

**GENOA CHARTER TOWNSHIP BOARD**

**May 2, 2016**

**Regular Meeting and Public Hearing**

**6:30 p.m.**

**AGENDA**

Call to Order:

Pledge of Allegiance:

Call to the Public (Public comment will be limited to two minutes per person)\*:

**Approval of Consent Agenda:**

1. Payment of Bills.
2. Request to Approve Minutes: April 18, 2016
3. Consider approval of a contract in the amount of \$85,000 with the Livingston County Road Commission for repaving Hughes Road from Grand River to Forest Ponds.

**Approval of Regular Agenda:**

4. Consider action regarding unsafe structure proceedings at 4815 Richardson Road. Tabled from 3/21/16 meeting.
5. Call to the Public with regard to the second public hearing of the East Coon Lake Trail Road Improvement Project scheduled for Summer 2016.
6. Request for approval of Resolution No. 5 [confirming the special assessment roll] for the East Coon Lake Trail Road Improvement Project Summer of 2016.
7. Consideration of a request to approve the environmental impact assessment corresponding to a site plan for a proposed medical center on vacant parcel #11-06-200-068 which is located on the north side of Grand River Ave, east of Meadowview Avenue, Howell. The request is petitioned by Kalambaka Properties, LLC.
  - A. Disposition of Environmental Impact Assessment (4-22-16)
8. Consideration of a request to approve the Final PUD site plan and environmental impact assessment for a proposed Flagstar Bank on parcel #11-09-100-038 located on the east side of Latson Road, north of I-96, Howell. The project is within the Providence/Former Latson Elementary School Planned Unit Development and is petitioned by Flagstar Bank.
  - A. Disposition of Environmental Impact Assessment (4-25-16)
  - B. Disposition of Final PUD Site Plan (4-25-16)

9. Request for approval to purchase 122 gravesites from St. George Lutheran Church located on Herbst Road at a cost of \$40,000.

Correspondence  
Member Discussion  
Adjournment

\*Citizen's Comments- In addition to providing the public with an opportunity to address the Township Board at the beginning of the meeting, opportunity to comment on individual agenda items may be offered by the Chairman as they are presented.

CHECK REGISTERS FOR TOWNSHIP BOARD MEETING

DATE MAY 2, 2016

TOWNSHIP GENERAL EXPENSES: Thru May 2, 2016	\$59,148.35
April 8, 2016 Bi Weekly Payroll	\$92,147.59
April 22, 2016 Bi Weekly Payroll	\$77,069.87
May 2, 2016 Monthly Payroll	\$11,107.38
OPERATING EXPENSES: thru May 2, 2116	\$129,754.80
TOTAL:	<u>\$369,227.99</u>

<u>Check Number</u>	<u>Vendor No</u>	<u>Vendor Name</u>	<u>Check Date</u>	<u>Check Amount</u>
32681	COOPERST	Cooper's Turf Management LLC	04/19/2016	2,377.00
32682	Mancuso	Mancuso & Cameron, P.C.	04/19/2016	4,800.00
32683	SECURITY	Security Lock Service	04/19/2016	144.00
32684	A T & T	A T & T	04/21/2016	162.09
32685	Allstar	Allstar Alarm LLC	04/21/2016	270.00
32686	Amer	American Video Transfer Inc	04/21/2016	85.00
32687	AmerAqua	American Aqua	04/21/2016	80.00
32688	BullsEye	BullsEye Telecom	04/21/2016	358.03
32689	EHIM	EHIM, INC	04/21/2016	15,110.84
32690	LAKESIDE	Lakeside Service Company, Inc.	04/21/2016	528.29
32691	LCIT	Livingston County Information	04/21/2016	110.00
32692	USBANK	U. S. Bank Equipment Finance	04/21/2016	1,656.84
32693	VERIZONW	Verizon Wireless	04/21/2016	604.90
32694	FED EXPR	Federal Express Corp	04/21/2016	29.17
32695	LCAA	LCAA	04/21/2016	85.00
32696	LIVCP&A	Livingston Press & Argus	04/21/2016	805.00
32697	LSL	LSL Planning, Inc.	04/21/2016	4,954.35
32698	ARCHINAL	Michael Archinal	04/26/2016	500.00
32699	CARDM	Chase Card Services	04/26/2016	1,007.38
32700	COMC	Comcast	04/26/2016	140.56
32701	GANNETT	Livingston Press & Argus	04/26/2016	555.00
32702	KERNE	Erik Kern	04/26/2016	70.00
32703	LCCA	Livingston County Clerk	04/26/2016	10.00
32704	LEO'S CU	Leo's Custom Sprinkler Service	04/26/2016	133.00
32705	LivCTrea	Livingston County Treasurer	04/26/2016	238.03
32706	Postmast	Postmaster	04/26/2016	4.14
32707	RELIANCE	Reliance Standard Life Insuran	04/26/2016	2,727.89
32708	State	State of Michigan	04/26/2016	10.00
32709	Unum	Unum Provident	04/26/2016	2,503.60
32710	WALMART	Walmart Community	04/26/2016	332.51
32711	A T & T	A T & T	05/02/2016	72.27
32712	FASTENAL	Fastenal	05/02/2016	215.97
32713	ICMA	ICMA	05/02/2016	941.60
32714	MASTER M	Master Media Supply	05/02/2016	207.14
32715	NeopostU	Neopost USA Inc	05/02/2016	162.00
32716	Net serv	Network Services Group, L.L.C.	05/02/2016	1,514.00
32717	SECURITY	Security Lock Service	05/02/2016	80.25
32718	ETNA SUP	Etna Supply Company	05/02/2016	15,562.50
<b>Report Total:</b>				<b>59,148.35</b>

Account Number	Debit	Credit	Account Description
1-000-002-000	0.00	64,019.10	Cash-checking Account Only
01-000-259-000	64,019.10	0.00	Payroll Direct Deposit
	64,019.10	64,019.10	
Report Totals:	64,019.10	64,019.10	

Accounts Payable  
Computer Check Register

**Genoa Township**

2911 Dorr Road  
Brighton, MI 48116

(810) 227-5225

User: cindy

Printed: 04/01/2016 - 09:50

Bank Account: 101CH

Check	Vendor No	Vendor Name	Date	Invoice No	Amount
13600	EFT-FED	EFT- Federal Payroll Tax	04/08/2016		10,187.50 5,202.57 5,202.57 1,216.74 1,216.74
Check 13600 Total:					23,026.12
13601	EFT-PENS	EFT- Payroll Pens Ln Pyts	04/08/2016		2,317.20 72.53
Check 13601 Total:					2,389.73
13602	EFT-PRIN	EFT-Principal Retirement 457	04/08/2016		1,007.00
Check 13602 Total:					1,007.00
13603	EFT-ROTH	EFT-Principal Roth	04/08/2016		615.00
Check 13603 Total:					615.00
13604	EFT-TASC	EFT-Flex Spending	04/08/2016		444.43 646.21
Check 13604 Total:					1,090.64

Report Total:

28,128.49

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Genoa Charter Township  
User: cindy

Electronic Clearinghouse  
Distribution Report

Printed: 04/15/16 10:32  
Batch: 622-04-2016

Account Number	Debit	Credit	Account Description
J1-000-002-000	0.00	52,937.86	Cash-checking Account Only
101-000-259-000	52,937.86	0.00	Payroll Direct Deposit
	52,937.86	52,937.86	
<b>Report Totals:</b>	<b>52,937.86</b>	<b>52,937.86</b>	



Accounts Payable  
Computer Check Register

**Genoa Township**

2911 Dorr Road  
Brighton, MI 48116

(810) 227-5225

User: cindy

Printed: 04/14/2016 - 16:06

Bank Account: 101CH

Check	Vendor No	Vendor Name	Date	Invoice No	Amount
13605	EFT-FED	EFT- Federal Payroll Tax	04/22/2016		7,821.70 4,505.31 4,505.31 1,053.66 1,053.66
				Check 13605 Total:	18,939.64
13606	EFT-PENS	EFT- Payroll Pens Ln Pyts	04/22/2016		2,317.20 72.53
				Check 13606 Total:	2,389.73
13607	EFT-PRIN	EFT-Principal Retirement 457	04/22/2016		1,157.00
				Check 13607 Total:	1,157.00
13608	EFT-ROTH	EFT-Principal Roth	04/22/2016		555.00
				Check 13608 Total:	555.00
13609	EFT-TASC	EFT-Flex Spending	04/22/2016		444.43 646.21
				Check 13609 Total:	1,090.64

Report Total:

24,132.01

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Accounts Payable  
Computer Check Register

**Genoa Township**

2911 Dorr Road  
Brighton, MI 48116

(810) 227-5225

User: cindy

Printed: 04/25/2016 - 10:00

Bank Account: 101CH

Check	Vendor No	Vendor Name	Date	Invoice No	Amount
13610	EFT-FED	EFT- Federal Payroll Tax	05/02/2016		1,928.78 673.99 673.99 157.63 157.63
				Check 13610 Total:	3,592.02
13611	EFT-PENS	EFT- Payroll Pens Ln Pyts	05/02/2016		394.21
				Check 13611 Total:	394.21
13612	EFT-TASC	EFT-Flex Spending	05/02/2016		83.33
				Check 13612 Total:	83.33
13613	FIRST NA	First National Bank	05/02/2016		7,037.82
				Check 13613 Total:	7,037.82
				Report Total:	11,107.38

4:30 PM

## #593 LAKE EDGEWOOD W/S FUND

## Payment of Bills

April 12 through May 2, 2016

Type	Date	Num	Name	Memo	Amount
Bill Pmt -Check	04/18/2016	2936	Brighton Analytical L.L.C.		-154.00
Bill Pmt -Check	04/18/2016	2937	Charter Township of Brighton	Re 7960 Grand River Davita Dialysis	-880.00
Bill Pmt -Check	04/18/2016	2938	Consumers Energy		-281.80
Bill Pmt -Check	04/18/2016	2939	Cooper's Turf Management	Snow plowing	-165.00
Bill Pmt -Check	04/18/2016	2940	DTE Energy	Electric Bills 3-5-2016 to 4-2-2016	-63.54
Bill Pmt -Check	04/18/2016	2941	GENOA TWP-GENERAL FUND	Reimbursement to the Meter Fund	-155.00
Bill Pmt -Check	04/18/2016	2942	GENOA TWP DPW FUND	Water and Sewer Admin Fees	-10,468.90
Bill Pmt -Check	04/18/2016	2943	STATE OF MICHIGAN	Groundwater Annual Permit Fee 2016	-3,650.00
Bill Pmt -Check	04/21/2016	2944	Brighton Analytical L.L.C.	Laboratory costs	-77.00
Bill Pmt -Check	04/21/2016	2945	BullsEye Telecom	4-10-16 TO 5-9-16	-342.26
Bill Pmt -Check	04/21/2016	2946	GENOA TWP-OAK POINTE OPERATING	Grinder Pump Repair Re-Imburse	-140.00
Bill Pmt -Check	04/21/2016	2947	MHOG Utilities	7817 BENDIX	-24.45
Bill Pmt -Check	05/02/2016	2948	Brighton Analytical L.L.C.	Laboratory costs	-77.00
Bill Pmt -Check	05/02/2016	2949	MICHIGAN CAT	Service Call	-787.41
<b>Total</b>					<b>-17,266.36</b>

4:26 PM

## #592 OAK POINTE WATER/SEWER FUND

## Payment of Bills

April 12 through May 2, 2016

Type	Date	Num	Name	Memo	Amount
Bill Pmt -Check	04/18/2016	3613	USA Bluebook	SUPPLIES	-18.75
Bill Pmt -Check	04/18/2016	3614	USA Bluebook	SUPPLIES	-172.72
Bill Pmt -Check	04/21/2016	3615	AT&T	Monthly service 4-7 thru 5-6-16	-98.99
Bill Pmt -Check	04/21/2016	3616	Bullseye Telecom	003CA32, 003CACC	-439.15
Bill Pmt -Check	04/21/2016	3617	Genoa Township G/O New User Fund	Deposit to 489-000-084-592	-15,300.00
Bill Pmt -Check	04/21/2016	3618	USA Bluebook		-3,232.01
Bill Pmt -Check	04/21/2016	3619	Utilities Instrumentation Service	Services at Oak Point WWTP	-1,206.17
Bill Pmt -Check	04/26/2016	3620	AT & T	Monthly service 4-12 thru 5-11-2016	-71.34
Bill Pmt -Check	05/02/2016	3621	MHOG UTILITIES	12-31-15 to 3-31-16	-29,224.91
Bill Pmt -Check	05/02/2016	3622	STANDARD ELECTRIC		-101.71
Bill Pmt -Check	05/02/2016	3623	FASTENAL	SUPPLIES	-65.35
Bill Pmt -Check	05/02/2016	3624	Utilities Instrumentation Service	Services at Oak Point WTP	-447.50
<b>Total</b>					<b>-50,378.60</b>

4:28 PM

## #595 PINE CREEK W/S FUND

## Payment of Bills

April 12 through May 2, 2016

Type	Date	Num	Name	Memo	Amount
Bill Pmt -Check	04/18/2016	2164	GENOA TWP-GENERAL FUND	2-1" Meters @ 200.00	-400.00
				<b>Total</b>	<b>-400.00</b>

4:31 PM

## #503 DPW UTILITY FUND

## Payment of Bills

April 12 through May 2, 2016

Type	Date	Num	Name	Memo	Amount
Bill Pmt -Check	04/12/2016	3557	LOWE'S	supplies	-936.26
Bill Pmt -Check	04/18/2016	3558	Advanced Auto Parts		-87.46
Bill Pmt -Check	04/18/2016	3559	CORRIGAN OIL CO	Fuel Truck New Hose	-225.00
Bill Pmt -Check	04/18/2016	3560	D&G Equipment, Inc.		-4,314.86
Bill Pmt -Check	04/18/2016	3561	NORTHWEST PIPE & SUPPLY	Supplies	-26.66
Bill Pmt -Check	04/18/2016	3562	PAETEC	March 2016	-34.47
Bill Pmt -Check	04/18/2016	3563	SENSUS USA	Software Coverage 5-31-16 to 5-30-17	-1,838.00
Bill Pmt -Check	04/18/2016	3564	Staples Credit Plan	supplies	-219.83
Bill Pmt -Check	04/18/2016	3565	Tractor Supply Co.	3/3 to 3/30/216	-1,058.13
Bill Pmt -Check	04/18/2016	3566	Victory Lane Quick Oil Change		-238.42
Bill Pmt -Check	04/19/2016	3567	Mancuso & Cameron	Vactor Truck	-300.00
Bill Pmt -Check	04/15/2016	3568	U.S. POSTMASTER	MHOG QTR Jan-March 2016	-1,480.94
Bill Pmt -Check	04/19/2016	3569	Chase Card Services	Supplies	-5,594.85
Bill Pmt -Check	04/19/2016	3570	Grainger		-189.70
Bill Pmt -Check	04/19/2016	3571	MWEA	Aulette, Miller, Lab practies Seminar	-260.00
Bill Pmt -Check	04/21/2016	3572	Grainger	Safety Supplies	-268.03
Bill Pmt -Check	04/21/2016	3573	USABlueBook		-952.39
Bill Pmt -Check	04/21/2016	3574	Verizon	3-7-16 to 4-6-16	-287.98
Bill Pmt -Check	04/26/2016	3575	Greg Tatara	May Car Allowance	-500.00
Bill Pmt -Check	04/26/2016	3576	HUMPHRISS	May Car Allowance	-250.00
Bill Pmt -Check	04/26/2016	3577	U.S. POSTMASTER	Return Addressing Service	-95.86
Bill Pmt -Check	05/02/2016	3578	D Hill Environmental	Wastewater Lab basics Robin Witjes	-325.00
Bill Pmt -Check	05/02/2016	3579	HOWELL TRUE VALUE HARDWARE	Truck 4	-48.16
Bill Pmt -Check	05/02/2016	3580	Red Wing Shoe Store		-373.48
Bill Pmt -Check	05/02/2016	3581	Victory Lane Quick Oil Change	2015 silverado 1500 PU	-73.98
Bill Pmt -Check	05/02/2016	3582	Applied Imaging	Supples	-186.97
Bill Pmt -Check	05/02/2016	3583	Blackburn Mfg. Co.	Supplies	-349.06
Bill Pmt -Check	05/02/2016	3584	Fastenal Company	Orange Fence- Marshmallow Drop	-215.96
Bill Pmt -Check	05/02/2016	3585	Roys Autoworks Corp	Truck #2	-913.42
Bill Pmt -Check	05/02/2016	3586	Victory Lane Quick Oil Change	2011 Ford F-250	-64.97
Bill Pmt -Check	04/26/2016	3587	DPW RESERVE FUND #504		-40,000.00
				<b>Total</b>	<b>-61,709.84</b>

**DRAFT**  
**GENOA CHARTER TOWNSHIP BOARD**  
**Regular Meeting and Public Hearing**  
**April 18, 2016**

**MINUTES**

Supervisor McCririe called the regular meeting of the board to order at 6:30 p.m. The Pledge of Allegiance was then said. The following board members were present constituting a quorum for the transaction of business: Gary McCririe, Paulette Skolarus, Robin Hunt, Linda Rowell, Jim Mortensen, Todd Smith and Jean Ledford. Also present were: Township Manager Michael Archinal and 11 persons in the audience.

A Call to the Public was made with a question concerning a check written to EDC. McCririe identified the check as written for SPARK.

**Approval of Consent Agenda:**

Moved by Hunt and supported by Smith to approve all items listed under the Consent Agenda as requested. The motion carried unanimously.

**1. Payment of Bills.**

**2. Request to Approve Minutes: April 4, 2016**

**Approval of Regular Agenda:**

Moved by Rowell and supported by Smith to approve for action all items listed on the regular agenda as requested. The motion carried unanimously.

**3. Call to the Public with regard to the first public hearing of the East Coon Lake Trail Road Improvement Project scheduled for summer 2016.**

A Call to the Public and Property Owners was made with the following response: Mike O'Neill – The electric service for our street is down the middle of the road. How will it be accessed if it needs repair? Easement lines have not been identified. This would make a difference of four to five feet on my property. McCririe – Miss Digg should be notified of the construction. Mike Gibson – DTE planned with a spare conduit. If it needs to be worked on there should not be a problem. David Hall – I am concerned with water runoff and not being able to get up the hill in winter and salt running into the lake. I can't afford this project. Ovidiu Toader – How do we know that the cost will remain the same? It could be \$200,000.00, then what? McCririe – Under Act 188, the cost cannot exceed 10% of the petition.

**4. Request for approval of Resolution No. 3 [approving the project, cost estimates, special assessment district and causing the Special Assessment Roll to be prepared] for the East Coon Lake Trail Road Improvement -Project Summer 2016.**

Moved by Rowell and supported by Mortensen to approve Resolution No. 3 for East Coon Lake Trail as requested. The motion carried by roll call vote as follows: Ayes – Ledford, Smith, Hunt, Rowell, Mortensen, Skolarus and McCririe. Nays – None. Absent – None.

**5. Request for approval of Resolution No. 4 [acknowledging the filing of the Special Assessment Roll, scheduling the second hearing and directing the issuances of statutory notices for the East Coon Lake Trail Road Improvement -Project Summer 2016.**

Moved by Skolarus and supported by Hunt to approve Resolution No 4 for East Coon Lake Trail as requested. The motion carried by roll call vote as follows: Ayes – Ledford, Smith, Hunt, Rowell, Mortensen, Skolarus and McCririe. Nays – None. Absent – None.

**6. Consider acceptance of a legal services proposal from Seward, Peck & Henderson.**

Moved by Smith and supported by Ledford to accept the legal services proposal from Seward, Peck and Henderson. The motion carried as follows: Ayes Smith, Hunt, Rowell, Mortensen and McCririe. Nays – Skolarus and Ledford.

Archinal advised the board that Derek Smith resigned from SELCRA and they no longer employed a director.

The regular meeting and public hearing of the Genoa Charter Township Board was adjourned at 7:00 p.m.




Paulette A. Skolarus, Clerk  
Genoa Charter Township

Gary McCririe, Supervisor  
Genoa Charter Township

## Livingston County Road Commission

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

April 21, 2016

MEMORANDUM TO: Genoa Township Board of Trustees  
FROM: Michael Craine, Managing Director   
SUBJECT: Project Agreement, Hughes Road Project

Enclosed are two originals of the proposed agreement for work on Hughes Road in 2016. The agreement has been prepared for your review and approval.

If approved, please have both copies signed by the Supervisor and Clerk and returned to our office marked for the attention of Jeannie Heier, Administrative Assistant. **PLEASE DO NOT DATE THE DOCUMENT(S)**. After submittal to the Board of County Road Commissioners for their approval, a dated fully executed copy will be returned to you for your files.

