot
Site Plan Review**

Dear Ms. Van Marter:

We have reviewed the amended site plan documents from Boss Engineering Inc. dated October 26, 2016 which were delivered to the Township Engineer on that date. The petitioner is proposing to expand the existing parking lot by 40 spaces. Tetra Tech has reviewed the documents and site plan and offers the following comments.

Summary

1. Clarify phasing.
2. Water service termination.

Site Plan

1. Show clearly what storm sewer has already been constructed and any new inlets or piping that will be constructed. It also is unclear what is proposed for the south edge of the parking lot. Will the proposed sidewalk or a temporary curb installed to ensure that stormwater drains to the retentions basin through the inlets? Provide some clarity on what will happen at the end of this phase of expansion.
2. Indicate where the 2" water service will be temporarily terminated until the next building is installed. Provide some means to prevent tampering with any exposed piping.

The petitioner should review the above comments, revise the site plan drawings and resubmit the documents for review.



Please call if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gary Markstrom'.

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

A handwritten signature in blue ink, appearing to read 'Joseph C. Siwek'.

Joseph C. Siwek, P.E.
Project Engineer

Copy: Brent LaVanway P.E. Boss Engineering Inc.



BRIGHTON AREA FIRE AUTHORITY

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

November 4, 2016

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: Lipkin Medical Office Bldg. (parking lot)
6888 Grand River
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above mentioned site plan. The plans were received for review on November 2, 2016 and the drawings are dated April 30, 2014 with latest revisions dated October 26, 2016. The project is based on an existing approved site plan for a two-phase business office development. The plan review is based on the requirements of the International Fire Code (IFC) 2015 edition.

Emergency vehicle access is compliant with Brighton Area Fire Authority and IFC requirements as is the placement and number of fire hydrants available to the site. The remaining fire authority comments are specific to the construction of the second phase building, see below.

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

IFC 505.1

2. The location of a key box (Knox Box) shall be indicated on future submittals. The Knox box will be located adjacent to the front door of the structure.

IFC 506.1

Additional comments 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



GENOA TOWNSHIP

OCT 26 2016

RECEIVED

October 21, 2016

ENVIRONMENTAL IMPACT ASSESSMENT REPORT
Site Plan Submittal

Project:

Additional Parking Installation at Brighton Dermatology & RegenesiS
6888 Grand River Ave
Brighton, MI 48114

Table of Contents

Project Introduction

Criteria:

- Location
- Impact on Natural Features
- Impact of Storm Water Management
- Impact on Surrounding Land Uses
- Impact on Public Facilities and Services
- Impact on Public Utilities
- Storage and handling of Hazardous Materials
- Traffic Impact Study
- Historic and Cultural References
- Special Provisions
- Building Relationships
- Impact on Surrounding Land Uses and Zoning

Attachments:

- Photos of parking shortages during peak business hours (Exhibit 1)
- Original Civil Site plan illustrating approved additional parking during facility site plan approval (Exhibit 2)
- Approved Site Data (Exhibit 3)

Project Introduction

This project consists solely of the addition of added parking at the North side of the Phase II project site. The project increases parking by 40 spaces. The parking was previously approved for this site and will have minimal impact on the surrounding uses.(refer to Exhibit 3)

Location

The project is located at the South end of the existing parking lot for Brighton Dermatology & Regeneration. (refer to Exhibit 2)

Impact on Natural Features

The proposed parking will have minimal impact on the existing natural features. There are no wetlands on the property. There are no other natural features of the site being impacted. (refer to Exhibit 2)

Impact on Storm Water Management

The existing basin was constructed to accommodate full future build out of the site therefore there will be minimal impact on Storm Water Management with this additional parking.

Impact on Surrounding Land Uses

There will be little to no impact on the surrounding land uses for this additional parking. The parking was initially approved with the original site plan approval documents and the impact on the surrounding land uses was taken into account at this time. (see exhibit 3)

Impact on Public Facilities and Services

There will be little or no impact on public facilities and services.

Impact on Public Utilities

There will be little to no impact on public utilities. As mentioned previously, this project was approved with the additional parking and the impact on the public facilities and utilities was taken into account with the approval.

Storage and Handling of Hazardous Materials

There will be no hazardous material used or disposed of on this site.

Traffic Impact Study

The traffic impact of this additional parking was studied during the initial site plan approval process and determined to be acceptable for this site (refer to exhibit 2 and exhibit 3). The parking is solely to support the existing facility. The impact of this parking addition will be minimal.

The anticipated daily occupancy of 30 employees plus 80 to 120 visitors and patients will have very little impact to nearby properties. We have observed this number of employees, visitors and patients since our facility opened on August 29, 2016 and have not seen any traffic issues entering or exiting Grand River. The observation also includes no impact on the shared driveway with ReMax. We average 35 trips per hour during AM peak hours and 50 during peak PM hours. This is based on our current patient volume.

Additionally, we have not observed any traffic issues when both our business and ReMax are at peak business traffic. Our only observation is the lack of parking for our employees, visitors and patients during peak business hours.

Historical and cultural References

This does not apply as the project is solely for additional parking for the existing facility.

Special Provisions

There are no special provisions for this project.

Building Relationships

This project solely relates to Brighton Dermatology & Regeneration.

Impact on Surrounding Land Uses and Zoning

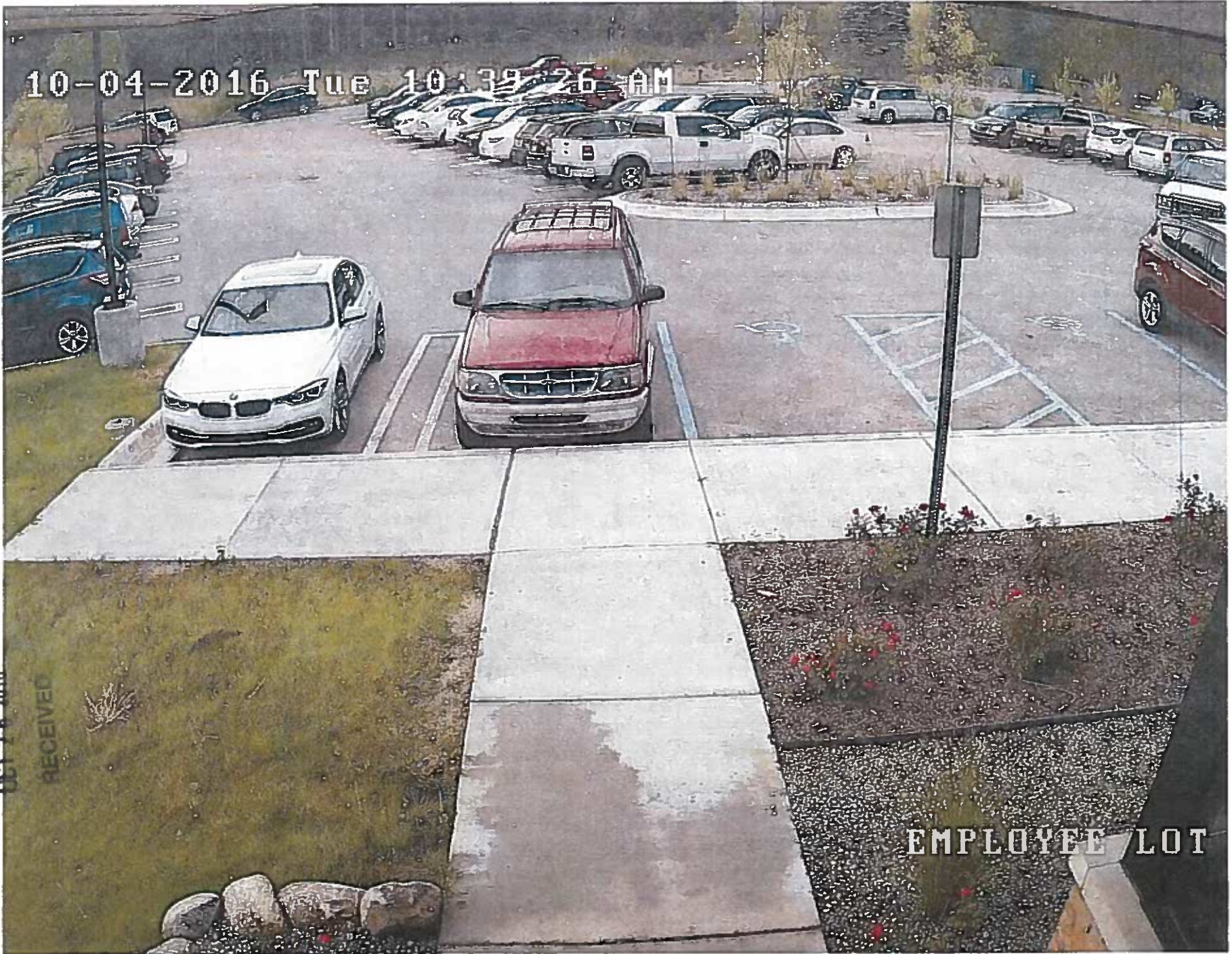
This parking was previously approved during the initial site plan approval process where the impact on surrounding land uses was studied and determined minimal.

Exhibit 1 - A

GENOA TOWNSHIP

OCT 26 2016

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10-11-2016 Tue 11:12:54 AM



Exhibit 1-B

GENOA TOWNSHIP

EMPLOYEE LOT

10-24-2016 Mon 10:59:20 AM

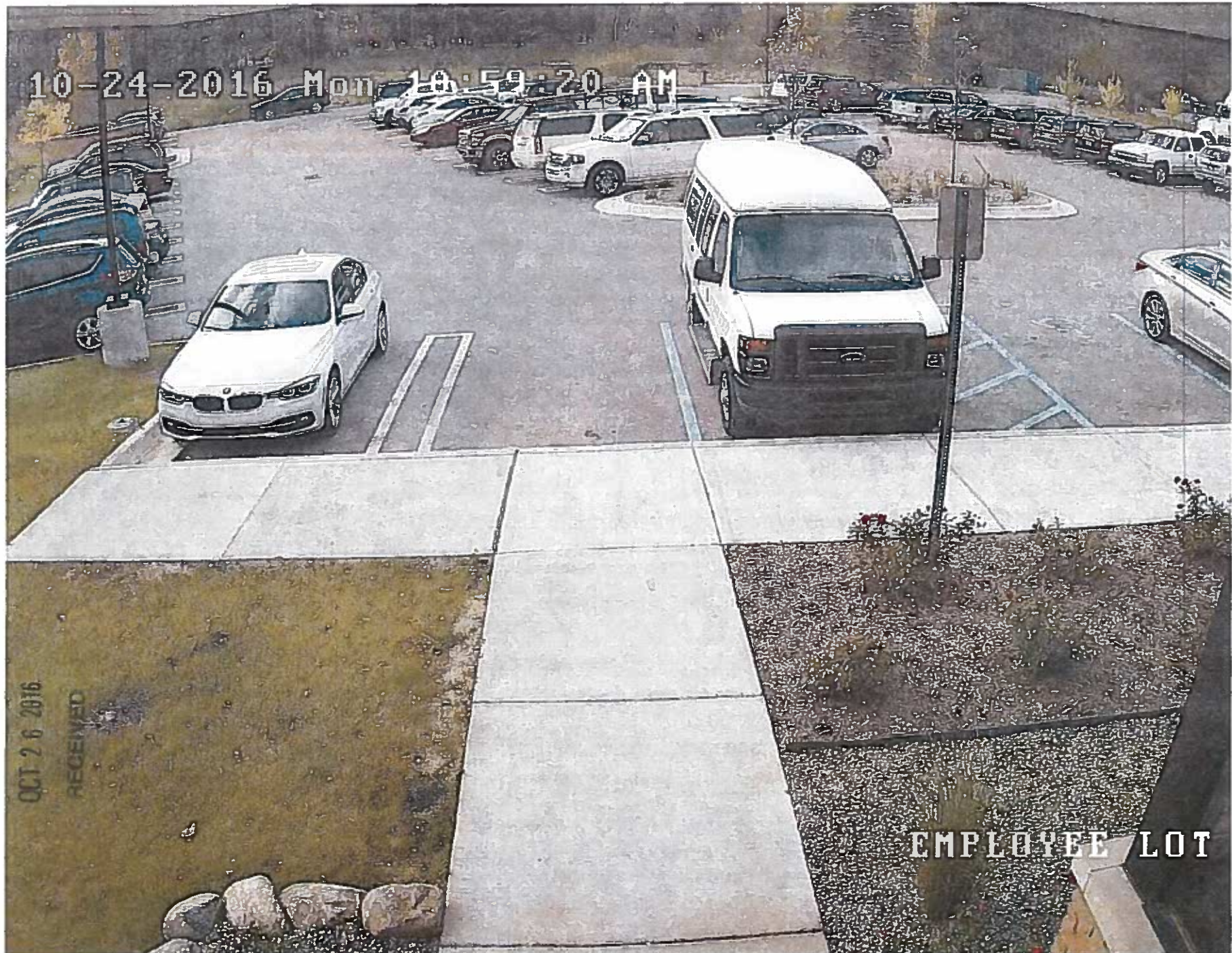


Exhibit 1-c

GENOA TOWNSHIP

OCT 26 2016
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EMPLOYEE LOT

GENOA TOWNSHIP

OCT 26 2016

RECEIVED



Engineers • Surveyors • Planners • Landscape Architects

GENOA TOWNSHIP
MAY 23 2014

May 22, 2014

Mr. Brian V. Borden, AICP
306 S. Washington Ave. Suite 400
Royal Oak, Michigan 48067

Re: Lipkin Medical Office Building, Genoa Township, Livingston County, Michigan
Boss File No. 13-285

Dear Mr. Borden,

We have received your review letter for the above referred project dated May 14, 2014, and offer the following comments.

1. The building height has been reduced to be a maximum of 20 feet.
2. The building materials have been label on the elevations.
3. The material calculations have been added to the building elevations.
4. A building rendering has been added to this submittal package.
5. Dr. Lipkin currently has an office in Genoa Township near this site. His current office has an issue with parking. On a regular basis, his patients have found it difficult to find a parking space. Therefore, we are proposing the number of spaces we have determined would adequately service the needs of his patients.
6. It is noted on the site plan that all deliveries will be by UPS or similar vehicles at the main entrance of the building. Therefore, no loading zone has been provided.
7. Additional landscape plantings have been added along the east property to bring the design into ordinance compliance.
8. The minor discrepancies in the landscape plan have been corrected.
9. A sign design has been added to the building elevations.

If you should have any questions, feel free to contact us at any time.

Regards,

BOSS ENGINEERING COMPANY

Thomas H. Dumond, R.L.A., LEED AP,
Vice President Planning and Landscape Architect

CC: G:\13-285\docs\13-28514.doc

GENOA TOWNSHIP
MAY 23 2014

**IMPACT ASSESSMENT
FOR
SITE PLAN PETITION
"LIPKIN MEDICAL OFFICE BUILDING"
GENOA TOWNSHIP, LIVINGSTON COUNTY
MICHIGAN**

Prepared for:

**DR. HOWARD LIPKIN
3172 INTERLAKEN STREET
WEST BLOOMFIELD, MI 48323
(248) 680-9900**

Prepared by:

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

May 21, 2014

13-293EIA

INTRODUCTION

The purpose of this Impact Assessment (IA) report is to show the effect that this proposed development may have on various factors in the general vicinity of the project. The format used for presentation of this report conforms to the *Submittal Requirements For Impact Assessment* guidelines in accordance with Section 18.07 of the published Zoning Ordinance for Genoa Township, Livingston County, Michigan.

DISCUSSION ITEMS

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

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

Prepared For :
Dr. Howard Lipkin
3172 Interlaken Street
West Bloomfield, MI 48323
(248) 680-9900

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

The site is located on the south side of Grand River Avenue, approximately 900 feet east of the Kellogg Road Intersection. The property has 202 feet of frontage along Grand River, the entire width of the site. Immediately west of the site is office use, east is general commercial use and to the south is residential. To the north, on the opposite side of Grand River Avenue, is a new dental office currently under construction. The subject property is currently undeveloped, and zoned Neighborhood Services District (NSD).

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

The total site area is 3.03 acres. There are 0.23 acres of right-of-way for Grand River Avenue leaving a total of 2.80 acres of buildable space. There are no wetlands on the property. The site gradually slopes north towards Grand River Avenue at approximately 0.3%. Most of the trees are located on the southern 1/3 of the site. The remainder of the site is open area with about 5 sporadic trees. Most of the trees are box elder and American elm. Most of the trees on the site will need to be removed for the placement of the proposed retention basin, forebay and medical buildings. A row of 8 to 12 inch pines along the south property line will remain to provide an evergreen buffer to the residence to the south. The USDA Soil Conservation Service soil classification for the site is Miami-Loam 6-12% slopes.

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

Surface runoff during periods of construction will be controlled by proper methods set forth by the Livingston County Drain Commissioner, including silt fence, pea stone filters, inlet protection devices, and seed and mulch. A meeting was held with the Livingston County Drain Commissioner to address stormwater management. Their primary recommendation is to maintain the existing drainage patterns as closely as possible.

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

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

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

In two phases, the applicant is planning on constructing two 8,000 square foot medical office buildings, totaling 16,000 square feet. Phase I includes Building #1 closest to Grand River Avenue, required parking, pedestrian circulation and site access. Phase I also includes construction of the retention and forebay storm water management system, sized for the final built out of the overall site. Phase II will be constructed at a later date, which includes the Building #2, and final build out of the required parking and pedestrian walkways.

With the proposed use being office, most of the activity on the property would be weekdays 8 AM to 5 PM. Unlike a commercial use, there would be limited evening or weekend traffic.

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

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

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

There will be very little impact on residents to the south of the site, as there will be a 22 feet wide undisturbed evergreen buffer and a new 100 feet wide green space retention basin, separated by a restrictive fence. The anticipated daily occupancy of 80 employees, visitors, and patients will have very little negative impact to nearby properties, but may even help the neighboring businesses with additional subsidiary patronage.

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

G. Impact on public utilities: Description of the method to be used to service the development with water and sanitary sewer facilities, the method to be used to control drainage on the site and from the site, including runoff control during periods of construction. For sites service with sanitary sewer, calculations for pre- and post development flows shall be provided in equivalents to a single family home. Where septic systems are proposed, documentation or permits from the Livingston County Health Department shall be provided.

The development will be served by both public water and sanitary sewer, both located within the Grand River Avenue right-of-way. The public water is provided by MHOG Sewer and Water Authority, where the sanitary sewer collection is provided by the G-O Sewer Authority. Both utilities are serviced from the west of the site.

The pre-development sanitary flow from this site is zero. Post-development flows based on MHOG sewer standards for a medical office building is equivalent to 9 REU's.

Medical Office Building = $1.0 + 0.5/\text{exam room} \times (16 \text{ exam rooms}) = 9 \text{ REU's}$

With regards to storm water management, the project will be required to meet all local, county and state storm water and erosion control requirements. All of the required information is included in the Site Plan documents. Most storm water runoff will remain on site and directed to the proposed forebay and retention basin at the rear of the site.

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

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

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

According to the Institute of Transportation Engineers Trip Generation 6th addition, the number of trips generated by this development would be an average of 28 trips per hour (3.46 trips per unit per 1,000sf) trips per hour during the AM peak hours, and 31 trips per hour during the PM peak hours. This is based on a Medical-Dental Office Building.

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

The anticipated number of directional vehicle trips during the peak hour of traffic is 31. Therefore a detailed traffic impact study is not necessary.

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

None at this time.

L. A list of all sources shall be provided.

Genoa Township's *Submittal Requirements For Impact Assessment*

Genoa Township Zoning Ordinances

Soil Survey of Livingston County, Michigan, U.S.D.A. Soil Conservation Service

National Wetland Inventory Plan, United States Department of the Interior, Fish and Wildlife Service

Trip Generation manual, 6th edition, Institute of Transportation Engineers

SITE DATA

	EXISTING/REQUIRED	PROPOSED
ZONING	NEIGHBORHOOD SERVICE (NSD)	NEIGHBORHOOD SERVICE (NSD)
AREA (GROSS)	1 ACRES	3.03 ACRES
AREA (NET)	1 ACRES	2.80 ACRES
LOT WIDTH	100'	202.00'
USE	VACANT	MEDICAL OFFICE BUILDING
SETBACKS		
FRONT	35'	40.75'
SIDE	10'	13.31'
REAR	40'	490'
PARKING	10'	11.63'
MAX. LOT COVERAGE	35% BLDG. 60% IMPERVIOUS	12.1% 44.6%

PARKING - 1 SPACE PER 200 S.F. OF GROSS FLOOR AREA (16,000 S.F.) = 80 SPACES (INCLUDES 4 BARRIER-FREE SPACE)
 PARKING PROVIDED: PHASE 1 = 55 SPACES, PHASE 2 = 40 SPACES TOTAL = 95 SPACES (INCLUDES 8 BARRIER-FREE)

LOADING SPACE - ALL DELIVERIES ARE BY UPS/FED EX TYPE TRUCKS LOADING/UNLOADING AT WALK AT FRONT OF BUILDING.

SOILS (PER U.S.D.A. SOIL SURVEY):

MIAMI LOAM - WELL-DRAINED, NEARLY LEVEL TO VERY STEEP SOILS ON TILL PLAINS AND MORAINES. SURFACE LAYER IS DARK GRAYISH-BROWN LOAM 9 INCHES THICK. THE SUBSURFACE LAYERS ARE FROM FRIABLE LIGHT CLAY LOAM TO BROWN LOAM. PERMEABILITY IS MODERATE.

GENOA TOWNSHIP

OCT 26 2016

RECEIVED

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
JUNE 9, 2014
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 Eric Rauch, Jim Mortensen, John McManus, and Chairman Doug Brown. Dean Tengal and Diana Lowe were absent. Also present were Ron Akers, Zoning Official, Michael Archinal, Township Manager, Brian Borden of LSL Planning and 6 others.

PLEDGE OF ALLEGIANCE: The Pledge of Allegiance was recited.

APPROVAL OF AGENDA: **Motion** by Mortensen to approve the agenda as submitted. The motion was supported by McManus. **Motion carried unanimously.**

CALL TO THE PUBLIC: Chairman Brown made a call to the public for the audience to address non-agenda items. There was no response.

OPEN PUBLIC HEARING #1... Review of site plan application and impact assessment for an 8,000 square foot Medical Building, located at a vacant lot on Grand River, Brighton, Parcel # 4711-14-200-023, south of Grand River between Hubert and Grand Beach. The request is petitioned by Howard Lipkin.

Jay Parks of Skyline Property Group addressed the Planning Commission. He described that the project was on a 3.1 acre site and included the construction of an 8,000 square foot medical office building. There is a phase two depicted on the site plan, but it is not being asked for at this time.

Brian Borden addressed the Planning Commission. He reviewed the approval process of the site plan and environmental impact assessment. He indicated that when the applicant is prepared to apply for the second phase a special use permit will need to be sought due to building square footage being above the Zoning Ordinance threshold. Detailed elevation drawings have been provided and the building is compliant with dimensional and material standards, although the final design of the building is up to Planning Commission review and approval.

The largest item of discussion is related to parking. The Zoning Ordinance allows an additional 20% over the required amount of parking by right. Anything above this requires Planning Commission approval. The applicant has proposed an additional 137.5% above the required amount. The applicant's request for additional parking is based on the demand in their current office. The applicant also did not include a loading/unloading space on the site plan and indicated on the site plan that it was

unnecessary due to their deliveries coming from small trucks. There is enough room for a delivery vehicle adjacent to a parking island. The Planning Commission has discretion over the requirement of the inclusion of loading spaces. Other issues included minor mislabeling on the landscape plan which should be corrected.

Mike Archinal addressed the Planning Commission. He spoke with Gary Markstrom from Tetra Tech and reviewed the engineering letter provided to the Planning Commission. The engineering was clean and the changes in the letter were minor in nature.

Chairman Brown expressed concerns regarding the number of people using the building, the REU calculations identified in the Environmental Impact Statement. He also questioned the amount of extra parking needed.

Dr. Lipkin addressed the Planning Commission. He described a concern for running out of parking for his patients as the minimum required parking is inadequate.

Jim Mortensen recommended that the Planning Commission make no commitment to phase 2 as only phase 1 is being reviewed.

Chairman Brown indicated that the Planning Commission could entertain a larger number of parking spots than proposed, but would need further input from the applicant.

Jay Parks indicated 60 spaces would be adequate and questioned whether the applicant could come back to the Planning Commission to request additional parking if it was necessary.

Mike Archinal indicated that any increase in parking above 5 spaces would require site plan review.

Chairman Brown indicated that the Planning Commission will consider 60 parking spaces. Also requested that staff review the REU calculations to ensure they are compliant.

Eric Rauch asked whether the open curb cut on the property will be closed or dressed up and asked if the Planning Commission would seek a cross connection easement to the neighboring property to the east.

Brian Borden indicated that the site plan depicts the closure of the open curb cut. The Planning Commission discussed requiring a cross connection easement and determined that it would not be required due to the safety concerns of vehicles crossing through to the neighboring lot.

Chairman Brown summarized the review letters from Tetra Tech and the Brighton Area Fire Authority. Asked why Boss Engineering fails to put the name, address and

statement of qualification on the Environmental Impact Assessment despite it being a requirement of the Zoning Ordinance.

Chairman Brown made a call to the public with no response.

Planning Commission disposition of petition

A. Recommendation of Environmental Impact Assessment

Motion by John McManus to recommend to the Township Board that they approve the Environmental Impact Assessment dated, May 21, 2014. We would also ask that staff review the REU calculation as it pertains to the building to ensure the applicant and Township are in sync with number of REUs required. Also ask that Boss Engineering be questioned as to why their credentials are not on the Impact Statement. Approval of phase 1 does not imply approval of phase 2 in site plan

Support by Eric Rauch. **Motion Carried Unanimously.**

B. Disposition of Site Plan

Motion by Jim Mortensen to approve the site plan dated 5/21/14, subject to the following:

- A. Approval of the site plan specifically excludes phase 2. It should not be inferred or implied that phase 2 is approved.
- B. The building elevations are acceptable to the Planning Commission and the display board will become property of Genoa Township.
- C. The site plan will be revised to show 60 parking spots rather than 57 parking spots.
- D. The minor labeling issues on the landscape plan shall be corrected.
- E. A note shall be added to the site plan indicating the curb cut on the Northeast side of property will be removed and approval will be sought from the Livingston County Road Commission to re-curb the open space.
- F. Conditions of the Tetra Tech letter dated May 30, 2014 will be complied with.
- G. Conditions of the Brighton Area Fire Authority Letter dated June 2, 2014 will be complied with.

Supported by John McManus. **Motion Carried Unanimously.**

OPEN PUBLIC HEARING #2... Review of sketch plan application and sketch plan for a 276 square foot addition, located at 5000 Grand River, Brighton, Parcel # 4711-10-300-007. The request is petitioned by Stan Schafer on behalf of Champion Chevrolet.

Stan Schafer of Schafer Construction addressed the Planning Commission. He described that the current car wash is an overhead car wash and is dated. New carwashes use less water and are more efficient, thus it is time to replace it. The new

AMENDED SITE PLAN FOR LIPKIN MEDICAL OFFICE BUILDING

PART OF N.E. 1/4, SEC. 14, T.2N., R.5E. GENOA TOWNSHIP, LIVINGSTON COUNTY, MI

PROPERTY DESCRIPTION:

LEGAL DESCRIPTION PER SELECT TITLE COMPANY (AGENT FOR NORTH AMERICAN TITLE INSURANCE COMPANY),
COMMITMENT NO: 21140 REVISION 1, WITH AN EFFECTIVE DATE OF OCTOBER 2, 2012 @ 3:00 PM

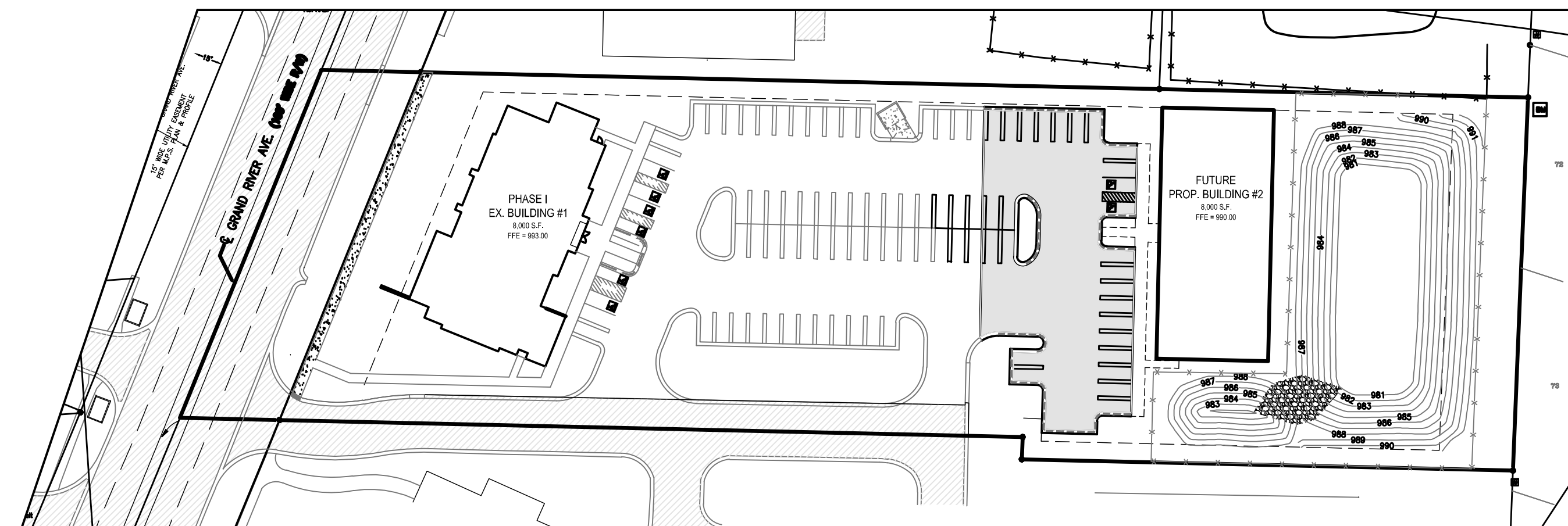
Land situated in the Township of Genoa, County of Livingston, State of Michigan is described as follows:

PARCEL B
Commencing at the East 1/4 corner of Section 14, T2N, R5E, Genoa Township, Livingston County, Michigan; thence North 02 degrees 26'01" East 876.38 feet (876.50 feet recorded) along the East line of said section and the centerline of Hubert Road; thence North 87 degrees 41'06" West 818.14 feet along the Northerly line of Grand Beach No. 3, according to the plat thereof as recorded in Liber 16 of Plats, pages 9 and 10, Livingston County Records for a Place of Beginning; thence continuing North 87 degrees 41'06" West 200.88 feet along said Northerly line; thence North 01 degree 18'47" East 263.96 feet; thence South 87 degrees 41'06" East 12.00 feet; thence North 01 degree 18'47" East 452.86 feet; thence South 67 degrees 53'54" East 202.00 feet along the centerline of Grand River Avenue; thence South 01 degree 18'47" West 648.43 feet to the Place of Beginning. Being a part of the Northeast 1/4 of Section 14, T2N, R5E, Genoa Township, Livingston County, Michigan.

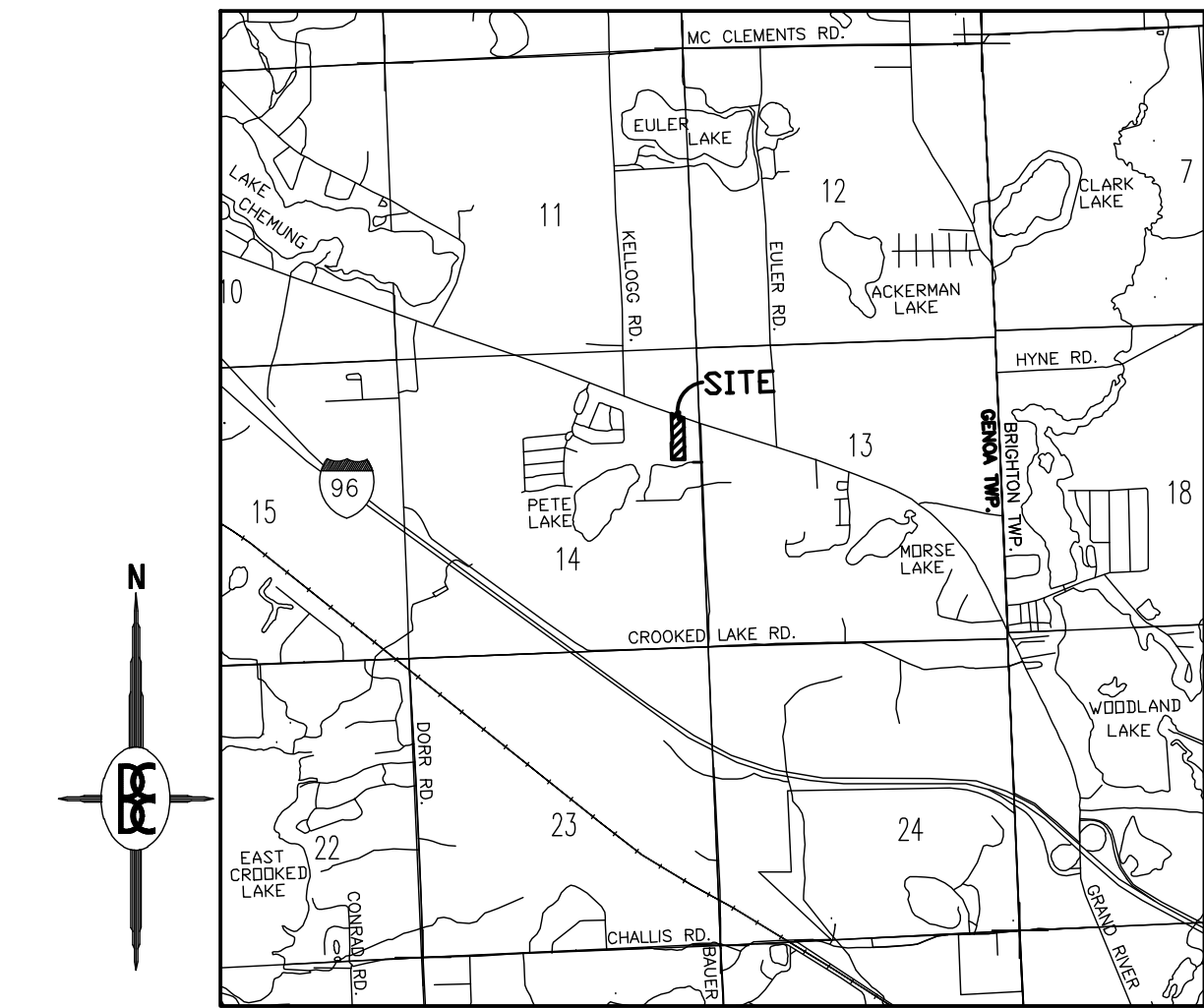
TOTAL SITE AREA IS 3.03 ACRES, WHEREBY 0.23 ACRES IS WITHIN THE GRAND RIVER AVENUE RIGHT-OF-WAY AND 2.80 ACRES IS BUILDABLE SPACE.