MC/jlh

Enc

Cc Jodie Tedesco, County Highway Engineer



**PROJECT AGREEMENT**

**JOB NUMBER: \_\_\_\_\_**

This Agreement made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2016, by and between GENOA Township, Livingston County, Michigan, hereinafter referred to as "TOWNSHIP" and the BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON, hereinafter referred to as "ROAD COMMISSION."

**WITNESSETH**

The Township has selected the following roads to be improved as described below:

**HUGHES ROAD  
(GRAND RIVER AVENUE TO FORREST PONDS DRIVE)  
APPROXIMATELY 0.58 MILE  
COLD MILLING, HMA SURFACING,  
ALTOGETHER WITH THE NECESSARY RELATED WORK**

The parties agree as follows:

1. The Road Commission shall hire contractors to perform the work as shown, which cost is estimated at \$170,000. The Township shall pay the Road Commission as its portion of the cost of the project as follows: \$85,000.
  - A. This contract shall not exceed One Hundred Ten Percent (110%) of the township's portion of the project cost without prior consultation with the Township.
  - B. The balance shall be paid as invoiced. If an invoice is not paid within 45 days of billing, the Township will pay ten per cent (10%) annual interest on that billed but unpaid.
  - C. The Road Commission shall furnish the Township with a final breakdown of its actual expenses upon completion of the project. It is the intention of the parties that one hundred per cent (100%) of the Road Commission's direct contract costs will be paid by the Township, less the Road Commission's contribution as set forth in paragraph 2 below.
  - D. The Township will not withhold payments because of any set-off, counterclaim, or any other claim which it may have against the Road Commission arising out of this or any other matter. If there is a dispute over the balance due upon completion, the Township will pay the amount claimed by the Road Commission, and such payment shall not be a waiver by the Township of any claims it may have arising from this contract and the completion of the project.
2. The Road Commission will contribute 50% of the project cost. If the township's contract cost exceeds \$93,500, the Road Commission shall be responsible for the balance. The Road Commission is also responsible for its own engineering and project administration costs. The balance of the direct costs of the project shall be the responsibility of the township, subject to the limitations contained in paragraph 1 above.

3. All work shall be performed in a good workmanlike manner and in accordance with plans and specifications adopted by the Road Commission.
4. The Road Commission shall hold the Township harmless from any liability arising from the work performed pursuant to this contract.
5. The work will be completed within the current contract year, unless the parties otherwise so agree. In the event the Road Commission is unable to complete the work by the time specified, any funds prepaid by the Township shall be returned to it, or the Road Commission shall pay ten per cent (10%) annual interest on the funds retained. All funds returned to the Township shall be repaid to the Road Commission as invoiced.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the date and year first above written.

**GENOA TOWNSHIP**

**BY:** \_\_\_\_\_  
**GARY McCRRIRIE, SUPERVISOR**

\_\_\_\_\_  
**PAULETTE SKOLARUS, CLERK**

**BOARD OF COUNTY ROAD COMMISSIONERS  
OF THE COUNTY OF LIVINGSTON**

**BY:** \_\_\_\_\_  
**MICHAEL CRAINE, MANAGING DIRECTOR**

\_\_\_\_\_  
**TERRY PALMER, ACCOUNTING SUPERVISOR**

**PROJECT AGREEMENT**

**JOB NUMBER: \_\_\_\_\_**

This Agreement made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2016, by and between GENOA Township, Livingston County, Michigan, hereinafter referred to as "TOWNSHIP" and the BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON, hereinafter referred to as "ROAD COMMISSION."

**WITNESSETH**

The Township has selected the following roads to be improved as described below:

**HUGHES ROAD  
(GRAND RIVER AVENUE TO FORREST PONDS DRIVE)  
APPROXIMATELY 0.58 MILE  
COLD MILLING, HMA SURFACING,  
ALTOGETHER WITH THE NECESSARY RELATED WORK**

The parties agree as follows:

1. The Road Commission shall hire contractors to perform the work as shown, which cost is estimated at \$170,000. The Township shall pay the Road Commission as its portion of the cost of the project as follows: \$85,000.
  - A. This contract shall not exceed One Hundred Ten Percent (110%) of the township's portion of the project cost without prior consultation with the Township.
  - B. The balance shall be paid as invoiced. If an invoice is not paid within 45 days of billing, the Township will pay ten per cent (10%) annual interest on that billed but unpaid.
  - C. The Road Commission shall furnish the Township with a final breakdown of its actual expenses upon completion of the project. It is the intention of the parties that one hundred per cent (100%) of the Road Commission's direct contract costs will be paid by the Township, less the Road Commission's contribution as set forth in paragraph 2 below.
  - D. The Township will not withhold payments because of any set-off, counterclaim, or any other claim which it may have against the Road Commission arising out of this or any other matter. If there is a dispute over the balance due upon completion, the Township will pay the amount claimed by the Road Commission, and such payment shall not be a waiver by the Township of any claims it may have arising from this contract and the completion of the project.
2. The Road Commission will contribute 50% of the project cost. If the township's contract cost exceeds \$93,500, the Road Commission shall be responsible for the balance. The Road Commission is also responsible for its own engineering and project administration costs. The balance of the direct costs of the project shall be the responsibility of the township, subject to the limitations contained in paragraph 1 above.

3. All work shall be performed in a good workmanlike manner and in accordance with plans and specifications adopted by the Road Commission.
4. The Road Commission shall hold the Township harmless from any liability arising from the work performed pursuant to this contract.
5. The work will be completed within the current contract year, unless the parties otherwise so agree. In the event the Road Commission is unable to complete the work by the time specified, any funds prepaid by the Township shall be returned to it, or the Road Commission shall pay ten per cent (10%) annual interest on the funds retained. All funds returned to the Township shall be repaid to the Road Commission as invoiced.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the date and year first above written.

**GENOA TOWNSHIP**

**BY:** \_\_\_\_\_  
**GARY McCRIE, SUPERVISOR**

\_\_\_\_\_  
**PAULETTE SKOLARUS, CLERK**

**BOARD OF COUNTY ROAD COMMISSIONERS  
OF THE COUNTY OF LIVINGSTON**

**BY:** \_\_\_\_\_  
**MICHAEL CRAINE, MANAGING DIRECTOR**

\_\_\_\_\_  
**TERRY PALMER, ACCOUNTING SUPERVISOR**



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

April 28, 2016

To: Mike Archinal

RE: Follow up on 4815 Richardson Road Howell, MI / Helvey

Joe Seward was contacted by Jamie Steward; counsel for Helvey and through him has requested another thirty (30) days to clean out the house to decide what the next step for the house should be. This matter was tabled at the last Township Board meeting on March 21, 2016.

As of now the contractors have complied with securing the house, barn, disconnecting the power to the barn and covering the pool. There is a dumpster on the property and the Helvey attorney, Jamie Stewart stated on 4/25/16 that "about 100 cubic yards of stuff has been removed, most of which has been thrown out. I will be sending a picture of what has been cleaned out." No picture has been received as of today.

Sharon Stone-Francis

**SUPERVISOR**

Gary T. McCririe

**CLERK**

Paulette A. Skolarus

**TREASURER**

Robin L. Hunt

**MANAGER**

Michael C. Archinal

**TRUSTEES**

H. James Mortensen

Jean W. Ledford

Todd W. Smith

Linda Rowell

## Sharon Stone-Francis

---

**From:** Frank Mancuso <frank@mancusocameronlaw.com>  
**Sent:** Wednesday, April 06, 2016 10:01 AM  
**To:** Jamie Stewart  
**Cc:** Kelly VanMarter; Sharon Stone-Francis; Amy Ruthig  
**Subject:** RE: Genoa/Helvey

Jamie:

I met with Township officials yesterday and the Township would rather have the pool drained and uncovered than partially drained and covered. As we mentioned previously, some of the neighbors have expressed concern that the pool with water in it poses a potential danger to neighborhood children.

Also, I am informed that there are no storage containers on the property and it appears that the process of removing items from the home has not begun. As you know, the terms agreed to by your client on March 21, 2016 includes removing items from the home within 45 days so that the builder can evaluate the feasibility of repairing the home vs. demolishing the home. The agreement also acknowledges that if your client is working diligently, it may be necessary to request a 2 week extension. I would caution your client that it would not be advisable to procrastinate.

If you should have any questions, please let me know.

Sincerely,

Frank J. Mancuso, Jr.  
Mancuso & Cameron, P.C.  
722 E. Grand River Ave.  
Brighton, MI 48116  
Ph: (810) 225-3300  
Fax: (810) 225-9110

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**From:** Jamie Stewart [<mailto:jamie@crlaw.biz>]  
**Sent:** Monday, April 04, 2016 8:45 PM  
**To:** Frank Mancuso  
**Cc:** Kelly VanMarter; Sharon Stone-Francis ([Sharon@genoa.org](mailto:Sharon@genoa.org)); Amy Ruthig  
**Subject:** Re: Genoa/Helvey

Hi Frank, sorry I was in trial all day. But I was able to confirm that these things have been completed with the exception of the pool being drained (it is covered). I was told by our contractor that the pool cannot be drained of water completely or else the cover will accumulate excess rain water and essentially sink to the bottom. To get a cover large enough to prevent that from happening would cost several thousand dollars, which is really not practical given the circumstances. However, I have been assured that it is secure, as it now gated, locked, covered and partially drained.

If you have any questions, you can give me a call or send me an email. I will be in trial all day tomorrow and Wednesday morning.

Jamie Stewart

Sent from my iPhone

On Apr 4, 2016, at 10:45 AM, Frank Mancuso <[frank@mancusocameronlaw.com](mailto:frank@mancusocameronlaw.com)> wrote:

Jamie:

I had a note to follow up with you on the Helvey matter. Today is two weeks from the March 21<sup>st</sup> Genoa Township Board meeting. According to the agreement between the Township and the homeowner (at the Board meeting), today is the day that: (1) the pool is to be pumped out and covered; (2) the opening in the roof, doorways, fascia, etc. will be covered/secured; and (3) the wiring to the barn will be disconnected.

Please confirm that these items have been completed.

Thank you,

Frank

Frank J. Mancuso, Jr.  
Mancuso & Cameron, P.C.  
722 E. Grand River Ave.  
Brighton, MI 48116  
Ph: (810) 225-3300  
Fax: (810) 225-9110

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Resolution No. 5 – East Coon Lake Trail Road Improvement Project  
Reimbursement Special Assessment Project (Summer 2016)

**GENOA CHARTER TOWNSHIP**

At a regular meeting of the Township Board of the Genoa Charter Township, Livingston County, Michigan, (the “Township”) held at the Township Hall on May 2, 2016, at 6:30 p.m., there were

PRESENT: McCririe, Skolarus, Hunt, Rowell, Mortensen, Smith and Ledford

ABSENT:

The following preamble and resolution were offered by \_\_\_\_\_ and seconded by \_\_\_\_\_.

**Resolution Confirming Special Assessment Roll**

WHEREAS, the Board of Trustees of the Township has determined to proceed with the East Coon Lake Trail Road Improvement Project within the Township as described in Exhibit A (the “Project”) and in accordance with Act No. 188, Michigan Public Acts of 1954, as amended;

WHEREAS, the Board of Trustees of the Township has determined to advance the costs of the Project from Township funds and to use special assessments to raise the money necessary to reimburse the Township for the advance of such funds;

WHEREAS, the Township Supervisor has prepared the Special Assessment Roll entitled Special Assessment Roll for East Coon Lake Trail Road Improvement Project (2016) (the “Proposed Roll”) and has filed the Proposed Roll with the Township Clerk;

WHEREAS, the Township Board has scheduled a public hearing on the Proposed Roll and notice of the hearing has been properly provided;

WHEREAS, the Township Board conducted the public hearing on the Proposed Roll on May 2, 2016.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. Roll Confirmed. In accordance with Act No. 188, Michigan Public Acts of 1954, as amended, and the laws of the State of Michigan, the Township Board hereby confirms the Special Assessment Roll for the East Coon Lake Trail Road Improvement Project (Summer 2016) (the “Roll”).
2. Future Installments - Principal. The Township Board determines that each special assessment may be paid in six installments. The first installment shall be due July 1, 2016.
3. Future Installments - Interest. All unpaid installments shall not bear interest.



4. Warrant. The Township Clerk is hereby directed to attach a warrant (in the form of Exhibit B to this resolution) to the Roll and to deliver such warrant and the Roll to the Township Treasurer, who shall thereupon collect the special assessments in accordance with the terms of this resolution, the Clerk's warrant and the statutes of the State of Michigan.

5. Inconsistent Prior Resolutions. All previously adopted resolutions that are in conflict with this resolution are repealed to the extent of such conflict.

A vote on the foregoing resolution was taken and was as follows:

YES: Ledford, Smith, Hunt, Rowell, Mortensen, Skolarus and McCririe

NO: None

ABSENT: None.

#### CLERK'S CERTIFICATE

The undersigned, being the duly qualified and acting Clerk of the Township, hereby certifies that (1) the foregoing is a true and complete copy of a resolution duly adopted by the Township Board at a meeting of the Township Board, at which meeting a quorum was present and remained throughout; (2) the original thereof is on file in the records in my office; (3) the meeting was conducted, and public notice thereof was given, pursuant to and in full compliance with the Open Meetings Act (Act No. 267, Public Acts of Michigan, 1976, as amended); and (4) minutes of such meeting were kept and will be or have been made available as required thereby.

---

Paulette A. Skolarus, Genoa Charter Township Clerk

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**Exhibit B**

**Warrant**

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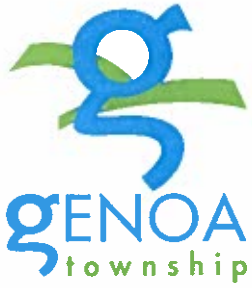
WARRANT

TO: Treasurer  
Genoa Township  
Livingston County, Michigan

I certify that attached to this Warrant is a true copy of the special assessment roll for the Genoa Township East Coon Lake Trail Road Improvement Project (summer 2016) (the "Roll") confirmed by the Township Board on May 2, 2016 (the "Confirming Resolution"). You are hereby directed to proceed to collect the amounts due on such Roll in accordance with this Warrant, the Confirming Resolution and the statutes of the State of Michigan.

---

Paulette A. Skolarus,  
Genoa Charter Township Clerk



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

## MEMORANDUM

**TO:** Honorable Board of Trustees  
**FROM:** Kelly VanMarter, Assistant Township Manager/Community Development Director  
**DATE:** April 28, 2016  
**RE:** Howell Medical Center

**MANAGER'S REVIEW:** 

---

Attached please find the project case file for the Howell Medical Center project. The applicant requests approval for a new 12,882 square-foot medical office building. The site is currently undeveloped and is located between two developed parcels: the Advance Auto Parts to the east and a Howell Family Dentist to the west.

Medical offices are permitted by-right in the GCD per Section 7.02.01. As required, the project site plan was reviewed and approved by the Planning Commission on Monday April 11, 2016. At that same meeting, the Planning Commission recommended approval to the Township Board regarding the Environmental Impact Assessment.

The applicant and their design team have been exceptional to work with and have made every effort to accommodate the Township's comments and requirements throughout the process. Based on the Planning Commission's recommendation I am pleased to suggest Board **approval** of the revised Impact Assessment dated April 22, 2016.

Should you have any questions concerning this matter, please do not hesitate to contact me.

**SUPERVISOR**

Gary T. McCririe

**CLERK**

Paulette A. Skolarus

**TREASURER**

Robin L. Hunt

**TRUSTEES**

H. James Mortensen

Jean W. Ledford

Todd W. Smith

Linda Rowell

**MANAGER**

Michael C. Archinal



**GENOA CHARTER TOWNSHIP**  
**Application for Site Plan Review**

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

APPLICANT NAME & ADDRESS: KALAMBAKA PROPERTIES, LLC

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

OWNER'S NAME & ADDRESS: KALAMBAKA PROPERTIES, LLC 30880 PEAR RIDGE RD. FARMINGTON HILLS, MI 48334

SITE ADDRESS: 2765 E. GRAND RIVER PARCEL #(s): 4711-06-200-068

APPLICANT PHONE: ( ) \_\_\_\_\_ OWNER PHONE: ( ) \_\_\_\_\_

OWNER EMAIL: lista1973@aol.com

LOCATION AND BRIEF DESCRIPTION OF SITE: 2765 E. GRAND RIVER

BETWEEN HOWELL FAMILY DENTIST AND ADVANCE

AUTO. THE EXISTING PARCEL IS UNDEVELOPED

BRIEF STATEMENT OF PROPOSED USE: 01 STORY MEDICAL OFFICE

BUILDING W/ 1,500 BASEMENT FOR MEDICAL RECORDS

STORAGE

THE FOLLOWING BUILDINGS ARE PROPOSED: SEE ABOVE

**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: Ernesto B. Sullivan

ADDRESS: 30880 PEAR RDIGE RD. FARMINGTON HILLS, MI 48334

517-372-8804

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

1.) DAVID LENZ of STUDIO [intrigue] ARCHITECTS at lenz@studiointrigue.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: Evangelina Stilianos DATE: 3/2/16  
PRINT NAME: Evangelina Stilianos PHONE: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

**GENOA CHARTER TOWNSHIP  
PLANNING COMMISSION PUBLIC HEARING  
MONDAY, APRIL 11, 2016  
6:30PM**

**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, Diana Lowe, James Mortensen and Eric Rauch. Absent were Barbara Figurski and Chris Grajek. Also present was Kelly VanMarter, Community Development Director/Assistant Township Manager, Brian Borden and Chris Gruba from LSL Planning and Gary Marksrom with Tetra Tech. There were approximately 7 people in the audience.

PLEDGE OF ALLEGIANCE: The pledge of allegiance was recited.

APPROVAL OF AGENDA: **Moved** by Commissioner McManus, **Supported** by Commissioner Mortensen to approve the agenda as presented. **The motion carried unanimously.**

CALL TO THE PUBLIC: The call to the public was made at 6:33 pm with no response.

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

**OPEN PUBLIC HEARING 1 Review of a site plan and impact assessment for a proposed medical center on vacant parcel 11-06-200-068 which is located on the north side of Grand River Ave, east of Meadowview Avenue, Howell. The request is petitioned by Kalambaka Properties, LLC.**

David Lenz with Studio Intrigue presented the plans. They are proposing to share the driveway with Advanced Auto as recommended by staff. There will be a small basement for storage and utilities. The building size does not require fire suppression. It will be a brick building with limestone accents. They have sufficient parking and have provided all required landscape buffers.

Brian Borden indicates that the petitioner has done a great job addressing all comments and concerns. This is a permitted by right use in the GCD. The motion tonight will be a site plan authorized by the Planning Commission with the impact assessment recommended to the Board. This is a very attractive building that meets the ordinance standards. The only comment is that the applicant may suggest adding additional barrier free spaces. David Lenz responds that they can add additional barrier free spaces if needed. They currently meet the ordinance standards and are limited by the amount of land they have. Mr. Borden suggested they could convert 3 existing spaces to 2 barrier free if needed. David Lenz agrees that they could convert the spaces if medical tenants need additional barrier free spaces.

Mr. Borden suggests that a sidewalk connection as referenced in his letter may not be feasible after visiting the site this evening. David Lenz agrees the sidewalk connection is not practical given the topography in this situation. Mr. Borden states there are a few

lighting hot spots on the photometric plan. Mr. Lenz explains that the revised plans provided lighting details. They are proposing a 15' max height LED lighting for the parking lot. Due to the nature of LED lights, there is an extreme cutoff making it very bright right under the light especially at the 15' height. To get the spread you need with light coverage you end up with the hot spots directly under the lights. They comply with the light levels at the property lines. To meet the ordinance they would have to increase the number of lights or use inefficient non-led lights. They hate to sacrifice energy efficient LED lighting and limited fixtures just to avoid the hot spots. Mr. Borden agrees that the LED fixtures are preferred however he is concerned with 40-42 footcandles on the lighting plan.

Commissioner Rauch is comfortable with the proposed lighting. He notes that the light level around the hot spots drops off very quickly. They go from 33 to 1.5 footcandles. He believes that as an average the light levels on the site are well below 10 footcandles ordinance requirement.

The Commissioners agree that the ordinance needs to be updated to reflect the LED technology. Mrs. VanMarter indicates that staff is working on an ordinance update and can include something in the update that correlates footcandles to pole height and would allow the Planning Commission discretion.

Mr. Lenz suggests that they could add more fixtures or change the bulb type to comply. Commissioner McManus believes that LED is more efficient and attractive. Mr. Lenz indicates that the lights will have a photocell that turns them on at dusk and they could have a timer or dimmer. Mr. Borden suggests that staff work with applicant on the lighting plan to have them either correct their plan or update the ordinance.

Commissioner Mortensen questions if the topography prevents them from providing a cross access agreement to the west. Mr. Lenz responds that it would be very difficult to implement because of grading challenges associated with the fact that the site is elevated on a plateau.

Gary Markstrom indicates that the applicant has addressed most of his concerns. They need to fix the material for the sewer lateral and the outlet on the detention basin should be a 12 inch pipe with 4 inch orifice so it can be maintained. Mr. Lenz agrees. They will need a permit from MDOT for the storm sewer discharge. Mr. Lenz states they have been talking to MDOT. Mr. Brown suggested that Mr. Markstrom provide an updated letter. Mr. Markstrom agreed.

The Fire Department review letter was discussed and it was noted that they had no concerns.

Chairman Brown suggested the following corrections on the impact assessment:

- Item D – Drain Commission should be Commissioner.
- Item D - should say two rather than “to” bio-retention areas.
- Item F – should specify how many people are going to work there.

Chairman Brown remarks that the building is going to be very attractive.

A call to the public at 7:17pm with no response.

**Planning Commission disposition of petition:**

**A. Recommendation of Environmental Impact Assessment (3-2-16)**

**Moved** by Commissioner Lowe to recommend approval of the amended impact assessment dated March 2, 2016 conditioned upon the corrections noted this evening being included.

**Supported** by Commissioner Mortensen. **Motion carried unanimously.**

**B. Disposition of Site Plan (3-23-16)**

**Moved** by Commissioner Mortensen to approve the site plan for the Howell Medical Center dated March 23, 2016 subject to the following:

1. The building design materials and colors shown this evening are acceptable and the sample board will become property of the Township.
2. The number of barrier free parking spaces will be increased by 2 resulting in the elimination of 3 standard spaces.
3. The lighting plan and light fixture details is subject to Township staff review and approval to comply with the ordinance.
4. The conditions contained in Tetra Tech's letter dated March 28, 2016 will be revised tomorrow and the applicant shall comply with the conditions prior to issuance of a land use permit.
5. The requirements of the Brighton Area Fire Authority shall be complied with.
6. Approval of the site plan is contingent on Board approval of the Environmental Impact Assessment.

**Supported** by Commissioner Rauch. **Motion carried unanimously.**

**OPEN PUBLIC HEARING 2 Review of a site plan and impact assessment for a proposed Flagstar Bank on parcel 11-0 -100-038 located on the east side of Latson Road, north of I- 6, Howell. The project is within the Providence/Former Latson Elementary School Planned Unit Development and is petitioned by Flagstar Bank.**

Brent LaVanway with Boss Engineering and Mike Boggio with MBA architects are present on behalf of the petitioner. . The site is located on the St. John Providence PUD/Former Latson Elementary Site. The site shares the access driveway with St. John that aligns with Grand Oaks Drive. They are proposing 19 parking spaces. The site will have pedestrian access. We have added a bike rack at the suggestion of the consultant.

Mr. Boggio presents a picture showing the building for review by the Commission. He explains that this a typical red brick with limestone Flagstar Bank prototype building. It has clear anodized aluminum windows and a grayish shingle. The drive-up teller lanes are on the south side and won't interfere with pedestrians. The photograph presented is a prototype and shows what the building materials will look like.

Chris Gruba presents the LSL review letter. The action tonight is to recommend approval of the site plan and environmental impact assessment because it is within a PUD. The applicant needs to add a revision date to the plan. The east and south elevations have





March 29, 2016

Planning Commission  
 Genoa Township  
 2911 Dorr Road  
 Brighton, Michigan 48116

<b>Attention:</b>	Kelly Van Marter, AICP Assistant Township Manager and Planning Director
<b>Subject:</b>	Howell Medical Building – Site Plan Review #2
<b>Location:</b>	2765 E. Grand River Avenue – north side of Grand River, east of Meadowview Drive
<b>Zoning:</b>	GCD General Commercial District

Dear Commissioners:

At the Township’s request, we have reviewed the revised site plan (dated 3/23/16) for a new medical office building on a vacant 1.68-acre site. We have reviewed the proposal in accordance with the applicable provisions of the Genoa Township Zoning Ordinance.

**A. Summary**

1. Building design, materials and colors are subject to review and approval by the Planning Commission.
2. We suggest the number of barrier-free parking spaces be increased given the nature of the use.
3. The applicant may wish to provide a sidewalk connection from the building to the Grand River Avenue sidewalk.
4. Light intensity exceeds the 10-footcandle maximum in several locations.
5. Details of proposed light fixtures must be provided.

**B. Proposal/Process**

The applicant requests site plan review and approval for a new 12,882 square-foot medical office building. The site is currently undeveloped and is located between two developed parcels: an Advance Auto Parts to the east and a dentist office to the west.

Medical offices are permitted by-right in the GCD per Section 7.02.01. As such, the project requires site plan review and approval by the Planning Commission. As part of the review process, the Planning Commission is also to make a recommendation to the Township Board on the Environmental Impact Assessment.

**C. Site Plan Review**

1. **Dimensional Requirements.** As described in the table below, the proposed building meets the dimensional requirements in the GC zone district:

District	Lot Size		Minimum Setbacks (feet)			Parking Lot	Lot Coverage	Height (feet)
	Lot Area (acres)	Width (feet)	Front Yard	Side Yard	Rear Yard			
GC	1	150	35	15	50	20 front 10 side/rear	35% bldg. 75% imperv.	35'
Proposal	1.68	153	45	15 (W) 45 (E)	185	200 front 10 side 20 rear	17.6% bldg. 57.6% imperv.	22'



*Aerial view of site and surroundings (looking north)*

- 2. Building Design and Materials.** Building design, materials and colors are subject to review and approval by the Planning Commission in accordance with Article 12.

The proposed building is predominantly composed of brick veneer and precast stone with fiber cement shake siding and stone columns as accents.

All four sides of the building have similar design elements, massing and style. Color renderings of the building have been included with the elevation drawings; however, the applicant will need to present the Commission with material and color samples.

- 3. Parking.** The building is intended to be used as a medical office building, which requires one parking space for every 200 square feet of gross floor area. The main floor of the building measures 12,882 square feet. As such, the Ordinance requires 65 parking spaces, while 66 are provided.

Based on the amount of parking provided, 3 barrier-free spaces are required; however, given the nature of the use as medical office, we suggest the applicant consider providing additional such spaces.

Drive aisle and parking space dimensions meet or exceed Ordinance standards. All parking spaces are marked with double striping on the site plan, as required.

- 4. Pedestrian Circulation.** A 5' wide sidewalk exists along Grand River. Additional sidewalks are provided within the parking lot and in front of the main entrances to the building. The applicant may wish to provide a sidewalk connection from the building to the Grand River Avenue sidewalk.

- 5. Vehicular Circulation.** The developed site to the east has access to Grand River Avenue, and has granted access to the site through a cross-easement.

It is worth noting that Advance Auto, the adjacent property to the east, will lose 4 parking spaces by virtue of the cross access. The revised plan includes parking calculations for Advance Auto demonstrating that the parking provided will still meet Ordinance requirements.

**Howell Medical Building**

Site Plan Review #2

Page 3

**6. Landscaping and Screening.** The table below is a summary of the landscaping required by Section 12.02:

Location	Requirements	Proposed	Comments
Front yard greenbelt	20' width 4 canopy trees	25' width (minimum) 2 canopy trees 2 evergreen trees	The Planning Commission may allow ½ of the required trees to be evergreen
Detention pond (s)	South pond: 6 trees and 52 shrubs Mid pond: 2 trees and 14 shrubs North pond: 1 tree and 10 shrubs.	South pond: 7 trees and 52 + shrubs Mid pond: 2 trees and 14+ shrubs North pond: 1 tree and 10+ shrubs	Requirements met
Parking lot	7 canopy trees 670 SF landscaped area	9 canopy trees 696 SF landscaped area	Requirements met
Buffer Zone "B" (N)	20' width berm OR wall 8 canopy trees AND 8 evergreen trees AND 30 shrubs	20' width berm 8 canopy trees 8 evergreen trees 30 shrubs	Requirements met
Buffer Zone "B" (W)	20' width berm OR wall 5 canopy trees AND 5 evergreen trees AND 21 shrubs	20' width berm 5 canopy trees 6 evergreen trees 21 shrubs	Requirements met

**7. Waste Receptacle and Enclosure.** The site plan identifies a dumpster and enclosure in the northeast corner of the site. The proposed location, base pad and enclosure comply with Ordinance standards.

**8. Exterior Lighting.** The site plan proposes nine light poles for the parking lot and driveway. The photometric plan identifies several locations with light intensities well in excess of the 10-footcandle maximum. The applicant must revise the lighting plan to reduce light intensity. Light fixture details must also be provided.

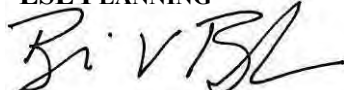
**9. Signs.** The site plan identifies a monument sign in the front yard setback 10' from the front property line. No wall or directional signs are proposed. The proposed dimensions, location and illumination method of the proposed ground sign comply with the Ordinance.

**10. Impact Assessment.** The submittal includes a Traffic Impact Study and an Impact Assessment (dated February 2016), which note that the proposed project is not expected to adversely impact natural features, public services/utilities, surrounding land uses or traffic.

Should you have any questions concerning this review, please do not hesitate to contact our office. We can be reached by phone at (248) 586-0505, or via e-mail at [borden@lslplanning.com](mailto:borden@lslplanning.com) and [gruba@lslplanning.com](mailto:gruba@lslplanning.com).

Sincerely,

**LSL PLANNING**



Brian V. Borden, AICP  
Principal Planner



Christopher Gruba  
Project Planner II



April 13, 2016

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

**Re: Howell Medical Center  
Site Plan Review #2 Revised**

Dear Ms. Van Marter:

We have reviewed the subject site plan documents prepared by KEBS Inc. dated March 2, 2016, which were delivered to the Township Engineer on that date. The applicant is proposing a 13,000 sft medical office on the north side of Grand River Avenue between Meadowview and Char-Ann Drives. Tetra Tech has reviewed the documents and site plan and offers the following comments.

**SITE PLAN**

1. There is a discrepancy between the specifications listed on the cover and sheet 2 of 6 for the material called out for the sanitary service lateral. The standard material for sewer laterals is SDR 23.5 PVC. This should be corrected on the construction drawings that will be reviewed for the public sanitary sewer extension.
2. The storm outlet from the detention pond is currently shown as a 4-inch pipe. This should be revised to a 12-inch pipe with a 4-inch orifice plate to facilitate future cleaning of the outlet. The outlet also connects to the existing Grand River storm sewer which will require an MDOT permit. A copy of the permit should be submitted to the Township for your records.

The petitioner has satisfactorily addressed our previous comments; therefore, we have no further objections to approval of the site plan. The above comment relating to the sanitary sewer lateral can be addressed on the construction plans.

Please call if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gary J. 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: Greg Petru P.E. KEBS Inc.



# BRIGHTON AREA FIRE AUTHORITY

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

March 30, 2016

Kelly VanMarter  
Genoa Township  
2911 Dorr Road  
Brighton, MI 48116

RE: Howell Medical Center  
2765 E. 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 March 3, 2016 and the drawings are dated March 2, 2016. The project is for a proposed new 14,270 square foot building medical office building. The plan identifies 1,388 sq.ft. of the total building to be a basement storage area. This plan review is based on the requirements of the International Fire Code (IFC) 2012 edition.

1. It appears that the building will be provided with an automatic sprinkler system based upon the presence of a 6" fire protection water line. The FDC shall be installed on the street side (Grand River). **(Revised on Drawing, building and basement are exempt from Fire Suppression, MBC 903.2.11.1)**

**IFC 903**
2. The address to the building shall be a **minimum of 6"** high letters of contrasting colors and be clearly visible from the street (South Elevation). The location and size shall be verified prior to installation. **(Noted on Drawing)**

**IFC 505.1**
3. The access drive into the site shall be a minimum of 26' wide, and maintained at that width for circulation throughout the site. With a width of 26' wide the building side shall be marked as a fire lane. Include the location of the proposed fire lane signage and include a detail of the fire lane sign in the submittal. Access roads to site shall be provided and maintained during construction. Access roads shall be constructed to be capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds. Provide an emergency vehicle circulation diagram on plan. **(Revised on Drawing)**

**IFC D 103.6**  
**IFC D 103.1**  
**IFC D 102.1**  
**IFC D 103.3**
4. Access through the site shall provide emergency vehicles with a turning radius up to 50' outside and 30' inside while providing a minimum vertical clearance of 13 ½ feet. **(Noted on Drawing)**
5. 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. There shall also be a Knox box placed at the basement door. **(Noted and Shown on Drawing)**

**IFC 506.1**



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

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



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

## MEMORANDUM

**TO:** David Lenz  
**FROM:** Kelly VanMarter, Assistant Township Manager/Community Development Director  
**DATE:** March 24, 2016  
**RE:** **Howell Medical Offices - Sewer and Water Tap Fees (11-06-200-068)**

This memo will describe the connection fees required for a new 12,882 sq. ft. medical office building with 1,388 sq. ft. basement located on parcel at 11-06-200-068.

The REU Table provides the following relevant formulas:

- 0.6 REU per 1,000 sq. ft. for a Doctor's Office
- 1.3 REU per Dentist
- 0.05 REU per 1,000 sq. ft. for Warehouse and storage

Since I don't have information regarding the number of dentists this letter will be based on doctor's office space. Using the formulas above the following calculation applies:

12,882 sq. ft. office building @ 0.6 REU per 1,000 sq. ft.	=	7.73 REU
1,388 sq. ft. utility basement @ 0.05 REU per 1,000 sq. ft.	=	0.07 REU
<b>TOTAL REU'S =</b>		<b>7.8 REU</b>

**PREVIOUSLY PAID/ASSESSED:**

<b>Water</b> (Grand River Water)	-	3 REU
<b>Sewer</b> (GO #1)	-	0 REU

**NEW CONNECTION CHARGE =**

<b>Water:</b>	<b>7.8 REU – 3 REU (assessed)</b>	<b>=</b>	<b>4.8 REU</b>
<b>Sewer:</b>	<b>7.8 REU</b>		

<b>Water</b>	<b>4.8 REU @ \$7,900 per REU</b>	<b>=</b>	<b>\$ 37,920.00</b>
<b>Sewer</b>	<b>7.8 REU @ \$7,200 per REU</b>	<b>=</b>	<b>\$ 56,160.00</b>
<b>TOTAL DUE:</b>			<b>\$ 94,080.00</b>

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

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

**SUPERVISOR**

Gary T. McCririe

**CLERK**

Paulette A. Skolarus

**TREASURER**

Robin L. Hunt

**MANAGER**

Michael C. Archinal

**TRUSTEES**

H. James Mortensen

Jean W. Ledford

Todd W. Smith

Linda Rowell

## IMPACT ASSESSMENT

- a. **Name(s) and address(es) of person(s) responsible for preparation of the impact assessment and a brief statement of their qualifications.**
- David Lenz, Architect, Studio [*intrigue*] Architects: Registered architect of the state of Michigan.
  - Dave Sonnenberg PE, Traffic Engineering Associates: Registered engineer of the state of Michigan.
  - Greg Petru PE, KEBS Inc: Registered engineer of the state of Michigan
- 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 existing site is an undeveloped parcel.
  - There are no existing structures or facilities on the site.
  - The site is mostly covered in thick low lying brush.
  - There are a few small areas of paved walks and parking located within 10'-0" of the property line on the adjacent east and west parcels.
  - See attached site plan.
- 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 existing site is an undeveloped plot along the Grand River Ave commercial corridor. It is surrounded by commercially developed properties to the east and west; as well as residentially developed properties to the north. The south property line is located along the Grand River Ave right of way.
  - Starting in the southeast corner (roughly 30'-0" from the south property line) the site gently slopes down 4'-0" towards the northwest corner. The first 30'-0" of the property quickly slopes down 12'-0" as it approaches and meets Grand River Ave.
  - The majority of the site is covered in thick low lying brush.
  - The soils are shown as Miami Loam, 2-6% slopes on the N.R.C.S. web soil survey.
  - Wildlife is typical for an undeveloped urban site.
  - There are no wetlands on the site.



- The site naturally surface drains along the existing topography. The North 2/3 of the property drains off the property to the North and to the West. The South 1/3 or so drains South out to Grand River Avenue.
- There are no existing wetlands, drains or lakes on the site. There is existing storm sewer within Grand River Avenue.

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 the Livingston County Drain Commissioner at (517) 546-0040.

- The storm water management, soil erosion, and sedimentation during grading and construction shall be in conformance with standard construction techniques and the requirements of the Livingston County Drain Commissioner and MDOT.
- The site is proposing two small bio-retention areas to capture most of the parking lot runoff, and a larger detention basin at the South end of the site.
- Silt sacks, silt fencing and other soil erosion measures will be utilized on-site for Soil Erosion Control. During detention pond construction, temporary grading and mulch blankets may be utilized to help stabilize banks. The construction entrance and Grand River Avenue will be kept clean and swept as needed.

e. **Impact on surrounding land used:** 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.

- The proposed use is a medical office building. This use is a use by right in the General Commercial District in which the property resides.
- The proposed medical office use is similar in nature, scope, and size to the surrounding developments.
- All parking, building, and site lighting will be 'dark sky' compliant.
- The proposed medical office use will not generate noise or air pollution.

f. **Impact on public facilities and services:** Describe the number of expected residents, employees, visitors, or patrons, and the anticipated impact on public schools, police protection and fire protection. Letters from the appropriate agencies may be provided, as appropriate.

- The proposed development is expected to employ 16 staff members and service existing Genoa Twp. residents.
- There will not be an increased impact on public schools.
- Impacts from Police and Fire Departments are not expected to change.

- g. **Impact on public utilities:** Describe 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 serviced with sanitary sewer, calculations for pre- and post-development flows shall be provided in comparison with sewer line capacity. Expected sewage rates 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.
- Sanitary systems will be designed to utilize the existing municipal sanitary collection system. The site is proposing to connect to an existing sewer on the West edge of the property.
  - Water systems will be designed to utilize the existing municipal water supply system. A connection is proposed within the Grand River Avenue ROW.
  - Storm water collection and discharge will utilize on-site bio-retention areas and a detention pond to collect and ultimately discharge an allowed rate to the existing MDOT storm drainage collection system within the ROW.
- h. **Storage and handling of any hazardous materials:** A 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.
- The proposed development is expected to generate typical professional office related waste.
  - A family dentist office will be a part of this development. All medical waste will be disposed of in accordance with the State of Michigan DEQ requirements.
  - A dental amalgam system will be designed with the building sanitary systems in accordance with the State of Michigan DEQ requirements.
- 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. 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 contents of the detailed study shall include:
- See attached traffic analysis report.
- Description of existing daily and peak hour traffic on adjacent street(s) and a description of any sight distance limitations along the right-of-way frontage of the site.

- Forecasted trip generation of the proposed use for the a.m. and p.m. peak hour and average daily traffic generated.
  - For any project with a completion date beyond one year at the time of site plan approval, the analysis shall also include a scenario analyzing forecasted traffic at date of completion along the adjacent street network using a forecast based either on historic annual percentage increases and/or on expected development in the area.
  - Projected traffic generated shall be distributed (inbound v. outbound, left turn v. right turn) onto the existing street network to project turning movements at site driveways and nearby intersections. Rationale for the distribution shall be provided.
  - Capacity analysis at the proposed driveway(s) using the procedures outlined in the most recent edition of the Highway Capacity Manual published by the Transportation Research Board. Capacity analyses shall be provided for all street intersections where the expected traffic will comprise at least five-percent (5%) of the existing intersection capacity.
  - Accident data for the previous three (3) years for roadway sections and intersections experiencing congestion or a relatively high accident rate, as determined by the township or staff from the Livingston County Road Commission or Michigan Department of Transportation.
  - Analysis of any mitigation measures warranted by the anticipated traffic impacts. Where appropriate, documentation shall be provided from the appropriate road agency regarding time schedule for improvements and method of funding.
  - A map illustrating the location and design of proposed access, including any sight distance limitations, dimensions from adjacent driveways and intersections within 250 feet of the edge of the property frontage, and other data to demonstrate that the driveway(s) will provide safe and efficient traffic operation and be in accordance with Article 15.
- j. **Special Provisions:** General description of any deed restrictions, protective covenants, master deed or association bylaws.
- Not applicable
- k. A list of all sources shall be provided.