CONSTRUCTION NOTES

- THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING NOTES AND ANY WORK INVOLVED SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
1. THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.
 2. DO NOT SCALE THESE DRAWINGS AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
 3. A GRADING PERMIT FOR SOIL EROSION-SEDIMENTATION CONTROL SHALL BE OBTAINED FROM THE GOVERNING AGENCY PRIOR TO THE START OF CONSTRUCTION.
 4. IF DUST PROBLEM OCCURS DURING CONSTRUCTION, CONTROL WILL BE PROVIDED BY AN APPLICATION OF WATER, EITHER BY SPRINKLER OR TANK TRUCK.
 5. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS AND SPECIFICATIONS.
 6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED TOWNSHIP, COUNTY, AND STATE OF MICHIGAN PERMITS.
 7. PAVED SURFACES, WALKWAYS, SIGNS, LIGHTING AND OTHER STRUCTURES SHALL BE MAINTAINED IN A SAFE, ATTRACTIVE CONDITION AS ORIGINALLY DESIGNED AND CONSTRUCTED.
 8. ALL BARRIER-FREE FEATURES SHALL BE CONSTRUCTED TO MEET ALL LOCAL, STATE AND A.D.A. REQUIREMENTS.
 9. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
 10. THE CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHTS-OF-WAY, PUBLIC OR PRIVATE, PRIOR TO THE START OF CONSTRUCTION.
 11. THE CONTRACTOR SHALL COORDINATE WITH ALL OWNERS TO DETERMINE THE LOCATION OF EXISTING LANDSCAPING, IRRIGATION LINES & PRIVATE UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING LANDSCAPING, IRRIGATION LINES, AND PRIVATE UTILITY LINES.
 12. THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT.
 13. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
 14. THE CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
 15. THE CONTRACTOR SHALL CALL MISS DIG A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
 16. ALL EXCAVATION UNDER OR WITHIN 3 FEET OF PUBLIC PAVEMENT, EXISTING OR PROPOSED SHALL BE BACKFILLED AND COMPACTED WITH SAND (MDOT CLASS II).
 17. ALL PAVEMENT REPLACEMENT AND OTHER WORKS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWNSHIP, INCLUDING THE LATEST MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
 18. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.
 19. NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY DELAY OR INCONVENIENCE DUE TO THE MATERIAL SHORTAGES OR RESPONSIBLE DELAYS DUE TO THE OPERATIONS OF SUCH OTHER PARTIES DOING WORK INDICATED OR SHOWN ON THE PLANS OR IN THE SPECIFICATION OR FOR ANY REASONABLE DELAYS IN CONSTRUCTION DUE TO THE ENCOUNTERING OR EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.
 20. DURING THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT PERFORM WORK BY PRIVATE AGREEMENT WITH PROPERTY OWNERS ADJACENT TO THE PROJECT.
 21. IF WORK EXTENDS BEYOND NOVEMBER 15, NO COMPENSATION WILL BE DUE TO THE CONTRACTOR FOR ANY WINTER PROTECTION MEASURES THAT MAY BE REQUIRED BY THE ENGINEER.
 22. NO TREES ARE TO BE REMOVED UNTIL MARKED IN THE FIELD BY THE ENGINEER.
 23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE CONSTRUCTION LIMITS INCLUDING BUT NOT LIMITED TO EXISTING FENCE, LAWN, TREES AND SHRUBBERY.
 24. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE NORMAL CONSTRUCTION LIMITS OF THE PROJECT SHALL BE SODDED OR SEEDDED AS SPECIFIED OR DIRECTED BY THE ENGINEER.
 25. ALL ROOTS, STUMPS AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED AND THE HOLE BACKFILLED WITH SUITABLE MATERIAL. WHERE GRADE CORRECTION IS REQUIRED, THE SUBGRADE SHALL BE CUT TO CONFORM TO THE CROSS-SECTION AS SHOWN IN THE PLANS.
 26. TRAFFIC SHALL BE MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SIGNS AND TRAFFIC CONTROL DEVICES. FLAG PERSONS SHALL BE PROVIDED BY THE CONTRACTOR IF DETERMINED NECESSARY BY THE ENGINEER. ALL SIGNS SHALL CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AT NO COST TO THE TOWNSHIP. NO WORK SHALL BE DONE UNLESS THE APPROPRIATE TRAFFIC CONTROL DEVICES ARE IN PLACE.
 27. ALL DEMOLISHED MATERIALS AND SOIL SPOILS SHALL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST, AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
 28. AFTER REMOVAL OF TOPSOIL, THE SUBGRADE SHALL BE COMPACTED TO 95% OF ITS UNIT WEIGHT.
 29. ALL GRADING IN THE PLANS SHALL BE DONE AS PART OF THIS CONTRACT. ALL DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SUBGRADE PRIOR TO COMPACTING.
 30. NO SEEDING SHALL BE DONE AFTER OCTOBER 15 WITHOUT APPROVAL OF THE ENGINEER.
 31. ANY EXISTING APPURTENANCES SUCH AS MAN-HOLES, GATE VALVES, ETC. SHALL BE ADJUSTED TO THE PROPOSED GRADE AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
 32. SOIL EROSION MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL VEGETATION HAS BEEN RE-ESTABLISHED.
 33. ALL PERMANENT SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE MICHIGAN MUTCD MANUAL AND SHALL BE INCIDENTAL TO THE CONTRACT.



OVERALL SITE MAP
NO SCALE



LOCATION MAP
NO SCALE

SHEET INDEX

SHEET NO.	DESCRIPTION
C1	COVER SHEET
C2	SITE PLAN
C3	GRADING, DRAINAGE & SOIL EROSION CONTROL PLAN
C4	UTILITY PLAN
C5	LANDSCAPE PLAN
C6	LIGHTING PLAN
C7	RETENTION & HYDRAULICS PLAN
C8	WATER MAIN PROFILE AND INTERIM GRADING PLAN
C9	EXISTING CONDITIONS & DEMOLITION PLAN
C10	CONSTRUCTION DETAILS
C11	CONSTRUCTION DETAILS
C12	MHOG SANITARY SEWER DETAILS
C13	MHOG WATER MAIN DETAILS

LIPKIN MEDICAL OFFICE BUILDING

PREPARED FOR:

DR. HOWARD LIPKIN
3172 INTERLAKEN STREET
WEST BLOOMFIELD, MI 48323
PHONE: 810-220-4422

CIVIL ENGINEER/SITE PLANNER:

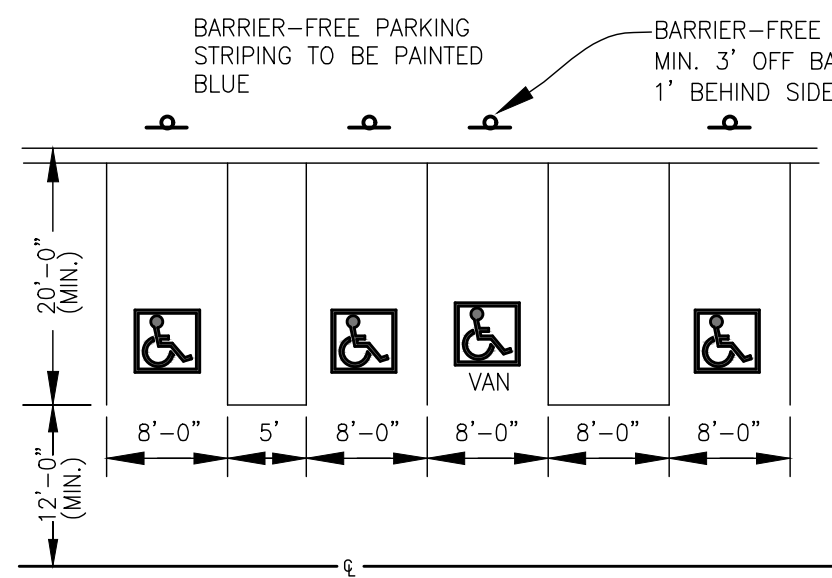
BOSS ENGINEERING
ENGINEERS • SURVEYORS • PLANNERS
LANDSCAPE ARCHITECTS
(E-MAIL: bo@bosseng.com)
3172 E. GRAND RIVER AVE.
HOWELL, MI 48845
(800) 246-6735 FAX (517) 548-1670

INDEMNIFICATION STATEMENT

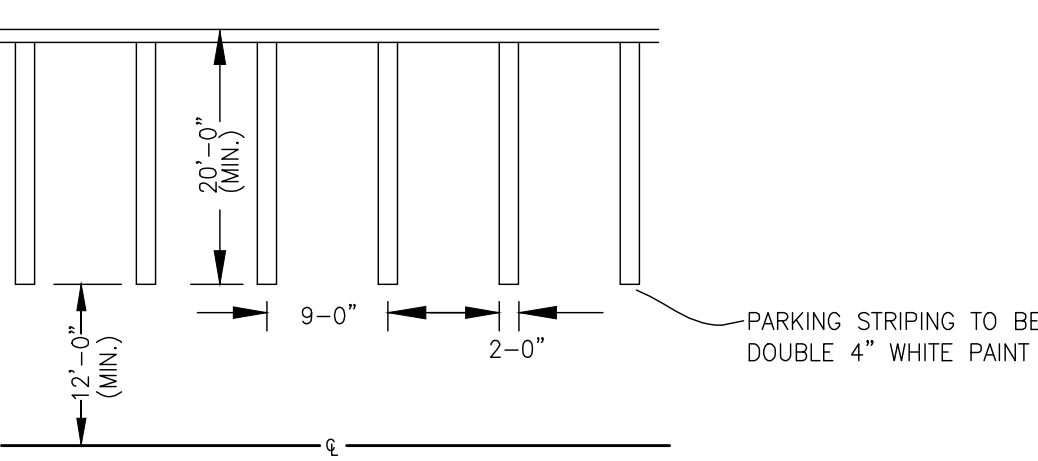
THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

5	TD	AMENDED SITE PLAN	10/26/16	1
4	LM	PER TOWNSHIP REVIEW	11/11/14	
3	LM	PER COUNTY REVIEW	10/24/14	
2	LM	PER TOWNSHIP REVIEW	6/19/14	
1	LM	PER TOWNSHIP REVIEW	5/21/14	
NO	BY CK	REVISION	DATE	

ISSUE DATE: 4-30-14
JOB NO. 13-283



TYPICAL BARRIER FREE PARKING SPACE (NO SCALE)



TYPICAL PARKING SPACE (NO SCALE)

SITE DATA		
	EXISTING/REQUIRED	PROPOSED
ZONING	NEIGHBORHOOD SERVICE (NSD)	NEIGHBORHOOD SERVICE (NSD)
AREA (GROSS)	1 ACRES	3.03 ACRES
AREA (NET)	1 ACRES	2.80 ACRES
LOT WIDTH	100'	202.00'
USE	VACANT	MEDICAL OFFICE BUILDING
SETBACKS		
FRONT	35'	40.75'
SIDE	10'	13.31'
REAR	40'	490'
PARKING	10'	11.63'
MAX. LOT COVERAGE		
	35% BLDG.	12.1%
	60% IMPERVIOUS	44.6%

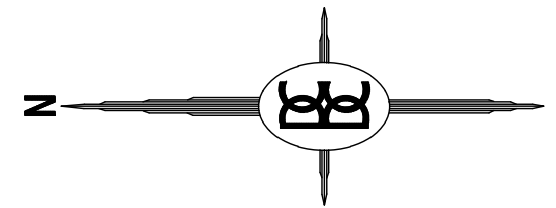
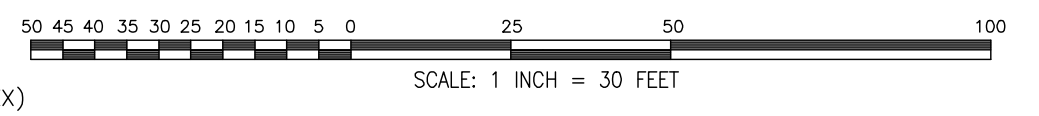
PARKING - 1 SPACE PER 200 S.F. OF GROSS FLOOR AREA (16,000 S.F.) = 80 SPACES (INCLUDES 4 BARRIER-FREE SPACE)
 PARKING PROVIDED: PHASE 1 = 55 SPACES, PHASE 2 = 40 SPACES TOTAL = 95 SPACES (INCLUDES 8 BARRIER-FREE)

LOADING SPACE - ALL DELIVERIES ARE BY UPS/FED EX TYPE TRUCKS LOADING/UNLOADING AT WALK AT FRONT OF BUILDING.

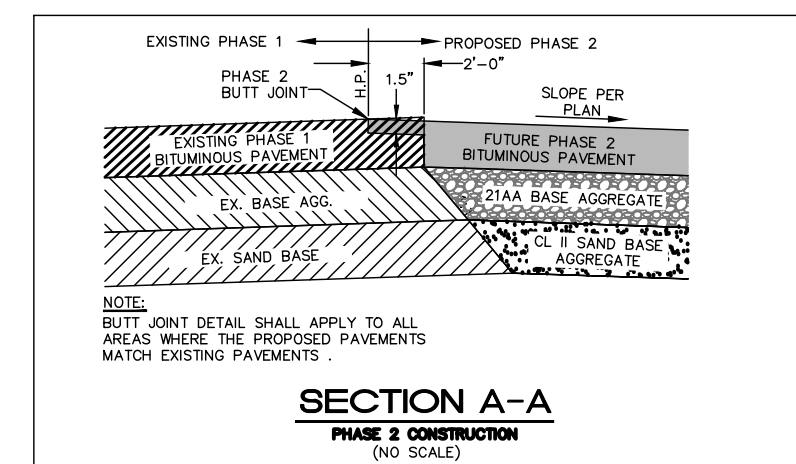
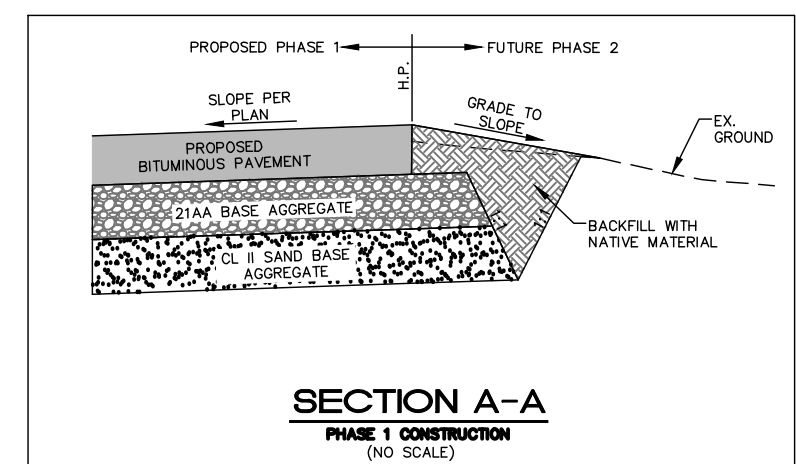
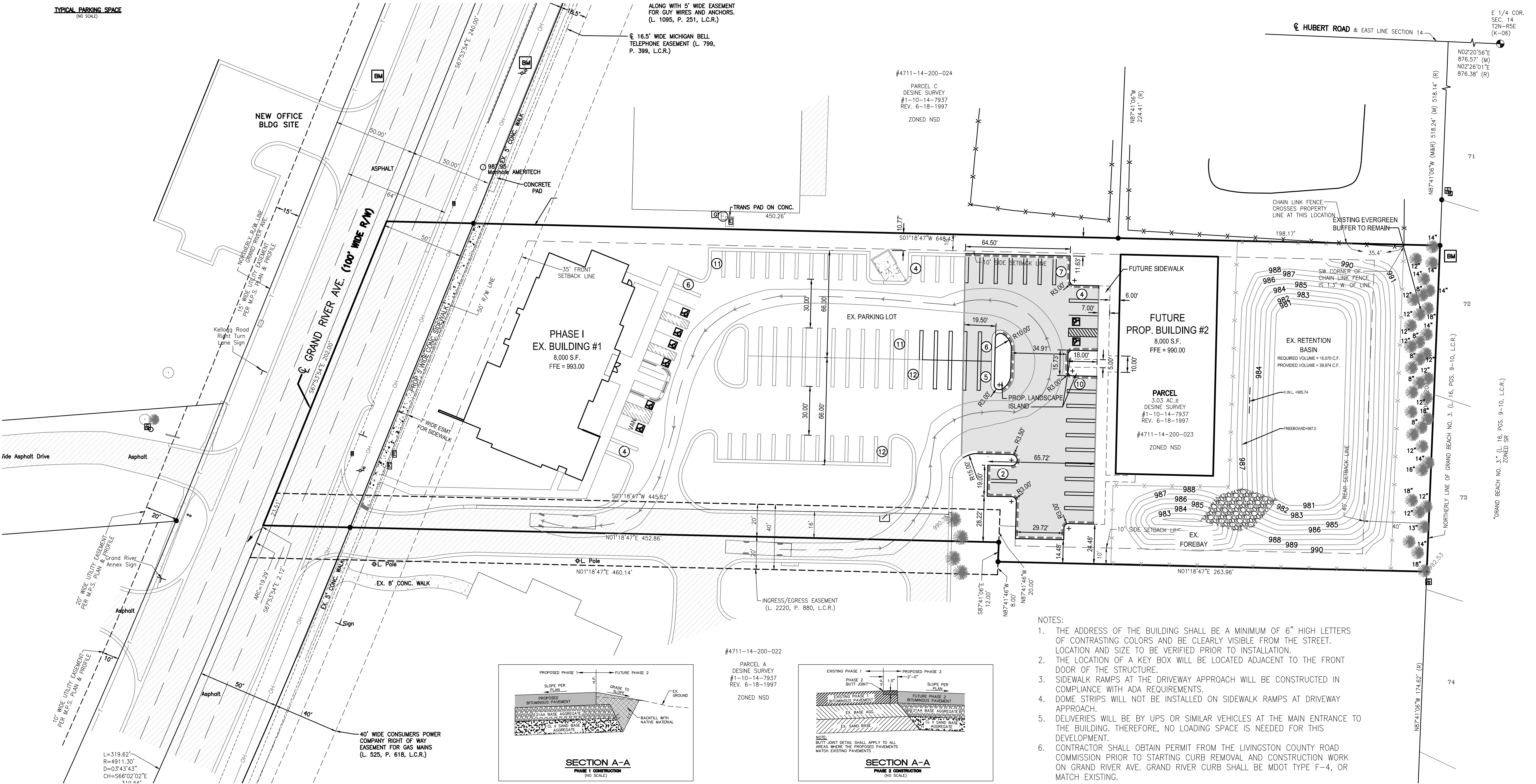
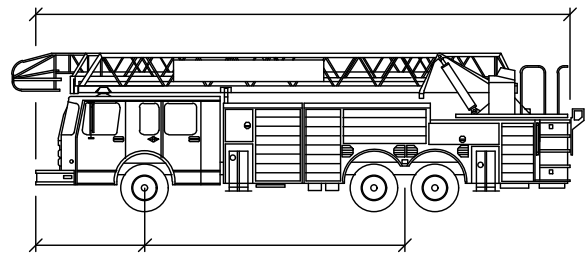
SOILS (PER U.S.D.A. SOIL SURVEY):
 MIAMI LOAM - WELL-DRAINED, NEARLY LEVEL TO VERY STEEP SOILS ON TILL PLAINS AND MORAINES. SURFACE LAYER IS DARK GRAYISH-BROWN LOAM 9 INCHES THICK. THE SUBSURFACE LAYERS ARE FROM FRIABLE LIGHT CLAY LOAM TO BROWN LOAM. PERMEABILITY IS MODERATE.

LEGEND		
PROPOSED (PR)	EXISTING (EX)	
900	900	CONTOUR
FF	FF	STORM DRAINAGE FLOW
FG	FG	SPOT ELEVATION
T/A	T/A	FINISHED FLOOR ELEVATION
T/W	T/W	GATE VALVE
F/L	F/L	HYDRANT
T/P	T/P	TOP OF ASPHALT
RIM	RIM	TOP OF CURB / CONCRETE
INV	INV	TOP OF WALK
MH	MH	FLOW LINE
IN	IN	TOP OF PIPE
CB	CB	RIM ELEVATION
ES	ES	INVERT ELEVATION
GV	GV	MANHOLE STRUCTURE
HY	HY	INLET STRUCTURE
UP	UP	CATCHBASIN STRUCTURE
SN	SN	END-SECTION
SL	SL	GATEVALVE STRUCTURE
FM	FM	HYDRANT
ST	ST	UTILITY POLE
WM	WM	SANITARY SEWER
WL	WL	SANITARY LEAD
OH	OH	FORCE MAIN
C	C	STORM SEWER
E	E	WATER MAIN
G	G	WATER LEAD
T	T	OVERHEAD WIRE
		CABLE
		ELECTRIC
		GAS
		TELEPHONE

LEGEND		
PROPOSED (PR)	EXISTING (EX)	
MANHOLE	MANHOLE	MANHOLE INLET / CATCHBASIN
FLARED END-SECTION	FLARED END-SECTION	FLARED END-SECTION
GATE VALVE	GATE VALVE	GATE VALVE
UTILITY POLE	UTILITY POLE	UTILITY POLE
FENCE	FENCE	FENCE
SANITARY SEWER LABEL	SANITARY SEWER LABEL	SANITARY SEWER LABEL
STORM SEWER LABEL	STORM SEWER LABEL	STORM SEWER LABEL
WATER MAIN LABEL	WATER MAIN LABEL	WATER MAIN LABEL
SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)	SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)	SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
SILT FENCE	SILT FENCE	SILT FENCE
LIMITS OF GRADING/CLEARING	LIMITS OF GRADING/CLEARING	LIMITS OF GRADING/CLEARING
WETLAND BOUNDARY	WETLAND BOUNDARY	WETLAND BOUNDARY
CONCRETE	CONCRETE	CONCRETE
ASPHALT	ASPHALT	ASPHALT
MODIFIED CURB	MODIFIED CURB	MODIFIED CURB
'NO PARKING FIRE LANE' SIGNS	'NO PARKING FIRE LANE' SIGNS	'NO PARKING FIRE LANE' SIGNS
PROPOSED SOIL BORING LOCATION	PROPOSED SOIL BORING LOCATION	PROPOSED SOIL BORING LOCATION



THE DESIGN AND CONSTRUCTION OF THIS PROJECT HAS BEEN REVIEWED BY THE LIVINGSTON COUNTY ROAD COMMISSION PRIOR TO THE ISSUANCE OF THIS PERMIT. THE ROAD COMMISSION'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PROJECT AND DOES NOT CONSTITUTE A GUARANTEE OR WARRANTY OF ANY KIND. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CHANGES TO THE PROJECT ARE MADE DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CHANGES TO THE PROJECT ARE MADE DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CHANGES TO THE PROJECT ARE MADE DURING CONSTRUCTION.



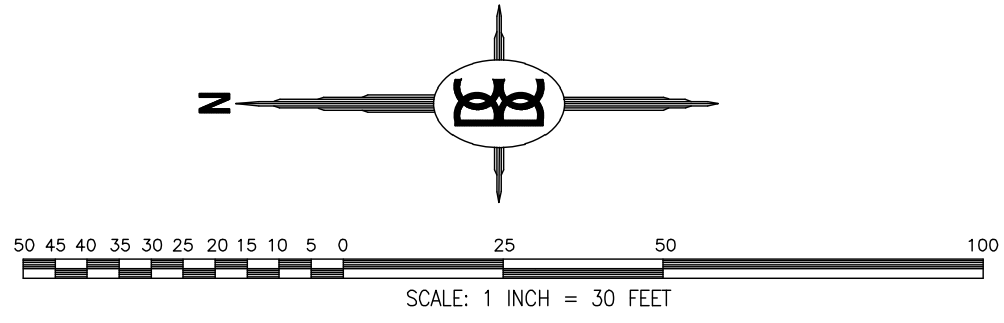
- NOTES:
1. THE ADDRESS OF THE BUILDING SHALL BE A MINIMUM OF 6" HIGH LETTERS OF CONTRASTING COLORS AND BE CLEARLY VISIBLE FROM THE STREET. LOCATION AND SIZE TO BE VERIFIED PRIOR TO INSTALLATION.
 2. THE LOCATION OF A KEY BOX WILL BE LOCATED ADJACENT TO THE FRONT DOOR OF THE STRUCTURE.
 3. SIDEWALK RAMPS AT THE DRIVEWAY APPROACH WILL BE CONSTRUCTED IN COMPLIANCE WITH ADA REQUIREMENTS.
 4. DOME STRIPS WILL NOT BE INSTALLED ON SIDEWALK RAMPS AT DRIVEWAY APPROACH.
 5. DELIVERIES WILL BE BY UPS OR SIMILAR VEHICLES AT THE MAIN ENTRANCE TO THE BUILDING. THEREFORE, NO LOADING SPACE IS NEEDED FOR THIS DEVELOPMENT.
 6. CONTRACTOR SHALL OBTAIN PERMIT FROM THE LIVINGSTON COUNTY ROAD COMMISSION PRIOR TO STARTING CURB REMOVAL AND CONSTRUCTION WORK ON GRAND RIVER AVE. GRAND RIVER CURB SHALL BE MDOT TYPE F-4, OR MATCH EXISTING.

BOSS ENGINEERING
 ENGINEERS • SURVEYORS • PLANNERS
 LANDSCAPE ARCHITECTS
 (E-MAIL: bossengr.com)
 3172 E. GRAND RIVER AVE.
 HONOLULU, HI 96843
 (808) 246-6725 FAX (817) 548-1670

PROJECT: **LIPKIN MEDICAL OFFICE BUILDING**
 PREPARED FOR: **DR. LIPKIN**
 3172 INTERLAKEN STREET
 WEST BLOOMFIELD, MI 48323
 TITLE: **SITE PLAN**

NO.	BY	REVISION	PER	DATE
1	LM	PER	TOWNSHIP REVIEW	5/21/14
2	LM	PER	TOWNSHIP REVIEW	6/19/14
3	LM	PER	COUNTY REVIEW	10/24/14
4	LM	PER	TOWNSHIP REVIEW	11/11/14
5	TD	AMENDED	SITE PLAN	10/26/16

DESIGNED BY: TD
 DRAWN BY: TD
 CHECKED BY: TD
 SCALE: 1" = 30'
 JOB NO.: 13-293
 DATE: 4-30-14
 SHEET NO.: **C2**

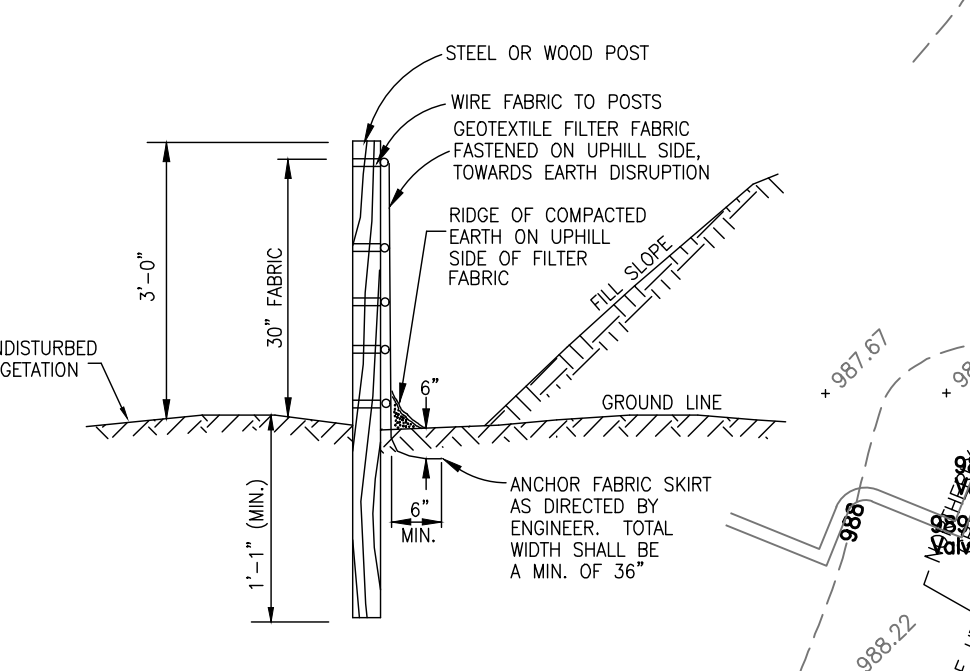
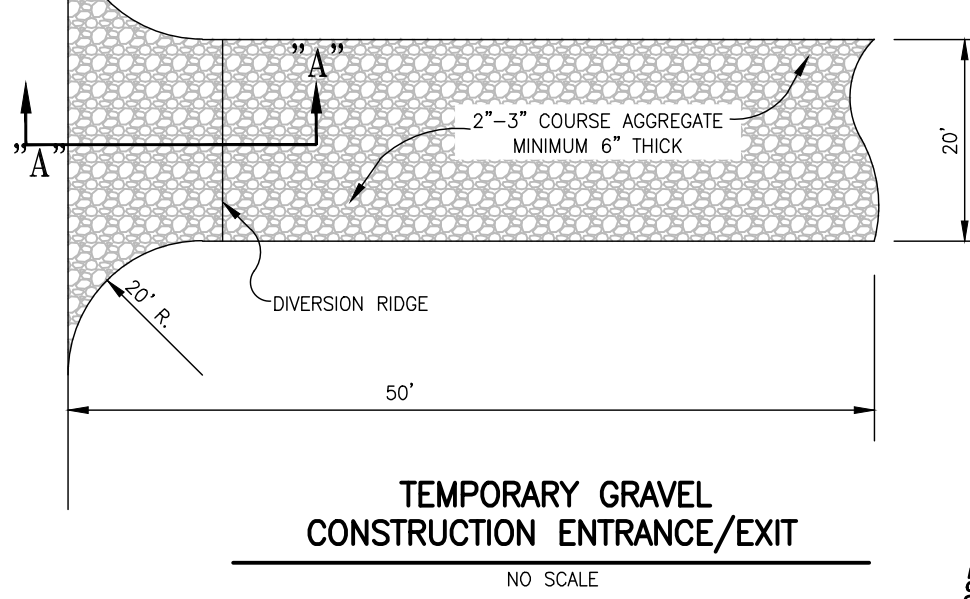
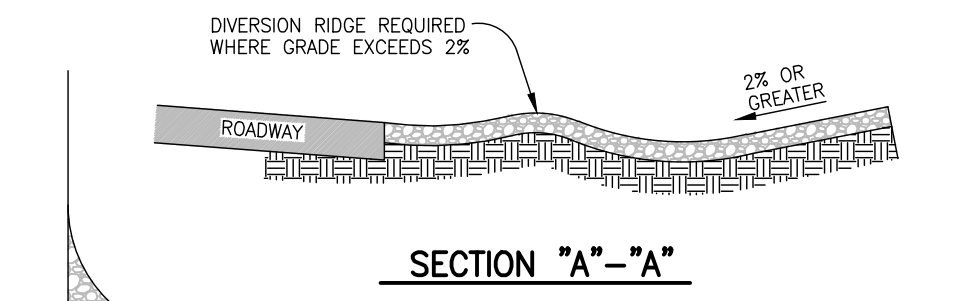


BENCHMARKS:
 SITE BENCHMARKS (NGVD29 DATUM):
 BM #201, NE BOLT HYDRANT, ELEV.=989.58
 BM #202, RR SPIKE S/S P. POLE, ELEV.=989.48
 BM #203, BOSS TAG/NAIL SET W/S 10' OAK TREE, ELEV.=991.73
 BM #204, TOP OF CAPPED ROD, ELEV.=990.79

SOIL EROSION CONTROL MEASURES	
1	STRIPPING & STOCKPILE TOPSOIL TOPSOIL WILL BE STOCKPILED ABOVE BARRIERS TO ACT AS A DRAINAGE SODDIPLE SHOULD BE TEMPORARILY SEED
7	HYDRO SEEDING HYDRO SEEDING TO BE USED TO PROVIDE IMMEDIATE PROTECTION UNTIL GRASS & SOILS ARE FULLY ESTABLISHED
14	AGRICULTURE COVER AGRICULTURE COVER TO BE USED TO PROTECT EXISTING FIELDS FROM CONSTRUCTION TRAFFIC IN ADVERSE WEATHER. COVER MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS
15	PAVING PROTECTS AREAS WHICH CANNOT OTHERWISE BE PROTECTED, BUT INCREASES RUNOFF VELOCITY. FREQUENT SURFACE WILL HELP SLOW VELOCITY
16	CURB & GUTTER KEEPS HIGH VELOCITY RUNOFF ON PAVED AREAS FROM LEAVING PAVED SURFACE. COLLECTS AND CONDUCTS RUNOFF TO ENCLOSED DRAINAGE SYSTEM OR PREPARED DRAINAGE
34	STORM SEWER STORM SEWER RELEASES RUNOFF AT NON-EROSIVE RATES. CONTROLS RUNOFF AT SYSTEM OUTLETS FOR EROSION PROTECTION
35	STORM SEWER SYSTEM REMOVES COLLECTED RUNOFF FROM SITE, PARTICULARLY FROM PAVED AREAS. COLLECTS AND CONDUCTS RUNOFF TO ENCLOSED DRAINAGE SYSTEM OR STABILIZED OUTFALL LOCATION. USE CATCH BASINS TO COLLECT SEDIMENT
36	CATCH BASIN, DRAIN INLET COLLECTS HIGH VELOCITY CONCENTRATED RUNOFF. MAY USE FILTER CLOTH OVER INLET
40	WALK SEEDMENT FILTER EASY TO MAINTAIN. COLLECTS SEDIMENT. MAY BE CLEANED AND EXPANDED AS NEEDED
54	LESS PERMEABLE FABRIC AND POSTS OR POLES EASY TO CONSTRUCT AND LOCATE. AS NEEDED. (SEE RETAIN THIS SHEET)

PROPOSED (PR)		EXISTING (EX)		LEGEND	
900	FF	900	FF	CONTOUR	MANHOLE
	FG		FG	STORM DRAINAGE FLOW	INLET / CATCHBASIN
	T/A		T/A	SPOT ELEVATION	FLARED END-SECTION
	T/C		T/C	FINISHED FLOOR ELEVATION	GATE VALVE
	T/W		T/W	TOP OF ASPHALT	HYDRANT
	F/L		F/L	TOP OF CURB / CONCRETE	UTILITY POLE
	T/P		T/P	TOP OF WALK	FENCE
	RIM		RIM	FLOW LINE	SIGN
	INV		INV	TOP OF PIPE	SANITARY SEWER LABEL
	MH		MH	RIM ELEVATION	STORM SEWER LABEL
	IN		IN	INVERT ELEVATION	WATER MAIN LABEL
	CB		CB	MANHOLE STRUCTURE	SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
	ES		ES	INLET STRUCTURE	SILT FENCE
	GV		GV	CATCHBASIN STRUCTURE	DRAINAGE DISTRICTS
	HY		HY	END-SECTION	CONCRETE
	LIP		LIP	GATEVALVE STRUCTURE	ASPHALT
	SN		SN	HYDRANT	MODIFIED CURB
	SL		SL	UTILITY POLE	INLET PROTECTION FILTER DEVICE
	FM		FM	SANITARY SEWER	
	ST		ST	SANITARY LEAD	
	WM		WM	FORCE MAIN	
	WL		WL	STORM SEWER	
	OH		OH	WATER MAIN	
	C		C	WATER LEAD	
	C		C	OVERHEAD WIRE	
	C		C	CABLE	
	T		T	ELECTRIC GAS	
				TELEPHONE	