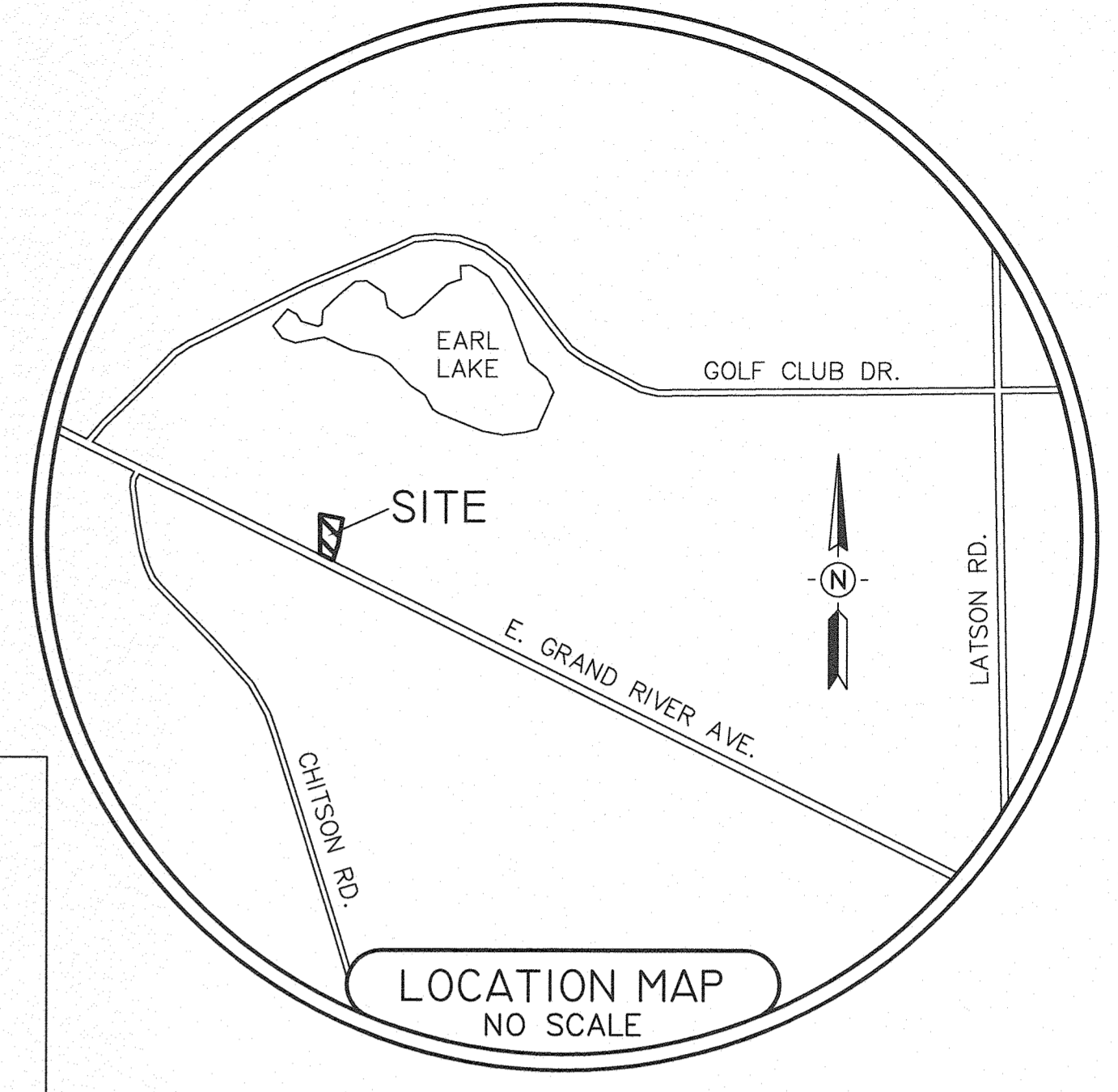
# Howell Medical Building

COUNTY OF LIVINGSTON, TOWNSHIP OF GENOA, MICHIGAN

**ARCHITECT/CLIENT:**  
 Studio Intrigue Architects, LLC  
 114 S. WASHINGTON AVE., STE 100  
 LANSING, MICHIGAN 48910-1649  
 PH: (517) 372-8804

**APPLICANT/OWNER:**  
 Howell Family Dentist  
 2765 E. GRAND RIVER  
 HOWELL, MICHIGAN  
 PH: (517) 546-3440

**ENGINEER/SURVEYOR:**  
 KEBS, Inc.  
 2116 HASLETT RD.  
 HASLETT, MI. 48840  
 PH: (517) 339-1014



Legal Description (as provided):  
 Land in the County of Livingston, Township of Genoa, State of Michigan is described as follows: A part of the Northeast fractional quarter of Section 6, Town 2 North, Range 5 East, Michigan, described as follows: Commencing at the East 1/4 corner of said Section 6; thence North 1 degrees 17 minutes 20 seconds East 673.30 feet along the East Section line to the Northerly right-of-way line of Grand River Avenue (70 1/2 feet wide); thence North 61 degrees 40 minutes 16 seconds West 1686.45 Feet along said right-of-way line to the westerly right-of-way line of a 66 foot wide private road easement for ingress and egress as recorded in Liber 582, Page 33, Livingston County Records and the point of beginning of this parcel to be described; thence continuing North 61 degrees 40 minutes 16 seconds West 141.06 feet along said Northerly right-of-way line of Grand River Avenue to the Southeast corner of "Earl Lake Heights No. 1", a subdivision as duly laid out, platted and recorded in Liber 7 of Plats, Page 8, Livingston County Records; thence North 2 degrees 25 minutes 39 seconds East 226.04 feet along said subdivision line; thence continuing along said subdivision line North 7 degrees 38 minutes 16 seconds East 156.70 feet; thence South 76 degrees 45 minutes 35 seconds East 224.91 feet; thence South 12 degrees 11 minutes 55 seconds West 277.29 feet to the Northerly right-of-way line of said private road easement; thence North 73 degrees 59 minutes 53 seconds West 4.75 feet along said right-of-way line to the Westerly right-of-way line of said private road easement; thence South 19 degrees 36 minutes 21 seconds West 136.07 feet along said right-of-way line to the point of beginning.

## SPECIFICATIONS

### SANITARY SEWERS

- All sanitary sewer construction and testing shall comply with the Construction Standards of Genoa Township and MHOG standards and shall be subject to the inspection and approval of the Township.
- All sanitary sewer pipe shall be PVC SDR 26 with "0" ring joints.
- All pipe to be laid with the aid of laser equipment.
- All sanitary sewer manholes shall be in accordance with Construction Standards of Genoa Township and MHOG.
- Trench width shall be maintained to a point at least 12" above the top of the pipe to ensure bedding conditions.
- All sanitary sewer leads shall be 6" PVC SDR 35 at a minimum of 1%.

### STORM SEWER

- All on site storm sewer shall be HDPE N-12 or equal, storm sewer in public road R.O.W. shall be RCP C-76 CL III or Higher
- All pipe to be laid with the aid of laser equipment.
- All storm sewer manholes and catch basins shall be in accordance with the Livingston County Drain Commission Standards. Structures shall be precast ASTM C478 with the reinforced precast concrete adjusting rings for final grade adjustments.
- Curb castings shall be Neenah R-3236 or EJW 7040.
- All catch basins and yard drains shall have a three foot deep sump.

### WATER SYSTEM

- All water system construction and testing shall comply with the Construction Standards of Genoa Township and shall be subject to the inspection and approval of the Township Engineer
- All water main shall be Ductile Iron Cl. 52, cement lined, push joint pipe, laid with a minimum of 5.5' of cover.
- All gate valves shall be in accordance with the requirements of Genoa Township.
- All fire hydrants shall meet Genoa Township standards.
- All water main shall have a minimum of 10 feet of horizontal separation from sewers and a minimum of 18 inches of vertical separation where water main and sewer lines cross.
- Retainer glands shall be used at all fitting connections. MEGA-Lug or equal retainer glands are to be used.
- All water main shall be encased in Polyethylene wrap.
- Watermain deflections @ joints are not to exceed the manufacturers recommended deflection limits.
- Contractor must have 5.5' of cover on watermain before approval to use.
- If the water service taps are made before the water main has been accepted by the Twp, the taps and service lines need to be included in the pressure testing process.
- All water service lines are to be a minimum of 1" type 'K' copper.

### STREETS

- All construction within an existing or proposed public R.O.W. (Grand River) shall comply with the requirements of MDOT and be subject to their inspection and approval.
- All disturbed areas between the curb and the road right of way shall be covered with 3" of top soil, seeded and mulched unless otherwise noted.
- All Radii shall be 25' unless noted.
- All roadway subgrade is to be compacted to 95% max. density and the base and subbase materials to 98% max. density.

### SIDEWALK

- All side walk construction shall be in accordance with the requirements of Genoa Township.

### GENERALS

- Information on depth, size, etc., of all other underground utilities shown herein is plan information only, obtained from the utility company involved. Prior to any final designing or construction. It is recommended that all utility companies, agencies, departments, etc., involved be contacted for verification of such locations.
- The locations, size and elevation of sewers and related structures shown herein, were obtained through field observation. Kebs, Inc., is not responsible for information on any other sewers, drains or related structures not found and not shown hereon, that may cross, parallel, lie contiguous to or service this site.
- For protection of underground utilities, the contractor shall dial 800-482-7171 a minimum of 72 hours prior to excavating in the vicinity of utility lines. All "MISS DIG" participating members will thus be routinely notified. This does not relieve the contractor of the responsibility of notifying utility owners who may not be a part of the "MISS DIG" alert system.
- All existing roads, driveways and yards disturbed during construction shall be restored by the contractor to its original condition.
- All sewer pipe shall be bedded with CL II granular material. Class II material shall be used in backfilling all sewer trenches to 1' above the sewer pipe.
- All backfill of trenches within the influence of roadways and sidewalks shall be MDOT CL II sand, compacted to 95% density. Equipment such as a small dozer in the trenches and a hoe-pack around the structures will be required, or equipment capable of reaching 95% density and all required trenches.
- Contractor shall be responsible for obtaining all permits required for construction.
- Contractor shall be responsible for maintaining as-built drawings for the entire project including all utility locations and elevations and surface locations and elevations. These will be provided to the City on a CD in Acad release 14 or newer prior to acceptance of the project.
- All work to be performed in a workmanlike manner.

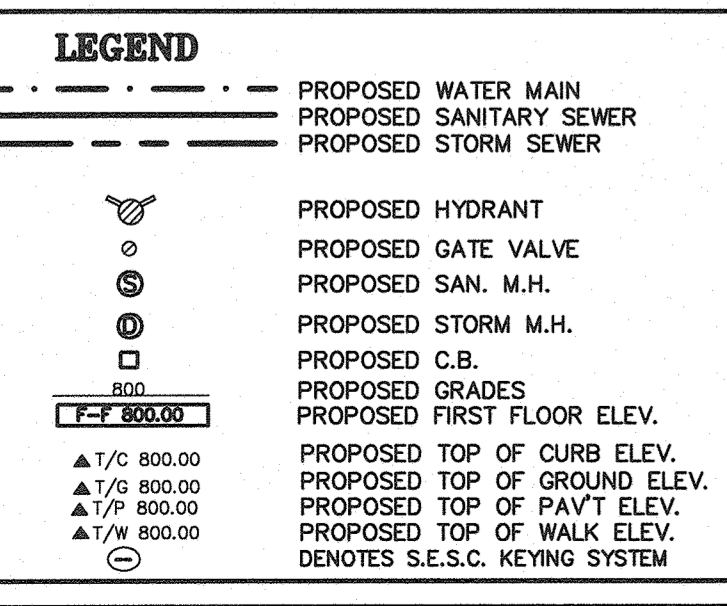
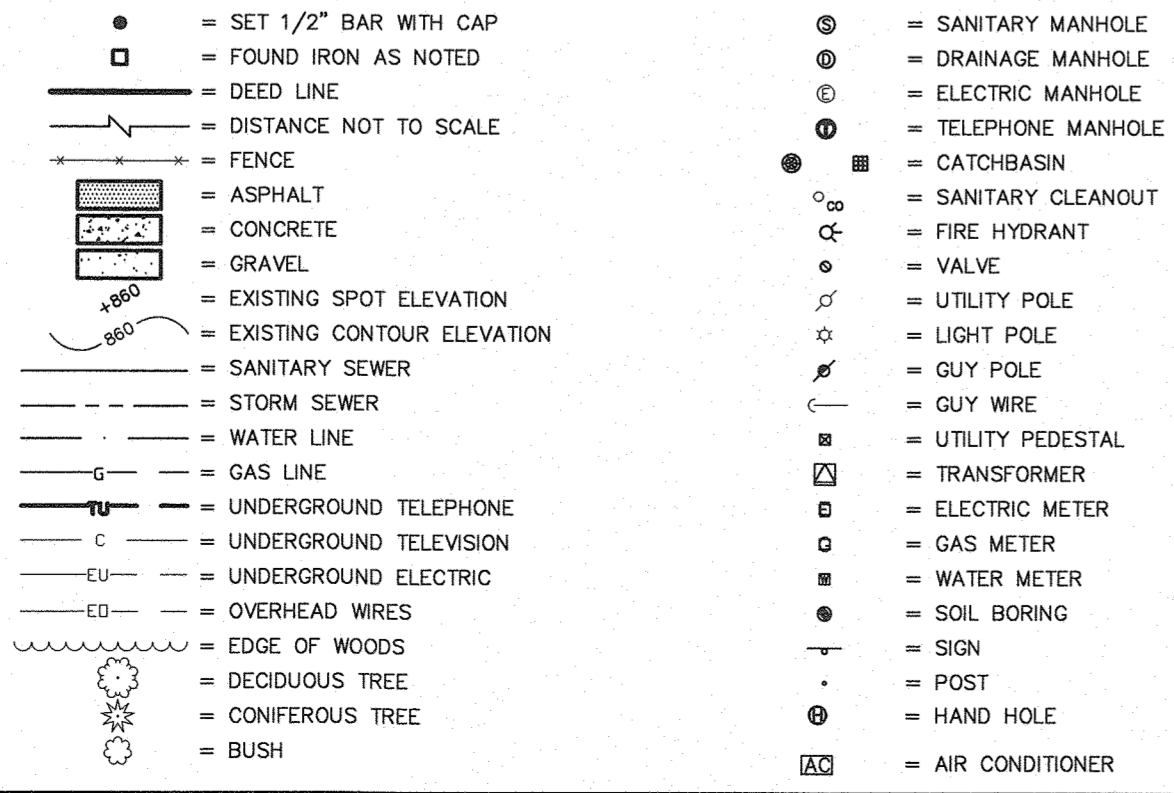
### ABBREVIATION CONVERSION CHART

& - AND	LF - LINEAR FEET
@ - AT	L.P. - LOW POINT
BM - BENCHMARK	M.H. - MANHOLE
BIT - BITUMINOUS	MIN - MINIMUM
C.B. - CATCH BASIN	N - NORTH
C.H. - CHORD	# - NUMBER
C/L - CENTERLINE	NO. - NUMBER
CL - CLASS	PAV'T - PAVEMENT
C.O. - CLEAN OUT	PERP - PERPENDICULAR
CONC. - CONCRETE	± - PLUS OR MINUS
CMP - CORRUGATED METAL PIPE	PC - POINT OF CURVE
CULV'T - CULVERT	PT - POINT OF TANGENT
DIA - DIAMETER	PROP - PROPOSED
E - EAST	RT - RIGHT
ELEV - ELEVATION	R.O.W. - RIGHT OF WAY
EX - EXISTING	SA - SANITARY
EXT. - EXISTING	SAN - SANITARY
EXIST. - EXISTING	S - SOUTH
F-F - FACE TO FACE	SY - SQUARE YARD
F-F - FIRST FLOOR ELEV.	SQ. FT. - SQUARE FEET
G.V. - GATE VALVE	STA - STATION
GA - GAUGE	ST. - STORM
HYD - HYDRANT	STM. - STORM
I.E. - INVERT	T/CAS - TOP OF CASTING
LN - LANE	T/C - TOP OF CURB
LT - LEFT	T/G - TOP OF GROUND
	T/P - TOP OF PAVEMENT
	T/W - TOP OF WALK
	TYP - TYPICAL
	W - WEST
	W/ - WITH

### EX. INVENTORY:

- CATCH BASIN #196  
RIM ELEV. = 973.19  
12" CONC. SE INV. = 968.69
- CATCH BASIN #197  
RIM ELEV. = 974.63  
12" CONC. SE INV. = 971.33
- CATCH BASIN #207  
RIM ELEV. = 977.74  
12" CONC. NE INV. = 972.44  
12" CONC. SE INV. = 972.34
- CATCH BASIN #280  
RIM ELEV. = 979.23  
12" CONC. NE INV. = 973.51  
12" CONC. SW INV. = 973.43
- SANITARY MANHOLE #425  
RIM ELEV. = 879.95  
12" PVC SE INV. = 869.45  
12" PVC NW INV. = 866.25
- CATCH BASIN #440  
RIM ELEV. = 967.61  
12" CONC. NE INV. = 963.11  
12" CONC. SW INV. = 963.26  
12" CONC. NW INV. = 963.21

### EX. LEGEND



BENCHMARK #1 ELEV. = 976.21  
 NORTHEAST FLANGE BOLT OF HYDRANT  
 APPROXIMATELY 30 FEET WEST OF  
 SOUTHWEST PROPERTY CORNER AND  
 APPROXIMATELY 13' NORTHEAST OF NORTHEAST  
 BACK OF CURB OF GRAND RIVER AVENUE.

BENCHMARK #2 ELEV. = 981.03  
 SOUTHEAST FLANGE BOLT OF FIRE HYDRANT  
 APPROXIMATELY 68 FEET SOUTHEAST OF  
 PROPERTY AND APPROXIMATELY 120' NORTHEAST  
 OF NORTHEAST CURBLINE OF GRAND RIVER  
 AVENUE.



### SHEET INDEX

- COVER SHEET
- SITE & UTILITY PLAN
- STORM & GRADING PLAN
- SOIL EROSION PLAN
- EXISTING CONDITIONS PLAN
- DETAILS

ATTACHMENTS:  
 MHOG DETAILS  
 LANDSCAPING PLANS (BY OTHERS)  
 STORM SEWER CALCULATIONS

TAX ID# 11-06-200-068  
 ADDRESS: 2765 E. GRAND RIVER., HOWELL, MICHIGAN

	REVISIONS 2-15-16 CLIENT REVIEW 3-2-16 SITE PLAN REVIEW 3-23-16 SITE PLAN REVISIONS	KYES ENGINEERING BRYAN LAND SURVEYS 2116 HASLETT ROAD, HASLETT, MI 48840 PH. 517-339-1014 FAX. 517-339-8047 Marshall Office Ph. 269-781-8800	DESIGNER: GAP	APPROVED BY: GAP
	SCALE: 1" = 30' DATE: 10-30-15 AUTHORIZED BY: Studio Intrigue Architects, LLC		PROJECT MGR: GAP	SHEET 1 OF 6 JOB #: 89814

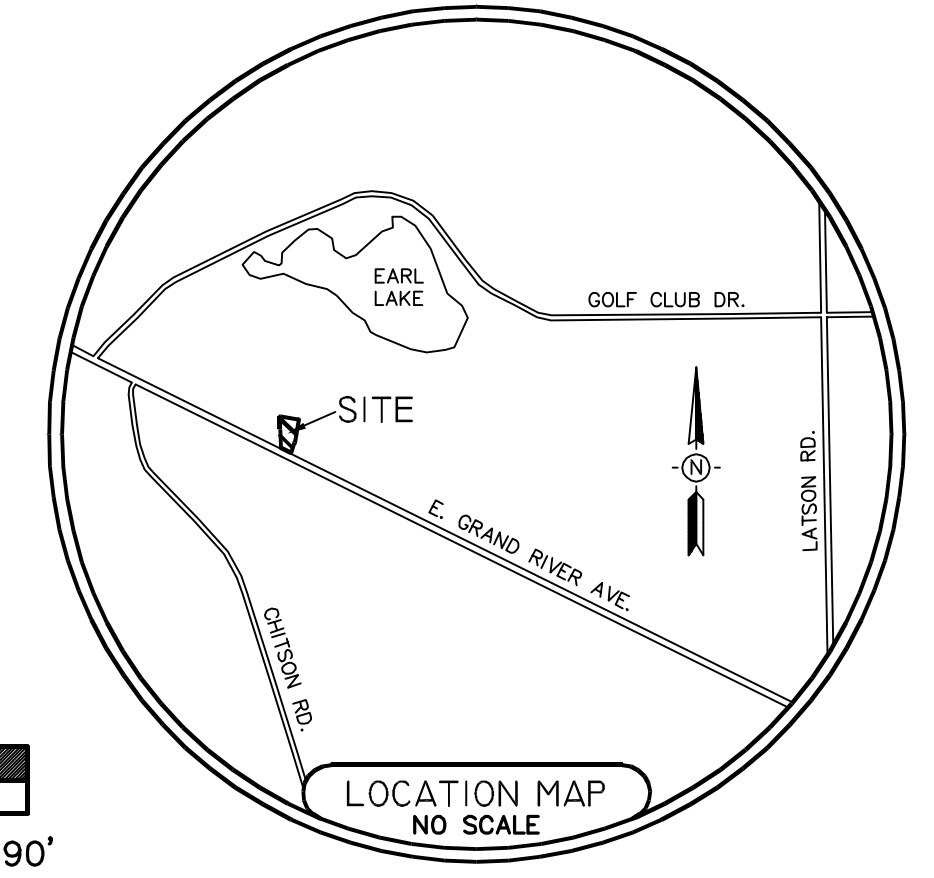
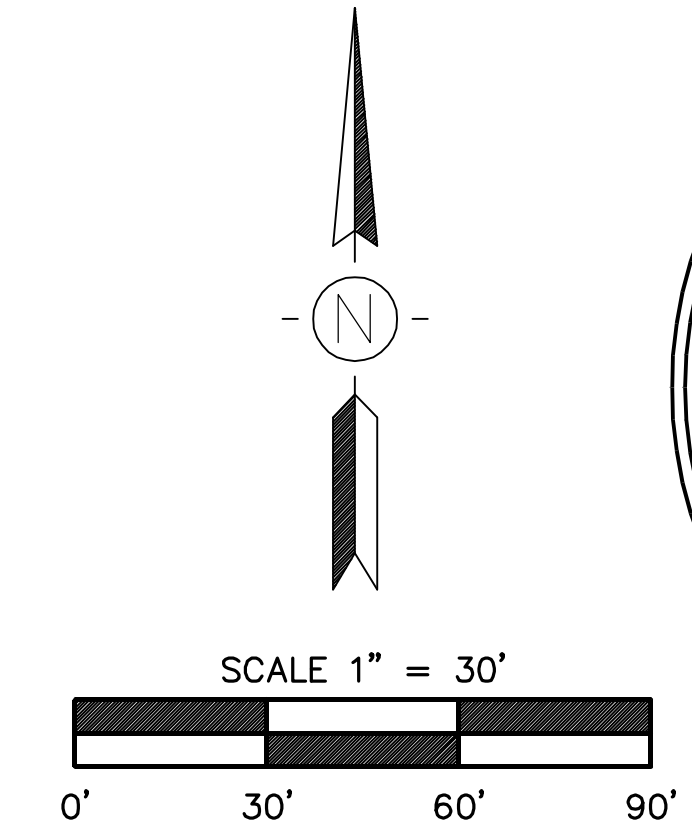
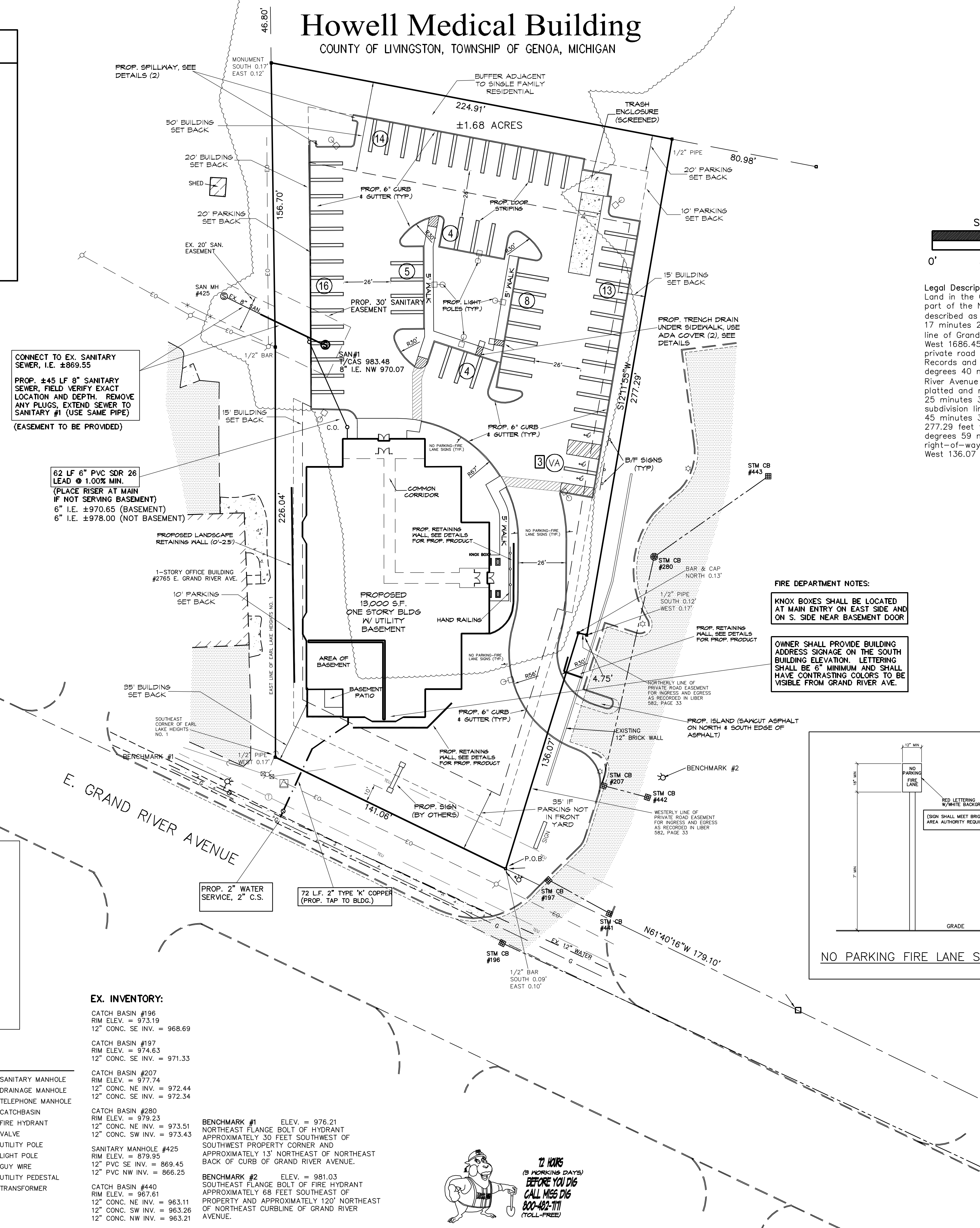
**SITE DATA**

ZONING: GENERAL COMMERCIAL  
 ADJACENT ZONING:  
 NORTH: LOW DENSITY RESIDENTIAL (LDR)  
 SOUTH: GENERAL COMMERCIAL (GC)  
 EAST: GENERAL COMMERCIAL (GC)  
 WEST: SUBURBAN RESIDENTIAL (SR), GENERAL COMMERCIAL (GC)  
 BUILDING COVERAGE  
 MAX ALLOWED: 55%  
 PROPOSED: 12,798.25 SF/73,097.42 SF = 17.54%  
 IMPERVIOUS COVERAGE  
 MAX ALLOWED: 75%  
 PROPOSED: 43,705 SF/73,097.42 SF = 59.79%

**PARKING DATA**

GENOA TWP. PARKING REQUIREMENTS:  
 MEDICAL OFFICES OF DOCTORS/DENTIST:  
 1 SPACE : 200 SF (GROSS)  
 13,000 SF (GROSS) / 200 SF (GROSS) = 65 SPACES  
 65 SPACES REQUIRED  
 66 SPACES PROVIDED  
 BARRIER FREE PARKING:  
 51-75 SPACES = 3 REQUIRED B.F. SPACES  
 3 BARRIER FREE SPACES REQUIRED  
 3 BARRIER FREE SPACES PROVIDED

**Howell Medical Building**  
 COUNTY OF LIVINGSTON, TOWNSHIP OF GENOA, MICHIGAN



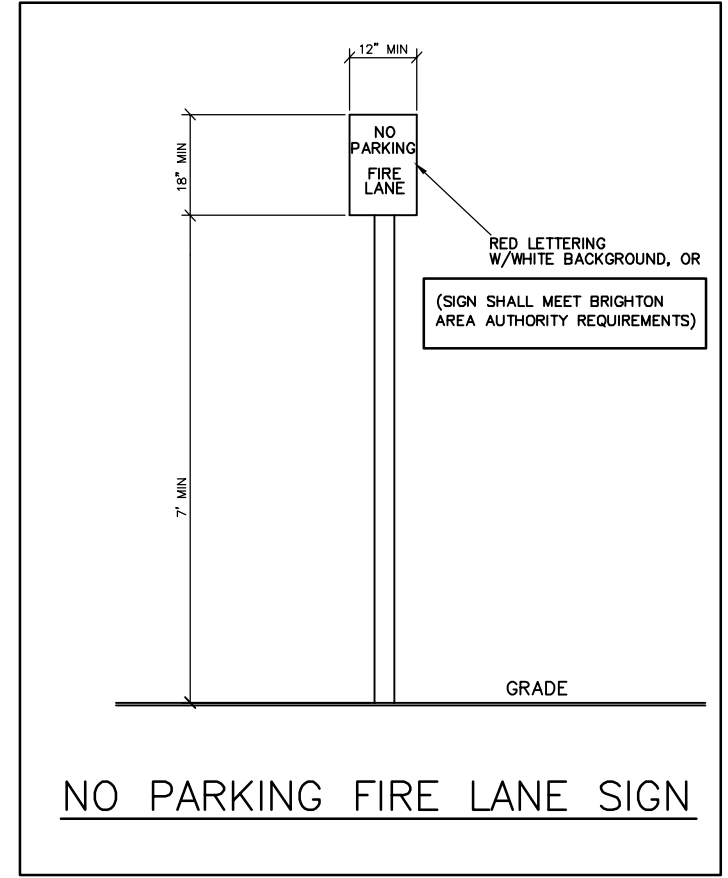
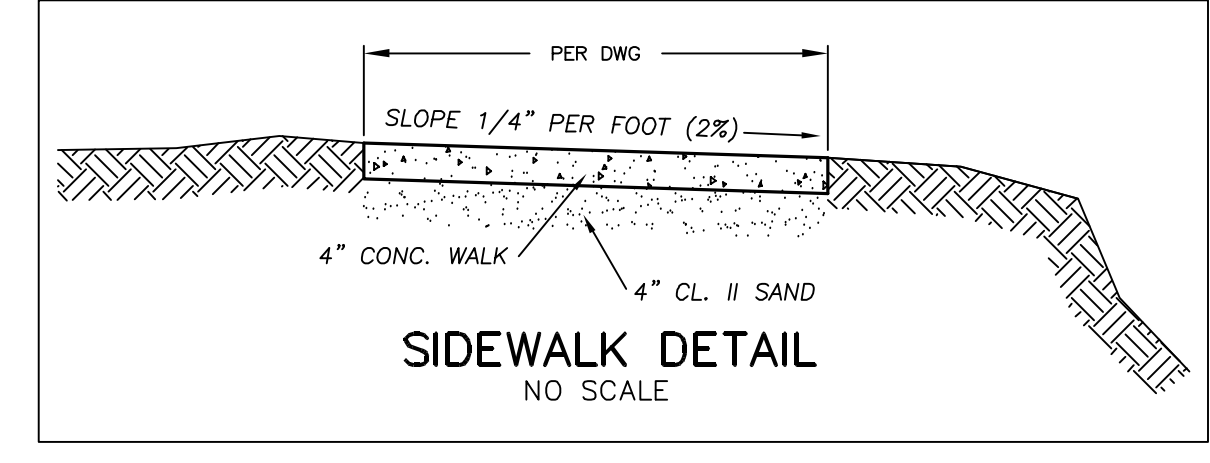
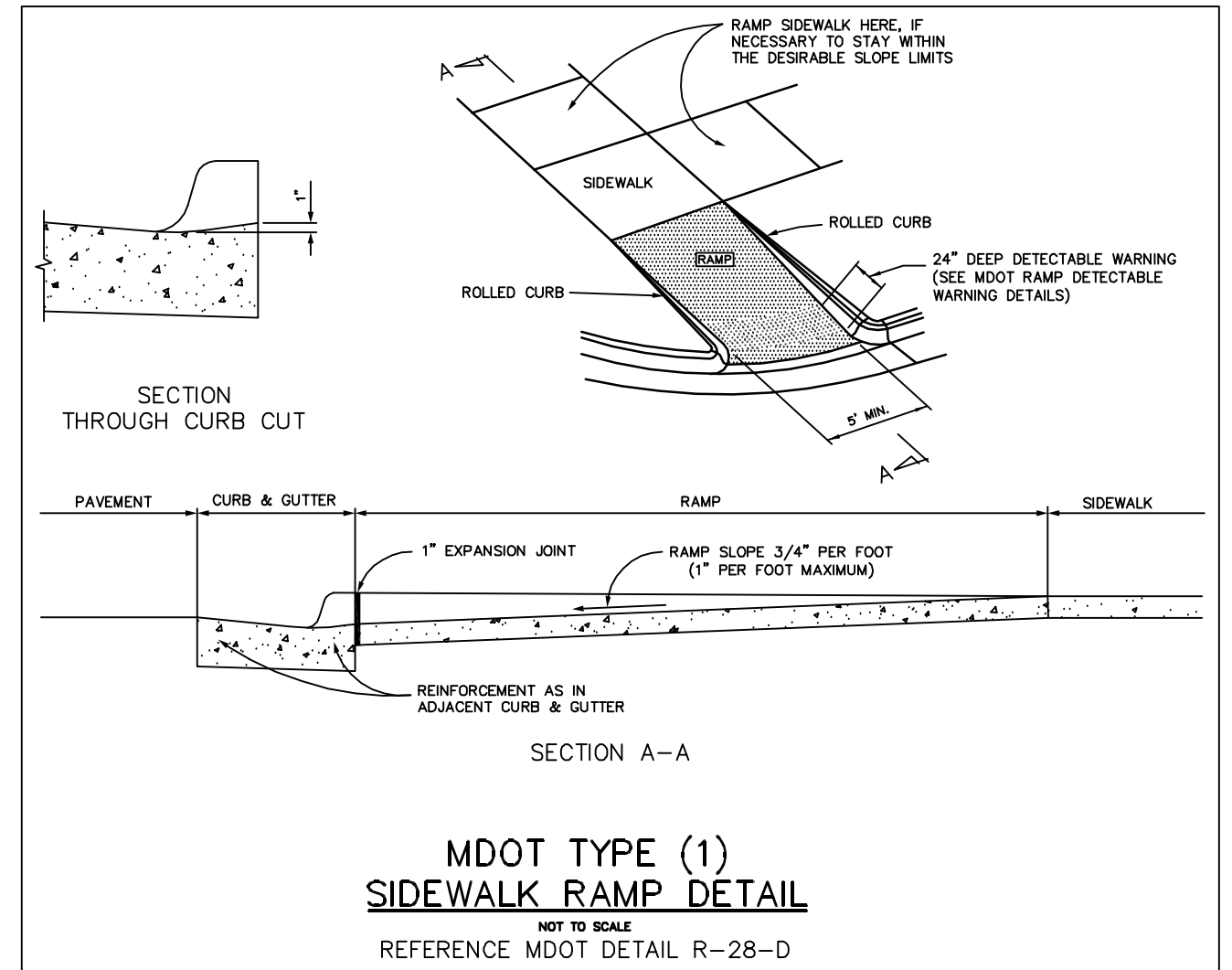
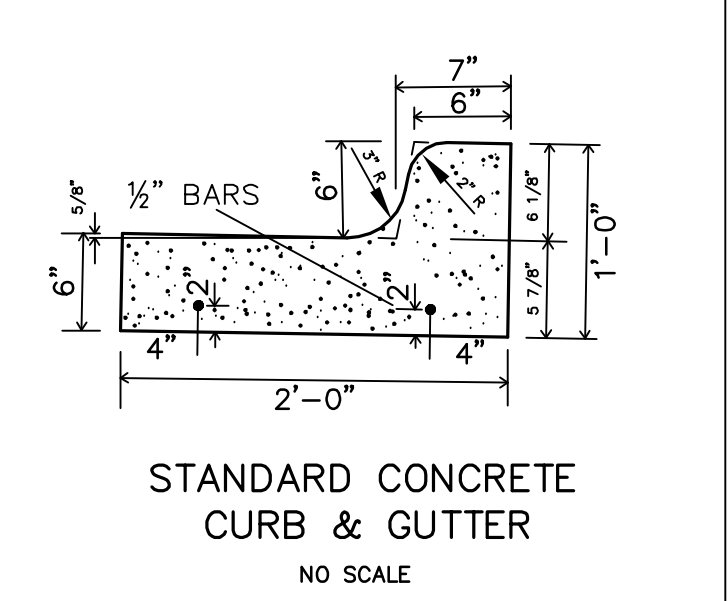
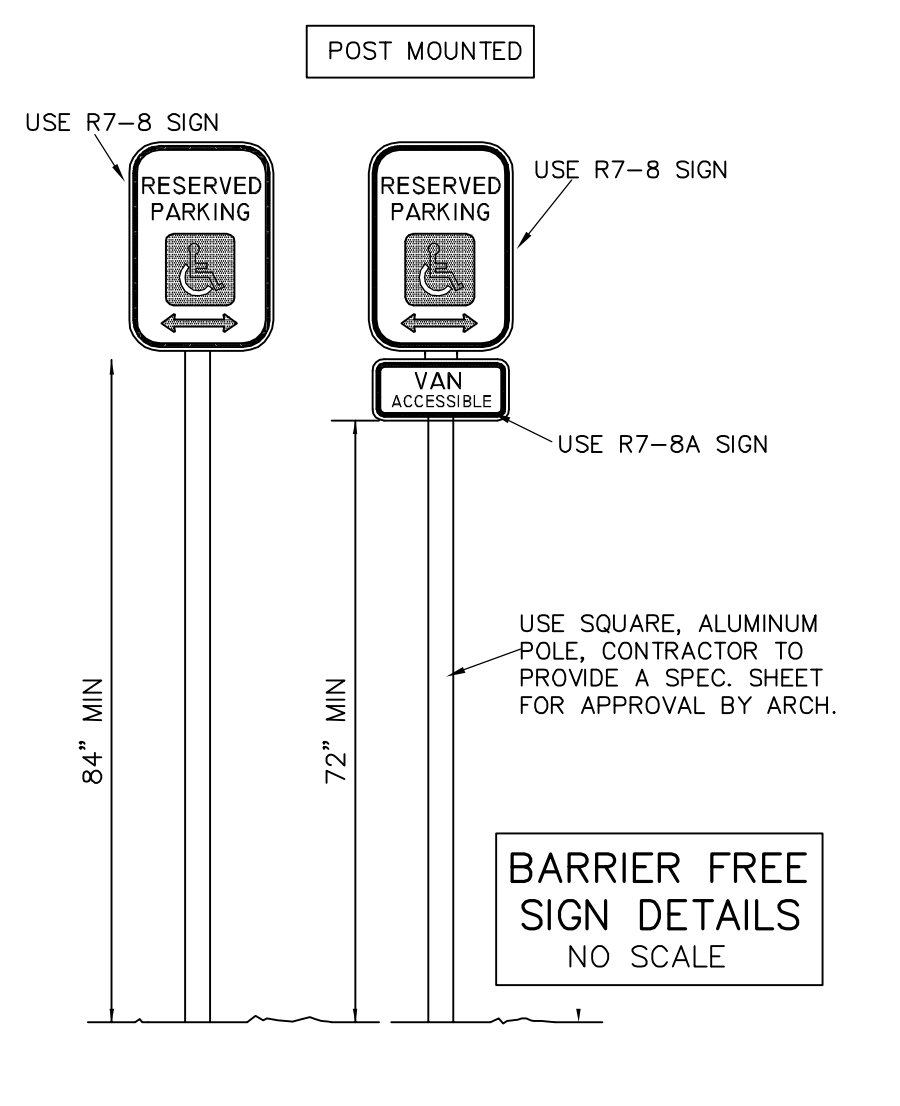
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CONNECT TO EX. SANITARY SEWER, I.E. ±869.55  
 PROP. ±45 LF 8" SANITARY SEWER, FIELD VERIFY EXACT LOCATION AND DEPTH. REMOVE ANY PLUGS, EXTEND SEWER TO SANITARY #1 (USE SAME PIPE) (EASEMENT TO BE PROVIDED)

62 LF 6" PVC SDR 26 LEAD @ 1.00% MIN. (PLACE RISER AT MAIN IF NOT SERVING BASEMENT)  
 6" I.E. ±970.65 (BASEMENT)  
 6" I.E. ±978.00 (NOT BASEMENT)

**FIRE DEPARTMENT NOTES:**  
 KNOX BOXES SHALL BE LOCATED AT MAIN ENTRY ON EAST SIDE AND ON S. SIDE NEAR BASEMENT DOOR

OWNER SHALL PROVIDE BUILDING ADDRESS SIGNAGE ON THE SOUTH BUILDING ELEVATION. LETTERING SHALL BE 6" MINIMUM AND SHALL HAVE CONTRASTING COLORS TO BE VISIBLE FROM GRAND RIVER AVE.



NOTE: WATER SHALL HAVE 10' HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION FROM ALL SEWERS.