P = PERMANENT, T = TEMPORARY
 TOTAL DISTURBED AREA = 2.62 ACRES



NO SCALE

NO SCALE

NO SCALE

NO SCALE

NO SCALE

NO SCALE

NO SCALE

NO SCALE

NO SCALE

NO SCALE

NO SCALE

NO SCALE

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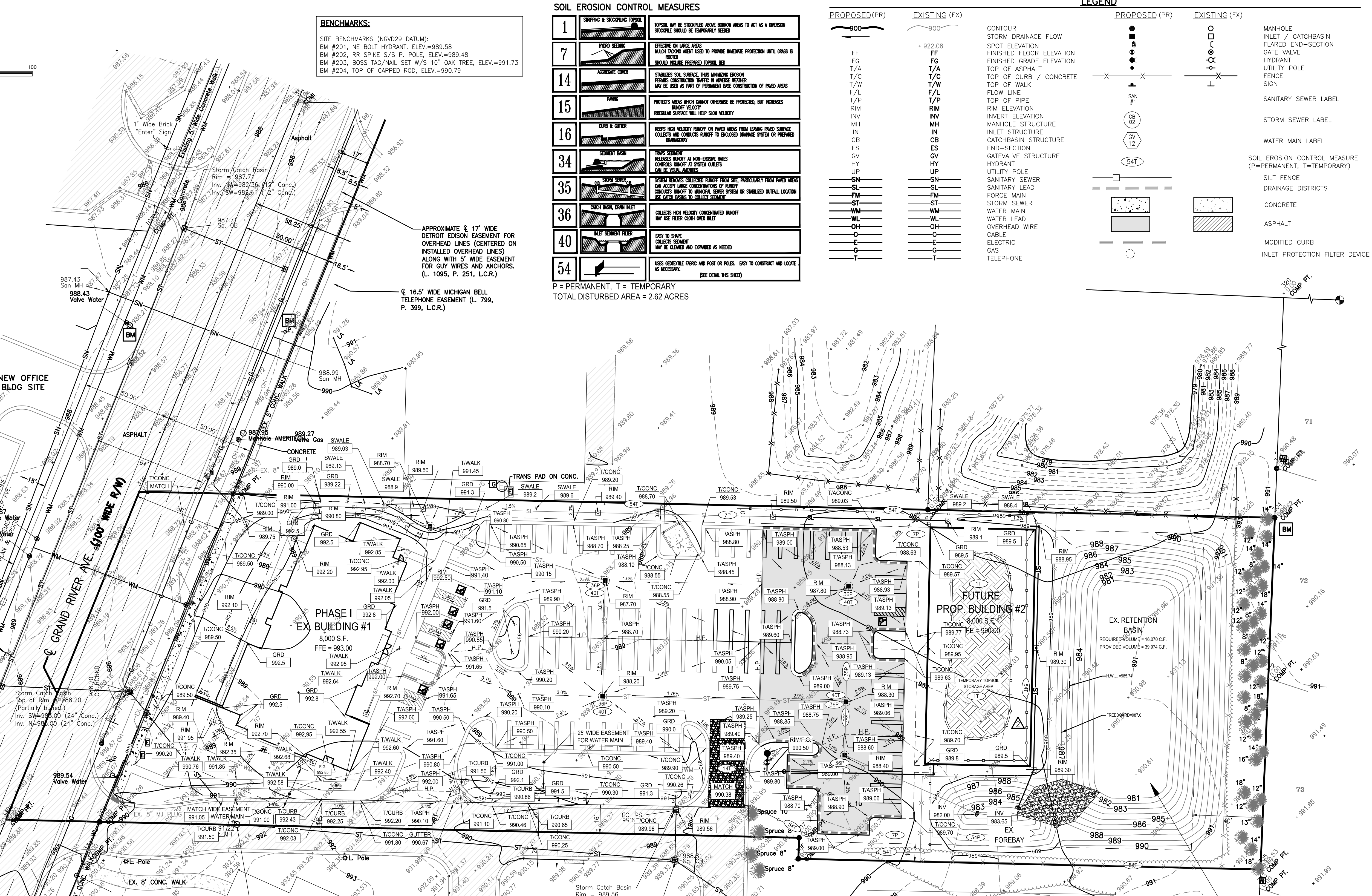
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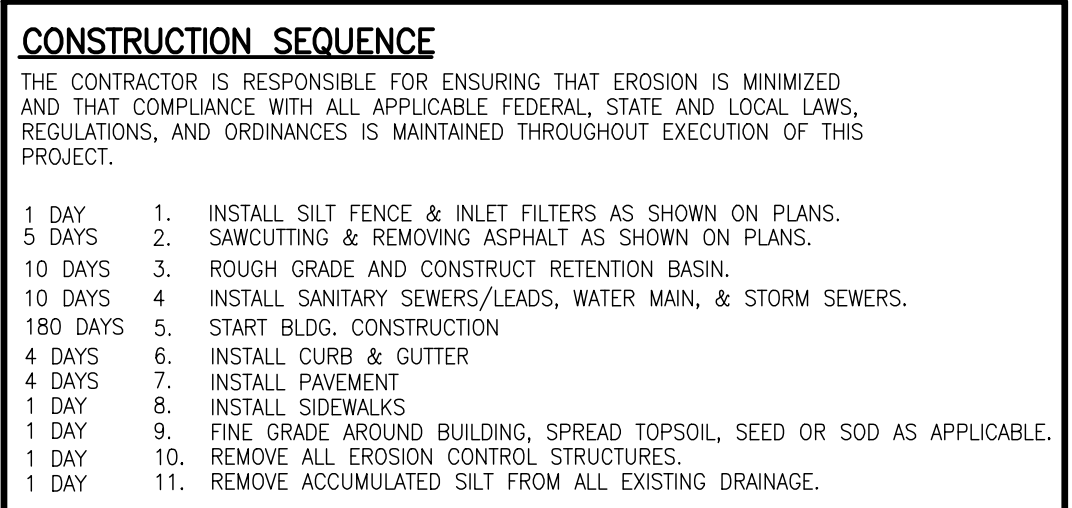
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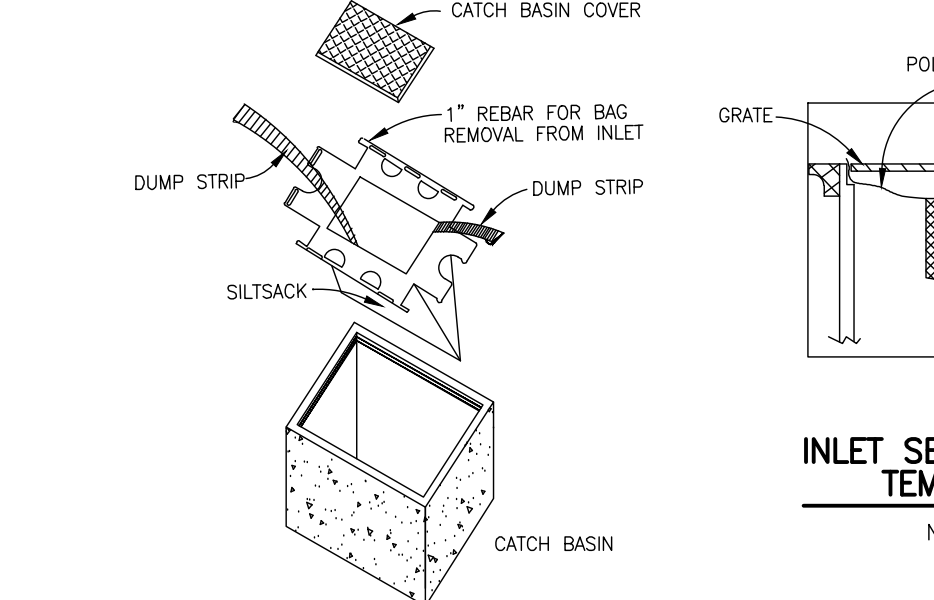


CONSTRUCTION SEQUENCE
 THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT EROSION IS MINIMIZED AND THAT COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES IS MAINTAINED THROUGHOUT EXECUTION OF THIS PROJECT.

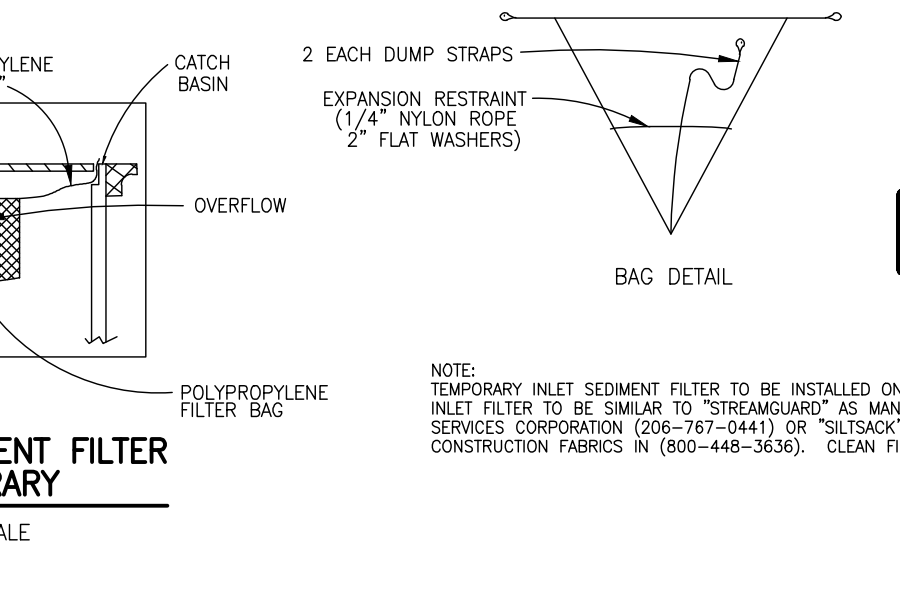
1 DAY	1. INSTALL SILT FENCE & INLET FILTERS AS SHOWN ON PLANS.
5 DAYS	2. SAWCUTTING & REMOVING ASPHALT AS SHOWN ON PLANS.
10 DAYS	3. ROUGH GRADE AND CONSTRUCT RETENTION BASIN.
10 DAYS	4. INSTALL SANITARY SEWERS/LEADS, WATER MAIN, & STORM SEWERS.
180 DAYS	5. START BLDG. CONSTRUCTION
4 DAYS	6. INSTALL CURB & GUTTER
4 DAYS	7. INSTALL PAVEMENT
1 DAY	8. INSTALL SIDEWALKS
1 DAY	9. FINE GRADE AROUND BUILDING, SPREAD TOPSOIL, SEED OR SOD AS APPLICABLE.
1 DAY	10. REMOVE ALL EROSION CONTROL STRUCTURES.
1 DAY	11. REMOVE ACCUMULATED SILT FROM ALL EXISTING DRAINAGE.



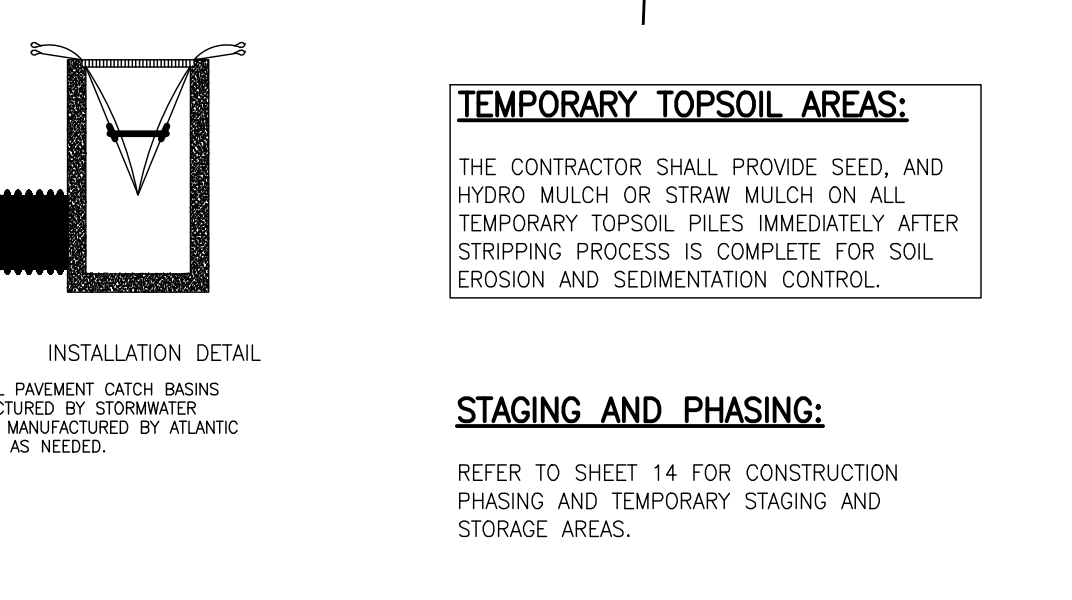
NO SCALE



NO SCALE



NO SCALE



NO SCALE

BASIN/FOREBAY CONSTRUCTION NOTE:
 PRIOR TO MASSIVE EARTH DISRUPTION, THE CONTRACTOR SHALL EXCAVATE, FINE GRADE, INSTALL 3" MINIMUM SCREENED TOPSOIL, SEED, AND HYDRO MULCH ALL DISTURBED AREAS FOR SOIL EROSION AND SEDIMENTATION CONTROL.

TEMPORARY TOPSOIL AREAS:
 THE CONTRACTOR SHALL PROVIDE SEED, AND HYDRO MULCH OR STRAW MULCH ON ALL TEMPORARY TOPSOIL AREAS IMMEDIATELY AFTER STRIPPING PROCESS IS COMPLETE FOR SOIL EROSION AND SEDIMENTATION CONTROL.

STAGING AND STORAGE:
 REFER TO SHEET 14 FOR CONSTRUCTION PHASING AND TEMPORARY STAGING AND STORAGE AREAS.

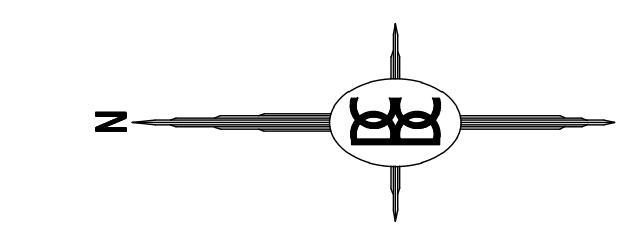
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 LANDSCAPE ARCHITECTS
 3172 INTERLAKE STREET
 WEST BLOOMFIELD, MI 48323
 (800) 246-6725 FAX (517) 548-1670

PROJECT: **LIPKIN MEDICAL OFFICE BUILDING**
 PREPARED FOR: **DR. LIPKIN**
 3172 INTERLAKE STREET
 WEST BLOOMFIELD, MI 48323

NO	BY	REVISION PER	DATE
1	LM	PER TOWNSHIP REVIEW	5/21/13
2	LM	PER COUNTY REVIEW	6/19/14
3	LM	PER TOWNSHIP REVIEW	11/17/14
4	LM	PER TOWNSHIP REVIEW	10/24/14
5	LM	AMENDED SITE PLAN	10/26/16

DESIGNED BY: LM
 DRAWN BY: LM
 CHECKED BY:

SCALE: 1" = 30'
 JOB NO.: 13-293
 DATE: 4-30-14
 SHEET NO.: C3



BENCHMARKS:
 SITE BENCHMARKS (NGVD29 DATUM):
 BM #201, NE BOLT HYDRANT, ELEV.=989.58
 BM #202, RR SPIKE S/S P. POLE, ELEV.=989.48
 BM #203, BOSS TAG/NAIL SET W/S 10" OAK TREE, ELEV.=991.73
 BM #204, TOP OF CAPPED ROD, ELEV.=990.79

LEGEND

PROPOSED (PR)	EXISTING (EX)
FF	+ 922.08
FG	FF
T/A	T/A
T/C	T/C
T/W	T/W
F/L	F/L
T/P	T/P
RIM	RIM
INV	INV
MH	MH
IN	IN
CB	CB
ES	ES
OV	OV
HY	HY
UP	UP
SN	SN
SL	SL
FM	FM
ST	ST
WM	WM
WL	WL
OH	OH
C	C
E	E
G	G
T	T

CONTOUR
 STORM DRAINAGE FLOW
 SPOT ELEVATION
 FINISHED FLOOR ELEVATION
 FINISHED GRADE ELEVATION
 TOP OF ASPHALT
 TOP OF CURB / CONCRETE
 TOP OF WALK
 FLOW LINE
 TOP OF PIPE
 RIM ELEVATION
 INVERT ELEVATION
 MANHOLE STRUCTURE
 INLET STRUCTURE
 CATCHBASIN STRUCTURE
 END-SECTION
 GATEVALVE STRUCTURE
 HYDRANT
 UTILITY POLE
 SANITARY SEWER
 SANITARY LEAD
 FORCE MAIN
 STORM SEWER
 WATER MAIN
 WATER LEAD
 OVERHEAD WIRE
 CABLE
 ELECTRIC
 GAS
 TELEPHONE

MANHOLE
 INLET / CATCHBASIN
 FLARED END-SECTION
 GATE VALVE
 HYDRANT
 UTILITY POLE
 FENCE
 SIGN
 SANITARY SEWER LABEL
 STORM SEWER LABEL
 WATER MAIN LABEL
 SOIL EROSION CONTROL MEASURE
 (P=PERMANENT, T=TEMPORARY)
 SILT FENCE
 LIMITS OF GRADING/CLEARING
 WETLAND BOUNDARY
 CONCRETE
 ASPHALT
 MODIFIED CURB

THE DESIGN AND CONSTRUCTION OF THIS PROJECT IS BASED ON THE INFORMATION PROVIDED TO THE ENGINEER BY THE CLIENT. THE ENGINEER HAS CONDUCTED VISUAL SURVEYS AND HAS REVIEWED THE RECORD DRAWINGS AND SURVEY DATA PROVIDED TO HIM. THE ENGINEER HAS NOT CONDUCTED ANY OTHER SURVEYING OR TESTING. THE CLIENT IS RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED TO THE ENGINEER. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THIS PROJECT. THE CLIENT SHALL NOTIFY THE ENGINEER OF ANY CHANGES TO THE INFORMATION PROVIDED TO HIM. THE CLIENT SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES AND STRUCTURES. THE CLIENT SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES AND STRUCTURES. THE CLIENT SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES AND STRUCTURES.

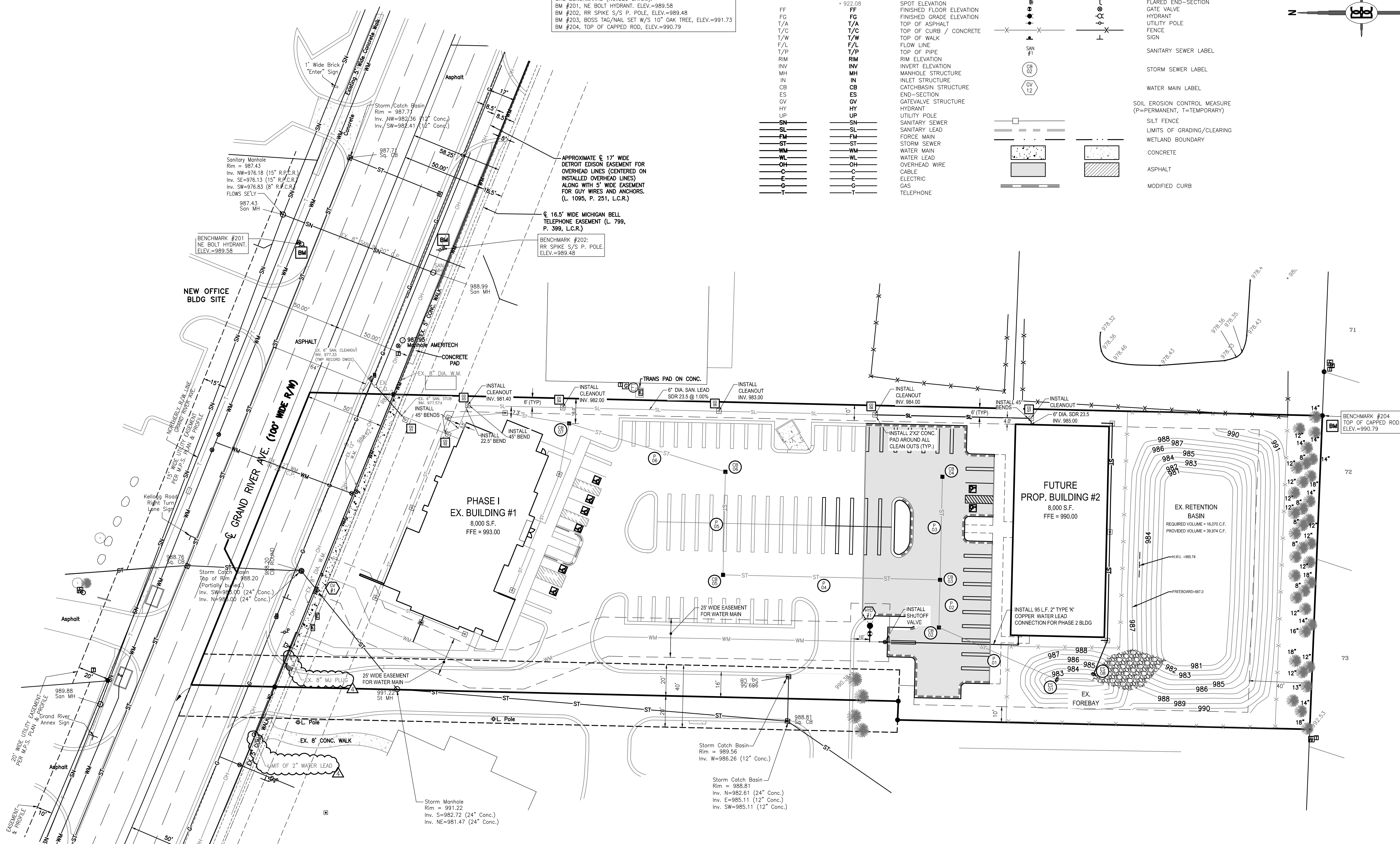
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 (E-MAIL: bossengr.com)
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 HOWELL, MI 48843
 (800) 246-6725 FAX (517) 548-1670

PROJECT: **LIPKIN MEDICAL OFFICE BUILDING**
 PREPARED FOR: **DR. LIPKIN**
 3172 INTERLAKEN STREET
 WEST BLOOMFIELD, MI 48323

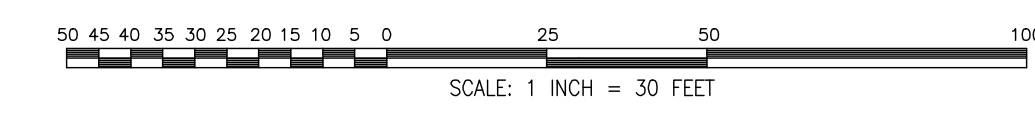
TITLE: **UTILITY PLAN**

NO	BY	REVISION	PER	DATE
1				
2				
3				
4				
5				

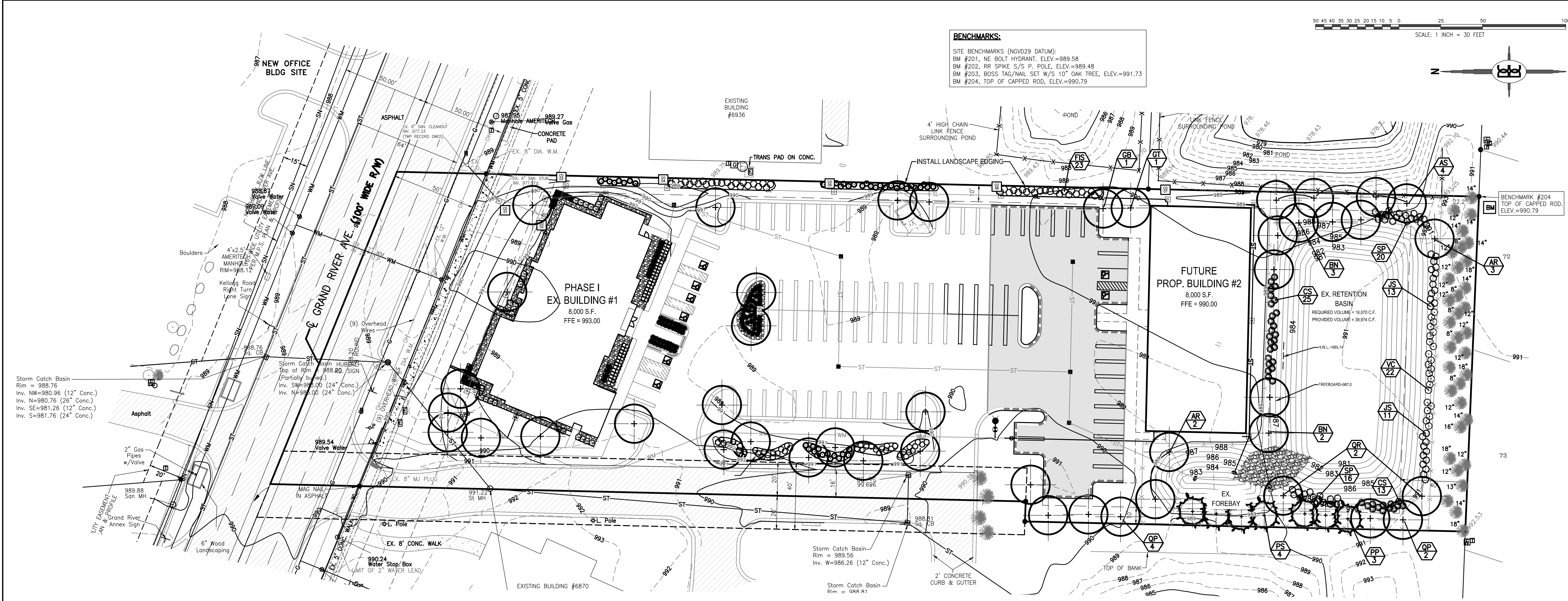
DESIGNED BY:
 DRAWN BY: LM
 CHECKED BY:
 SCALE: 1" = 30'
 JOB NO. 13-293
 DATE 4-30-14
 SHEET NO. **C4**



NOTE:
 REFER TO HYDRAULICS PLAN SHEET 7 FOR ALL STORM, SANITARY, AND WATER MAIN STRUCTURE AND PIPE SCHEDULES.



BENCHMARKS:
 SITE BENCHMARKS (NGVD29 DATUM):
 BM #201, NE BOLT HYDRANT, ELEV.=989.58
 BM #202, RR SPIKE S/S P. POLE, ELEV.=989.48
 BM #203, BOSS TAG/NAIL SET W/S 10" OAK TREE, ELEV.=991.73
 BM #204, TOP OF CAPPED ROD, ELEV.=990.79



Storm Catch Basin
 Rim = 988.76
 Inv. NW=980.96 (12" Conc.)
 Inv. N=980.76 (26" Conc.)
 Inv. SE=981.26 (12" Conc.)
 Inv. S=981.76 (24" Conc.)

- LANDSCAPE REQUIREMENTS**
- STREET FRONTAGE**
 -REQUIRED - 1 TREE PER 40 L.F. OF FRONTAGE (202 L.F. / 40 = 6 TREES)
 -PROVIDED - 6 TREES
 - BUFFER ZONES**
 ADJACENT TO NCS
 -REQUIRED - 10 FEET WIDE, 1 TREE OR 4 SHRUBS PER 20 L.F. (1,147 L.F. / 20 = 57 TREES)
 -PROVIDED - 10 FEET WIDE WITH 32 TREES AND 136 SHRUBS
 ADJACENT TO RESIDENTIAL
 -REQUIRED - 20 FEET WIDE, 1 CANOPY TREE, 1 EVERGREEN TREE AND 4 SHRUBS PER 30 L.F. (200 L.F. / 30 = 7 CANOPY TREES, 7 EVERGREEN TREES AND 27 SHRUBS)
 -PROVIDED - 20 FEET WIDE WITH 34 EXISTING PINES 8" TO 18" IN DIA.
 - PARKING AREA LANDSCAPING**
 -REQUIRED - 1 CANOPY TREE AND 100 S.F. OF LANDSCAPED AREA PER 10 SPACES (55 SPACES / 10 = 6 & 600 S.F.)
 -PROVIDED - 6 TREES & 635 S.F.
 - DETENTION BASIN LANDSCAPING**
 -REQUIRED - 1 TREE AND 10 SHRUBS PER 50 L.F. OF BASIN PERIMETER
 DETENTION BASIN - 598 L.F. = 12 TREES & 120 SHRUBS
 PROPOSED - 12 TREES & 120 SHRUBS

PLANT LIST

KEY	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
TREES					
AS	4	Acer saccharum 'Legacy'	Legacy Sugar Maple	2 1/2" cal.	B-B
AR	5	Acer rubrum 'Red Sunset'	Red Sunset Maple	2 1/2" cal.	B-B
BN	5	Betula nigra	River Birch	2 1/2" cal.	B-B
GB	1	Ginkgo biloba	Ginkgo	2 1/2" cal.	B-B, Male Only
GT	1	Gleditsia triacanthos var. inermis	Thornless Honey Locust	2 1/2" cal.	B-B
FP	3	Picea pungens var. 'Glauca'	Colorado Blue Spruce	6'-8" ht.	B-B
PS	4	Pinus strobus	Eastern White Pine	6'-8" ht.	B-B
QP	6	Quercus palustris	Pin Oak	2 1/2" cal.	B-B
QR	2	Quercus rubra	Red Oak	2 1/2" cal.	B-B
SHRUBS					
CS	38	Cornus sericea	Redosier Dogwood	24"-36" ht.	B-B
FIS	23	Forsythia x intermedia 'Spring Glory'	Spring Glory Forsythia	24"-36" ht.	B-B
JS	24	Juniperus chinensis var. sargentii	Sargent Juniper	24"-36" sprd.	B-B
SP	36	Salix purpurea	Purpleosier Willow	24"-36" ht.	B-B
VC	22	Viburnum carlesii 'Compactum'	Comp. Koreanspice Vib.	24"-36" ht.	B-B

LEGEND

PROPOSED (PR)	EXISTING (EX)	
900	900	CONTOUR
FF	+ 922.08	STORM DRAINAGE FLOW
FG	FF	SPOT ELEVATION
T/A	T/A	FINISHED FLOOR ELEVATION
T/C	T/C	FINISHED GRADE ELEVATION
T/W	T/W	TOP OF ASPHALT
F/L	F/L	TOP OF CURB / CONCRETE
T/P	T/P	TOP OF WALK
RIM	RIM	FLOW LINE
INV	INV	TOP OF PIPE
MH	MH	RIM ELEVATION
IN	IN	INVERT ELEVATION
CB	CB	MANHOLE STRUCTURE
ES	ES	INLET STRUCTURE
GV	GV	CATCHBASIN STRUCTURE
HY	HY	END-SECTION
UP	UP	GATEVALVE STRUCTURE
SN	SN	HYDRANT
SL	SL	UTILITY POLE
FM	FM	SANITARY SEWER
ST	ST	SANITARY LEAD
WM	WM	FORCE MAIN
WL	WL	STORM MAIN
OH	OH	WATER SEWER
C	C	WATER LEAD
E	E	OVERHEAD WIRE
T	T	CABLE
○	○	ELECTRIC
□	□	GAS
○	○	TELEPHONE
○	○	MANHOLE
○	○	INLET / CATCHBASIN
○	○	FLARED END-SECTION
○	○	GATE VALVE
○	○	HYDRANT
○	○	UTILITY POLE
○	○	FENCE
○	○	SIGN
○	○	SANITARY SEWER LABEL
○	○	STORM SEWER LABEL
○	○	WATER MAIN LABEL
○	○	SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
○	○	SILT FENCE
○	○	LIMITS OF GRADING/CLEARING
○	○	WETLAND BOUNDARY
○	○	CONCRETE
○	○	ASPHALT
○	○	MODIFIED CURB

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 (800) 246-6725 FAX (517) 548-1670

PROJECT: LIPKIN MEDICAL OFFICE BUILDING

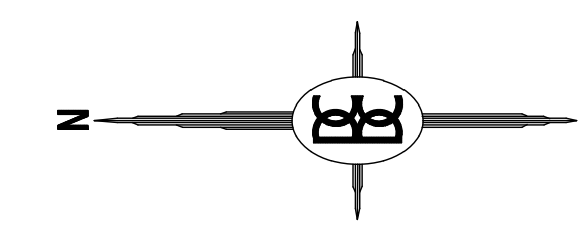
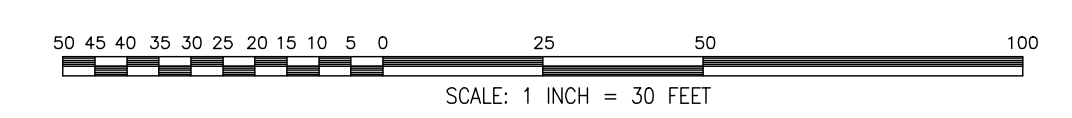
PREPARED FOR: DR. LIPKIN
 3172 INTERLAKEN STREET
 WEST BLOOMFIELD, MI 48323

TITLE: LANDSCAPE PLAN

NO.	BY	REVISION PER	DATE
5	TD	AMENDED SITE PLAN	10/26/16
4	LM	PER TOWNSHIP REVIEW	11/11/14
3	LM	PER COUNTY REVIEW	10/24/14
2	LM	PER TOWNSHIP REVIEW	6/19/14
1	LM	PER TOWNSHIP REVIEW	5/21/14

DESIGNED BY: TD
DRAWN BY: TD
CHECKED BY:
SCALE: 1" = 30'
JOB NO.: 13-293
DATE: 4-30-14
SHEET NO.: C5

BENCHMARKS:
 SITE BENCHMARKS (NGVD29 DATUM):
 BM #201, NE BOLT HYDRANT, ELEV.=989.58
 BM #202, RR SPIKE S/S P. POLE, ELEV.=989.48
 BM #203, BOSS TAG/NAIL SET W/S 10" OAK TREE, ELEV.=991.73
 BM #204, TOP OF CAPPED ROD, ELEV.=990.79



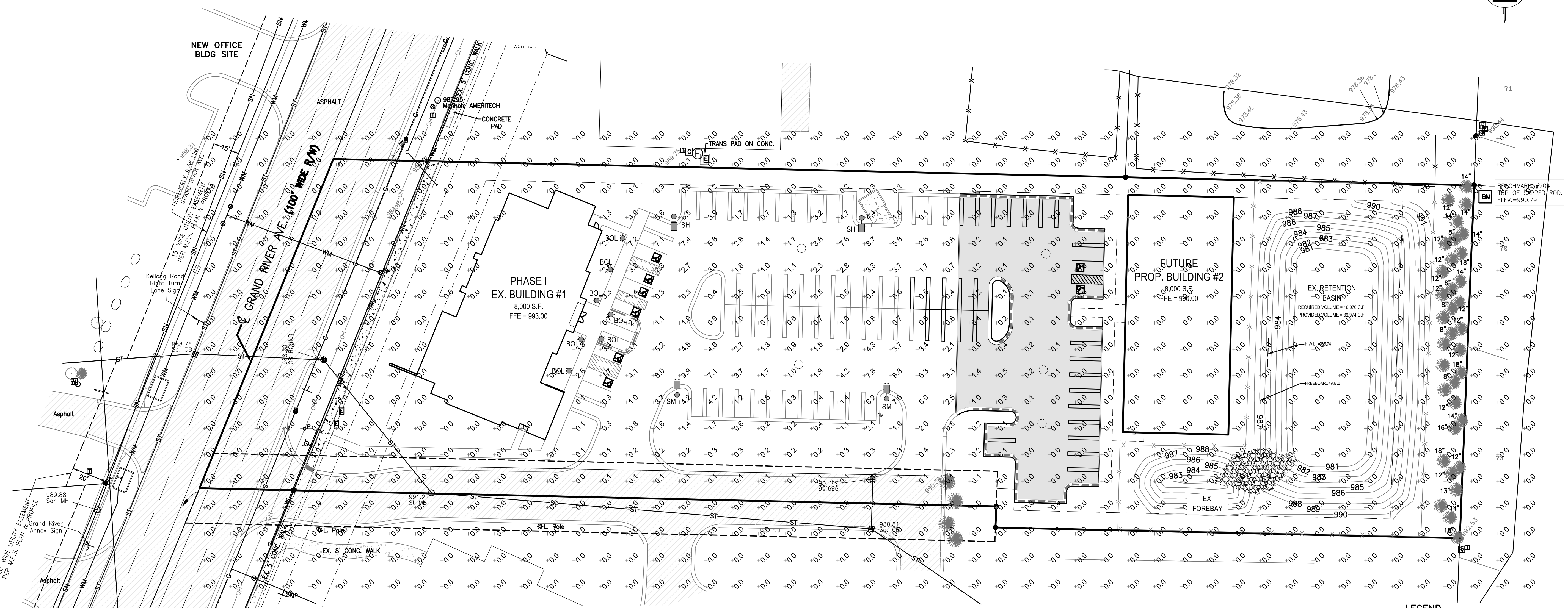
THE DESIGN AND CONSTRUCTION OF THIS PROJECT HAS BEEN REVIEWED BY THE ENGINEERING PROFESSIONAL PERSONNEL OF BOSS ENGINEERING, INC. WHOSE SIGNATURE AND SEAL ARE SHOWN ON THESE DRAWINGS. ONLY APPROVED WORK IS TO BE CONSTRUCTED. NO CHANGES TO THE DESIGN OR CONSTRUCTION SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF BOSS ENGINEERING, INC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE AND FEDERAL AUTHORITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CHANGES TO THE DESIGN OR CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CHANGES TO THE LOCATION OR DEPTH OF UTILITIES SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CHANGES TO THE LOCATION OR DEPTH OF UTILITIES SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CHANGES TO THE LOCATION OR DEPTH OF UTILITIES SHOWN ON THESE DRAWINGS.