**LEGEND**

—	PROPOSED WATER MAIN	—	PROPOSED SANITARY SEWER
—	PROPOSED SANITARY SEWER	—	PROPOSED STORM SEWER
—	PROPOSED HYDRANT	—	PROPOSED GATE VALVE
—	PROPOSED SAN. M.H.	—	PROPOSED STORM M.H.
—	PROPOSED C.B.	—	PROPOSED C.B.
—	PROPOSED GRADES	—	PROPOSED FIRST FLOOR ELEV.
—	PROPOSED TOP OF CURB ELEV.	—	PROPOSED TOP OF GROUND ELEV.
—	PROPOSED TOP OF PAVT ELEV.	—	PROPOSED TOP OF WALK ELEV.
—	PROPOSED S.E.S.C. KEYING SYSTEM		

**EX. LEGEND**

—	SET 1/2" BAR WITH CAP	—	SANITARY MANHOLE
—	FOUND IRON AS NOTED	—	DRAINAGE MANHOLE
—	DEED LINE	—	TELEPHONE MANHOLE
—	DISTANCE NOT TO SCALE	—	CATCHBASIN
—	FENCE	—	FIRE HYDRANT
—	ASPHALT	—	VALVE
—	CONCRETE	—	UTILITY POLE
—	EXISTING CONTOUR ELEVATION	—	LIGHT POLE
—	SANITARY SEWER	—	GUY WIRE
—	STORM SEWER	—	UTILITY PEDESTAL
—	UNDERGROUND TELEPHONE	—	TRANSFORMER
—	OVERHEAD WIRES		
—	EDGE OF WOODS		

**EX. INVENTORY:**

CATCH BASIN #196	RIM ELEV. = 973.19	12" CONC. SE INV. = 968.69
CATCH BASIN #197	RIM ELEV. = 974.63	12" CONC. SE INV. = 971.33
CATCH BASIN #207	RIM ELEV. = 977.74	12" CONC. NE INV. = 972.44
CATCH BASIN #280	RIM ELEV. = 979.23	12" CONC. SW INV. = 973.43
SANITARY MANHOLE #425	RIM ELEV. = 879.95	12" PVC SE INV. = 869.45
CATCH BASIN #440	RIM ELEV. = 967.61	12" CONC. NE INV. = 963.11
		12" CONC. SW INV. = 963.26
		12" CONC. NW INV. = 963.21

**BENCHMARK #1** ELEV. = 976.21  
 NORTHEAST FLANGE BOLT OF HYDRANT APPROXIMATELY 30 FEET SOUTHWEST OF SOUTHWEST PROPERTY CORNER AND APPROXIMATELY 13' NORTHEAST OF BACK OF CURB OF GRAND RIVER AVENUE.

**BENCHMARK #2** ELEV. = 981.03  
 SOUTHEAST FLANGE BOLT OF FIRE HYDRANT APPROXIMATELY 68 FEET SOUTHWEST OF PROPERTY AND APPROXIMATELY 120' NORTHEAST OF NORTHEAST CURBLINE OF GRAND RIVER AVENUE.



- 1 DENOTES NUMBER OF B/F SPACES
- VA DENOTES VAN ACCESS B/F SPACES
- 0 DENOTES PROPOSED NUMBER OF 9' x 18' PARKING SPACES

REVISIONS	DESIGNER:	APPROVED BY:
2-15-16 CLIENT REVIEW	GAP	GAP
3-2-16 SITE PLAN REVIEW	PROJECT MGR.:	SHEET 2 OF 6
3-23-16 SITE PLAN REVISIONS	APPROVED BY:	JOB #:
	Studio Intrigue Architects, LLC	89814

**KEBS, INC.** KYES ENGINEERING  
 2116 HASLETT ROAD, HASLETT, MI 48840  
 PH. 517-339-1014 FAX. 517-339-8047  
 Marshall Office Ph. 269-781-9800

**Howell Medical Building**  
 SITE & UTILITY PLAN

SURVEY#89814.BND

# Howell Medical Building

COUNTY OF LIVINGSTON, TOWNSHIP OF GENOA, MICHIGAN

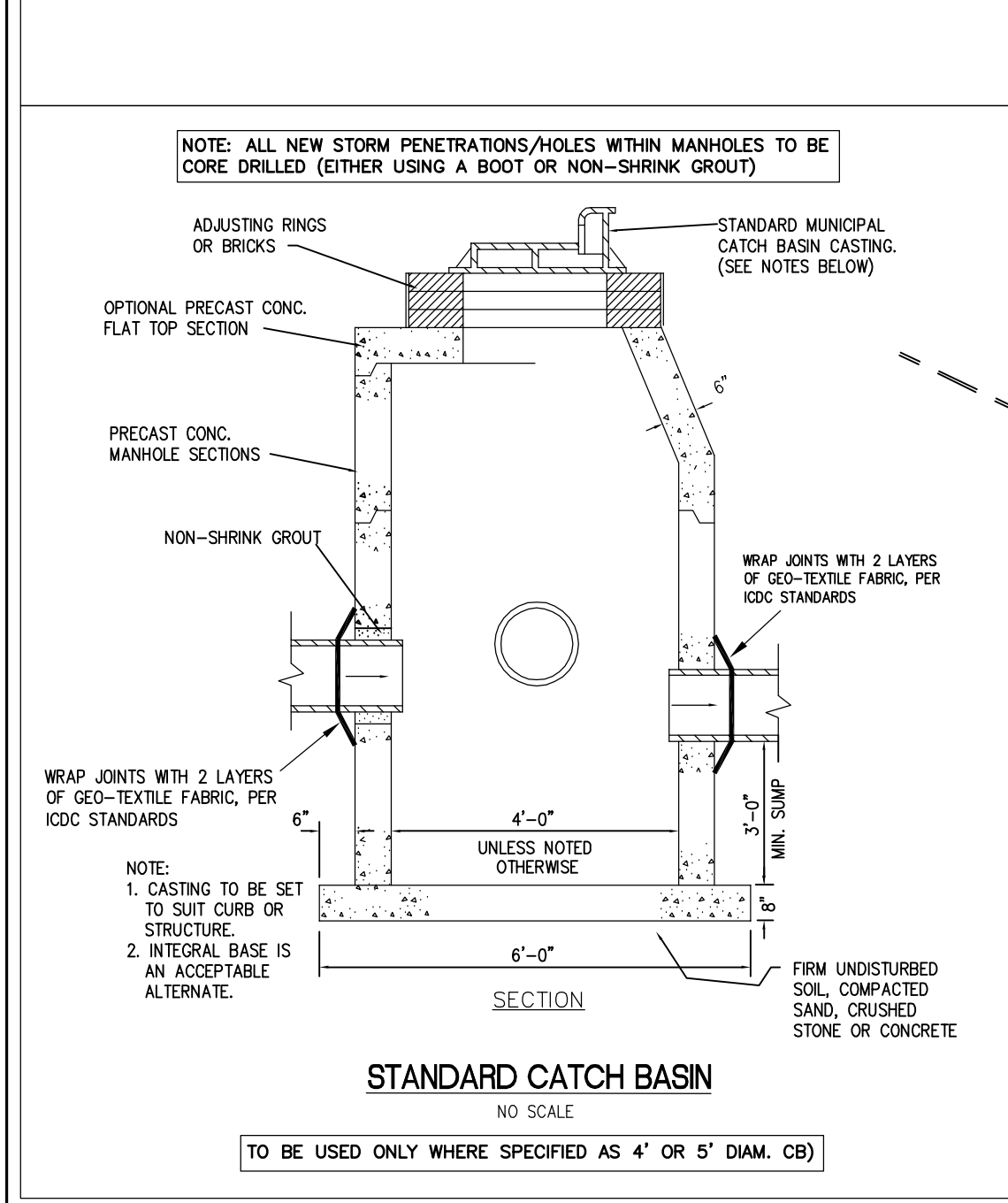
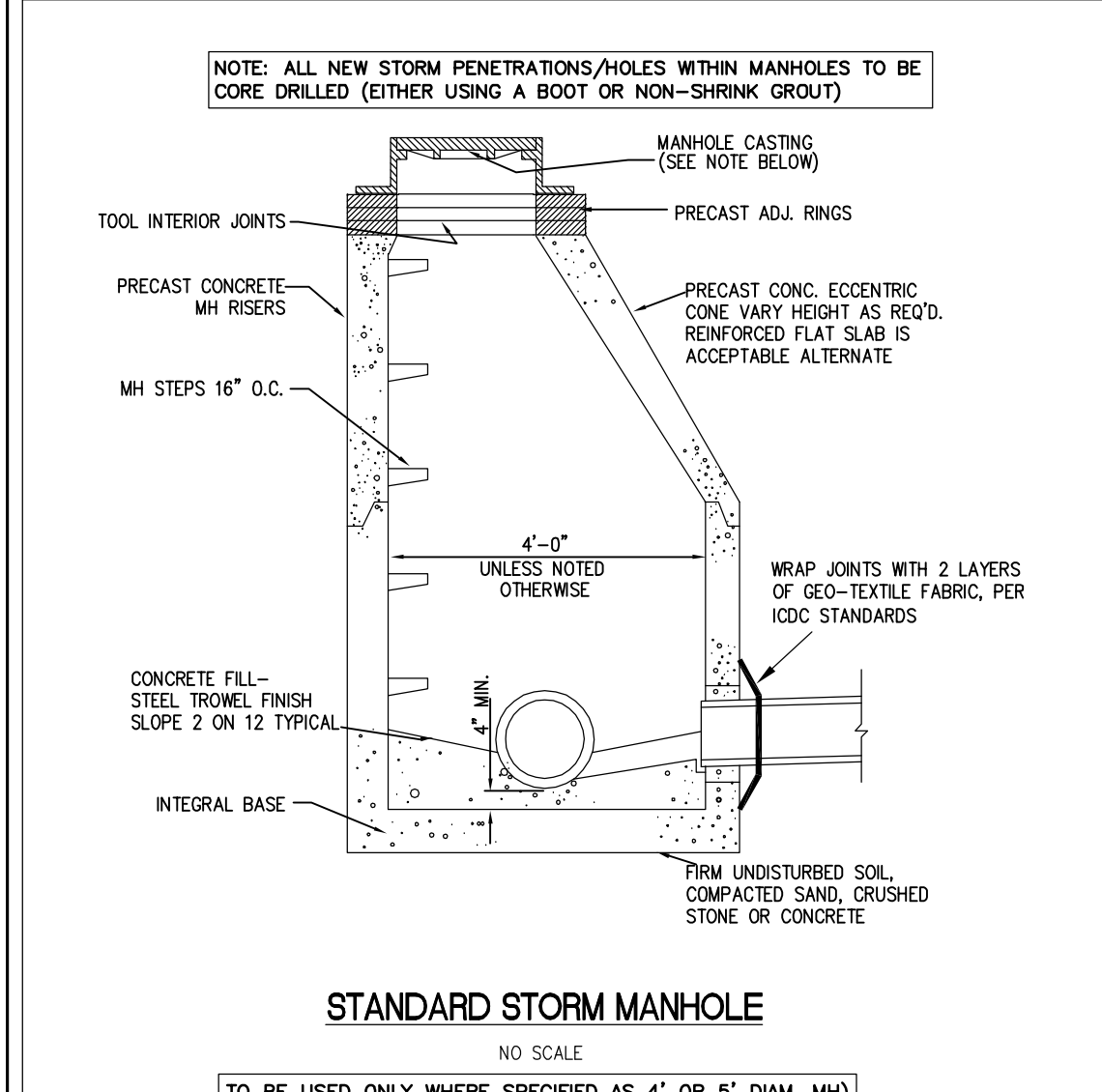
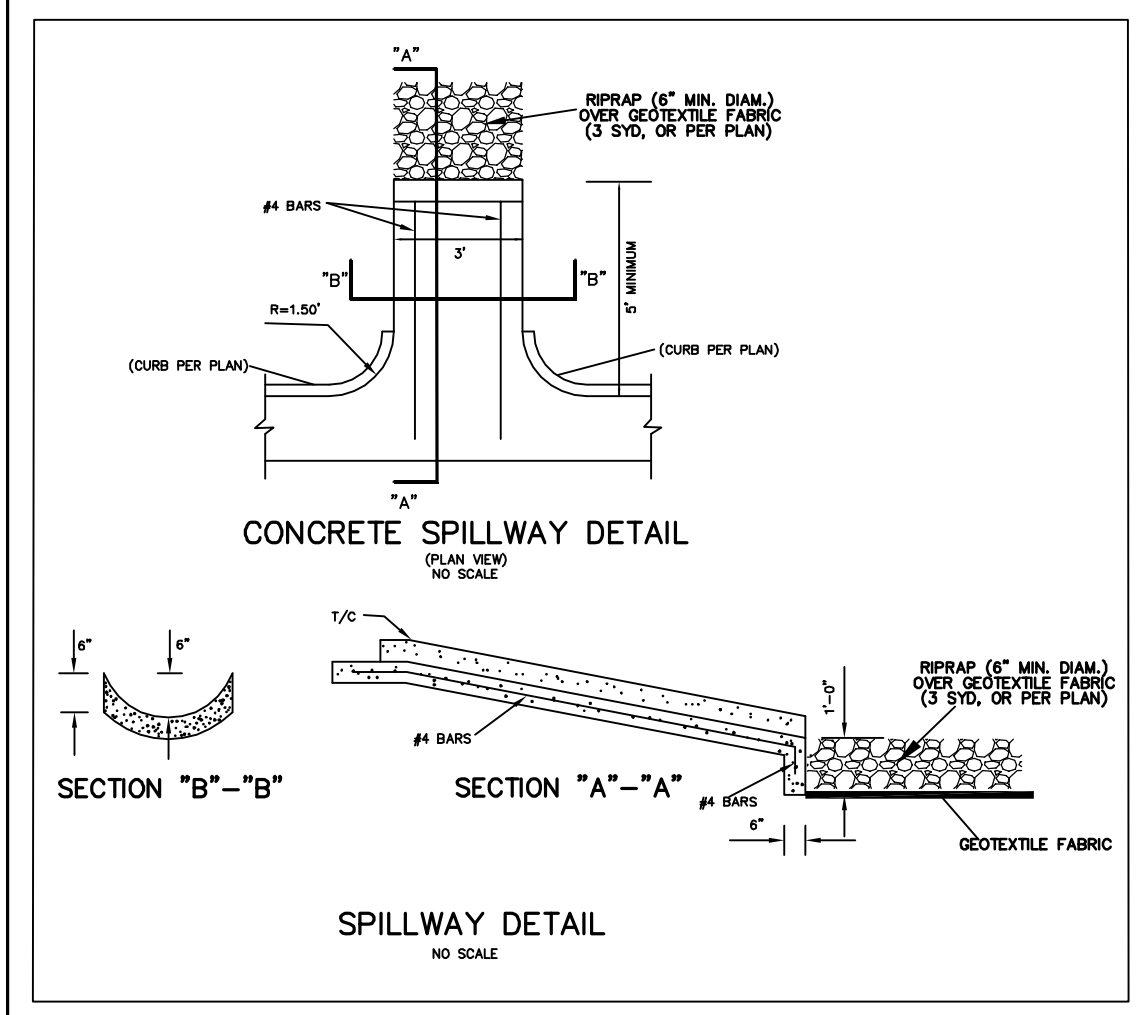
## STORM INVENTORY:

**LB#1**  
T/CAS 981.10  
T/TRENCH 980.80  
12" I.E. SE 977.06  
6" UNDERDRAIN(S) 978.71

**LB#2**  
T/CAS 982.10  
T/TRENCH 981.85  
12" I.E. NW/SE 976.60  
6" UNDERDRAIN(S) 979.74

**ST#3**  
T/CAS 981.85  
8" I.E. W. 977.35  
12" I.E. NW/SE 975.84  
15" I.E. S 975.74

**CB#4**  
T/CURB 980.20  
15" I.E. W. 975.50  
15" I.E. SW 975.50



NOTE: WATER SHALL HAVE 10' HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION FROM ALL SEWERS.

LEGEND	
	PROPOSED WATER MAIN
	PROPOSED SANITARY SEWER
	PROPOSED STORM SEWER
	PROPOSED HYDRANT
	PROPOSED GATE VALVE
	PROPOSED SAN. M.H.
	PROPOSED STORM M.H.
	PROPOSED C.B.
	PROPOSED GRADES
	PROPOSED FIRST FLOOR ELEV.
	PROPOSED TOP OF CURB ELEV.
	PROPOSED TOP OF PAVT ELEV.
	PROPOSED TOP OF WALK ELEV.
	DENOTES S.E.S.C. KEYING SYSTEM

## EX. LEGEND

	SET 1/2" BAR WITH CAP		SANITARY MANHOLE
	FOUND IRON AS NOTED		DRAINAGE MANHOLE
	DEED LINE		TELEPHONE MANHOLE
	DISTANCE NOT TO SCALE		CATCHBASIN
	FENCE		FIRE HYDRANT
	ASPHALT		VALVE
	CONCRETE		UTILITY POLE
	EXISTING CONTOUR ELEVATION		LIGHT POLE
	SANITARY SEWER		GUY WIRE
	STORM SEWER		UTILITY PEDESTAL
	UNDERGROUND TELEPHONE		TRANSFORMER
	OVERHEAD WIRES		
	EDGE OF WOODS		