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 (E-MAIL: boss@bosseng.com)
 3171 E. GRAND RIVER AVE.
 HONOLULU, HI 96843
 (808) 246-6725 FAX (817) 548-1670

PROJECT: **LIPKIN MEDICAL OFFICE BUILDING**
 PREPARED FOR: **DR. LIPKIN**
 3172 INTERLAKEN STREET
 WEST BLOOMFIELD, MI 48323

NO.	BY	REVISION	DATE
1	TD	AMENDED SITE PLAN	10/26/16
2	TD	PER TOWNSHIP REVIEW	11/11/14
3	TD	PER COUNTY REVIEW	10/24/14
4	TD	PER TOWNSHIP REVIEW	6/19/14
5	TD	PER TOWNSHIP REVIEW	5/21/13

DESIGNED BY: TD
 DRAWN BY: TD
 CHECKED BY:
 SCALE: 1" = 30'
 JOB NO. 13-293
 DATE 4-30-14
 SHEET NO. **C6**



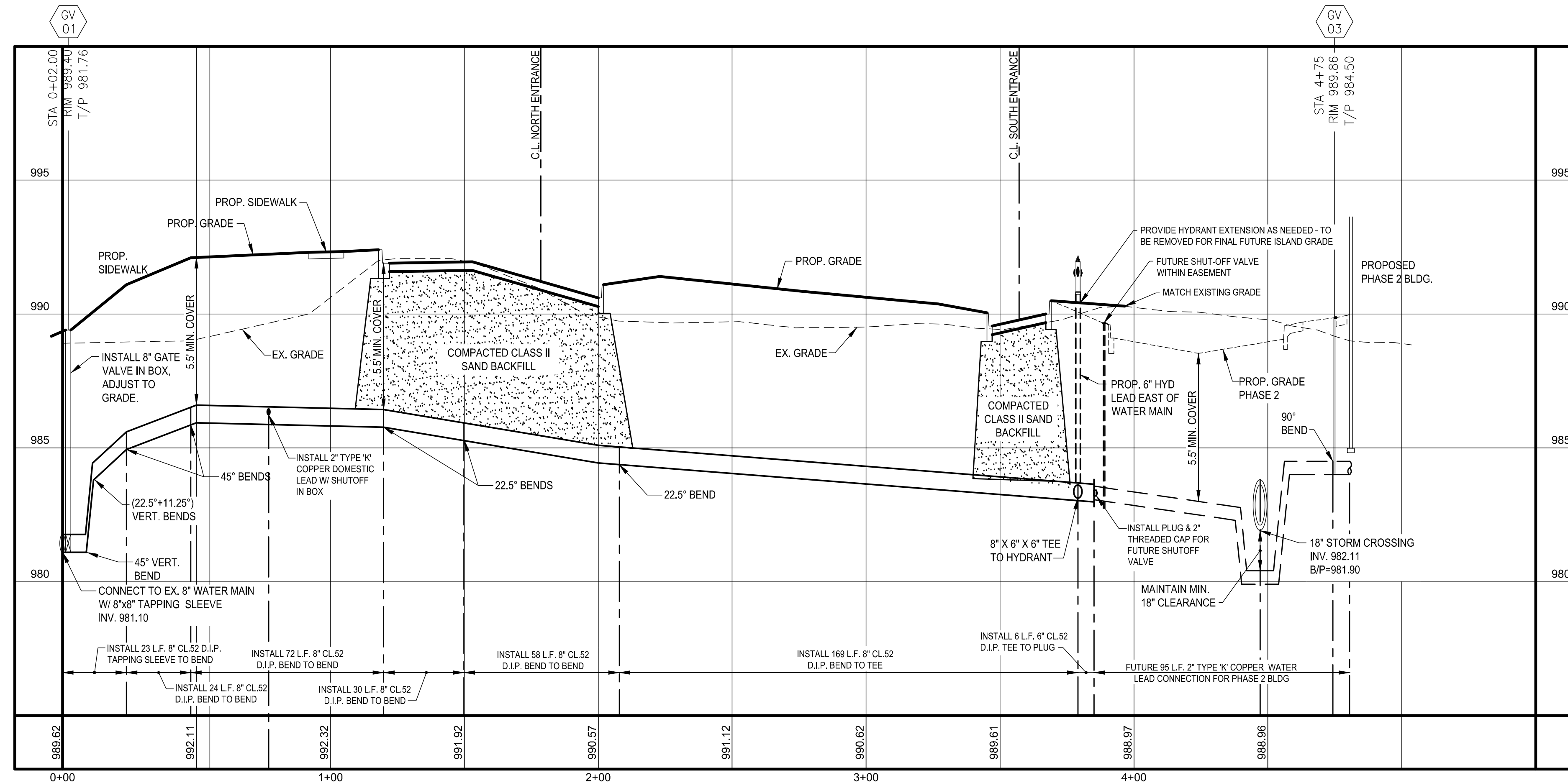
SITE LIGHTING SUMMARY
 LIGHTING LEVELS ARE SHOWN IN FOOTCANDLES AT 5' ABOVE GRADE

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

PROPOSED (PR)	EXISTING (EX)	DESCRIPTION
900	900	CONTOUR
FF	FF	STORM DRAINAGE FLOW
FG	FG	SPOT ELEVATION
T/A	T/A	FINISHED FLOOR ELEVATION
T/C	T/C	FINISHED GRADE ELEVATION
T/W	T/W	TOP OF ASPHALT
F/L	F/L	TOP OF CURB / CONCRETE
T/P	T/P	TOP OF WALK
RM	RM	FLOW LINE
INV	INV	TOP OF PIPE
MH	MH	RIM ELEVATION
IN	IN	INVERT ELEVATION
CB	CB	MANHOLE STRUCTURE
ES	ES	INLET STRUCTURE
GV	GV	CATCHBASIN STRUCTURE
HY	HY	END-SECTION
UP	UP	GATEVALVE STRUCTURE
SN	SN	HYDRANT
SL	SL	UTILITY POLE
FM	FM	SANITARY SEWER
ST	ST	SANITARY LEAD
WM	WM	FORCE MAIN
WL	WL	STORM SEWER
OH	OH	WATER MAIN
C	C	WATER LEAD
E	E	OVERHEAD WIRE
T	T	CABLE
○	○	ELECTRIC
●	●	GAS
○	○	TELEPHONE
○	○	MANHOLE
○	○	INLET / CATCHBASIN
○	○	FLARED END-SECTION
○	○	GATE VALVE
○	○	HYDRANT
○	○	UTILITY POLE
○	○	FENCE
○	○	SIGN
○	○	SANITARY SEWER LABEL
○	○	STORM SEWER LABEL
○	○	WATER MAIN LABEL
○	○	SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
○	○	SILT FENCE
○	○	LIMITS OF GRADING/CLEARING
○	○	WETLAND BOUNDARY
○	○	CONCRETE
○	○	ASPHALT
○	○	MODIFIED CURB

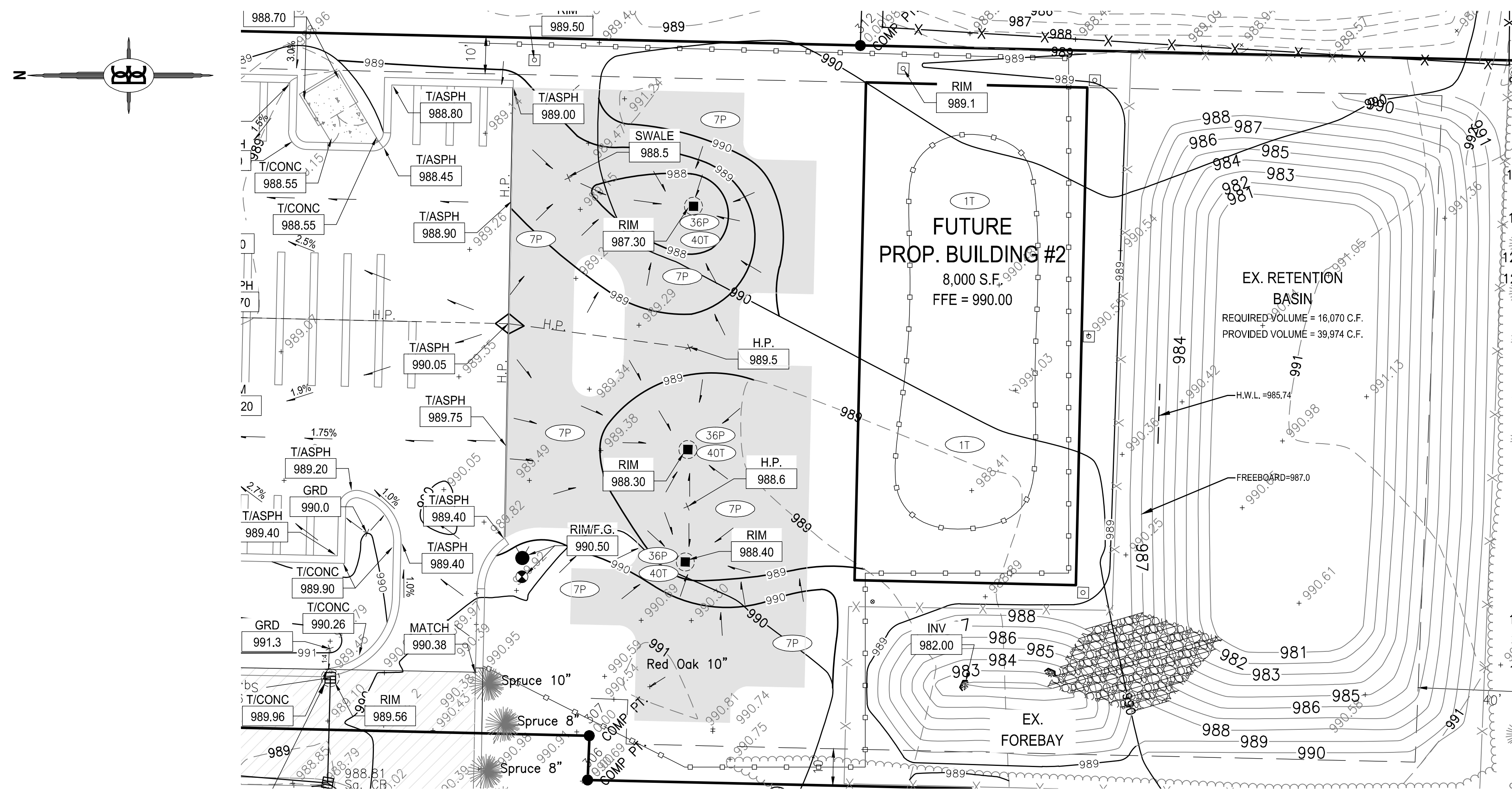
LUMINAIRE SCHEDULE												
SYMBOL	LABEL	QTY.	DESCRIPTION	CATALOG NUMBER	LAMP	FILE	LUMENS	LLF	POLE DESCRIPTION	POLE HEIGHT	BASE HEIGHT	TOTAL HEIGHT
SM	SM	2	DSX2 LED W/2 LARGE & 2 SMALL LIGHT ENGINES, (2) 1050mA, DRIVERS, 4000K LED, TYPE T3M OPTICS	LITHONIA DSX2 LED 80C 1000 40K T3M MVOLT DNAXD	LED	DSX2_LED_80C_1000_40K_T3_M_MVOLTIES	ABSOLUTE	0.95	RTA T20 DM19 FBC BA	18'	2'	20'
SH	SH	2	DSX2 LED W/2 LARGE & 2 SMALL LIGHT ENGINES, (2) 1050mA, DRIVERS, 4000K LED, TYPE T3M OPTICS, WITH HOUSE SIDE SHIELD	LITHONIA DSX2 LED 80C 1000 40K T3M MVOLT HS DNAXD	LED	DSX2_LED_80C_1000_40K_T3_M_MVOLT_HS.IE.S	ABSOLUTE	0.95	RTA T20 DM19 FBC BA	18'	2'	20'
BOL	BOL	7	D-SERIES BOLLARD WITH 16 3000K LEDS OPERATED AT 530mA AND SYMMETRIC	LITHONIA DSXB LED 16C 530 30K SYM DNAXD	LED	DSXB_LED_16C_530_30K_SYM.IES	ABSOLUTE	0.95		36"	0'	36"

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



WATER MAIN PROFILE

SCALE: 1"=30'



INTERIM GRADING PLAN

SCALE: 1"=20'



THE USER SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL INFORMATION SHOWN ON THESE DRAWINGS AND FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE AND FEDERAL AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND STRUCTURES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND STRUCTURES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND STRUCTURES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND STRUCTURES.

BOSS ENGINEERING
 ENGINEERS • SURVEYORS • PLANNERS
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 (E-MAIL: bossengr.com)
 3172 E. GRAND RIVER AVE.
 HOWELL, MI 48843
 (800) 246-6725 FAX (517) 548-1670

PROJECT: **LIPKIN MEDICAL OFFICE BUILDING**
 PREPARED BY: **DR. LIPKIN**
 FOR: 3172 INTERLAKEN STREET, WEST BLOOMFIELD, MI 48323
 TITLE: **WATER MAIN PROFILE AND INTERIM GRADING PLAN**

NO.	BY	REVISION	DATE
1	LJM	PER TOWNSHIP REVIEW	6/19/14
2	LJM	PER COUNTY REVIEW	10/24/14
3	LJM	PER TOWNSHIP REVIEW	11/11/14
4	LJM	AMENDED SITE PLAN	10/26/16

DESIGNED BY: LJM
 DRAWN BY: LJM
 CHECKED BY:
 SCALE: 1" = 30'
 JOB NO. 13-293
 DATE 4-30-14
 SHEET NO. **C8**

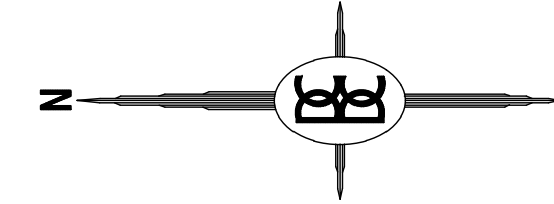
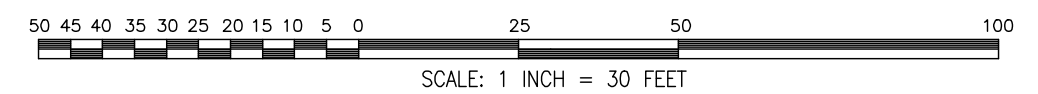
LEGEND

- POWER POLE
HYDRANT
GATE VALVE
MANHOLE
STORM CATCH BASIN (BEEHIVE)
STORM CATCH BASIN (SQUARE)
TELEPHONE RISER
U.G. TELEPHONE MARKER
GAS RISER
U.G. GAS MARKER
ELECTRICAL RISER
U.G. ELECTRIC MARKER
CABLE TV RISER
U.G. CABLE TV MARKER
LIGHT POLE
SIGN
IRON SET
IRON FOUND
SECTION CORNER
WATER MAIN
GAS MAIN
OVERHEAD WIRES
FENCE
SANITARY SEWER
STORM SEWER
ELECTRIC
TELEPHONE
CONCRETE
SAN MH
CENTERLINE
LIBER
PAGE
L.C.R.
(R&M)
BENCHMARK SYMBOL

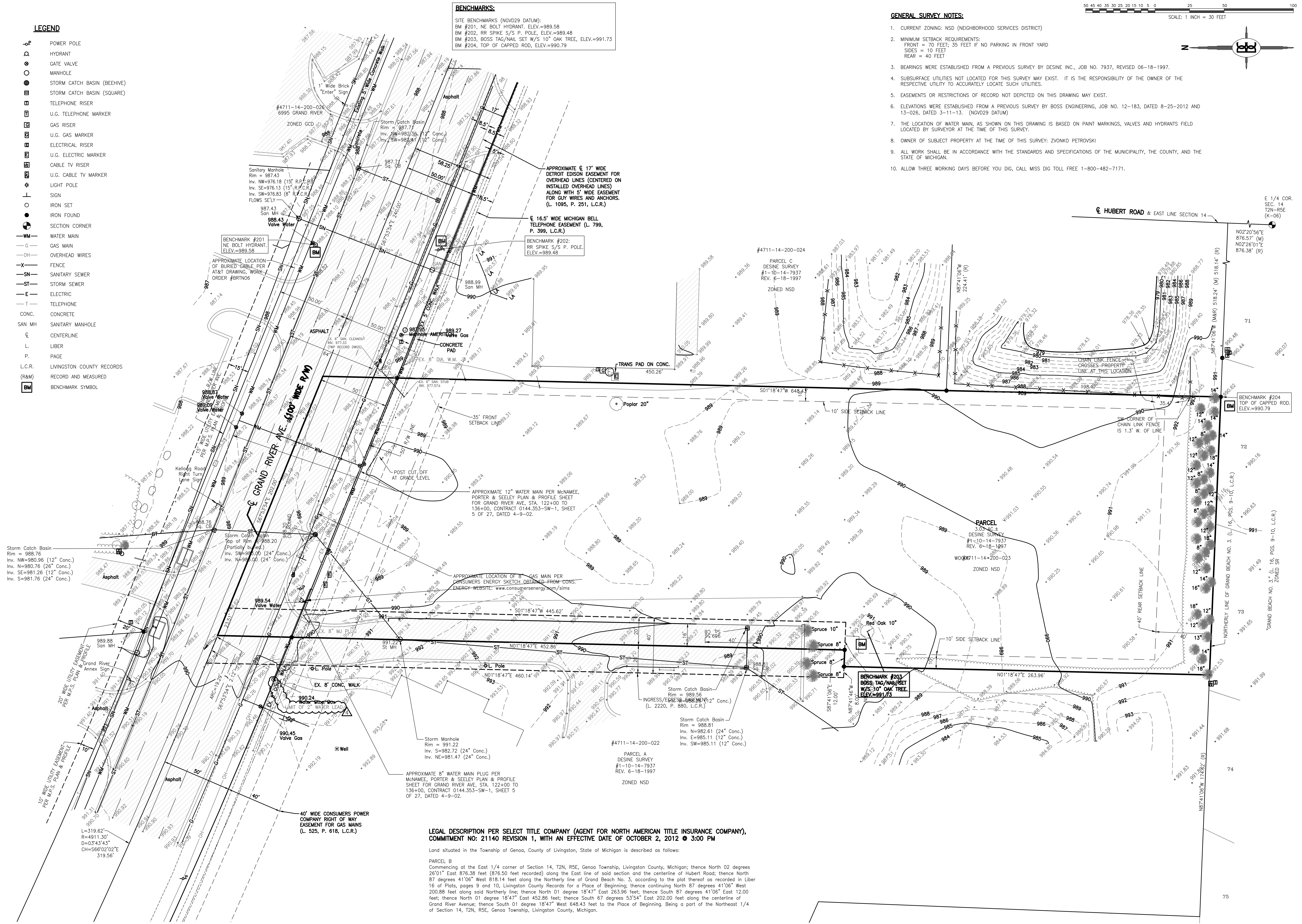
BENCHMARKS:
SITE BENCHMARKS (NGVD29 DATUM):
BM #201, NE BOLT HYDRANT, ELEV.=989.58
BM #202, RR SPIKE S/S P. POLE, ELEV.=989.48
BM #203, BOSS TAG/NAIL SET W/S 10" OAK TREE, ELEV.=991.73
BM #204, TOP OF CAPPED ROD, ELEV.=990.79

GENERAL SURVEY NOTES:

- 1. CURRENT ZONING: NSD (NEIGHBORHOOD SERVICES DISTRICT)
2. MINIMUM SETBACK REQUIREMENTS:
FRONT = 70 FEET; 35 FEET IF NO PARKING IN FRONT YARD
SIDES = 10 FEET
REAR = 40 FEET
3. BEARINGS WERE ESTABLISHED FROM A PREVIOUS SURVEY BY DESINE INC., JOB NO. 7937, REVISED 06-18-1997.
4. SUBSURFACE UTILITIES NOT LOCATED FOR THIS SURVEY MAY EXIST. IT IS THE RESPONSIBILITY OF THE OWNER OF THE RESPECTIVE UTILITY TO ACCURATELY LOCATE SUCH UTILITIES.
5. EASEMENTS OR RESTRICTIONS OF RECORD NOT DEPICTED ON THIS DRAWING MAY EXIST.
6. ELEVATIONS WERE ESTABLISHED FROM A PREVIOUS SURVEY BY BOSS ENGINEERING, JOB NO. 12-183, DATED 8-25-2012 AND 13-026, DATED 3-11-13. (NGVD29 DATUM)
7. THE LOCATION OF WATER MAIN, AS SHOWN ON THIS DRAWING IS BASED ON PAINT MARKINGS, VALVES AND HYDRANTS FIELD LOCATED BY SURVEYOR AT THE TIME OF THIS SURVEY.
8. OWNER OF SUBJECT PROPERTY AT THE TIME OF THIS SURVEY: ZVONKO PETROVSKI
9. ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY, THE COUNTY, AND THE STATE OF MICHIGAN.
10. ALLOW THREE WORKING DAYS BEFORE YOU DIG, CALL MISS DIG TOLL FREE 1-800-482-7171.



BEFORE YOU DIG CALL MISS DIG
1-800-482-7171
MISS DIG
MISS DIG
MISS DIG



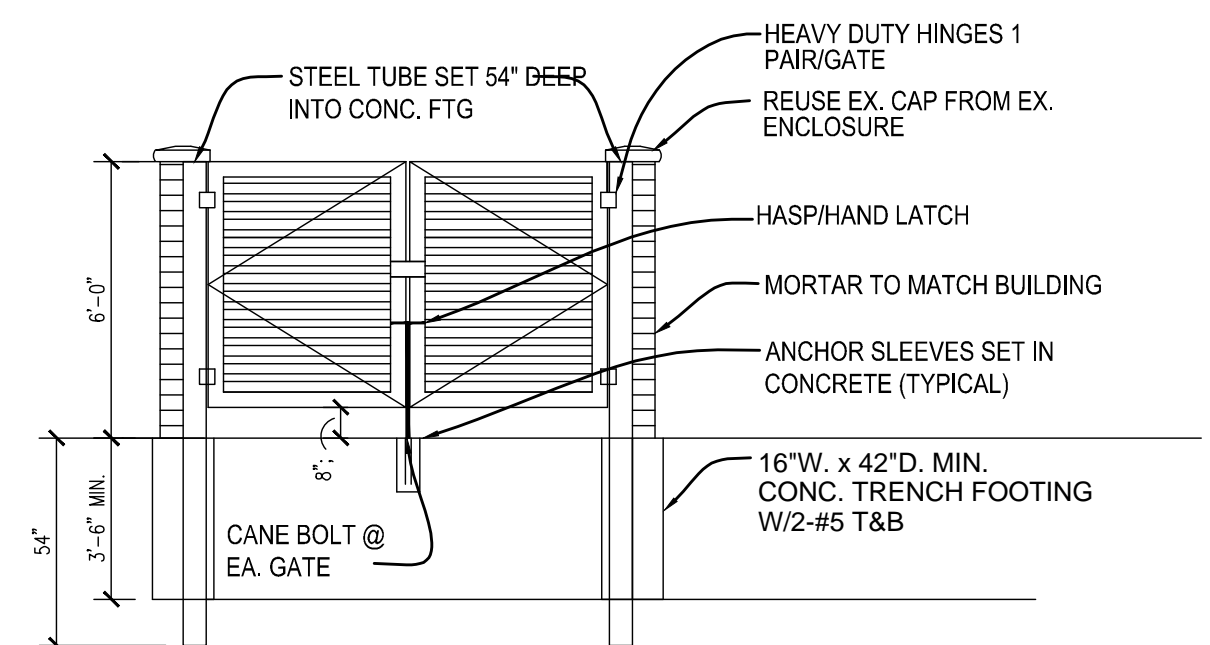
LEGAL DESCRIPTION PER SELECT TITLE COMPANY (AGENT FOR NORTH AMERICAN TITLE INSURANCE COMPANY), COMMITMENT NO: 21140 REVISION 1, WITH AN EFFECTIVE DATE OF OCTOBER 2, 2012 @ 3:00 PM

Parcel B
Commencing at the East 1/4 corner of Section 14, T2N, R5E, Genoa Township, Livingston County, Michigan; thence North 02 degrees 26'01" East 876.38 feet (876.50 feet recorded) along the East line of said section and the centerline of Hubert Road; thence North 87 degrees 41'06" West 816.14 feet along the Northernly line of Grand Beach No. 3, according to the plat thereof as recorded in Liber 16 of plats, pages 9 and 10, Livingston County Records for a Piece of Beginning; thence continuing North 87 degrees 41'06" West 200.88 feet along said Northernly line; thence North 01 degree 18'47" East 263.96 feet; thence South 87 degrees 41'06" East 12.00 feet; thence North 01 degree 18'47" East 452.86 feet; thence South 67 degrees 53'54" East 202.00 feet along the centerline of Grand River Avenue; thence South 01 degree 18'47" West 648.43 feet to the Place of Beginning. Being a part of the Northeast 1/4 of Section 14, T2N, R5E, Genoa Township, Livingston County, Michigan.

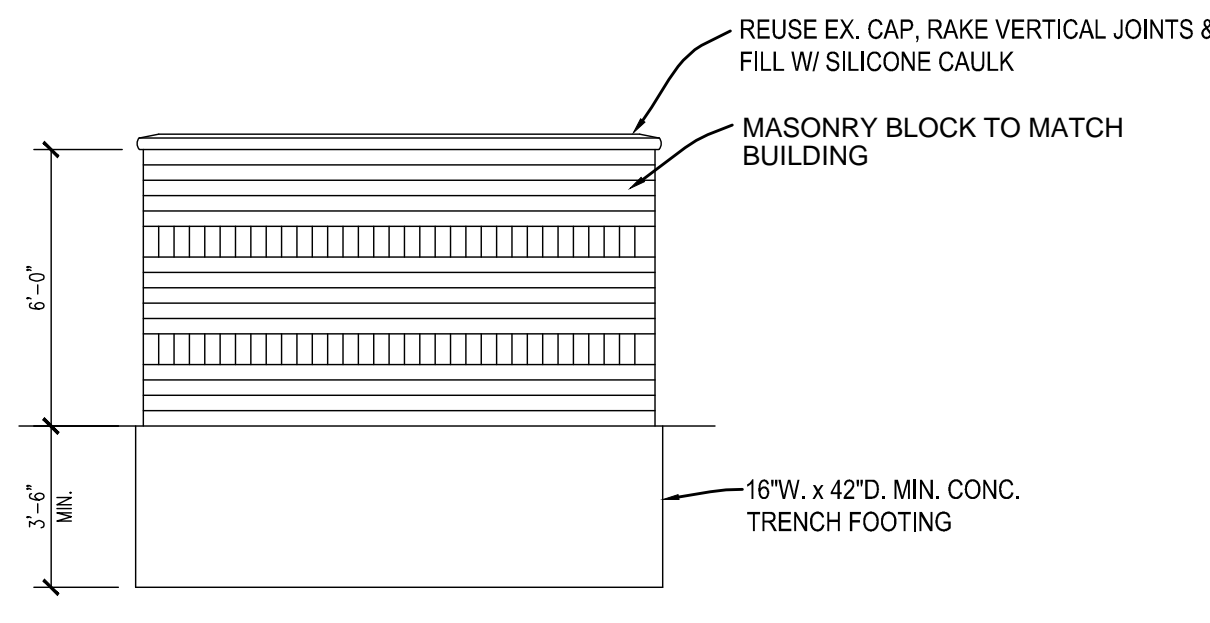
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HUNTELL, MI 48843
(800) 246-6725 FAX (517) 548-1670

PROJECT: LIPKIN MEDICAL OFFICE BUILDING
PREPARED FOR: DR. LIPKIN
3172 INTERLAKEN STREET
WEST BLOOMFIELD, MI 48323
DESIGNED BY:
DRAWN BY: AEB
CHECKED BY:
SCALE: 1" = 30'
JOB NO. 13-293
DATE: 4-30-14
SHEET NO. C9

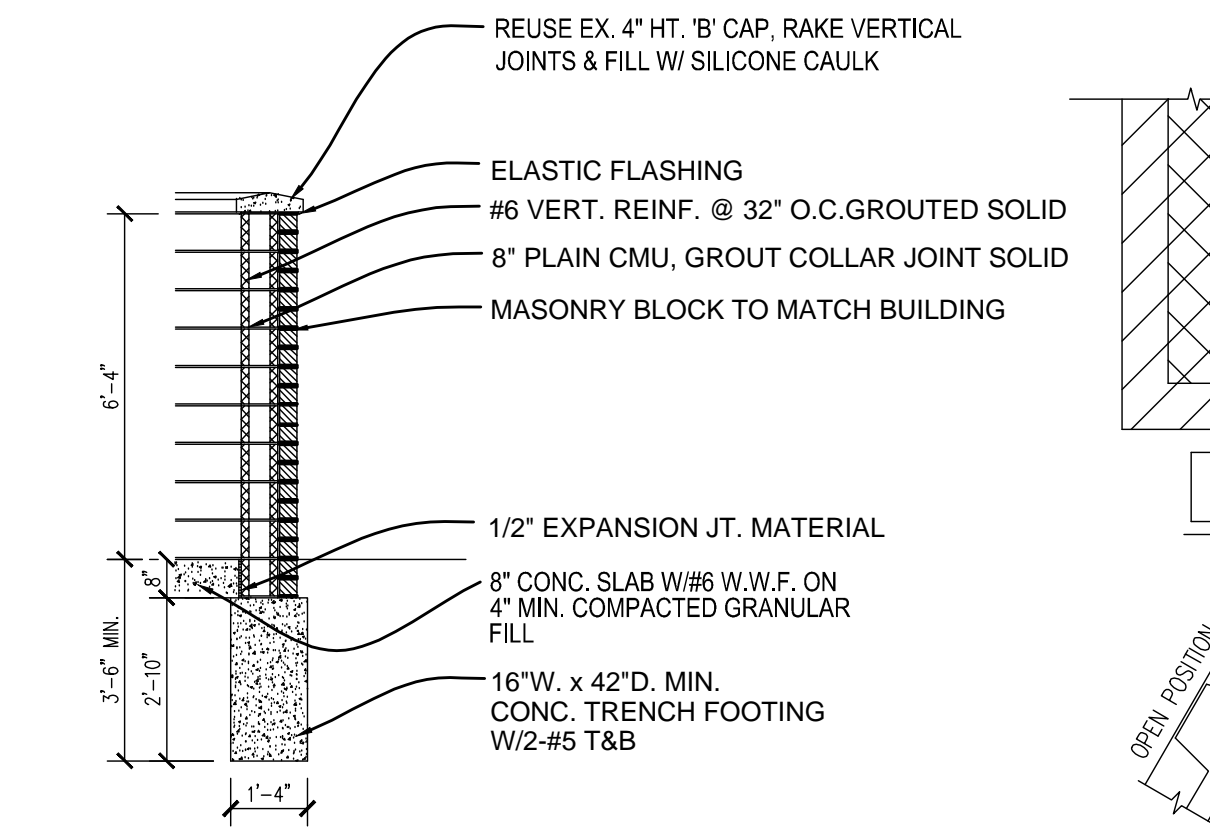
Table with columns: NO, BY, REVISION, PER, DATE. Includes revision history and design dates.