## EX. INVENTORY:

CATCH BASIN #196  
RIM ELEV. = 973.19  
12" CONC. SE INV. = 968.69

CATCH BASIN #197  
RIM ELEV. = 974.63  
12" CONC. SE INV. = 971.33

CATCH BASIN #207  
RIM ELEV. = 977.74  
12" CONC. NE INV. = 972.44  
12" CONC. SE INV. = 972.34

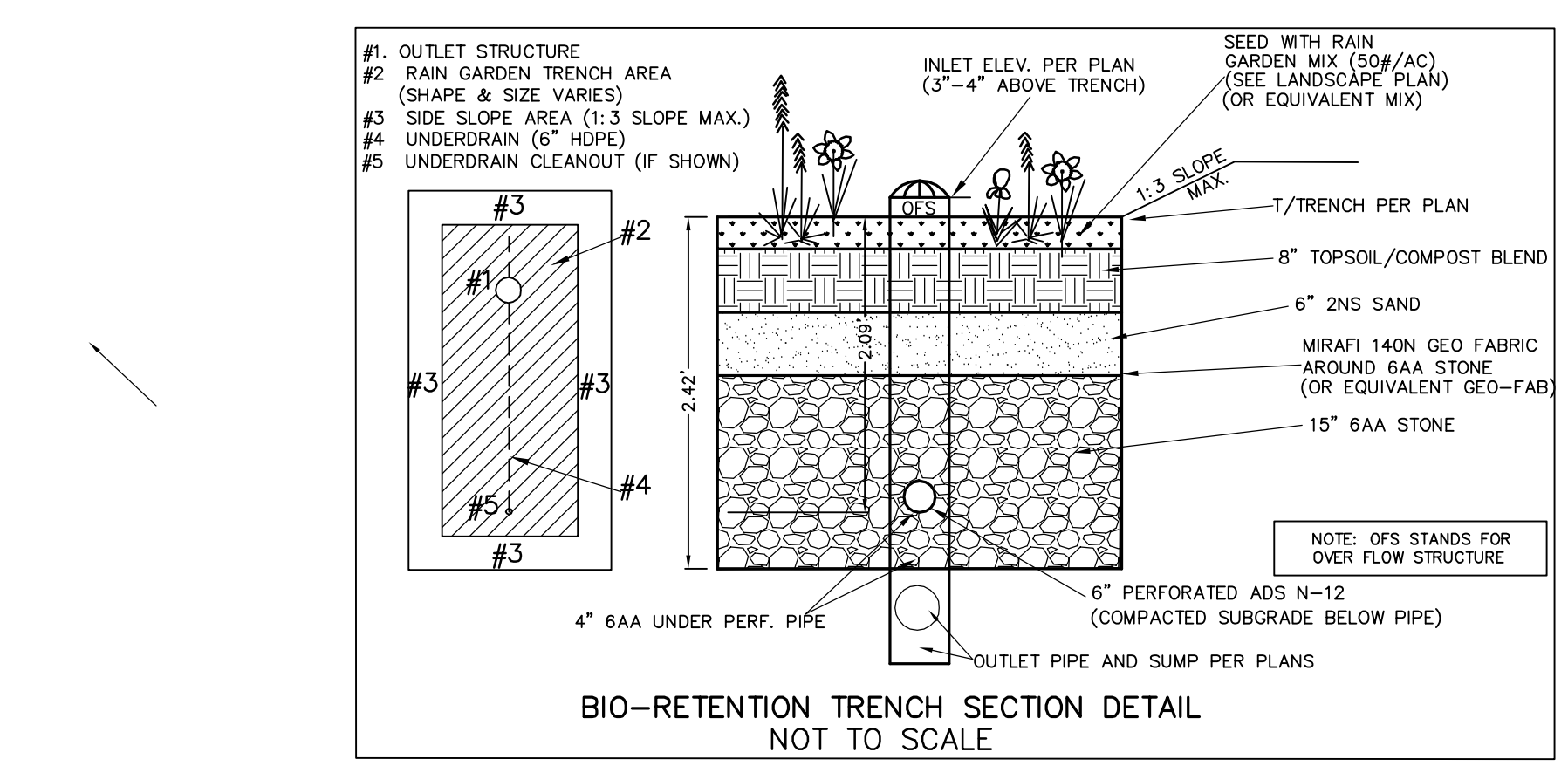
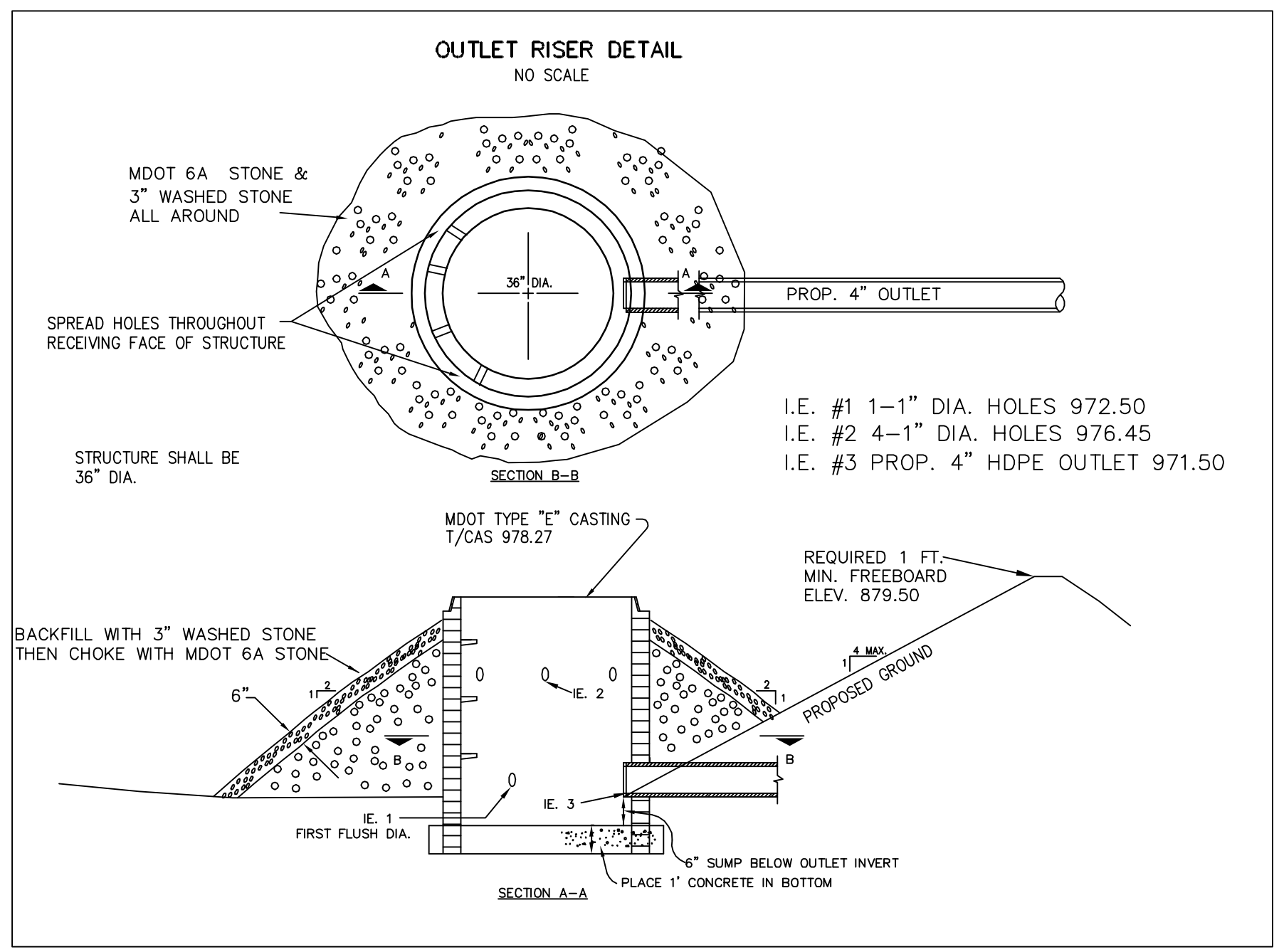
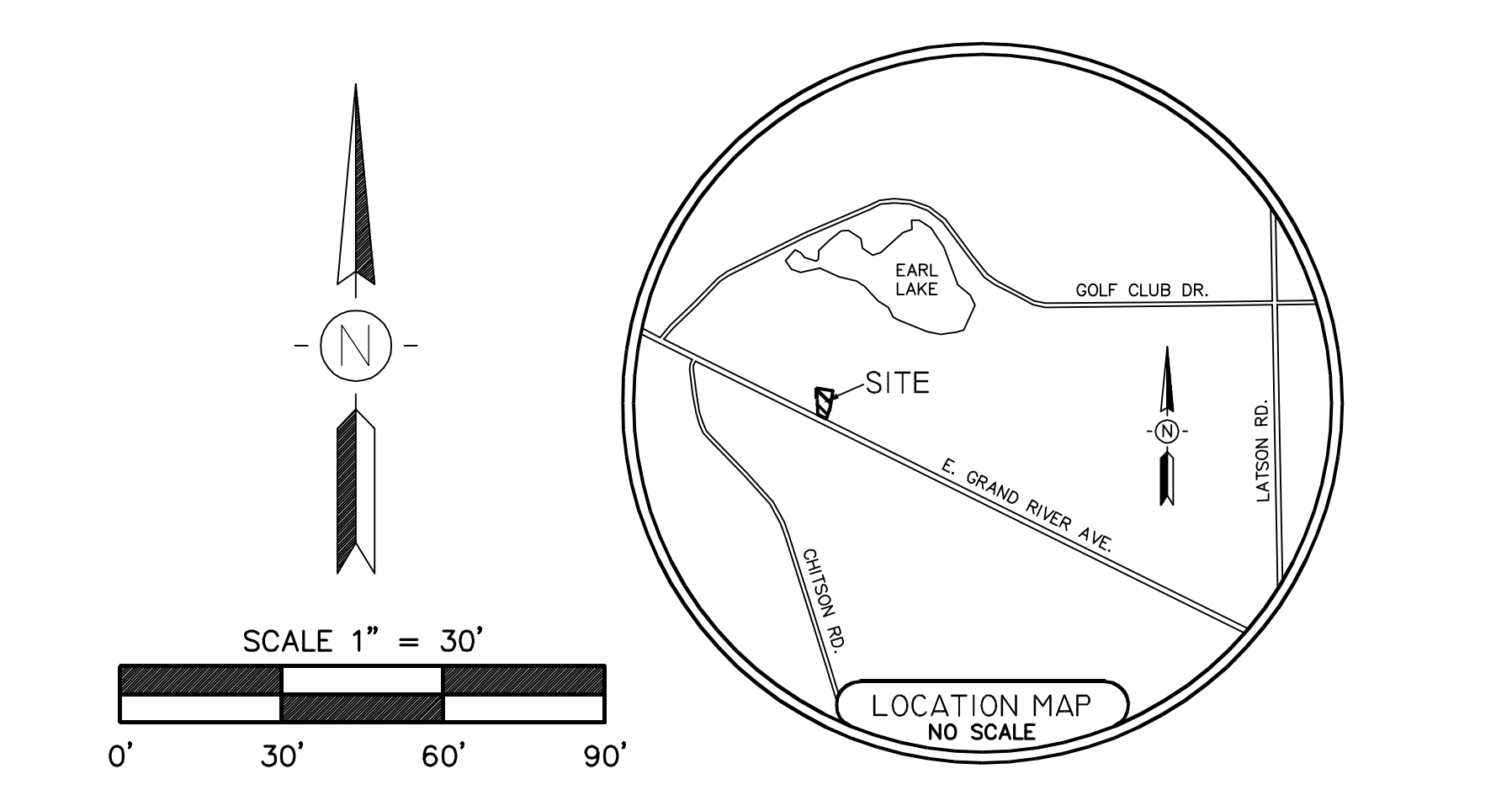
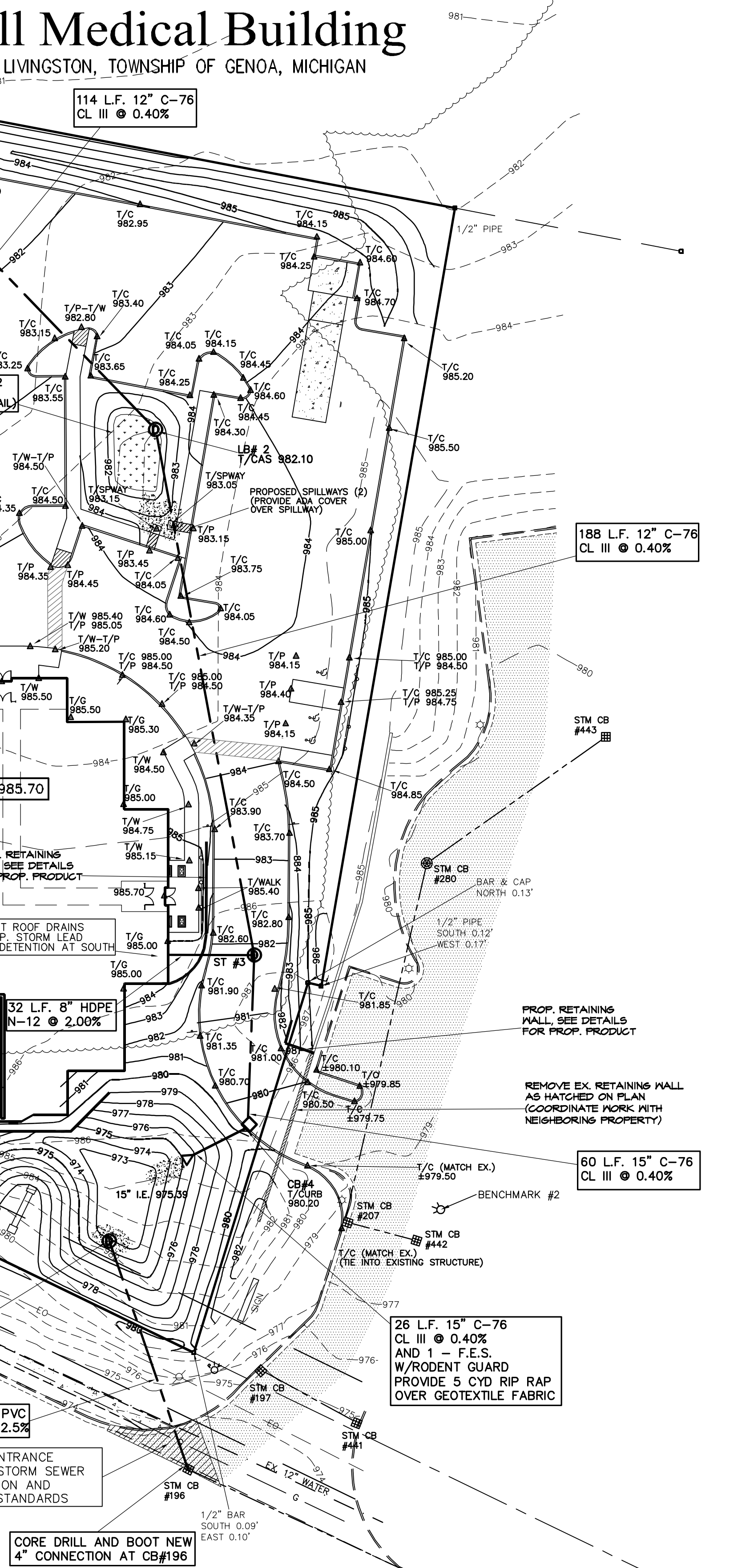
CATCH BASIN #280  
RIM ELEV. = 979.23  
12" CONC. NE INV. = 973.51  
12" CONC. SW INV. = 973.43

SANITARY MANHOLE #425  
RIM ELEV. = 879.95  
12" PVC SE INV. = 869.45  
12" PVC NW INV. = 866.25

CATCH BASIN #440  
RIM ELEV. = 967.61  
12" CONC. NE INV. = 963.11  
12" CONC. SW INV. = 963.26  
12" CONC. NW INV. = 963.21

BENCHMARK #1  
ELEV. = 976.21  
NORTHEAST FLANGE BOLT OF HYDRANT APPROXIMATELY 30 FEET SOUTHWEST OF SOUTHWEST PROPERTY CORNER AND APPROXIMATELY 13' NORTHEAST OF NORTHEAST BACK OF CURB OF GRAND RIVER AVENUE.

BENCHMARK #2  
ELEV. = 981.03  
SOUTHEAST FLANGE BOLT OF FIRE HYDRANT APPROXIMATELY 68 FEET SOUTHEAST OF PROPERTY AND APPROXIMATELY 120' NORTHEAST OF NORTHEAST CURBLINE OF GRAND RIVER AVENUE.



SURVEY#89814.BND

REVISIONS		DESIGNER:		APPROVED BY:	
2-15-16	CLIENT REVIEW	GAP		GAP	
3-2-16	SITE PLAN REVIEW				
3-23-16	SITE PLAN REVISIONS				
		2116 HASLETT ROAD, HASLETT, MI 48840 PH. 517-339-1014 FAX. 517-339-8047		APPROVED BY: GAP	
		Marshall Office Ph. 269-781-9800		SHEET 3 OF 6	
		<b>Howell Medical Building</b>		JOB #: 89814	
		STORM AND GRADING PLAN			
		SCALE: 1" = 30'		PROJECT MGR. GAP	
		DATE: 10-30-15		AUTHORIZED BY: Studio Intrigue Architects, LLC	