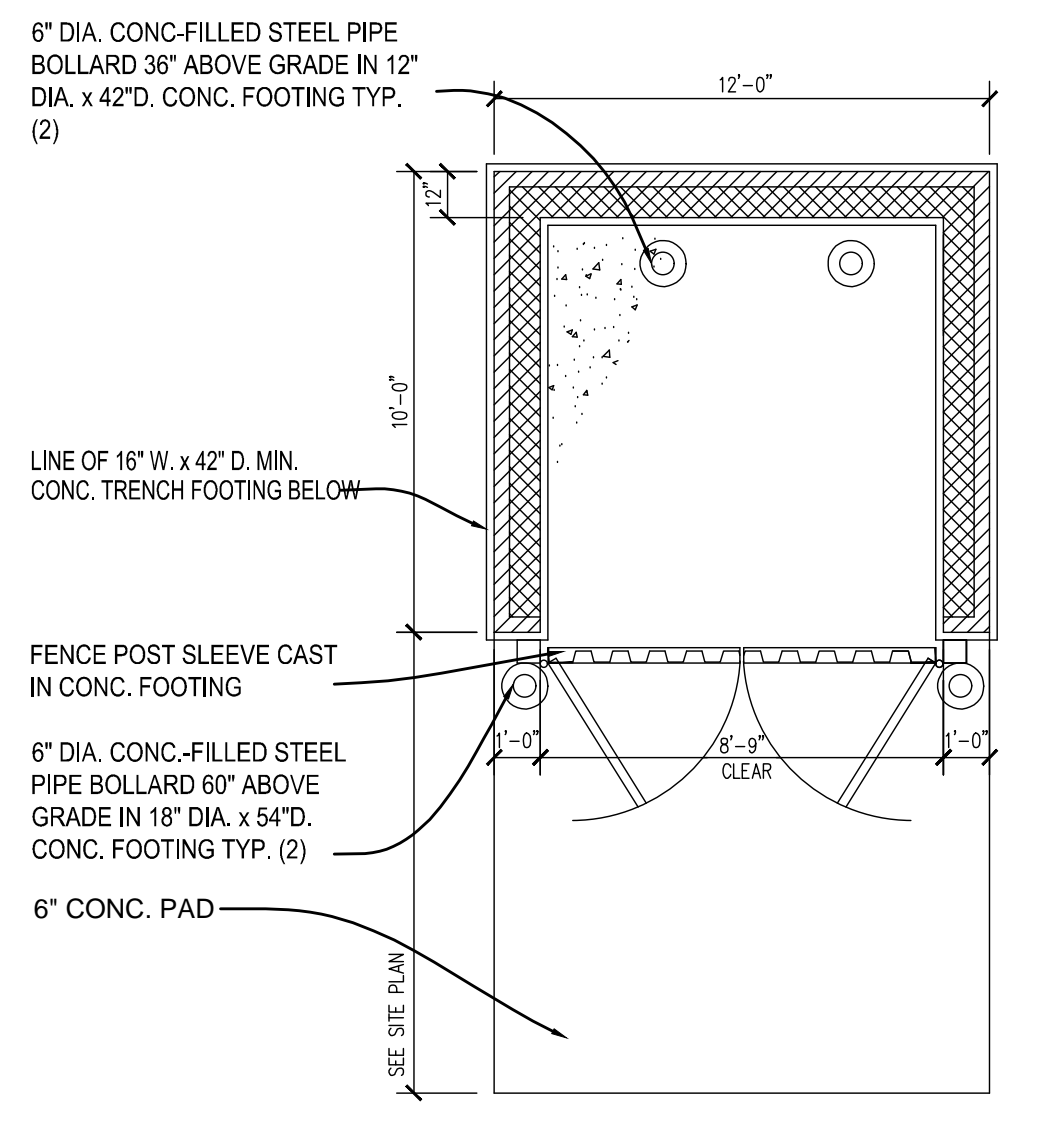
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NO SCALE



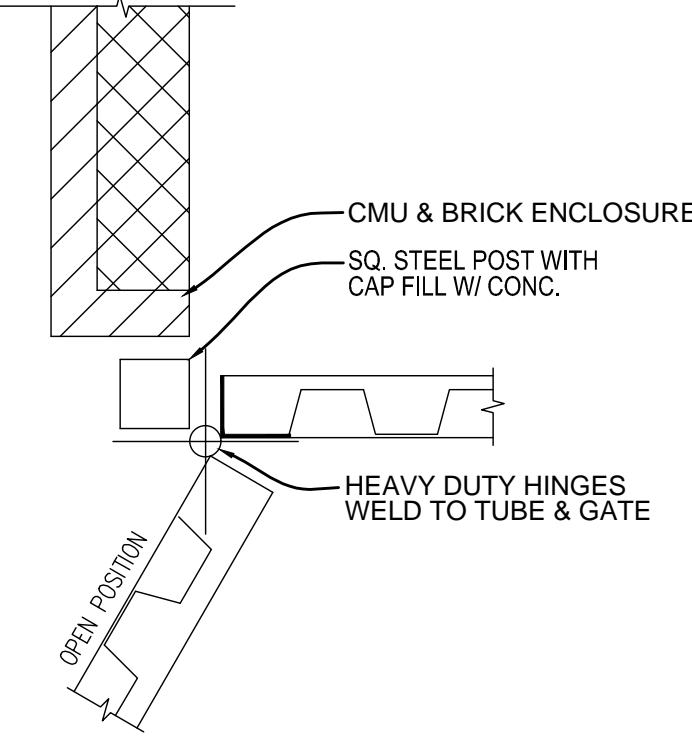
REFUSE ENCLOSURE REAR ELEVATION
NO SCALE



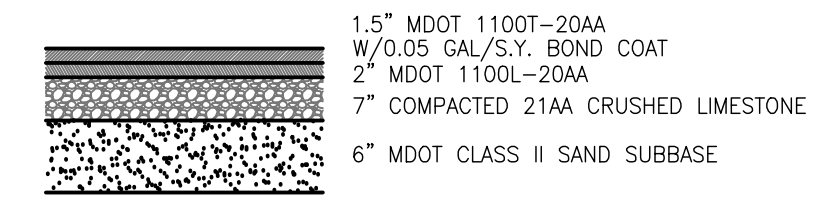
REFUSE ENCLOSURE WALL SECTION
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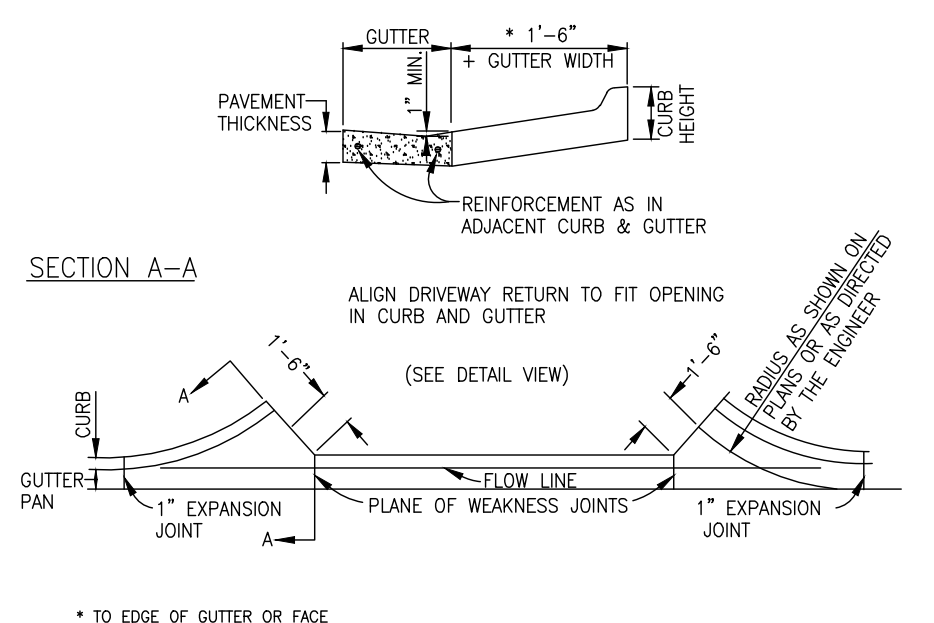
REFUSE ENCLOSURE PLAN
NO SCALE



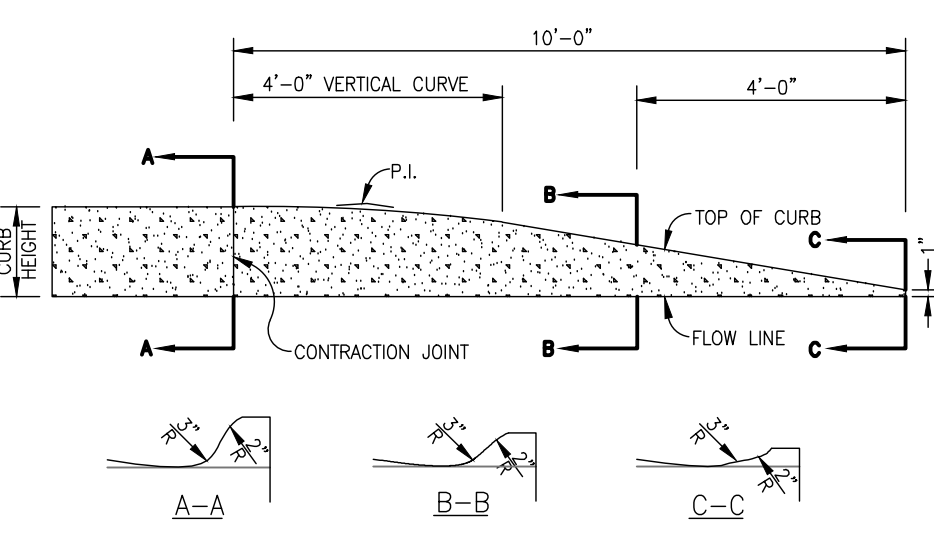
GATE POST DETAIL
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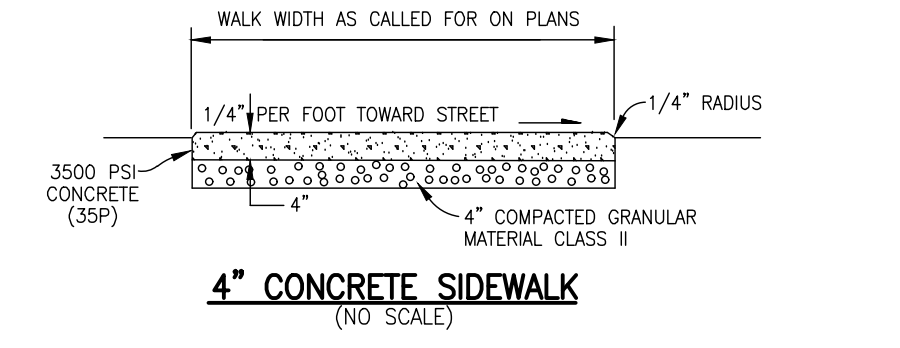
ASPHALT SECTION
(NO SCALE)



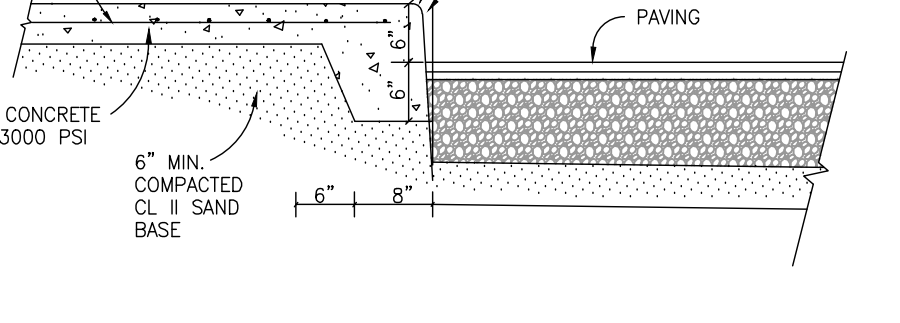
CONCRETE DRIVEWAY OPENING - MDOT STANDARD II-42, DETAIL 'M'
(NO SCALE)



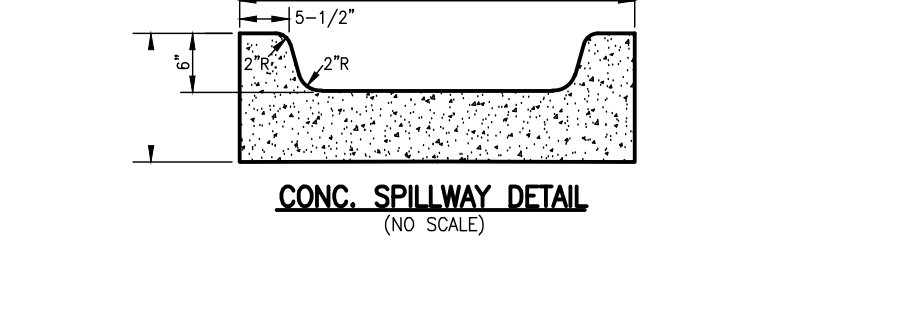
CONCRETE CURB AND GUTTER ENDINGS
(NO SCALE)



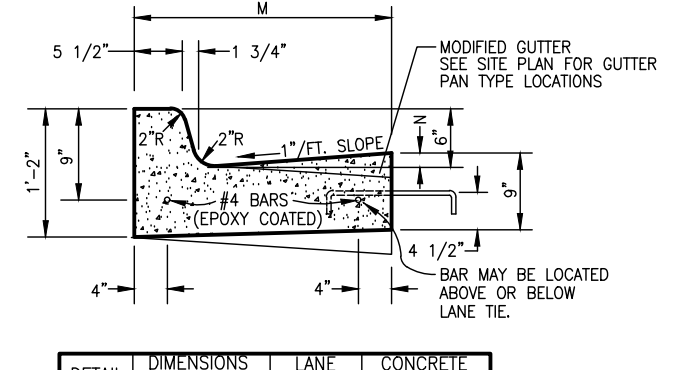
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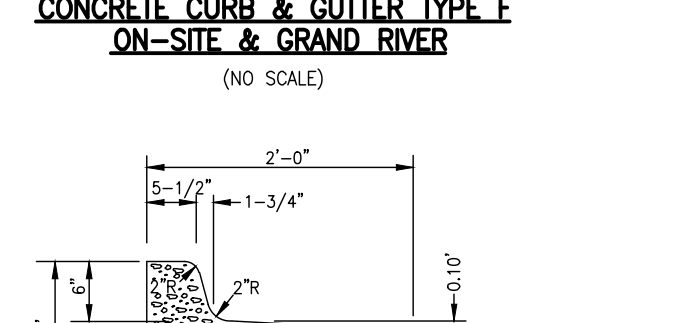
INTEGRAL CONCRETE WALK / CURB DETAIL
(NO SCALE)



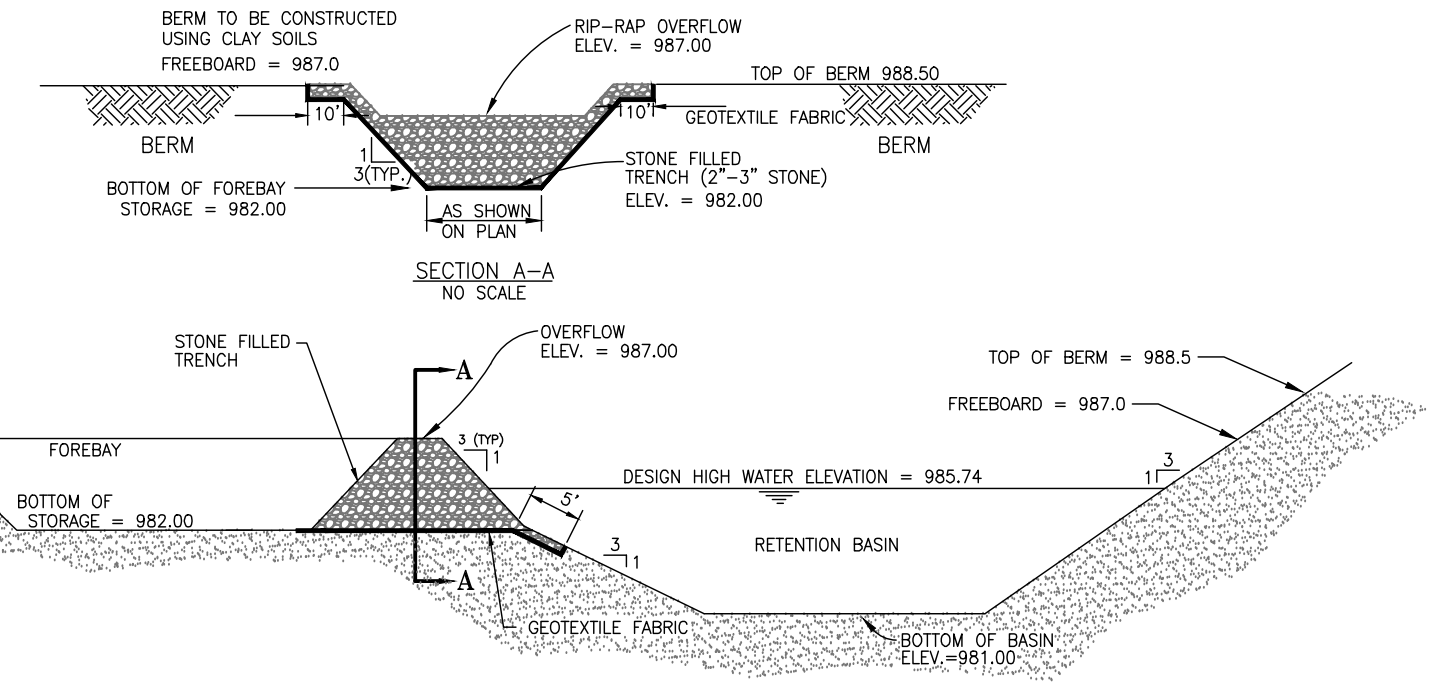
CONC. SPILLWAY DETAIL
(NO SCALE)



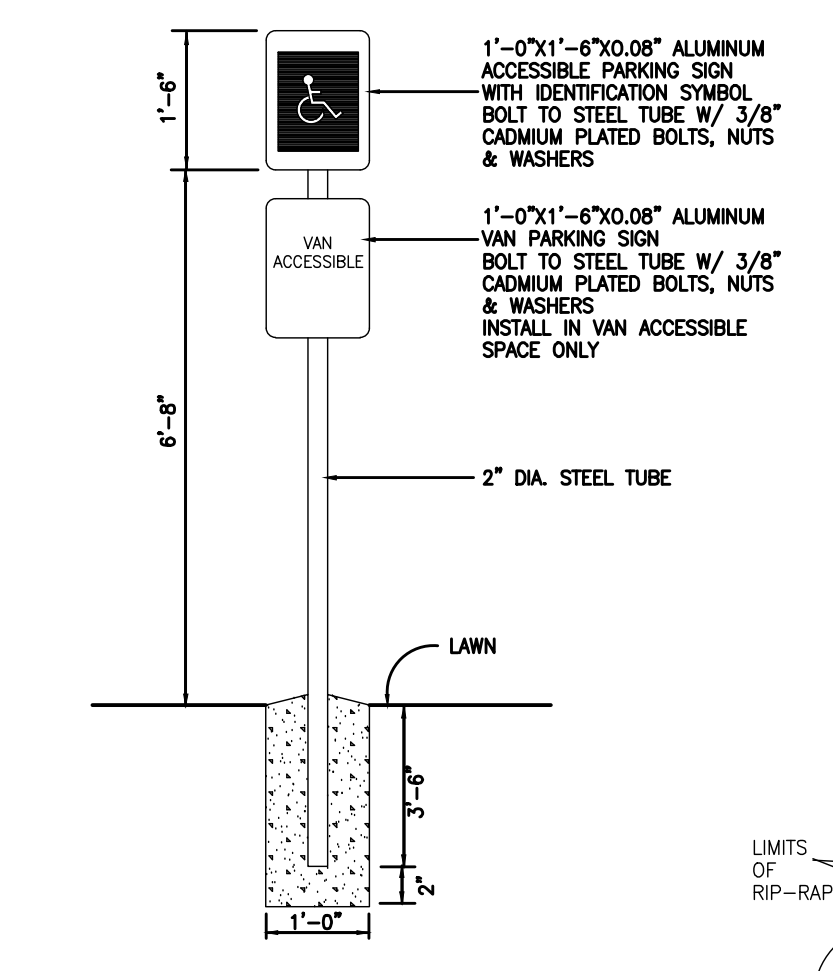
CONCRETE CURB & GUTTER TYPE F ON-SITE & GRAND RIVER
(NO SCALE)



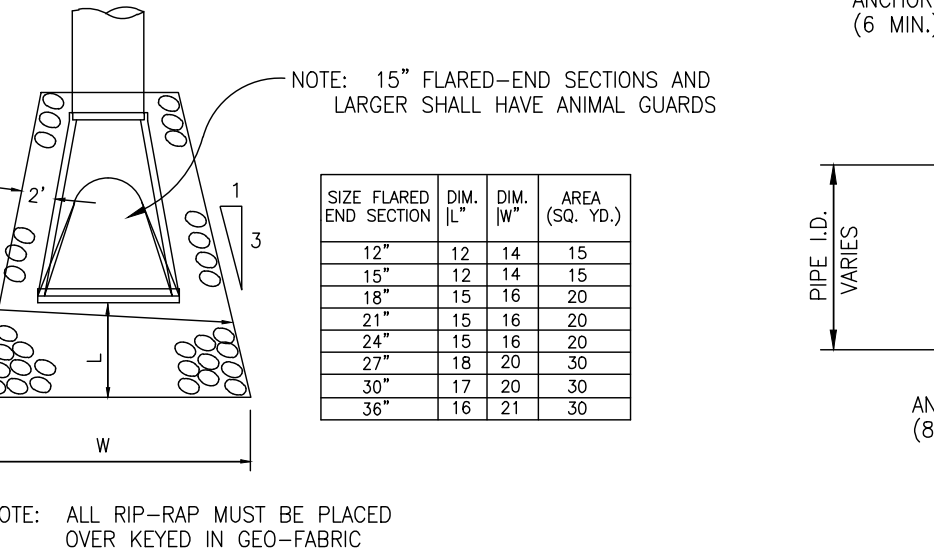
MODIFIED BARRIER (M.D.O.T. TYPE F4)
(NO SCALE)



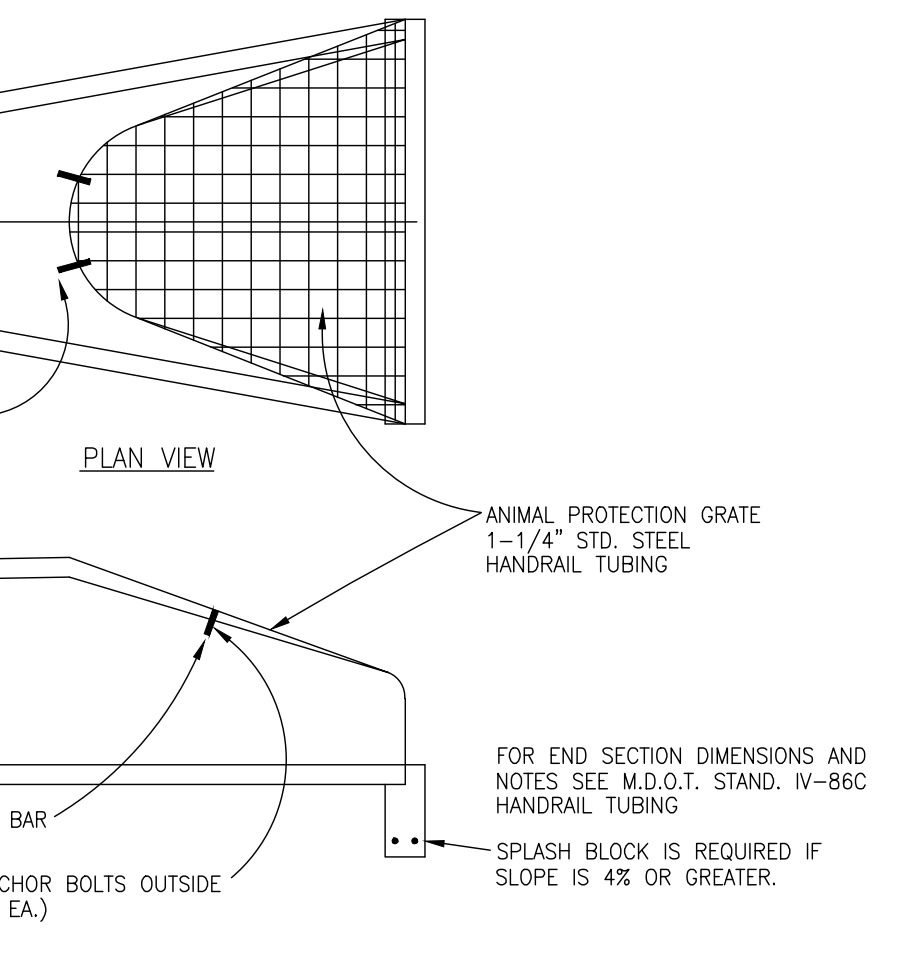
RETENTION BASIN CROSS SECTION
NOT TO SCALE



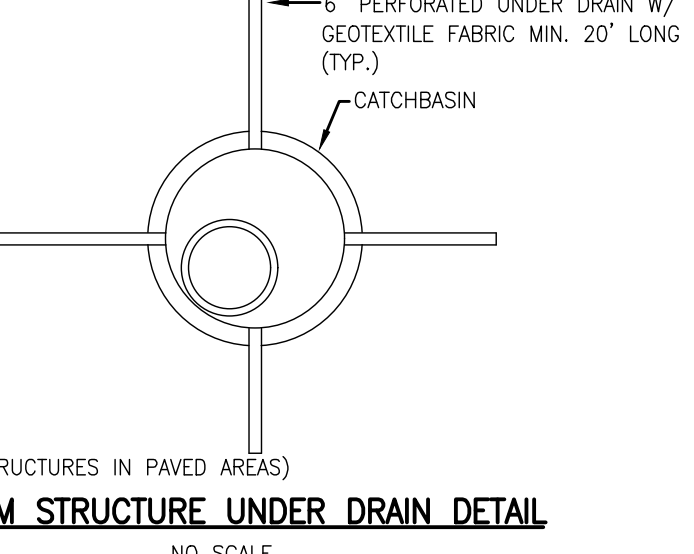
HANDICAP PARKING SIGN DETAIL
(NO SCALE)



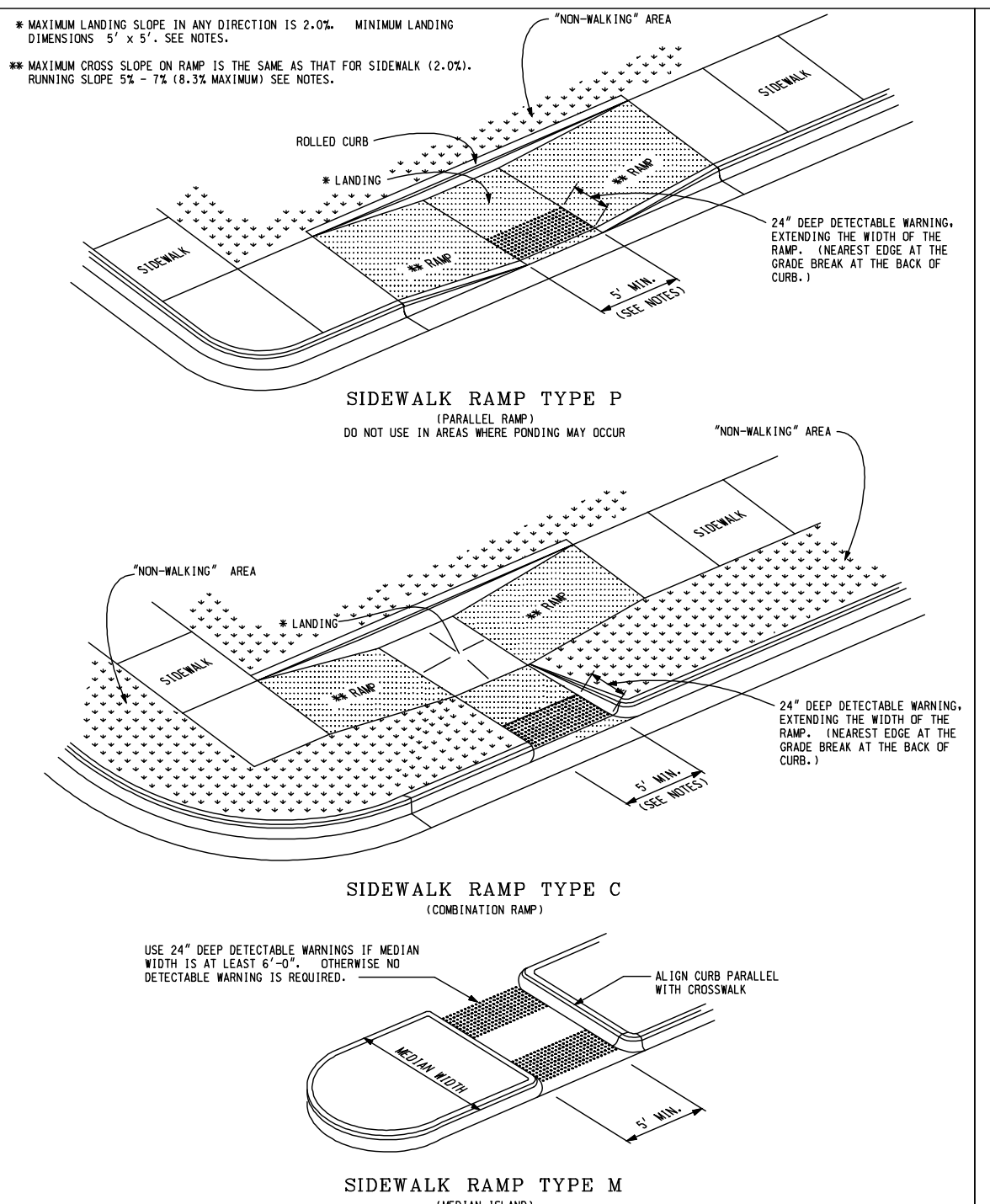
TYPICAL RIP-RAP DETAIL
(SCALE: NONE)



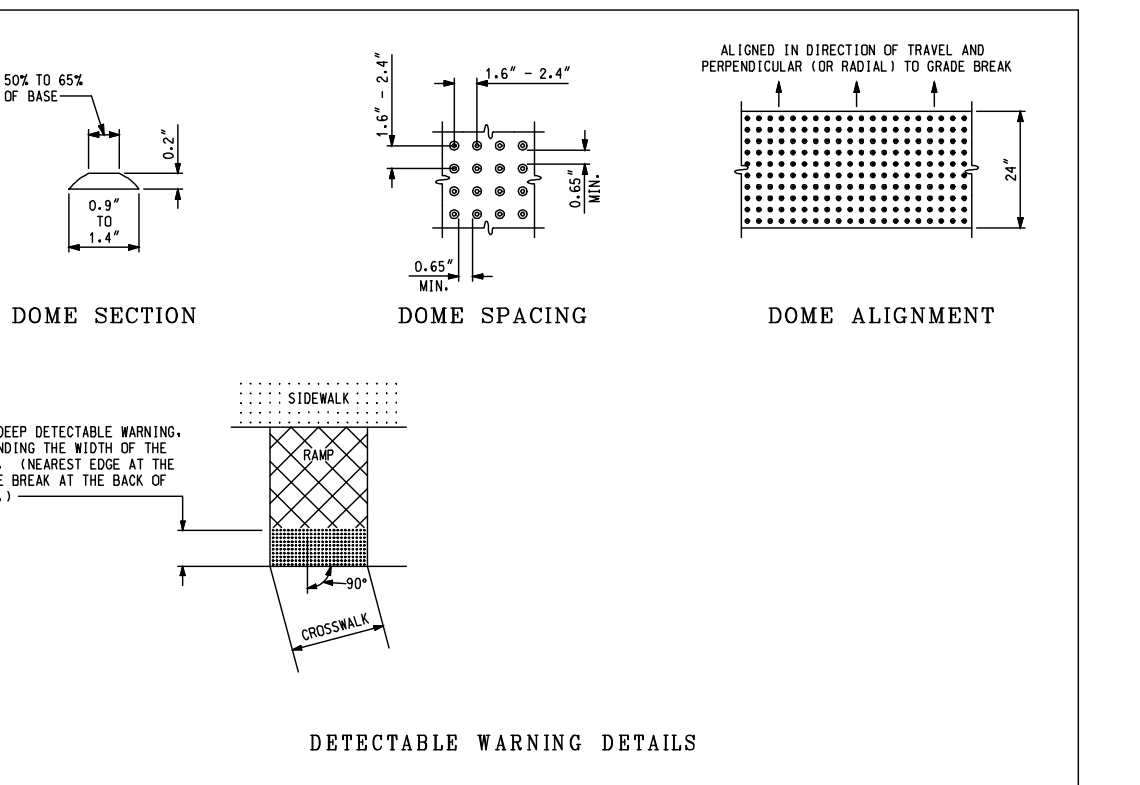
PRECAST CONCRETE END SECTION FOR PIPE CULVERT W/ ANIMAL GRATE
(NO SCALE)



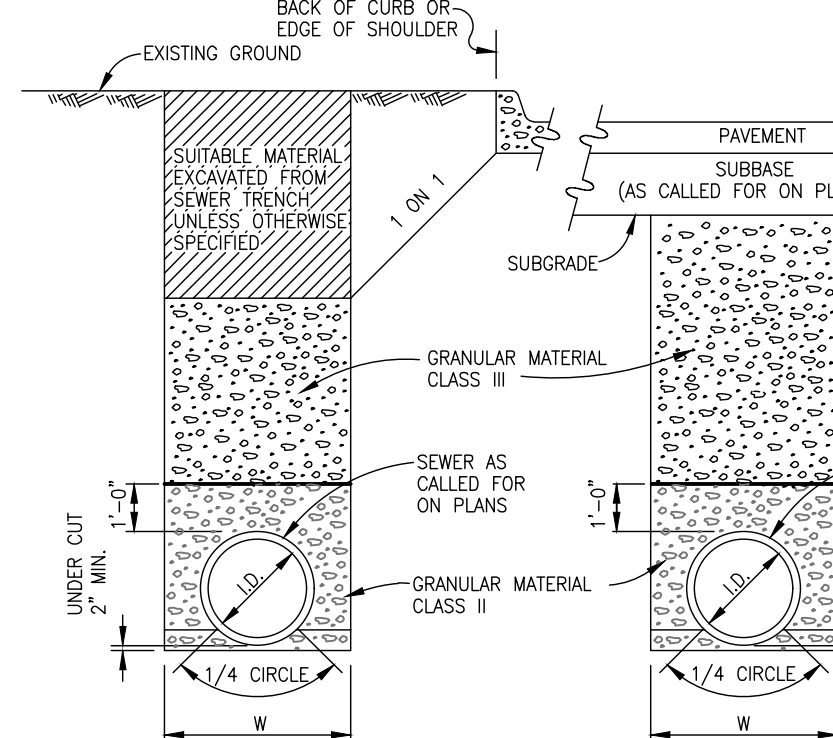
STORM STRUCTURE UNDER DRAIN DETAIL
NO SCALE



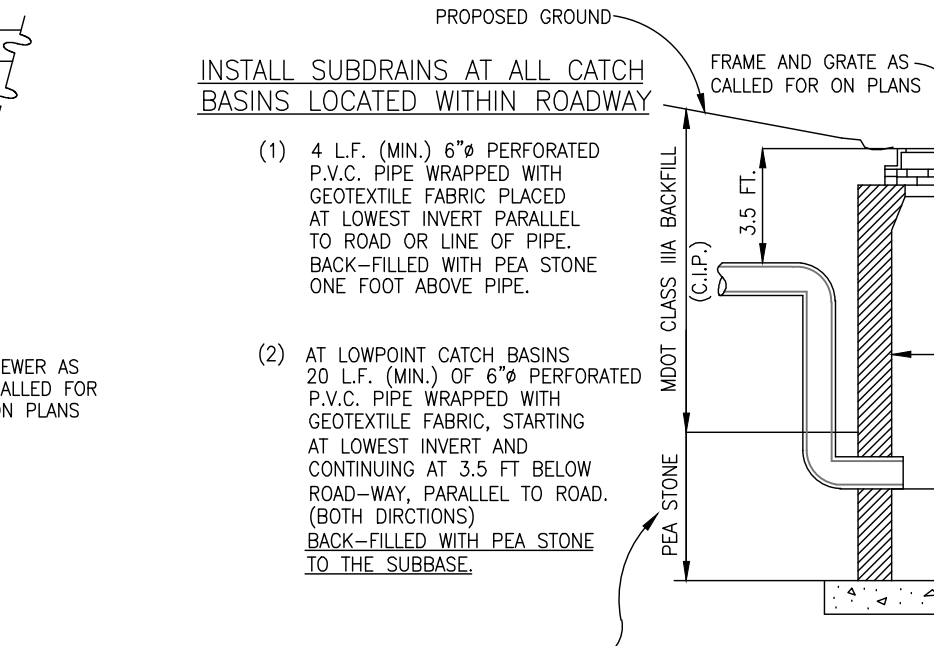
SIDEWALK RAMP AND DETECTABLE WARNING DETAILS
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR
SIDEWALK RAMP AND DETECTABLE WARNING DETAILS
9-10-2010
7-26-2010
R-28-C
SHEET 3 OF 7



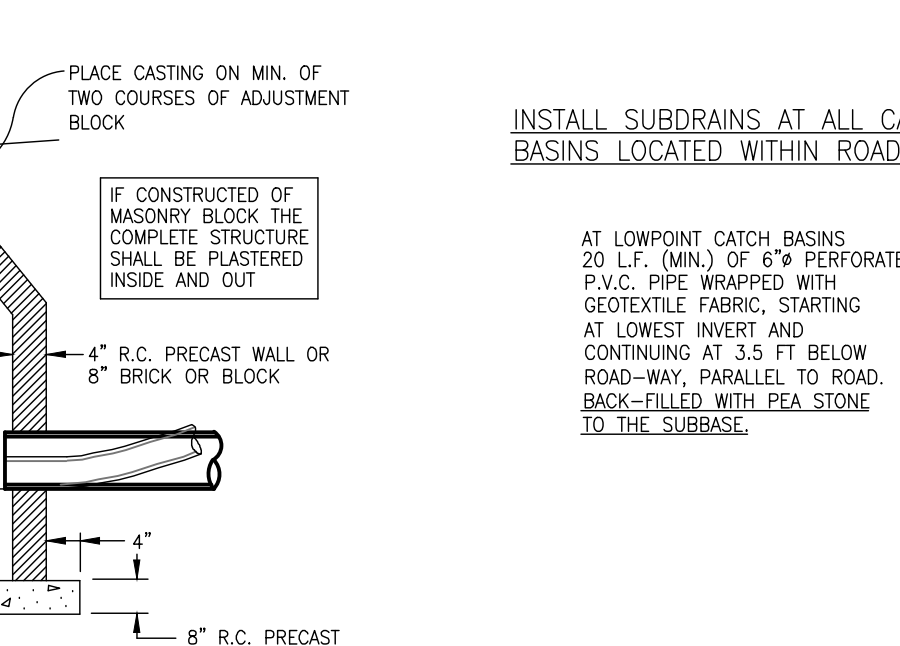
DETECTABLE WARNING DETAILS
NOTES:
FOR NEW ROADWAY CONSTRUCTION, THE RAMP CROSS SLOPE MAY NOT EXCEED 2% FOR ALTERNATING TO EXISTING ROADWAYS, THE CROSS SLOPE MAY BE TRANSDUCED TO MEET AN EXISTING ROADWAY GRADE. THE CROSS SLOPE TRANSDUCION SHALL BE APPLIED UNIFORMLY OVER THE FULL LENGTH OF THE RAMP.
THE MAXIMUM RUNNING SLOPE OF 8.3% IS RELATIVE TO A FLAT (0%) REFERENCE. HOWEVER, IT SHALL NOT REQUIRE ANY RAMP OR SINGLE RAMP WITHIN A COMBINATION OF RAMP TO EXCEED 15 FEET IN LENGTH.
URBANIZING STRUCTURES SHOULD NOT BE PLACED IN LINE WITH RAMP. THE LOCATION OF THE RAMP SHOULD TAKE PRECEDENCE OVER THE LOCATION OF THE URBANIZING STRUCTURE. WHERE EXISTING URBANIZING STRUCTURES ARE LOCATED IN THE RAMP PATH OF TRAVEL, USE A MANUFACTURER'S ADA COMPLIANT GRATE. OPENINGS SHALL NOT BE GREATER THAN 1/2\"/>



SEWER UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED
(REF. MDOT DETAIL IV-83D)
NO SCALE



4 FT. DIA. CATCH BASIN W/SUMP
NO SCALE



2 FT. DIA. CATCH BASIN W/SUMP
NO SCALE



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3172 E. GRAND RIVER AVE.
TOWNELL, MI 48843
(800) 246-6735 FAX (517) 548-1670

PROJECT:	LIPKIN MEDICAL OFFICE BUILDING		
DESIGNED BY:	DR. LIPKIN		
PREPARED FOR:	3172 INTERLAKEN STREET WEST BLOOMFIELD, MI 48323		
TITLE:	CONSTRUCTION NOTES & DETAILS		
NO	BY	DATE	REVISION PER
1	LM	PER TOWNSHIP REVIEW	5/21/14
2	LM	PER COUNTY REVIEW	6/7/17/14
3	LM	PER TOWNSHIP REVIEW	10/27/14
4	LM	PER TOWNSHIP REVIEW	11/11/14
5	TD	AMENDED SITE PLAN	10/26/16

LIVINGSTON COUNTY SOIL EROSION PERMIT TEMPLATE
TEMPORARY CONTROLS AND SEQUENCE

- NOTIFY LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE 24 HOURS PRIOR TO START OF GRADE WORK.
- IN ACCORDANCE WITH PUBLIC ACT NO. 53, OF 1974 THE PERMIT HOLDER SHALL CALL MISS DIG FOR STAKING AND LOCATING OF UTILITIES, AT LEAST 72 HOURS IN ADVANCE OF THE START OF ANY WORK. PERMITTING STANDARDS
- (IMPORTANT NOTICE) RETENTION/DETENTION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. INGRESS/EGRESS MUST HAVE LARGE CRUSHED ROCK TO REDUCE THE TRACKING OF SOIL ONTO THE PUBLIC TRAFFIC AREAS. SEE DETAIL ITEMS BELOW.
- 36" M.D.O.T SPECIFICATION TYPE SILT FABRIC FENCE AS SHOWN ON PLANS SHALL BE PLACED AND MAINTAINED ALONG PERIMETER ON ALL LOW LYING AREAS OF THE CONSTRUCTION SITE TO FILTER RUNOFF BEFORE LEAVING PROJECT SITE.
- ALL TEMPORARY EROSION CONTROL DEVICES AS NOTED ON PLANS SHALL BE INSTALLED PRIOR TO THE START OF MASSIVE EARTH DISTRIBUTION.
- PLAN DOES DENOTE A DETAILED EROSION CONTROL DEVICE TO RESTRICT TRACKING OF MATERIAL ONTO THE HIGHWAY. STONE DIAPHRAGMS SHALL BE INSTALLED AT ALL INGRESS/EGRESS AREAS OF THE SITE PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. DIAPHRAGMS SHALL BE OF CRUSHED STONE AND SHALL HAVE A MINIMUM LENGTH OF 100' LINEAL FEET.
- RETENTION PONDS
- RETENTION/DETENTION/SEDIMENTATION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION.
- DETENTION POND OUTLETS SHALL BE OF THE STANDPIPE AND STONE FILTER SYSTEM, WITH TRASH SCREEN. OUTLET FLOW SHALL NOT EXCEED 0.20 CUBIC FEET OF WATER PER SECOND/PER ACRE. POND DIKES SHALL HAVE A MINIMUM OF ONE (1) FOOT OF FREEBOARD. AN EMERGENCY SPILLWAY SHALL BE CONSTRUCTED WITHIN THE FREEBOARD LEVEL.
- THE EMERGENCY SPILLWAY FROM THE DETENTION POND SHALL BE SODDED AND PEGGED, OR RIP RAPPED, 15 FEET PAST THE TOE OF THE SLOPE OF THE BERM.
- DIKES AND BERMS SHALL BE FREE OF ALL ORGANIC MATTER.
- RETENTION/DETENTION PONDS SHALL BE FENCED WITH A 4" CHAIN LINK FENCE, INCLUDING A 12" ACCESS GATE FOR MAINTENANCE UNLESS MINIMUM 3 FT. HORIZONTAL TO 1 FT. VERTICAL SIDE SLOPES ARE PROVIDED. THE FENCE SHALL BE INSTALLED AT THE OUTER PORTION OF THE BERM, TO ALLOW FOR MAINTENANCE WORK TO BE DONE INSIDE THE FENCE.
- ALL UNIMPROVED DISTURBED AREAS SHALL BE STRIPPED OF TOPSOIL WHICH WILL BE STORED ONSITE DURING THE EXCAVATING STAGE. TOPSOIL PILES SHALL BE SEEDED AND MULCHED, OR MATTED WITH STRAW IN THE NON-GROWING SEASON, IMMEDIATELY AFTER THE STRIPPING PROCESS IS COMPLETED, TO PREVENT WIND AND WATER EROSION.
- SOIL EROSION CONTROLS SHALL BE MONITORED DAILY BY THE ON-SITE ENGINEER, OR CONTRACTOR, WHICHEVER CASE APPLIES.

SLOPES AND DITCHES

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

STORM DRAINS

- ALL STORM WATER STRUCTURES, CATCH BASINS AND/OR MANHOLES, IF BLOCK SHALL BE PLASTERED ON BOTH THE INSIDE AND OUTSIDE OF THE STRUCTURES. GROUTING AND POINTING WILL BE NECESSARY AT THE CASTING AND STRUCTURE JOINT TO PREVENT LEAKAGE AND THE RESULTING SOIL MOVEMENT, AROUND THE STRUCTURE.
- STORM WATER INLETS SHALL HAVE AS A TEMPORARY CONTROL A STRAW BALE BARRIER AND STONE FILTER INSTALLED AROUND THE INLET DURING CONSTRUCTION. AS AN ALTERNATIVE TO THE STRAW BALE BARRIER, A BURLAP AND PEA STONE FILTER MAY BE USED. THREE LAYERS OF BURLAP FIBER AND A FILTER OF PEA STONE MINIMUM 1 FT. IN DEPTH CAN BE USED. DUE TO THE POROSITY OF THE BURLAP FILTER THE MINIMUM OF 1 FT. OF STONE IS VERY IMPORTANT. THE CONTROL SHALL BE INSTALLED AS SOON AS THE STRUCTURE IS BUILT AND INSPECTED DAILY.
- BURLAP AND PEA STONE FILTERS WILL NEED TO BE CHANGED AFTER EACH RAINFALL.
- COUNTY CODE REQUIRES A MINIMUM PIPE SIZE OF 12" IN DIAMETER. IF SMALLER PIPE IS NEEDED FOR OUTLET PURPOSES THE 12" CAN BE BAFFLED TO THE CORRECT SIZE. ALL PIPE SHALL MEET THE 12"
- ALL STORM DRAIN OUTLETS 15" IN DIAMETER OR LARGER SHALL HAVE ANIMAL GUARDS INSTALLED TO PREVENT ENTRANCE TO THE SYSTEM.

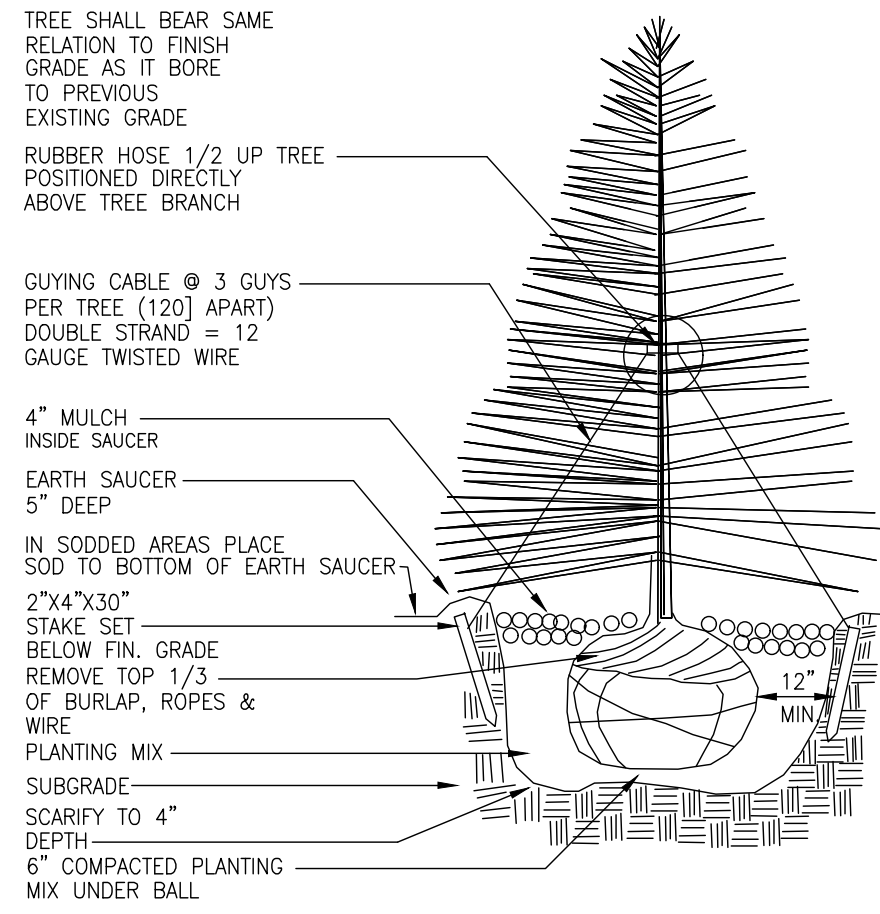
- ALL STORM DRAINAGE PIPE 30" IN DIAMETER OR LARGER SHALL BE POINTED, AT THE JOINTS ON THE INSIDE WITH MORTAR, AFTER BACKFILLING.
- ALL STORM DRAIN OUTLETS THAT DO NOT EMPTY INTO THE RETENTION/DETENTION POND SHALL HAVE A TEMPORARY 5'X10'X3' SUMP INSTALLED AT THE TERMINATION OF THE STORM SEWER. UPON COMPLETION OF THE STABILIZATION WORK THE SUMP AREA SHALL BE FILLED AND RIP RAPPED WITH COBBLE STONE. SILT TRAPS SHALL BE INSPECTED AFTER EACH STORM.
- STORM WATER OUTLETS DO DENOTE RIP RAP. ALL OUTLETS SHALL BE RIP RAPPED OVER KEYED FILTER FABRIC WITH A MINIMUM OF 15 SQ. YARDS OF 6" OR LARGER COBBLE STONE.
- RIP RAP AS NOTED ON THE PLAN SHALL BE OF A FUNNEL SHAPE CONSTRUCTION, WIDTH SHALL INCREASE AS SPECIFICATION FROM THE OUTLET POINT INCREASES AT A 3:1 RATIO.
- RIP RAP SHALL BE OF COBBLE STONE, 6" IN DIAMETER OR LARGER. GROUTING MAY BE NECESSARY, AND SHALL BE A MINIMUM OF 6" IN DEPTH WITH THE COBBLE SET IN THE CEMENT SLURRY.
- STORM WATER OUTLET IS IN NEED OF A SPLASH BLOCK WHICH IS NOT NOTED ON THE PLAN. INSTALL SPLASH BLOCK IF SLOPE OF THE PIPE IS 4% OR GREATER.
- IT WILL BE NECESSARY FOR THE DEVELOPER TO HAVE THE STORM DRAINAGE LINES CLEANED PRIOR TO FINAL INSPECTION BY THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE. IF REQUIRED, THIS WORK SHALL BE DONE BY A PROFESSIONAL SEWER CLEANING FIRM AND CERTIFIED IN WRITING BY THE PROJECT ENGINEER. ALL SUMPS AND TEMPORARY SILT TRAPS SHALL ALSO BE CLEANED AT THIS TIME.

- ALL UNIMPROVED DISTURBED AREAS SHALL BE RE-TOP SOILED, WITH A MINIMUM OF 3" OF MATERIAL, SEEDED, MULCHED AND TACKED WITHIN 15 DAYS OF THE COMPLETION OF THE MASONRY CONSTRUCTION. IN THE NON-GROWING SEASON STRAW MATTING WILL SUFFICE. HYDROSEEDING WILL BE AN ACCEPTABLE ALTERNATE FOR MULCHING. EXTREME CARE SHOULD BE EXERCISED IN SPRING AND FALL PERIODS AS A FROST WILL BREAK THE BOND OF THE HYDROSEEDING, WHICH WILL AFFECT THE EFFECTIVENESS OF THIS PROCEDURE.
- IN THE NON-GROWING SEASON, TEMPORARY STABILIZATION SHALL BE DONE WITH STRAW MATTING.
- PERMIT FEES DURING THE WINTER PERIOD OF NON-CONSTRUCTION, (DECEMBER 1 THROUGH MARCH 31), SHALL NOT BE IMPOSED IF THE PERMIT HOLDER TEMPORARILY STABILIZES THE EXPOSED AREAS WITH STRAW MATTING, AND OTHER APPROVED CONTROLS, AND OBTAINS A WINTER STABILIZATION CERTIFICATE FROM THIS OFFICE.
- PERIODIC INSPECTIONS WILL BE MADE THROUGHOUT THE COURSE OF THE PROJECT. IT WILL BE THE RESPONSIBILITY OF THE MANAGERS OF THE PROJECT TO CONTACT THIS OFFICE FOR THE FINAL INSPECTION AT THE END OF THE PROJECT.
- THIS COMMERCIAL PERMIT IS VALID FOR THE MASS EARTH MOVEMENT, THE INSTALLATION OF ROADS, DRAINS, AND UTILITIES AND IS NOT FOR ANY SINGLE FAMILY RESIDENCE. ALL RESIDENTIAL BUILDERS WILL NEED TO SECURE MANAGERS AND OR PERMITS AS NECESSARY FOR EACH LOT IN THIS DEVELOPMENT AT THE TIME APPLICATION FOR SINGLE FAMILY RESIDENCE IS MADE.
- THE ISSUING BUILDING DEPARTMENT SHALL NOT ISSUE THE CERTIFICATE OF OCCUPANCY UNTIL THE FINAL INSPECTION LETTER FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE HAS BEEN OBTAINED.
- PER THE LIVINGSTON COUNTY DRAIN COMMISSIONER THE SEEDING, FERTILIZER AND MULCH MINIMUM QUANTITIES SHALL BE AS FOLLOWS:
TOP-SOIL 3" IN DEPTH
GRASS SEED 218 LBS. PER ACRE
FERTILIZER 150 LBS. PER ACRE
STRAW MULCH 3" IN DEPTH 1.5 TO 2 TONS PER ACRE (ALL MULCHING MUST HAVE A TIE DOWN, SUCH AS 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.

MAINTENANCE SCHEDULE FOR SOIL EROSION CONTROLS

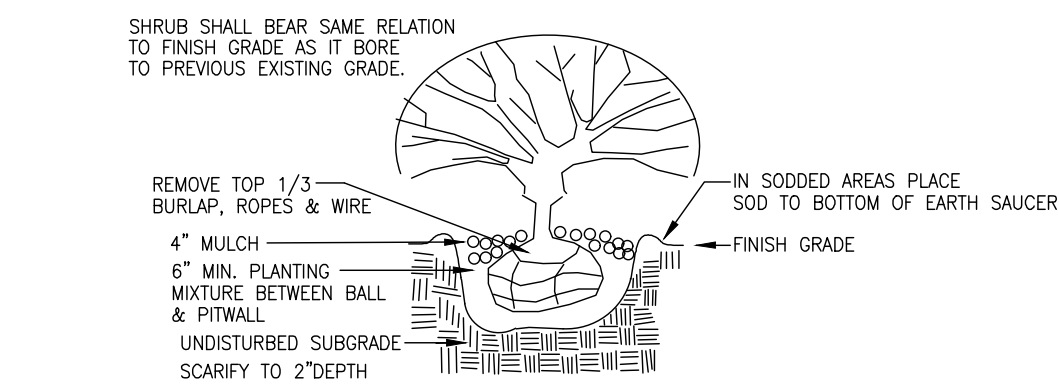
- SILT FENCE SHALL BE INSPECTED WEEKLY AND AFTER EACH MAJOR STORM EVENT. MAINTENANCE SHALL INCLUDE REMOVAL OF ACCUMULATED SILT AND REPLACEMENT OF TORN SECTIONS. SILT FENCE SHALL BE REMOVED WHEN ALL CONTRIBUTING AREAS HAVE BEEN STABILIZED.
- TRACKING PAD SHALL BE INSPECTED MONTHLY FOR ACCUMULATED DIRT.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

BEFORE BACK FILLING AROUND PLANT, REMOVE ALL PLASTIC BAILING MATERIAL & METAL CONTAINERS. PUNCH HOLES IN FIBER POTS TO PROVIDE DRAINAGE. NEVER PRUNE EVERGREENS

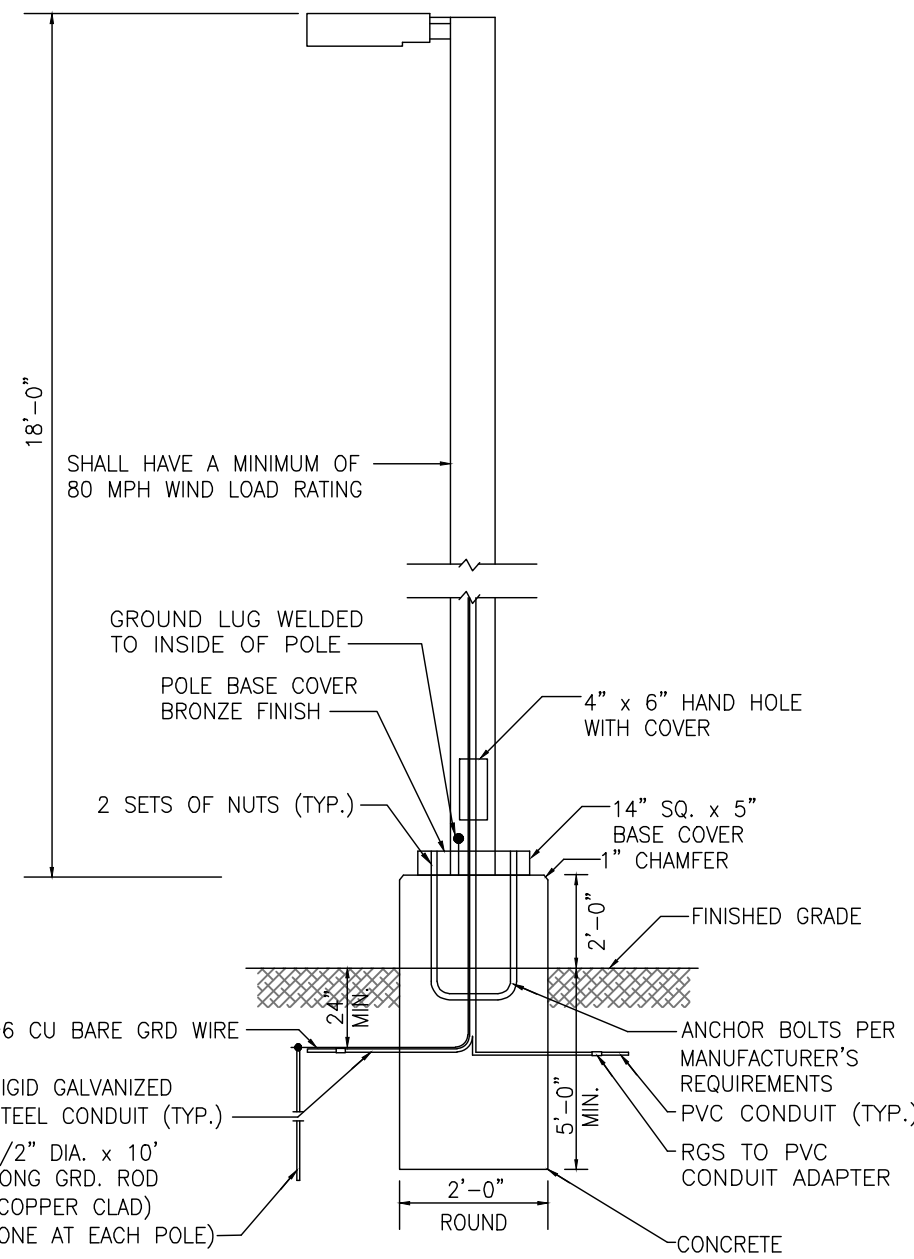


EVERGREEN TREE PLANTING DETAIL
(NO SCALE)

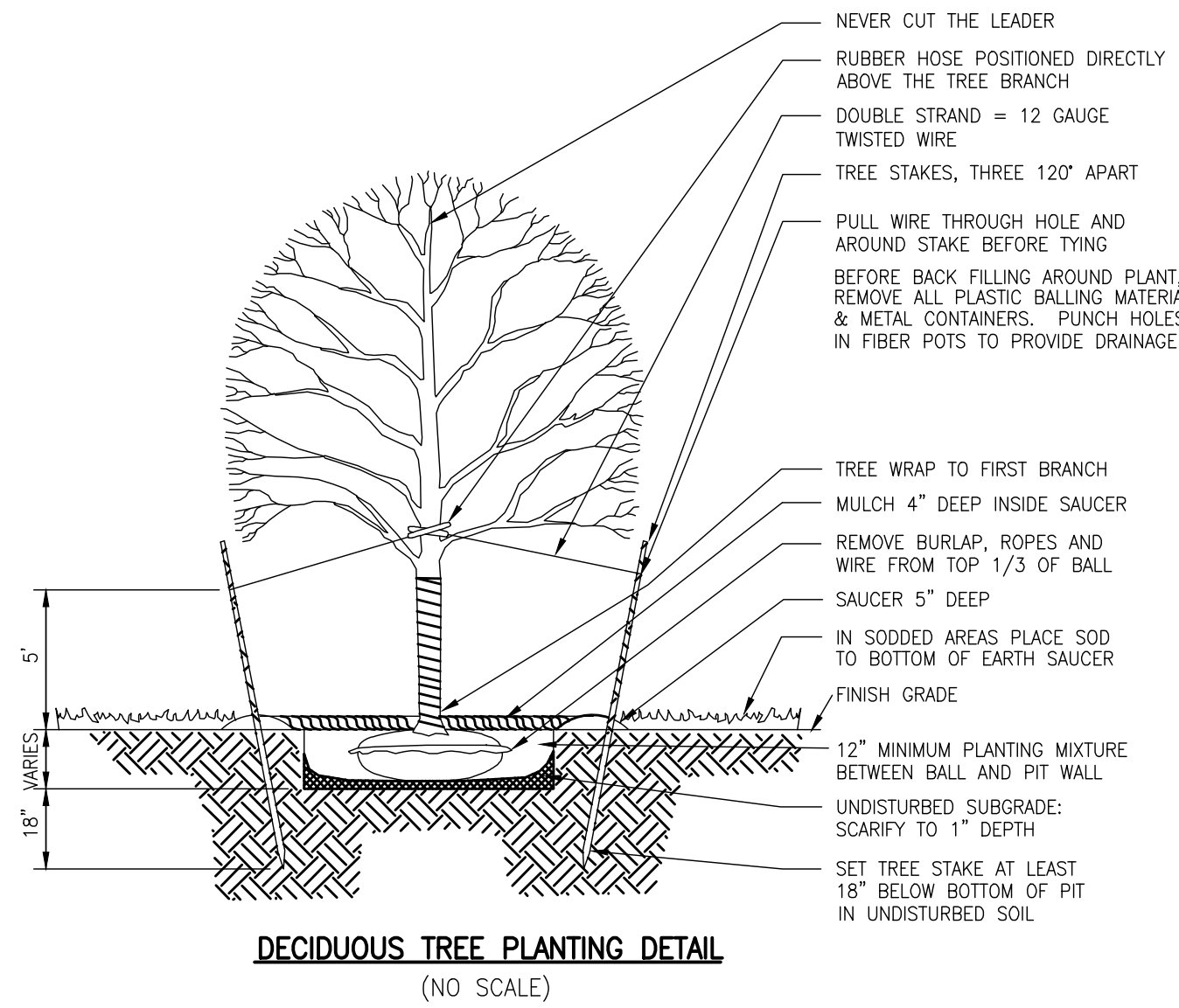
BEFORE BACK FILLING AROUND PLANT, REMOVE ALL PLASTIC BAILING MATERIAL & METAL CONTAINERS. PUNCH HOLES IN FIBER POTS TO PROVIDE DRAINAGE. THIN FOLIAGE & BRANCHES (NOT ALL END TIPS) BY 1/3 - RETAIN NATURAL SHAPE



SHRUB PLANTING DETAIL
(NO SCALE)



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



DECIDUOUS TREE PLANTING DETAIL
(NO SCALE)

TREE PROTECTION NOTES:

- THE LANDSCAPE ARCHITECT SHALL SUPERVISE THE TAGGING OF TREES TO BE TRANSPLANTED, TREES TO REMAIN, AND TREES TO BE REMOVED. FOR IDENTIFICATION OF PROPOSED ACTION FOR EXISTING TREES, THE FOLLOWING METHODS WILL BE USED: AN ORANGE PAINTED "X" FOR TREES TO BE REMOVED; YELLOW FLAGGING FOR TREES TO BE TRANSPLANTED; AND SNOW FENCE PROTECTION AS SHOWN IN THE DETAIL FOR TREES TO REMAIN.
- EXISTING TREES WITHIN FIFTEEN FEET (15') OF BUILDINGS ARE TO BE PRUNED AFTER CONSTRUCTION BY A PROFESSIONAL TREE CONTRACTOR AS SPECIFIED BY THE LANDSCAPE ARCHITECT.
- NO DAMAGING ATTACHMENTS SUCH AS WIRES (OTHER THAN CABLE WIRES FOR TREES) SIGNS, OR PERMITS MAY BE FASTENED TO ANY TREE PROTECTED BY THE ORDINANCE.
- FOR TREES TO BE SAVED, A FOUR FOOT (4') HIGH SNOW FENCE SHALL BE ERRECTED AROUND THE TREE DRIP LINE PRIOR TO LAND CLEARING AND CONSTRUCTION AND MAINTAINED THROUGHOUT SITE DEVELOPMENT. NO CUTTING, FILLING, OR TRESPASSING SHALL OCCUR INSIDE THE FENCED AREA WITH OUT APPROVAL OF THE CITY/TOWNSHIP. THE SNOW FENCING SHALL REMAIN IN ITS APPROVED LOCATION UNTIL SUCH TIME AS IT IS AUTHORIZED TO BE REMOVED BY THE CITY OR ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY.
- NO ACTIVITY SHALL BE CONDUCTED WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO BE RETAINED, INCLUDING BUT NOT LIMITED TO THE PLACING OF ANY SOLVENTS, MATERIAL, CONSTRUCTION MACHINERY, OR SOIL WITHIN SUCH DRIP LINE.
- THE DEVELOPER AND/OR THE BUILDER SHALL ERECT SIGNS THROUGHOUT THE PROJECT THAT ARE CLEARLY VISIBLE STATING WORDS TO THE EFFECT THAT ALL SUBCONTRACTORS, SUPPLIERS AND TRADESMEN ARE TO HELP MAINTAIN THE TREES AND WILL BE HELD RESPONSIBLE FOR ANY UNAUTHORIZED DAMAGE TO TREES AND WOODLANDS.
- ALL PURCHASED REPLACEMENT TREES SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMAN STANDARDS, SUCH AS:
A. NURSERY GROWN;
B. STATE DEPARTMENT OF AGRICULTURE INSPECTED;
C. NO. 1 GRADE WITH STRAIGHT, UNSCARRED TRUNK AND WELL DEVELOPED UNIFORM CROWN (PARK GRADE TREES WILL NOT BE ACCEPTED);
D. STAKED, WRAPPED, WATERED AND MULCHED IN ACCORDANCE WITH STANDARD PLANTING PRACTICES;
E. GUARANTEED FOR ONE (1) YEAR, INCLUDING LABOR, TO REMOVE AND DISPOSE OF DEAD MATERIALS.

GENERAL LANDSCAPE NOTES:

- ALL PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING MUNICIPALITY AND SHALL BE NURSERY GROWN. ALL SIZES AND MEASUREMENTS SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. ALL PLANT MATERIAL SHALL BE OF SELECTED SPECIMEN QUALITY AND HAVE A NORMAL HABIT OF GROWTH. ALL PLANT MATERIAL IS SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIALS SHALL BE BALLED AND BURLAPPED STOCK OR CONTAINER STOCK. NO BARE ROOT STOCK IS PERMITTED. ALL PLANT BALLS SHALL BE FIRM, INTACT AND SECURELY WRAPPED AND BOUND.
- ALL PLANT BEDS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND OTHER EXTRANEIOUS OBJECTS AND POOR SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BACKFILLED TO GRADE WITH PLANTING MIX (SEE BELOW).
- PLANTING MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL FROM ON SITE, 1 PART PEAT, AND 5 POUNDS OF SUPERPHOSPHATE PER CUBIC YARD OF MIX. INGREDIENTS SHALL BE THOROUGHLY BLENDED TO A UNIFORM CONSISTENCY.
- ALL PLANT BEDS AND INDIVIDUAL PLANTS SHALL BE MULCHED WITH A 4 INCH LAYER OF SHREDDED BARK MULCH.
- ALL PLANTS AND PLANT BEDS SHALL BE THOROUGHLY WATERED UPON COMPLETION OF PLANTING AND STAKING OPERATIONS.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF 1 YEAR FROM THE DATE THE WORK IS ACCEPTED, IN WRITING, BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE, WITHOUT COST TO THE OWNER, WITHIN A SPECIFIED PERIOD TIME, ALL DEAD PLANTS, AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE ARCHITECT DURING AND AT THE END OF THE GUARANTEE PERIOD. REPLACEMENT STOCK SHALL CONFORM TO THE ORIGINAL REQUIREMENTS.
- EDGING, WHERE NOTED ON THE PLANS, SHALL BE BLACK ALUMINUM EDGING, 3/16" X 4". INSTALL PER MANUFACTURER'S INSTRUCTIONS. ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRREGULARITIES.
- SOD SHALL BE DENSE, WELL ROOTED TURF, FREE OF WEEDS. IT SHALL BE COMPRISED OF A BLEND OF AT LEAST TWO KENTUCKY BLUEGRASSES AND ONE FESCUE. IT SHALL HAVE A UNIFORM THICKNESS OF 3/4 INCH, AND CUT IN UNIFORM STRIPS NOT LESS THAN 10 INCHES BY 18 INCHES. SOD SHALL BE KEPT MOIST AND LAID WITHIN 36 HOURS AFTER CUTTING.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ALL SODDED AREAS THAT BROWN OUT OR HAVE NOT FIRMLY KNITTED TO THE SOIL BASE WITHIN A PERIOD OF ONE MONTH SHALL BE REPLACED BY THE CONTRACTOR, AT NO COST TO THE OWNER.
- ALL AREAS OF THE SITE THAT BECOME DISTURBED DURING CONSTRUCTION AND ARE NOT TO BE PAVED, STONED, LANDSCAPED, OR SODDED SHALL BE SEEDED AND MULCHED.

SEED MIXTURE SHALL BE AS FOLLOWS:

- KENTUCKY BLUEGRASS (CHOOSE 3 VARIETIES: ADELPHI, RUGBY, GLADE OR PARADE) 30%
- RUBY RED OR DAWSON RED FINE FESCUE 30%
- ATLANTA RED FESCUE 20%
- PENNFINE PERENNIAL RYE 20%

THE ABOVE SEED MIXTURE SHALL BE SOWN AT A RATE OF 250 POUNDS PER ACRE. PRIOR TO SEEDING, THE TOPSOIL LAYER SHALL BE FERTILIZED WITH A COMMERCIAL FERTILIZER WITH A 10-0-10 ANALYSIS:

- 10% NITROGEN: A MINIMUM OF 25% FROM A UREA-FORMALDEHYDE SOURCE
- 0% PHOSPHATE
- 10% POTASH: SOURCE TO BE POTASSIUM SULFATE OR POTASSIUM NITRATE.

THE FIRST FERTILIZER APPLICATION SHALL BE AT A RATE OF 10 POUNDS OF BULK FERTILIZER PER 1000 SQUARE FEET.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ANY PART OF THE AREA THAT FAILS TO SHOW A UNIFORM GERMINATION SHALL BE RESEEDED AND SUCH RESEEDING SHALL CONTINUE UNTIL A DENSE LAWN IS ESTABLISHED. DAMAGE TO SEEDED AREAS RESULTING FROM EROSION SHALL BE REPAIRED BY THE CONTRACTOR.

- ALL AREAS OF THE SITE SCHEDULED FOR SEEDING OR SODDING SHALL FIRST RECEIVE A 4 INCH LAYER OF CLEAN, FRIABLE TOPSOIL. THIS SOIL SHALL BE DISCED AND SHALL BE GRADED IN CONFORMANCE WITH THE GRADING PLAN.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES AND TO INFORM THE LANDSCAPE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING LANDSCAPING.
- ALL PLANT MATERIALS SHALL BE FREE OF WEEDS, INSECTS AND DISEASE.

PROJECT: **LIPKIN MEDICAL OFFICE BUILDING**

PREPARED FOR: **DR. LIPKIN**

DATE: **10/26/16**

REVISION PER: **DATE**

NO BY: **DATE**

DESIGNED BY: **TD**

CHECKED BY: **TD**

SCALE: **1" = 30'**

JOB NO.: **13-293**

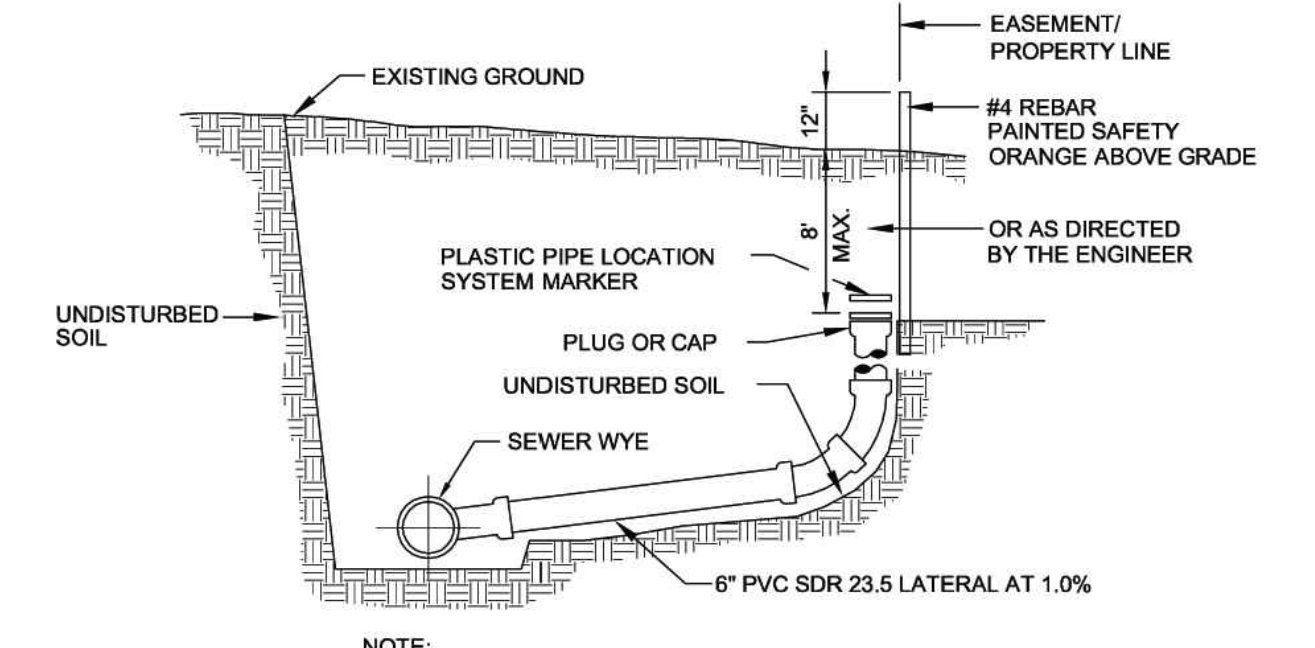
DATE: **4-30-14**

SHEET NO.: **C11**

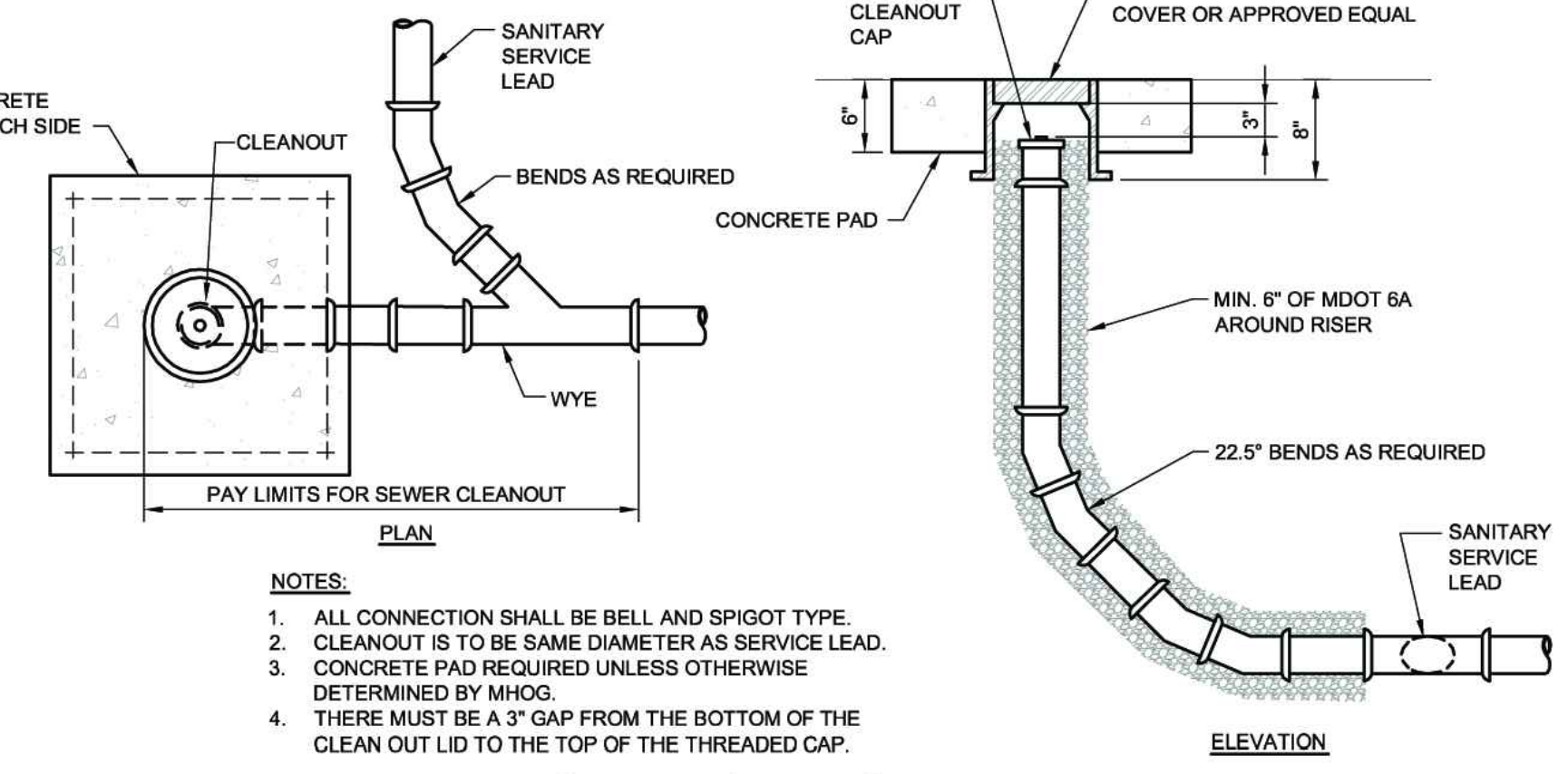
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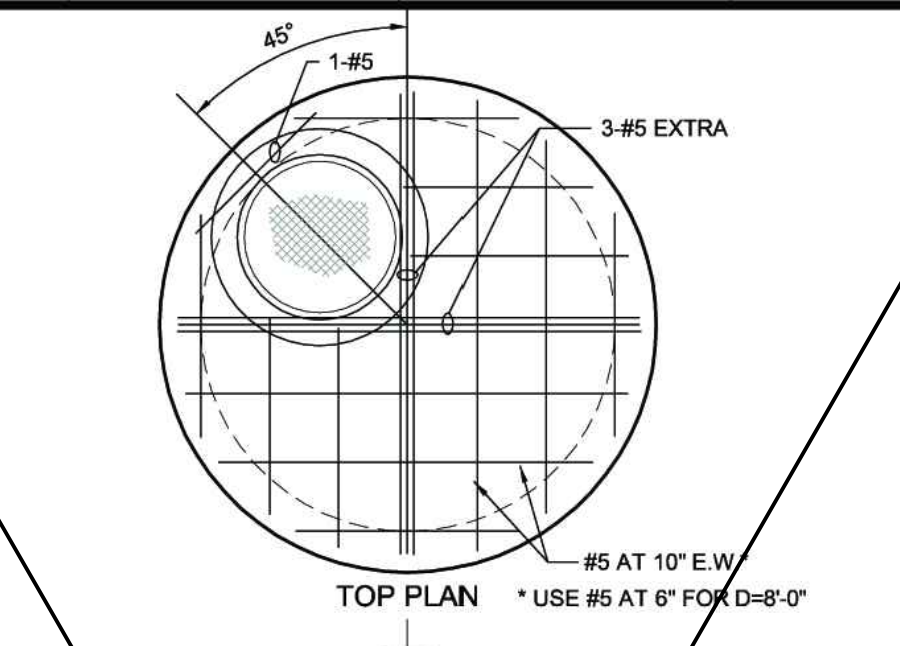
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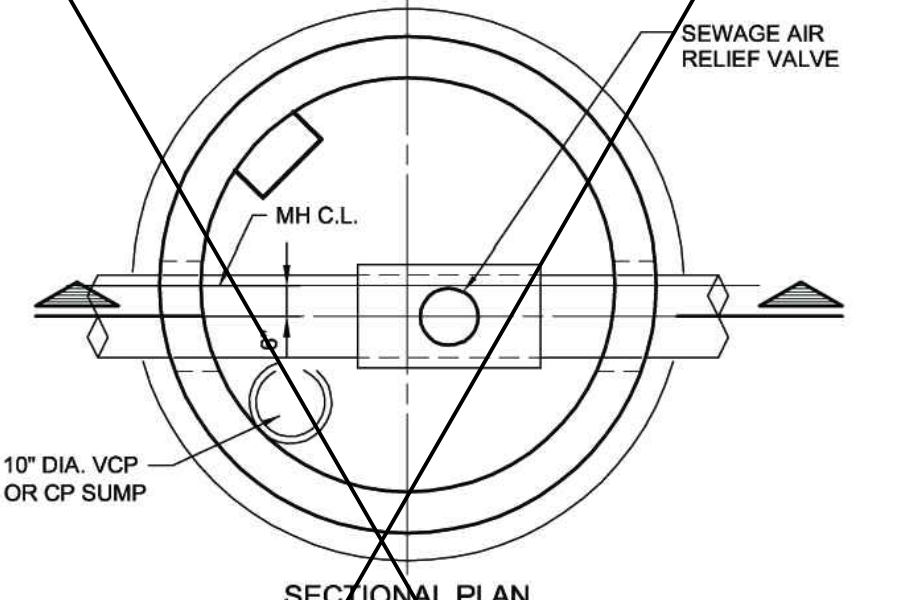
SANITARY SEWER LATERAL



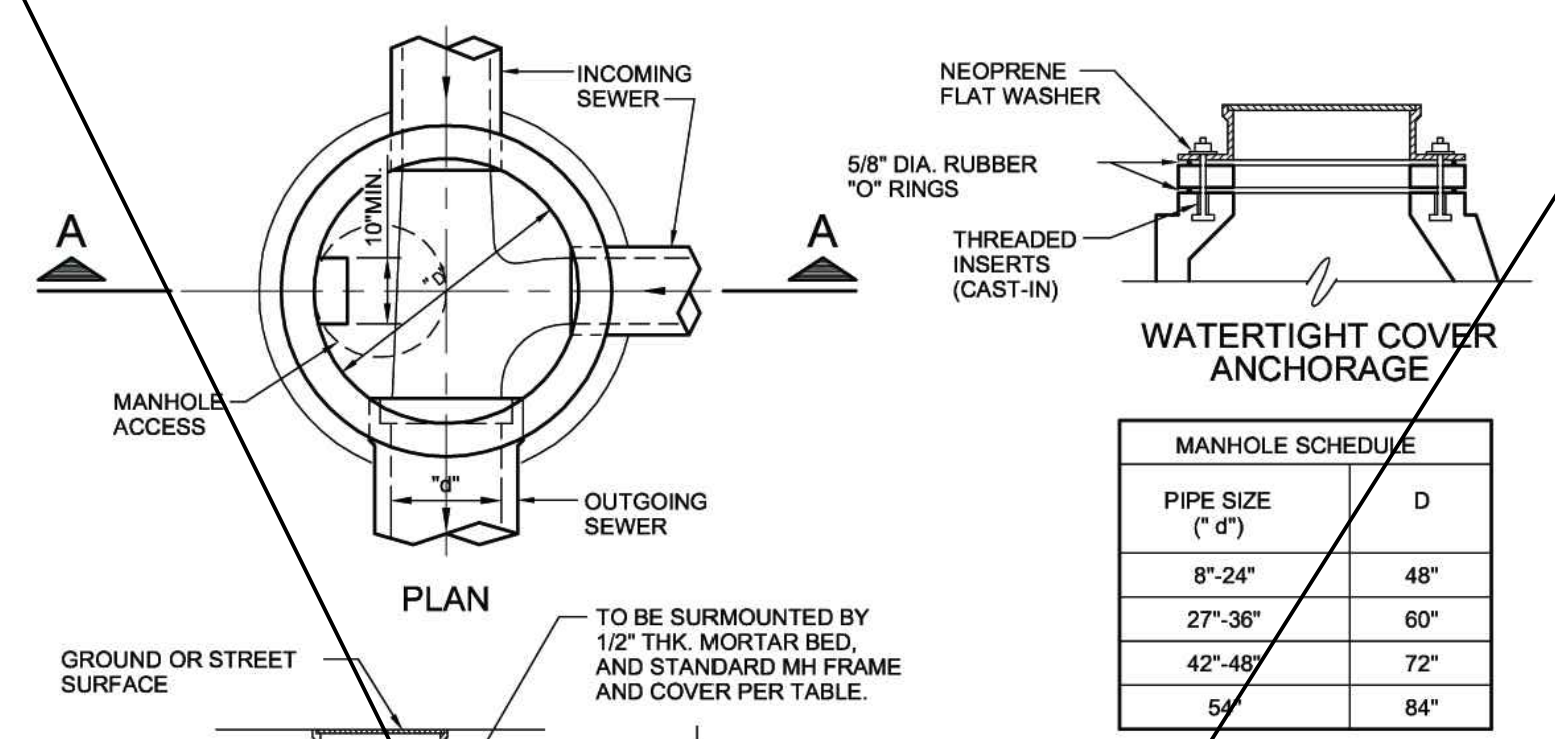
SEWER CLEANOUT DETAIL



TOP PLAN

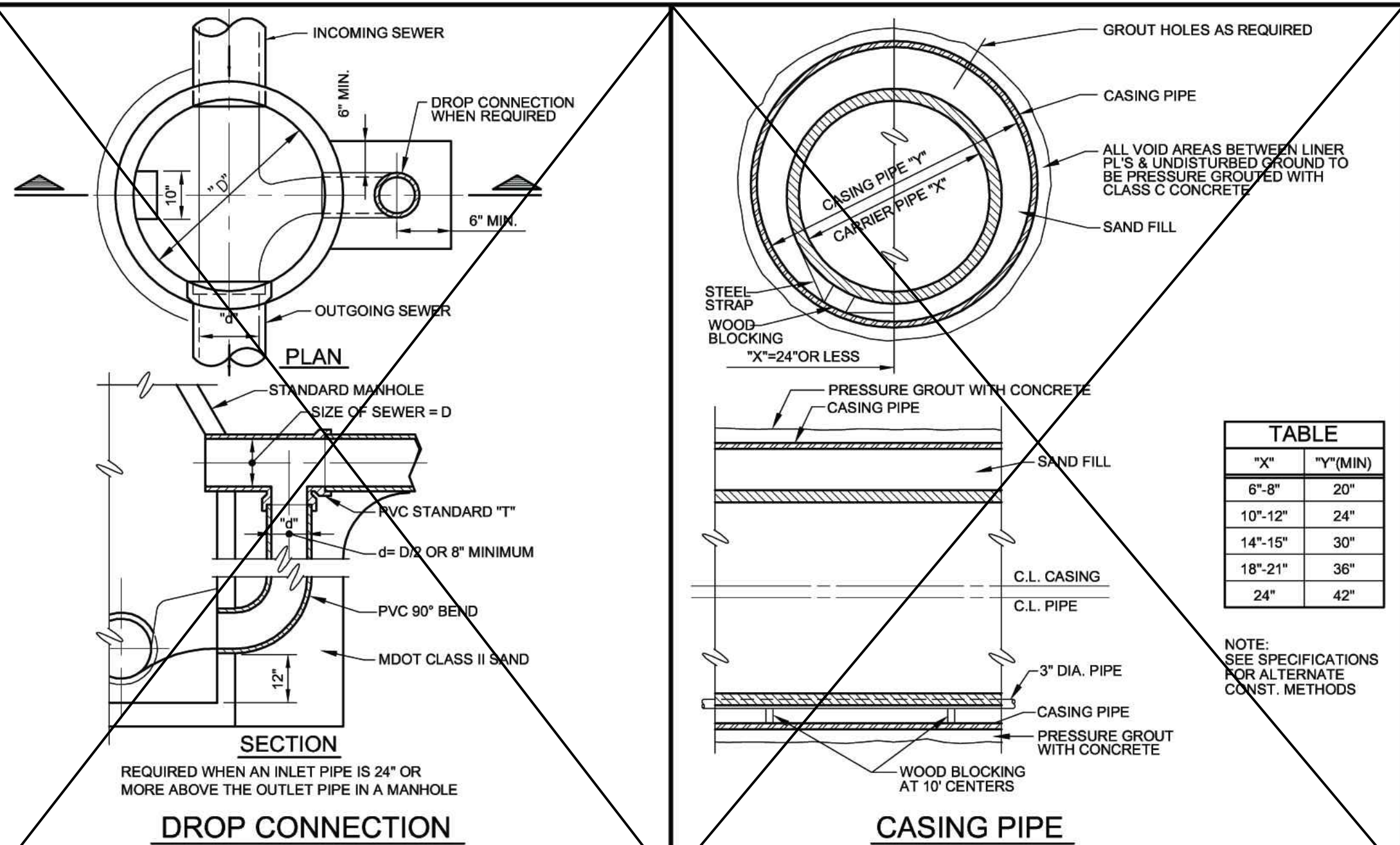


SECTIONAL PLAN



WATERTIGHT COVER ANCHORAGE

MANHOLE SCHEDULE	
PIPE SIZE (\"/>	
8\"/>	48\"/>
27\"/>	60\"/>
42\"/>	72\"/>
54\"/>	84\"/>

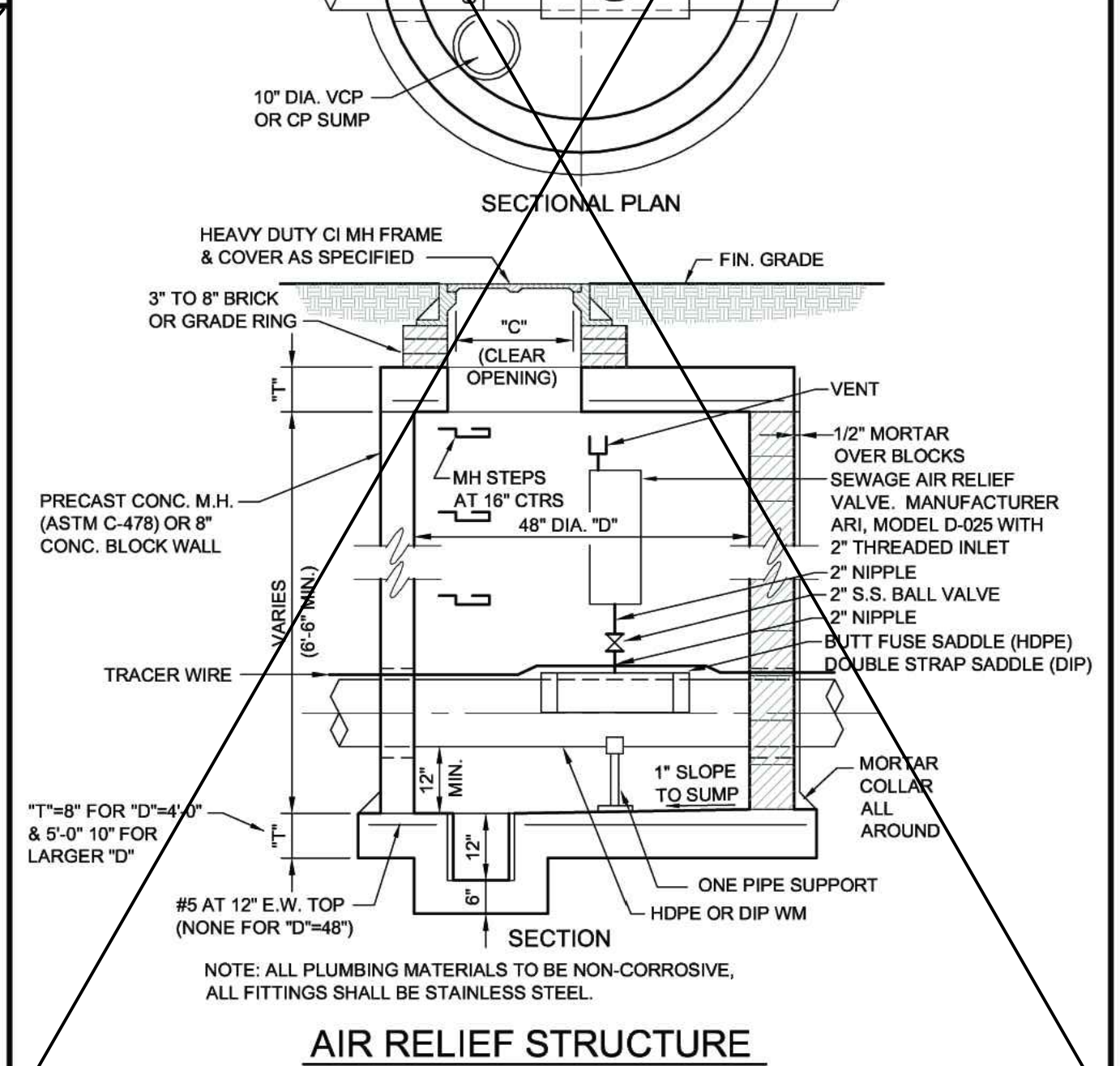


DROP CONNECTION

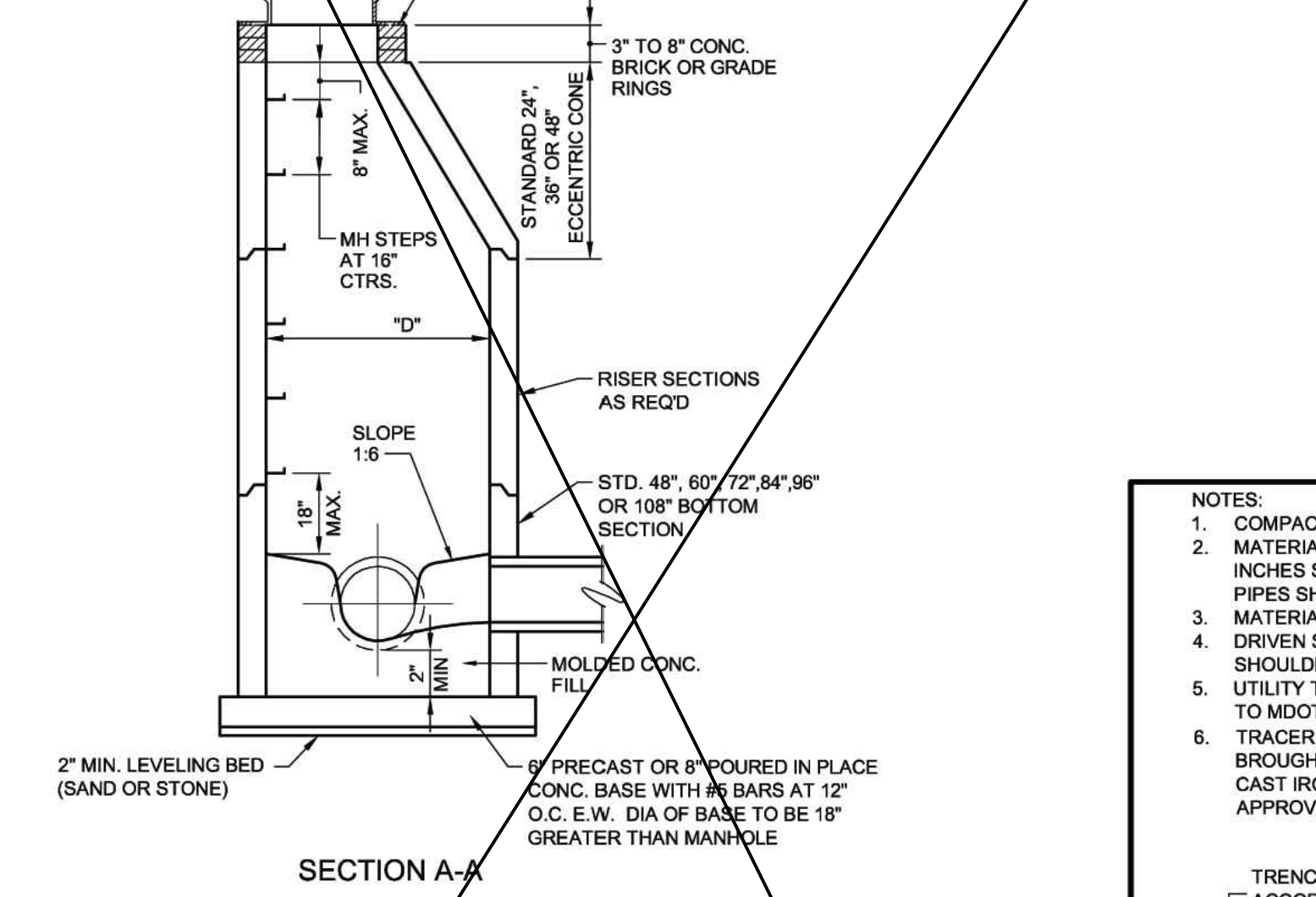
CASING PIPE

TABLE	
"X"	"Y"(MIN)
6\"/>	20\"/>
10\"/>	24\"/>
14\"/>	30\"/>
18\"/>	36\"/>
24\"/>	42\"/>

NOTE: SEE SPECIFICATIONS FOR ALTERNATE CONST. METHODS



AIR RELIEF STRUCTURE

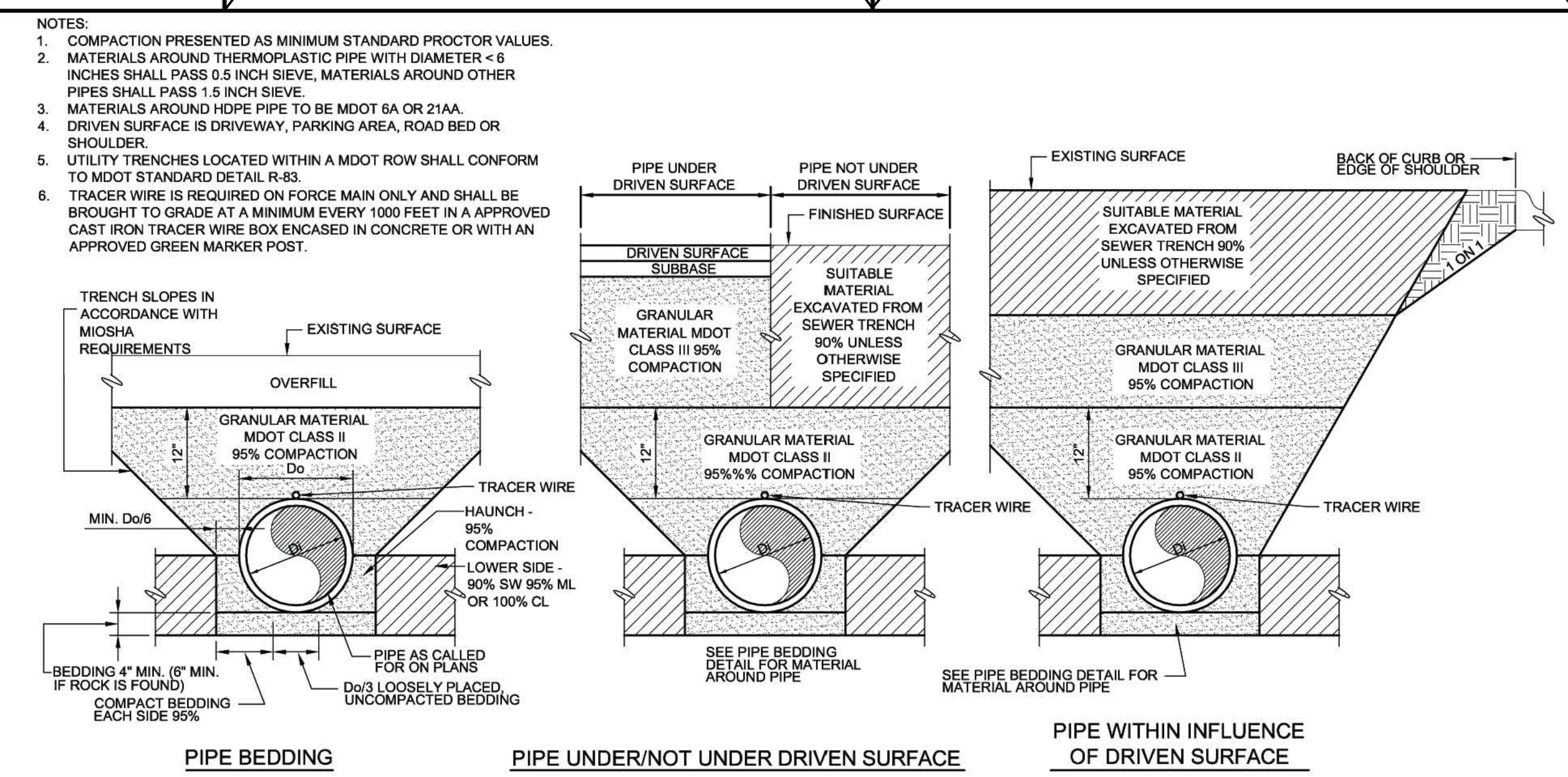


SECTION A-A

- 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\"/>
 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			
		MANUFACTURER OR EQUAL	
TYPE	TYPE OF COVER	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

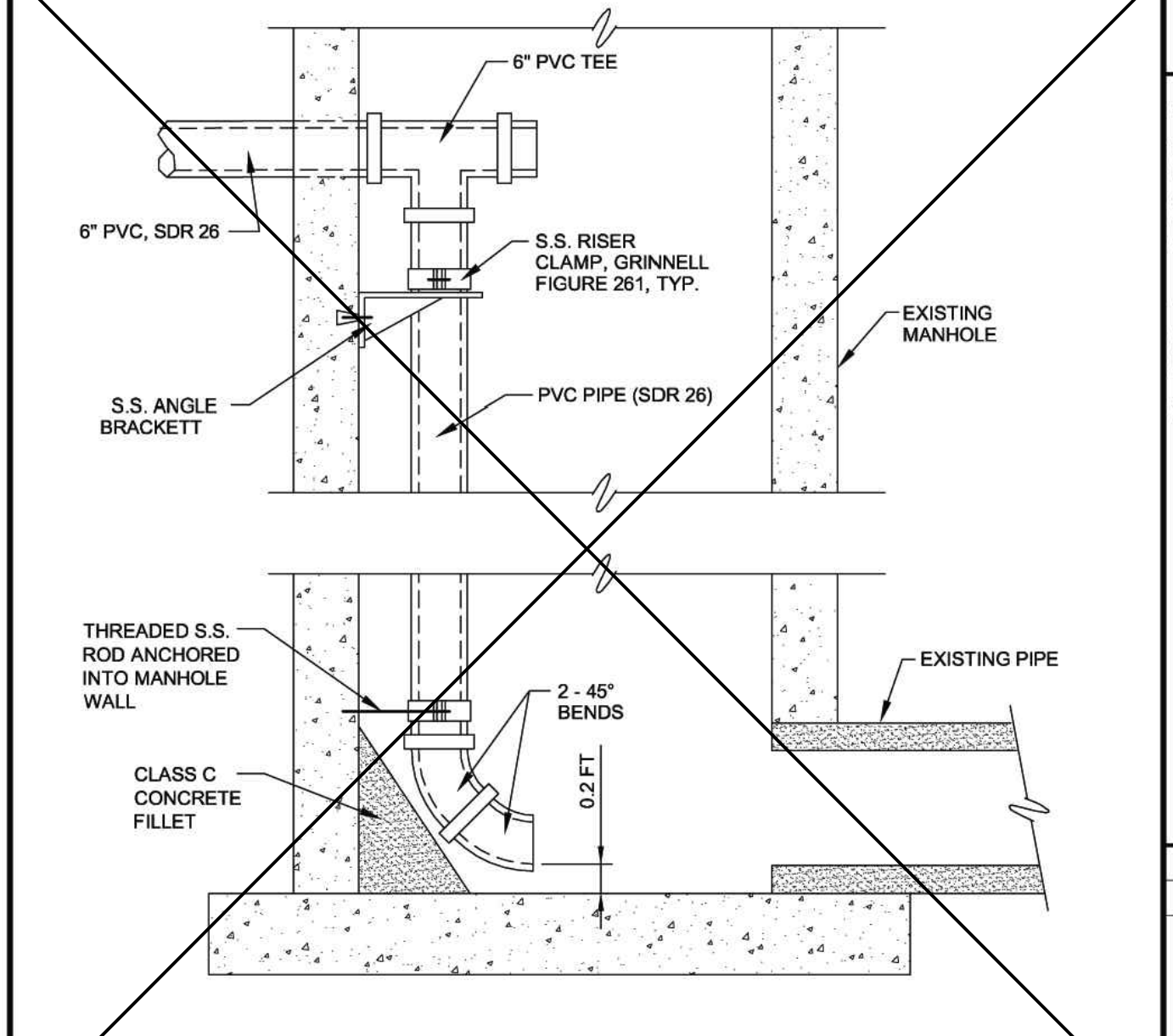
STANDARD MANHOLE



PIPE BEDDING

TRENCH EXCAVATION & PIPE BEDDING

PIPE WITHIN INFLUENCE OF DRIVEN SURFACE



INTERIOR SEWER LATERAL DROP CONNECTION



GENOA OCEOLA
Sewer and Water Authority

SANITARY SEWER STANDARD DETAILS

Scale: NONE
Issued Date: JANUARY - 2014

PROJECT: **LIPKIN MEDICAL OFFICE BUILDING**
PREPARED FOR: **DR. LIPKIN**
3172 INTERLAKEN STREET
WEST BLOOMFIELD, MI 48323

NO	BY	REVISION PER	DATE
1	LM	PER TOWNSHIP REVIEW	5/21/14
2	LM	PER COUNTY REVIEW	6/19/14
3	LM	PER TOWNSHIP REVIEW	11/11/14
5	TD	AMENDED SITE PLAN	10/26/16

DESIGNED BY: **TD**
DRAWN BY: **TD**
CHECKED BY:
SCALE: 1" = 30'
JOB NO.: **13-293**
DATE: 4-30-14
SHEET NO.

C12

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS OF EXISTING UTILITIES TO DETERMINE THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CONSTRUCTION OF THE PROJECT SHALL NOTIFY THE ENGINEER IF ANY UTILITIES ARE DISCOVERED THAT WERE NOT SHOWN ON THE RECORD DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE LOCAL GOVERNMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE LOCAL GOVERNMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE LOCAL GOVERNMENT.

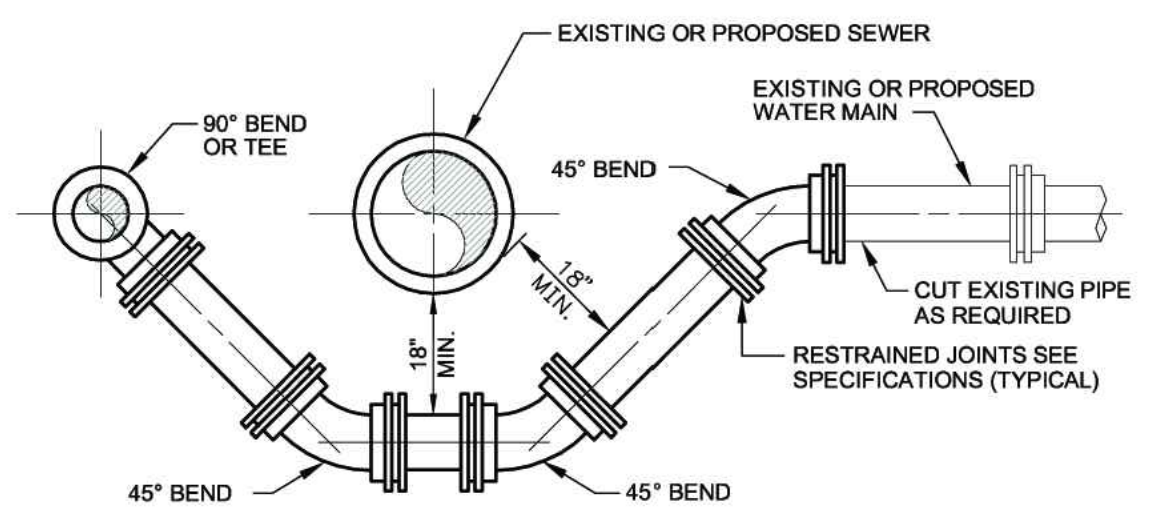
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PIPE RESTRAINT SCHEDULE

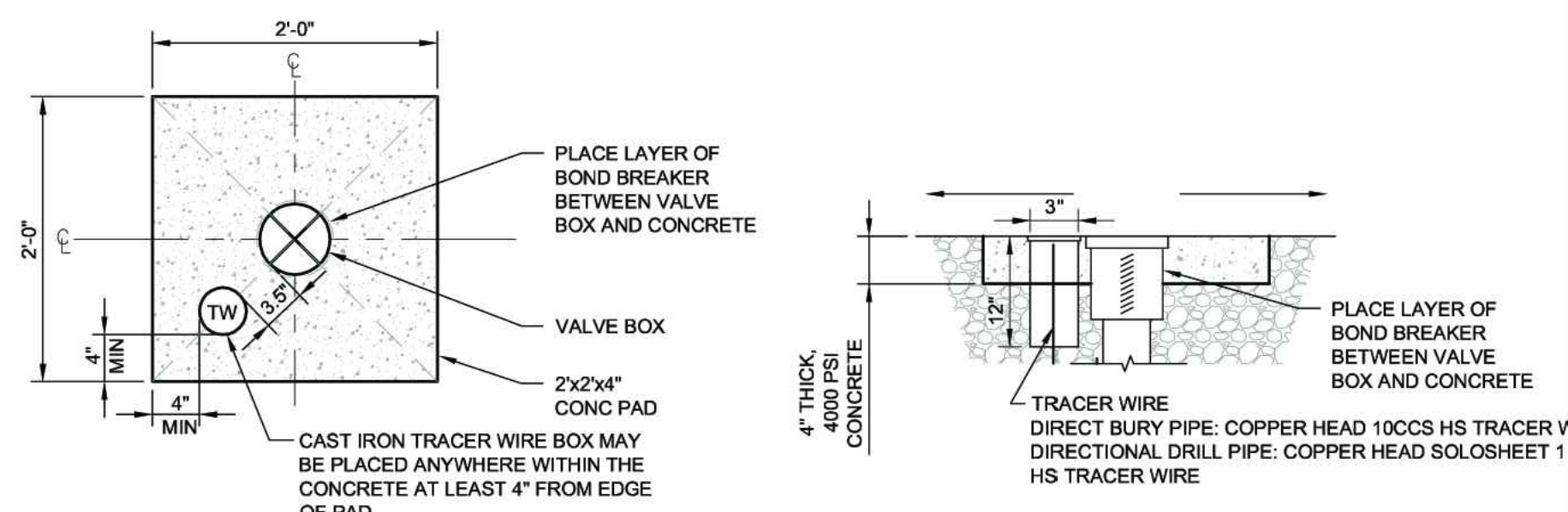
GROUND BURIED PRESSURE PIPE - POLYETHYLENE ENCASED DUCTILE IRON PIPE

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	65	168
36	84	35	17	8	281	84	168

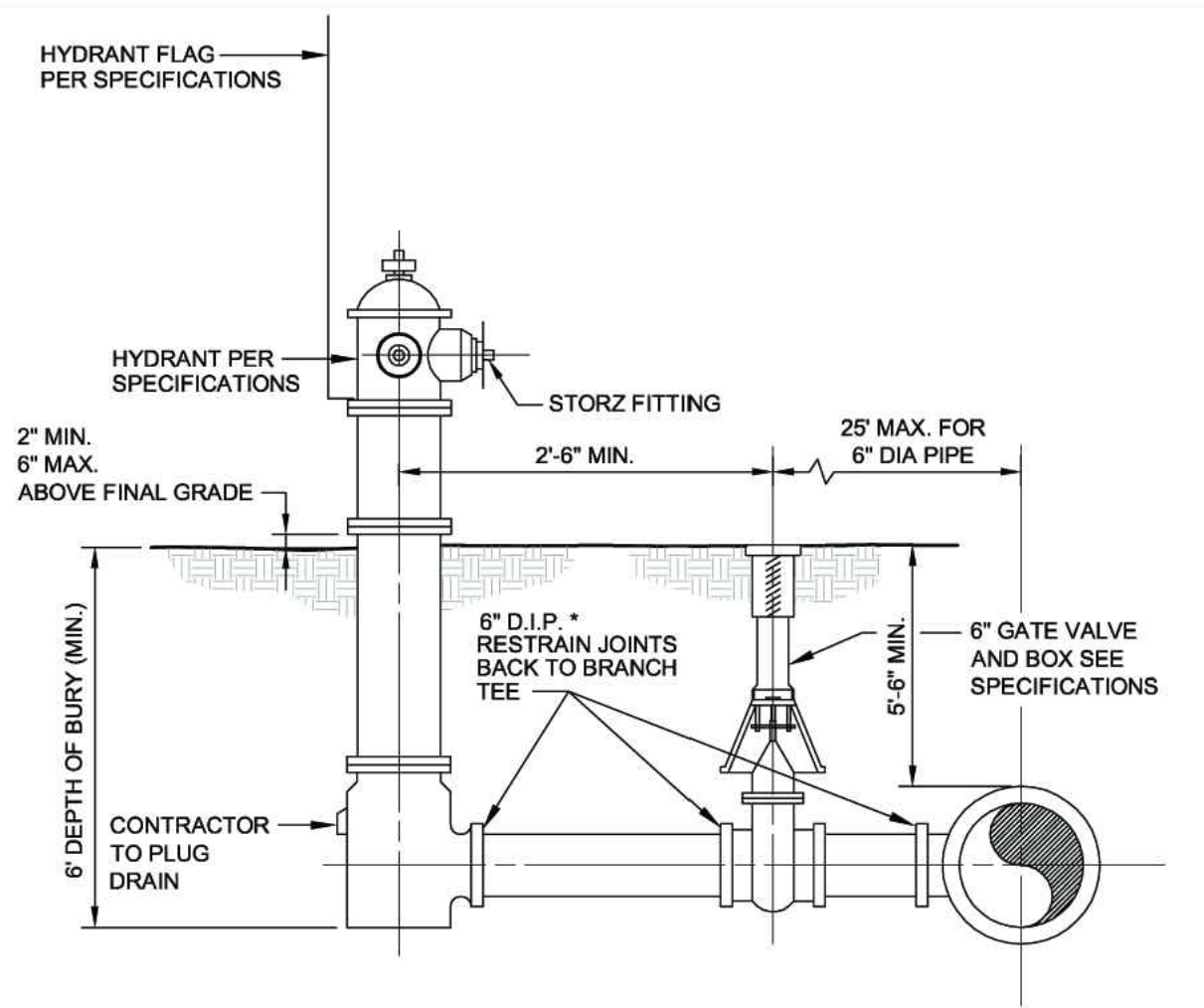
- LENGTHS OF PIPE RESTRAINT ARE GIVEN IN FEET.
 - IF REQUIRED PIPE DIAMETER IS NOT LISTED IN THIS TABLE, THE NEXT LARGEST PIPE DIAMETER SHALL BE USED.
 - THIS TABLE IS BASED ON A TEST PRESSURE OF 180 PSI (OPERATING PRESSURE PLUS WATER HAMMER. FOR OTHER TEST PRESSURES, ALL VALUES TO BE INCREASED OR DECREASED PROPORTIONALLY.
 - 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.
 - 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 |



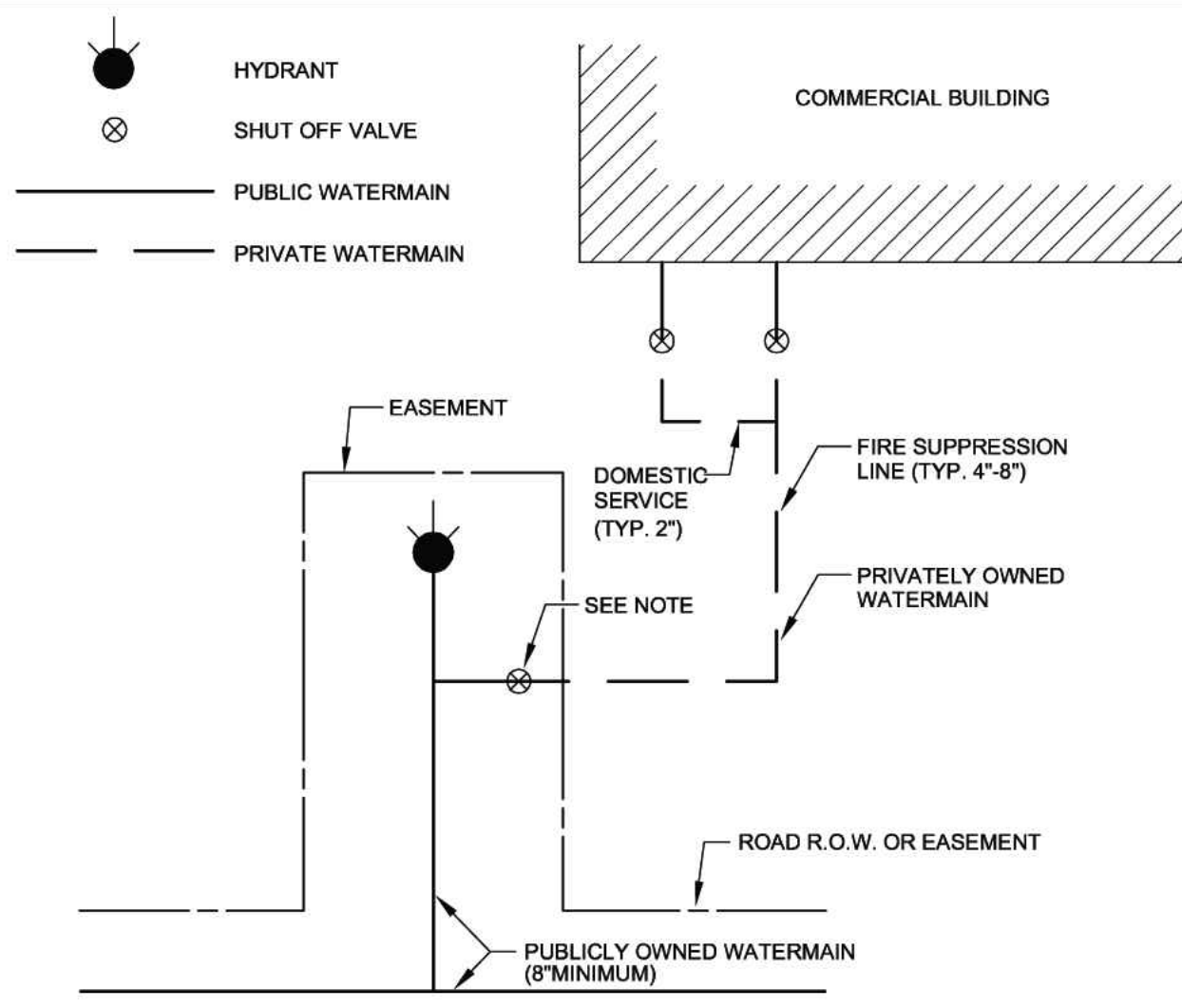
WATER MAIN UTILITY OFFSET



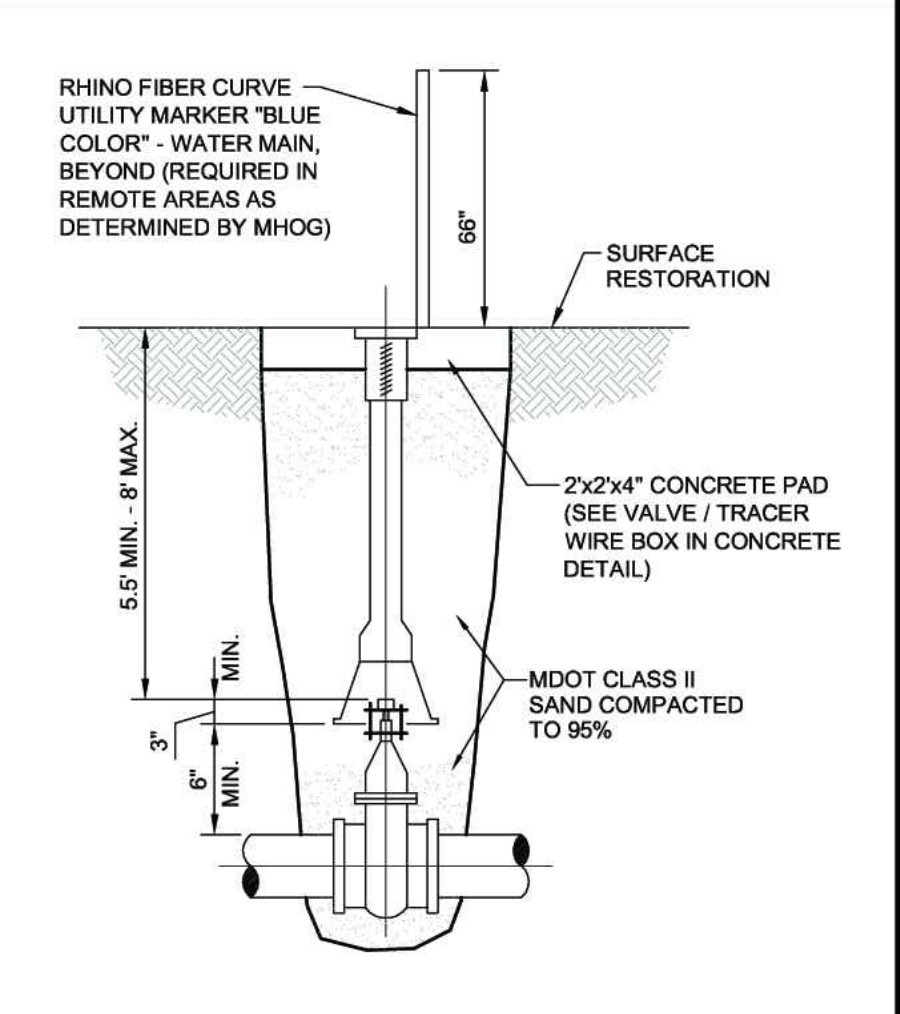
PLAN SECTION
VALVE/TRACER WIRE BOX IN CONCRETE DETAIL
NO SCALE



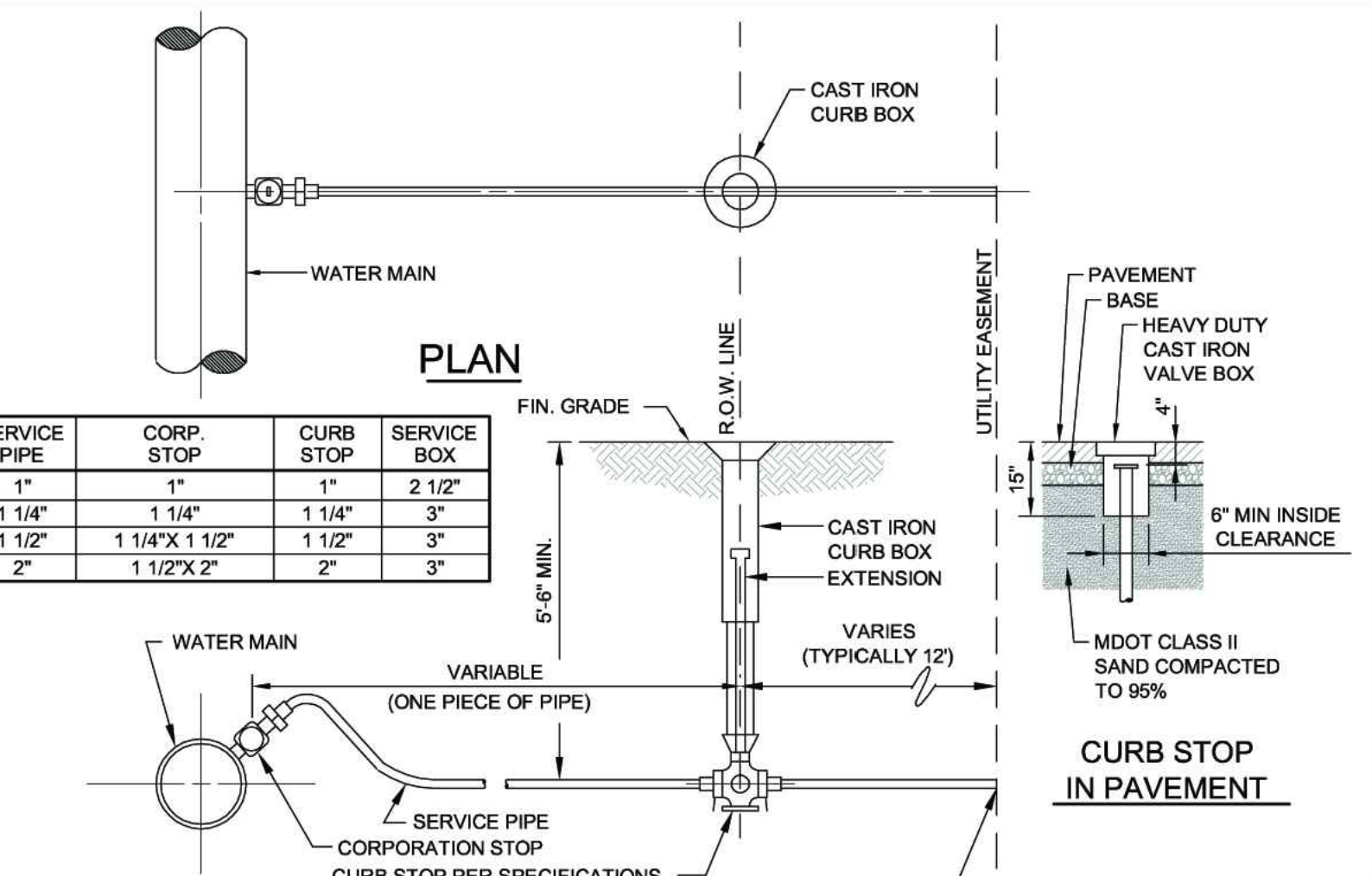
FIRE HYDRANT ASSEMBLY



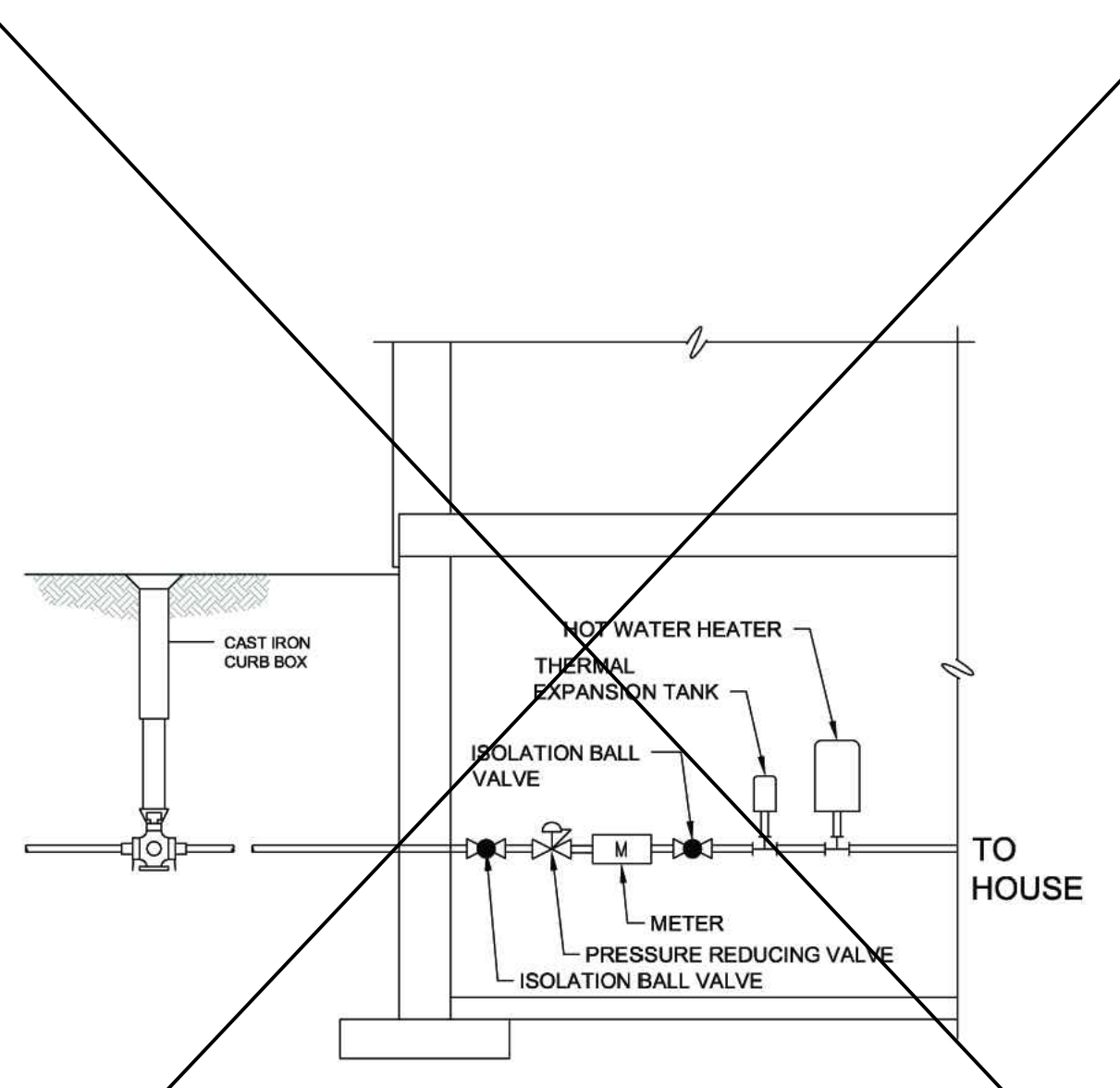
COMMERCIAL BUILDING WATER SERVICE LAYOUT



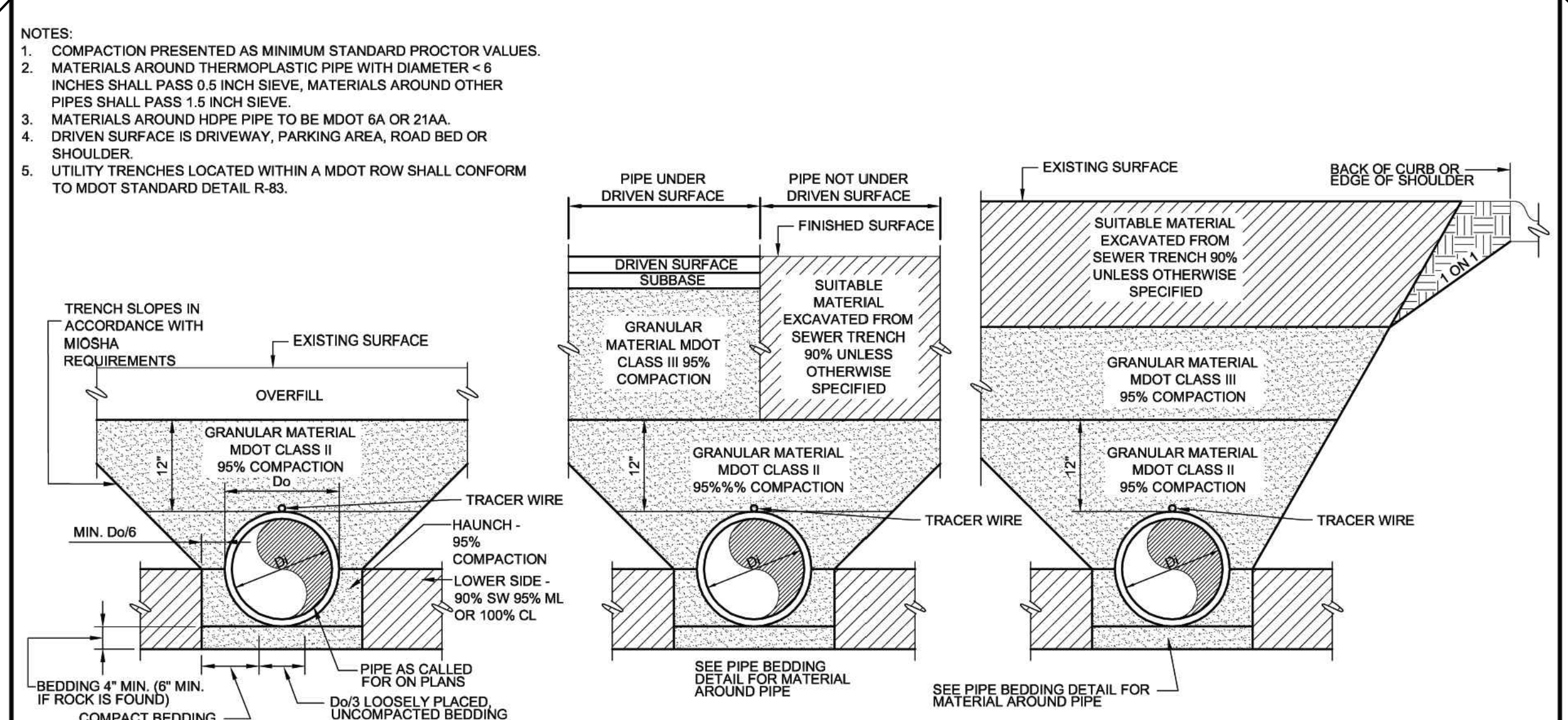
GATE VALVE AND BOX



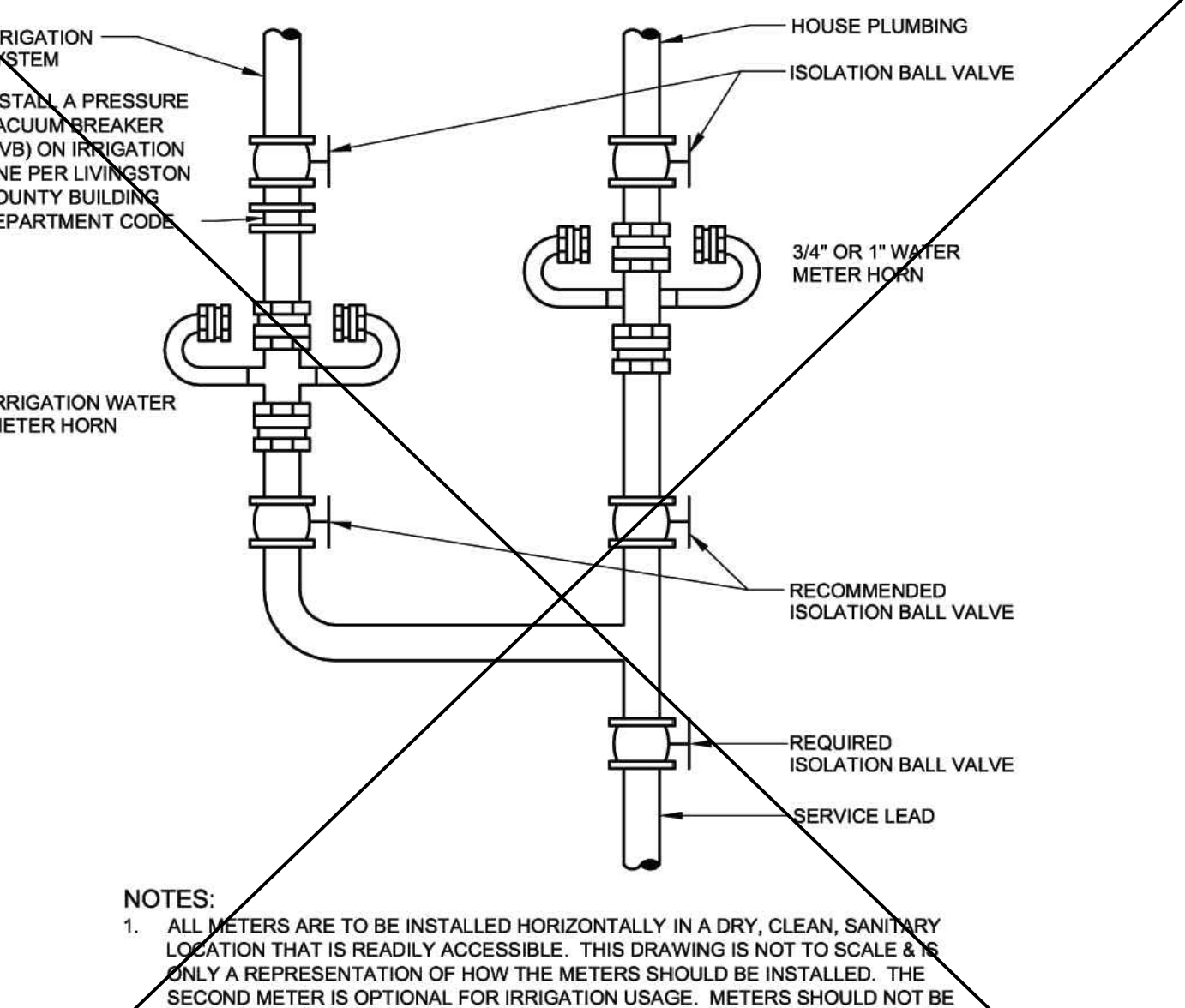
SECTION
WATER SERVICE LATERAL



PRIVATE RESIDENCE PRESSURE REDUCING VALVE (PRV)



PIPE BEDDING TRENCH EXCAVATION & PIPE BEDDING



TYPICAL METER HORN INSTALLATION



MARION HOWELL OCEOLA GENOA
Sewer and Water Authority

WATER MAIN STANDARD DETAILS

Scale: NONE
Issued Date: JANUARY - 2014

PROJECT: **LIPKIN MEDICAL OFFICE BUILDING**

DESIGNED BY: **DR. LIPKIN**

PREPARED FOR: **3172 INTERLAKEN STREET WEST BLOOMFIELD, MI 48323**

NO	BY	DATE	REVISION PER
1	LM	10/26/16	AMENDED SITE PLAN
2	LM	11/11/14	PER TOWNSHIP REVIEW
3	LM	10/27/14	PER COUNTY REVIEW
4	LM	6/19/14	PER TOWNSHIP REVIEW
5	LM	5/21/14	PER TOWNSHIP REVIEW

DATE: 4-30-14

SHEET NO. **C13**

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THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS PLAN ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY. THE LOCATION AND ELEVATION OF EXISTING UTILITIES DETERMINED BY FIELD SURVEY SHALL BE SHOWN ON THE CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES SHOWN ON THIS PLAN AND NOTIFY THE ENGINEER IF ANY DISCREPANCIES ARE FOUND. THE LOCATION OF DEPTH DIFFERS SIGNIFICANTLY FROM THE PLAN.

A WARNING DAYS
BEFORE
CALL MISS DIG
1-800-482-7171
© 2014 Boss Engineering, Inc.

PRIOR TO CURB BOX INSTALLATION, CONTACT GENOA TOWNSHIP DPW FOR CURB BOX INSTALLATION REQUIREMENTS.

**GENOA CHARTER TOWNSHIP
PLANNING COMMISSION
PUBLIC HEARING
OCTOBER 11, 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, Barbara Figurski, James Mortensen, Eric Rauch, Chris Grajek, and Diana Lowe. Absent was John McManus. 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 Figurski, seconded by Commissioner Lowe, to approve the agenda as presented. **The motion carried unanimously.**

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

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

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

Thom Dumond of Boss Engineering gave a description of the proposed project. The building to the north will have a coffee shop with a drive thru. The building to the south will be a commercial building with a restaurant and a hair salon. He showed colored renderings.

Commissioner Mortensen questioned if the proposed entranceway sign meets the requirements in the agreement. Ms. VanMarter stated she prefers to have the sign in this location than where it was originally proposed.

Mr. Borden reviewed his letter of October 4, 2016. He noted that because this is part of a PUD, the Planning Commission will be making a recommendation to the Township Board.

One side of each of the buildings falls slightly short of the required 80 percent natural features requirement. Commissioner Rauch would like to see more of the materials that are being used on the front of the building brought onto the drive through side of the

building to the north. Commissioner Mortensen feels this should be done on the two sides that are currently bare. Mr. Dumond advised he will make these changes.

Mr. Borden stated there are some small landscaping discrepancies that need to be addressed, permits must be obtained for all signage, channel lettering is required, and the easement that the owner has granted to the Township for the entrance sign needs to be 7' x 25'.

Mr. Markstrom stated he has two outstanding issues regarding water and sanitary sewer leads. The applicant is working with him to meet the guidelines.

There was a discussion regarding the traffic flow on the site as well as the ingress and egress points as they relate to the stacking of the drive thru traffic.

The Commissioners and the applicant discussed changes that need to be made to the Environmental Impact Assessment.

Moved by Mortensen, seconded by Figurski, to table the request from USA 2 GO until the November 14, 2016 Planning Commission meeting. **The motion carried unanimously.**

Administrative Business:

- Staff Report

Ms. VanMarter stated that the Governor has recently signed a new law pertaining to marijuana dispensaries. The Township is currently under a moratorium with regard to them, but she will be bringing this issue to the Planning Commission at a future meeting to address.

- Approval of the September 12, 2016 Planning Commission meeting minutes

Moved by Commissioner Figurski, seconded by Commissioner Mortensen, to approve the minutes of the September 12, 2016 Planning Commission Meeting as presented. **The motion carried unanimously.**

- Member Discussion

The Michigan Association of Planners conference is being held October 26th through the 29th.

The Commissioners asked Ms. VanMarter to have the petitioner from tonight bring the sample building materials to the November meeting.

- Adjournment

Moved by Commissioner Figurski, seconded by Commissioner Mortensen, to adjourn the meeting at 8:09 pm. **The motion carried unanimously.**