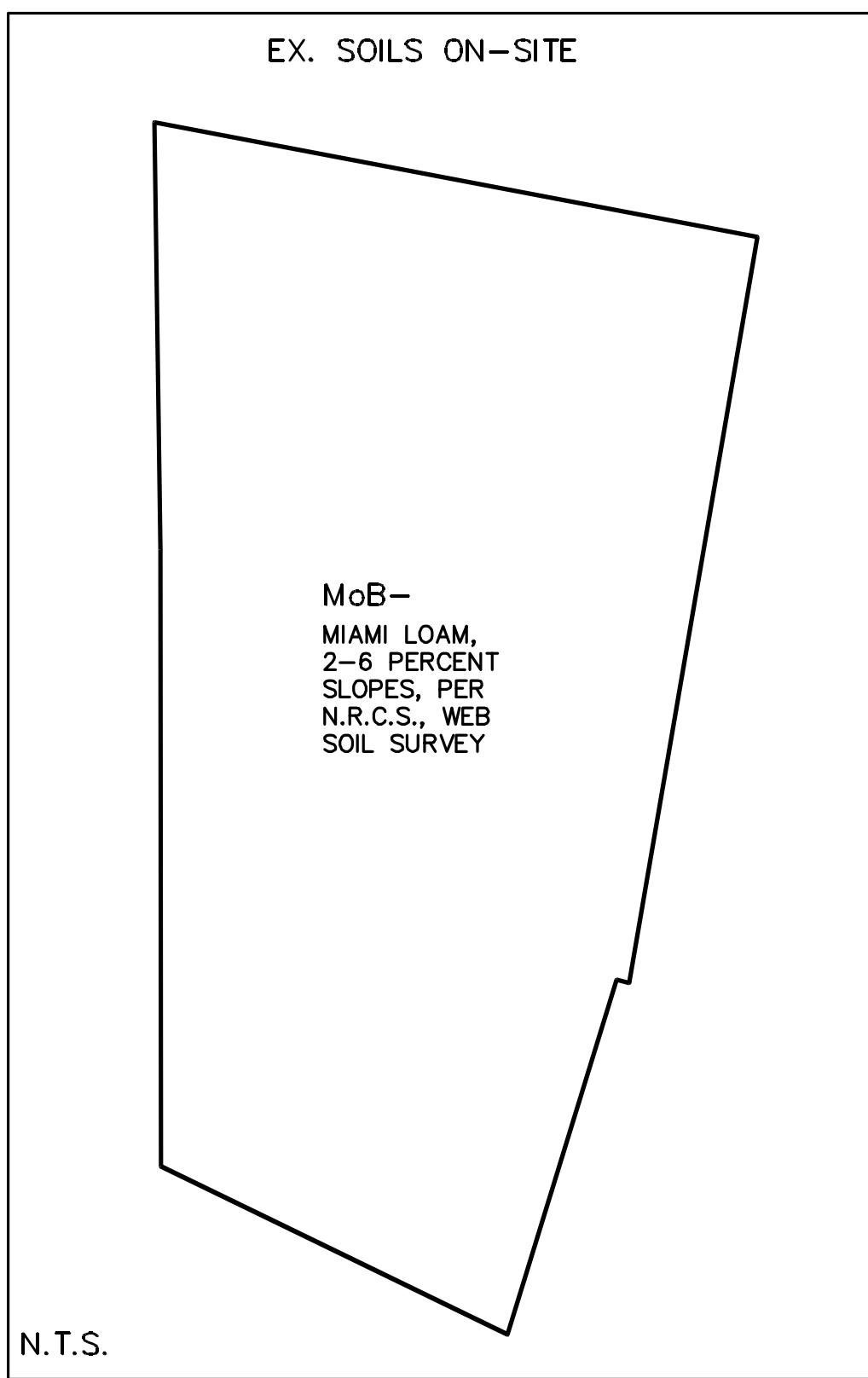


# Howell Medical Building

COUNTY OF LIVINGSTON, TOWNSHIP OF GENOA, MICHIGAN

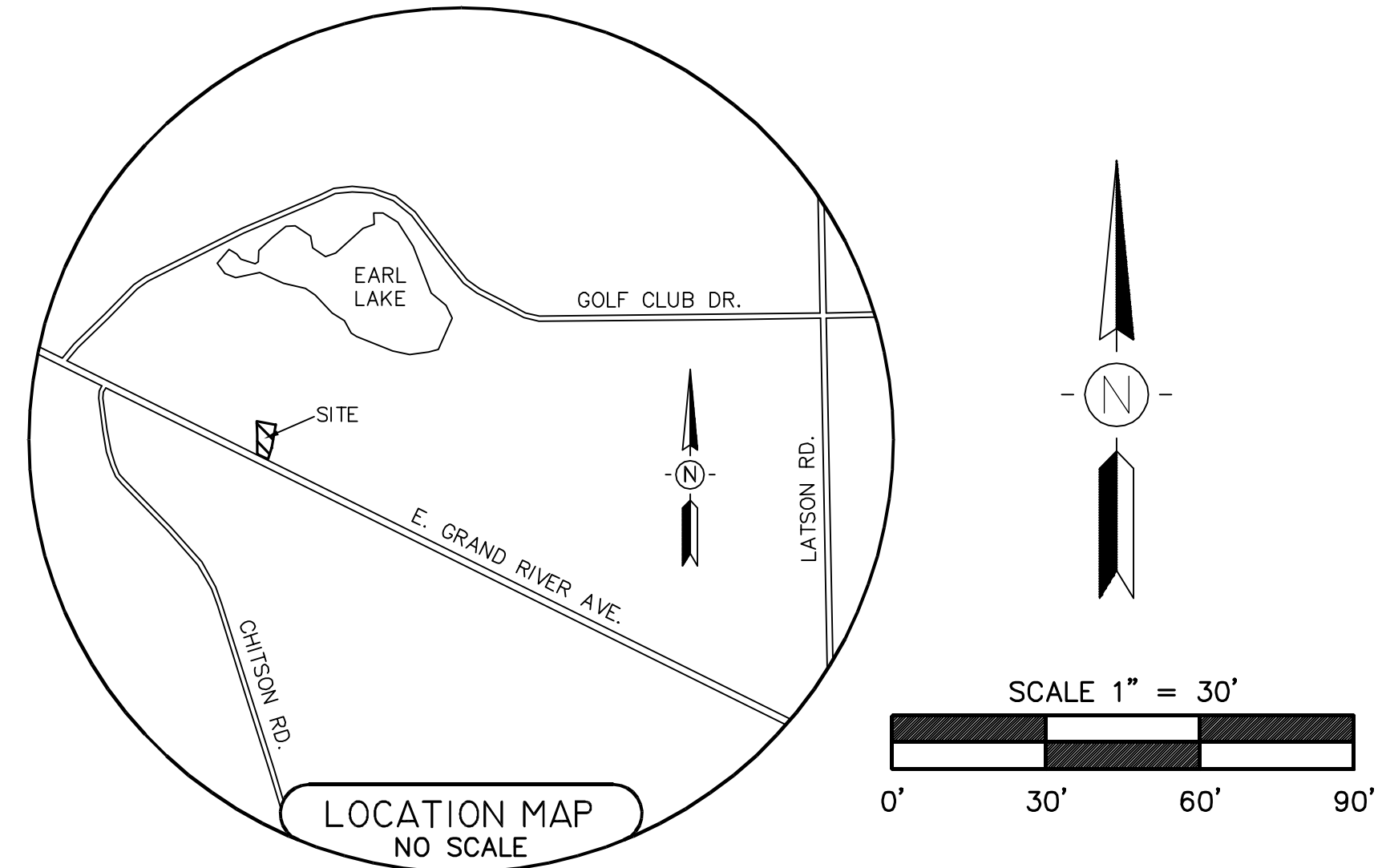
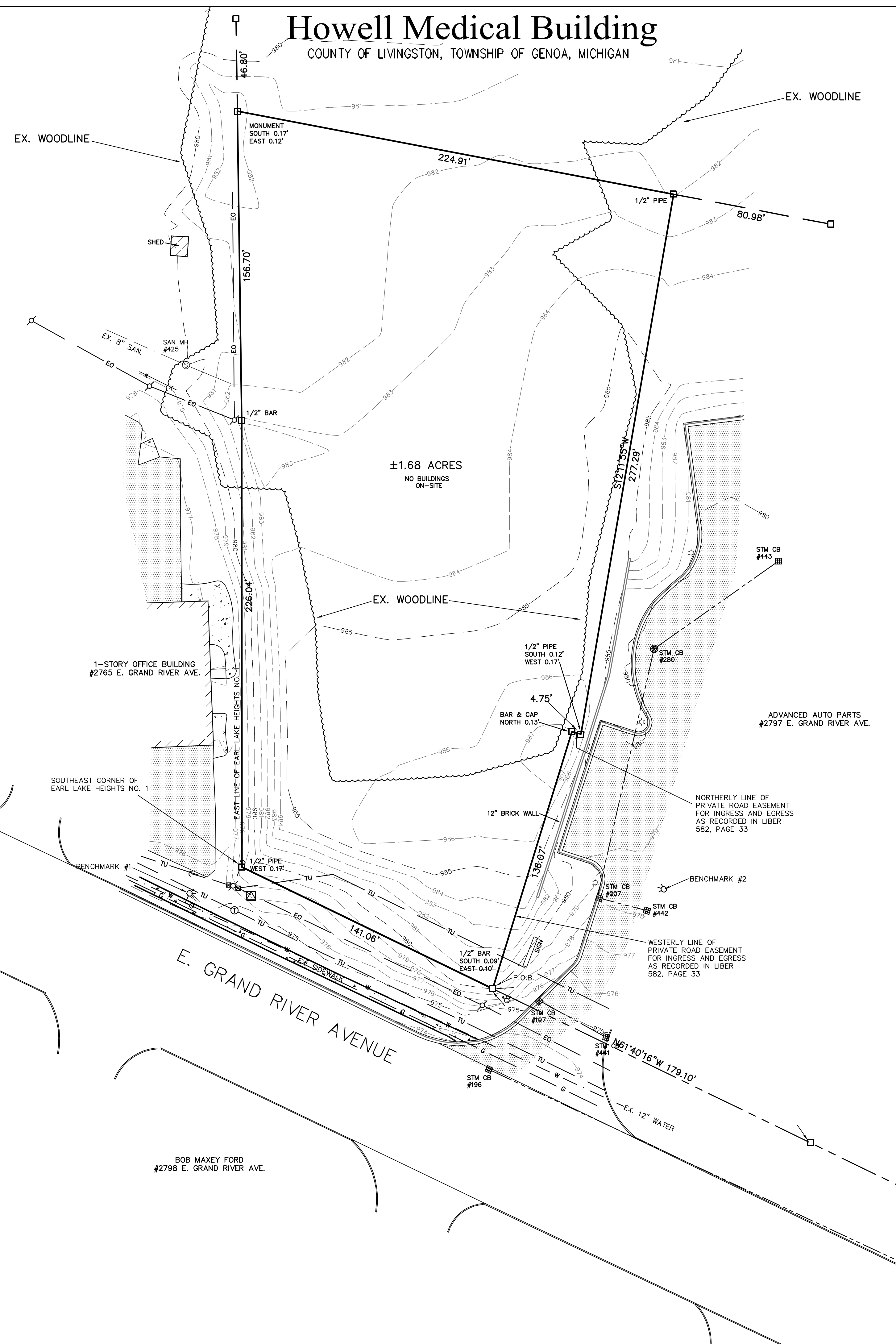
BENCHMARK #1 ELEV. = 976.21  
 NORTHEAST FLANGE BOLT OF HYDRANT  
 APPROXIMATELY 30 FEET SOUTHWEST OF  
 SOUTHWEST PROPERTY CORNER AND  
 APPROXIMATELY 13' NORTHEAST OF NORTHEAST  
 BACK OF CURB OF GRAND RIVER AVENUE.

BENCHMARK #2 ELEV. = 981.03  
 SOUTHEAST FLANGE BOLT OF FIRE HYDRANT  
 APPROXIMATELY 68 FEET SOUTHEAST OF  
 PROPERTY AND APPROXIMATELY 120' NORTHEAST  
 OF NORTHEAST CURBLINE OF GRAND RIVER  
 AVENUE.



- CATCH BASIN #196  
RIM ELEV. = 973.19  
12" CONC. SE INV. = 968.69
- CATCH BASIN #197  
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12" CONC. SE INV. = 971.33
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RIM ELEV. = 967.61  
12" CONC. NE INV. = 963.11  
12" CONC. SW INV. = 963.26  
12" CONC. NW INV. = 963.21

LEGEND	
●	= SET 1/2" BAR WITH CAP
□	= FOUND IRON AS NOTED
—	= DEED LINE
—	= DISTANCE NOT TO SCALE
—	= FENCE
▨	= ASPHALT
▩	= CONCRETE
~	= EXISTING CONTOUR ELEVATION
—	= SANITARY SEWER
—	= STORM SEWER
—TU—	= UNDERGROUND TELEPHONE
—EO—	= OVERHEAD WIRES
~	= EDGE OF WOODS
⊙	= SANITARY MANHOLE
⊕	= DRAINAGE MANHOLE
⊖	= TELEPHONE MANHOLE
⊗	= CATCHBASIN
⊘	= FIRE HYDRANT
⊙	= VALVE
⊕	= UTILITY POLE
☆	= LIGHT POLE
—	= GUY WIRE
⊞	= UTILITY PEDESTAL
⊠	= TRANSFORMER
—	= WATER MAIN

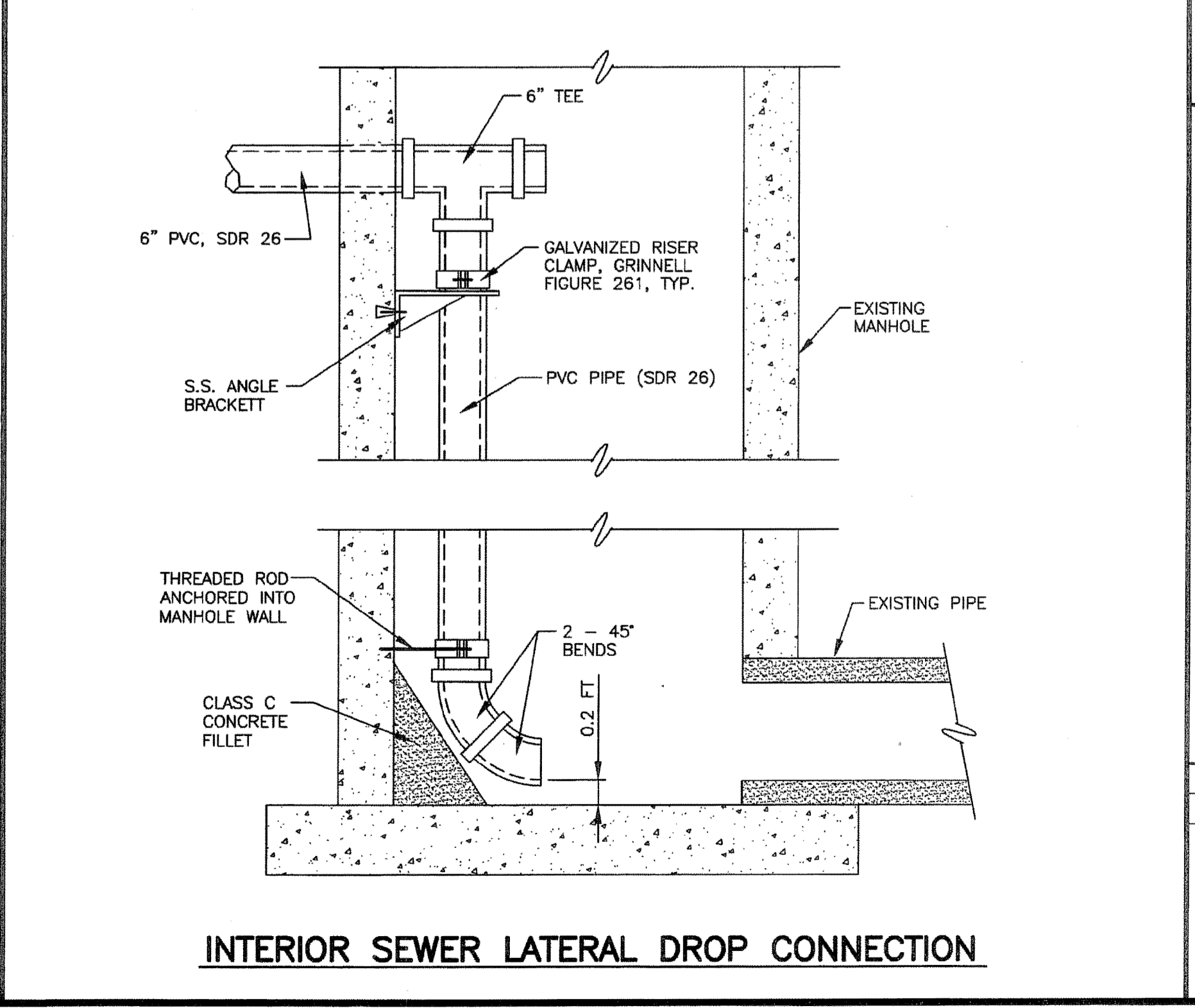
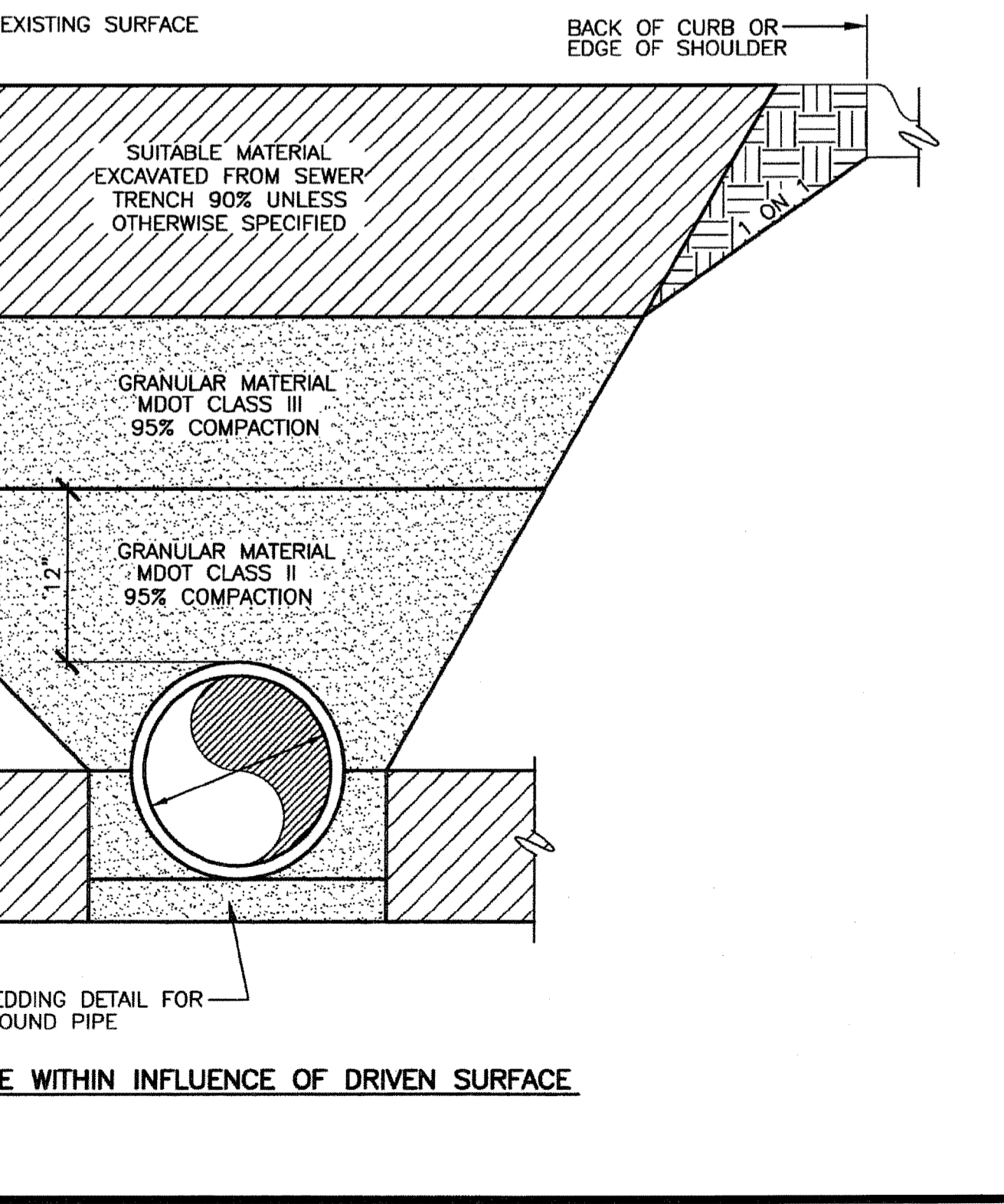
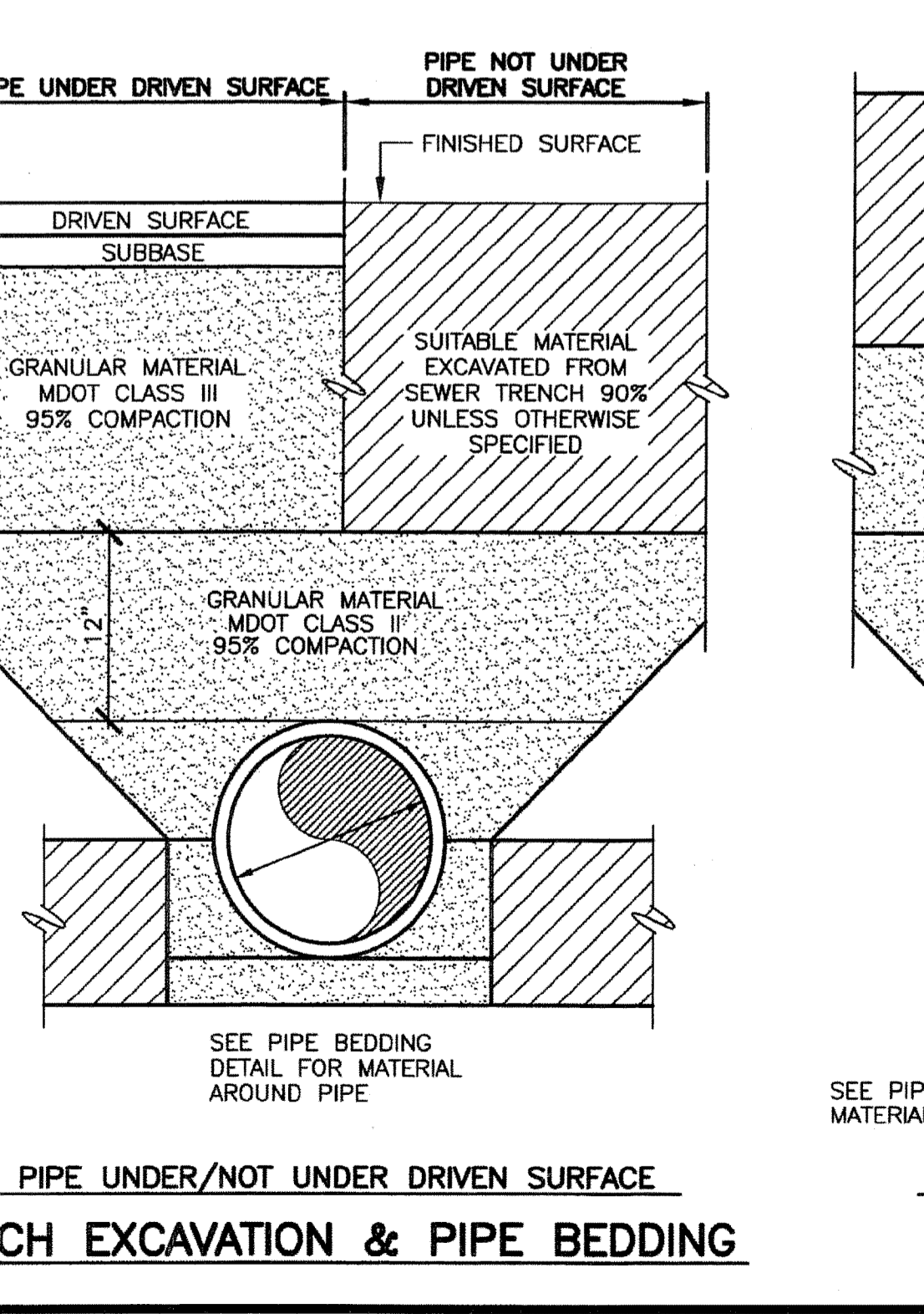
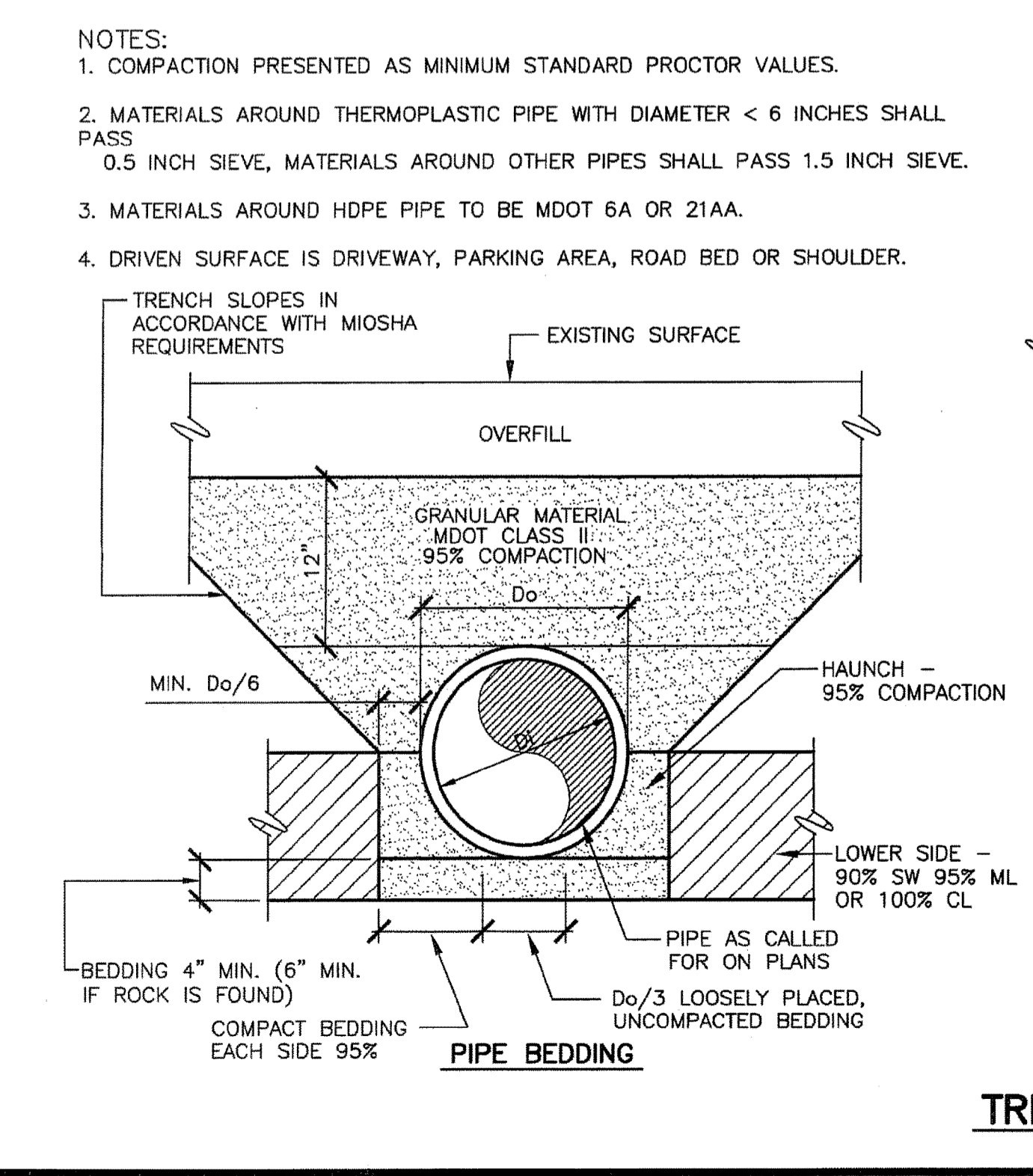
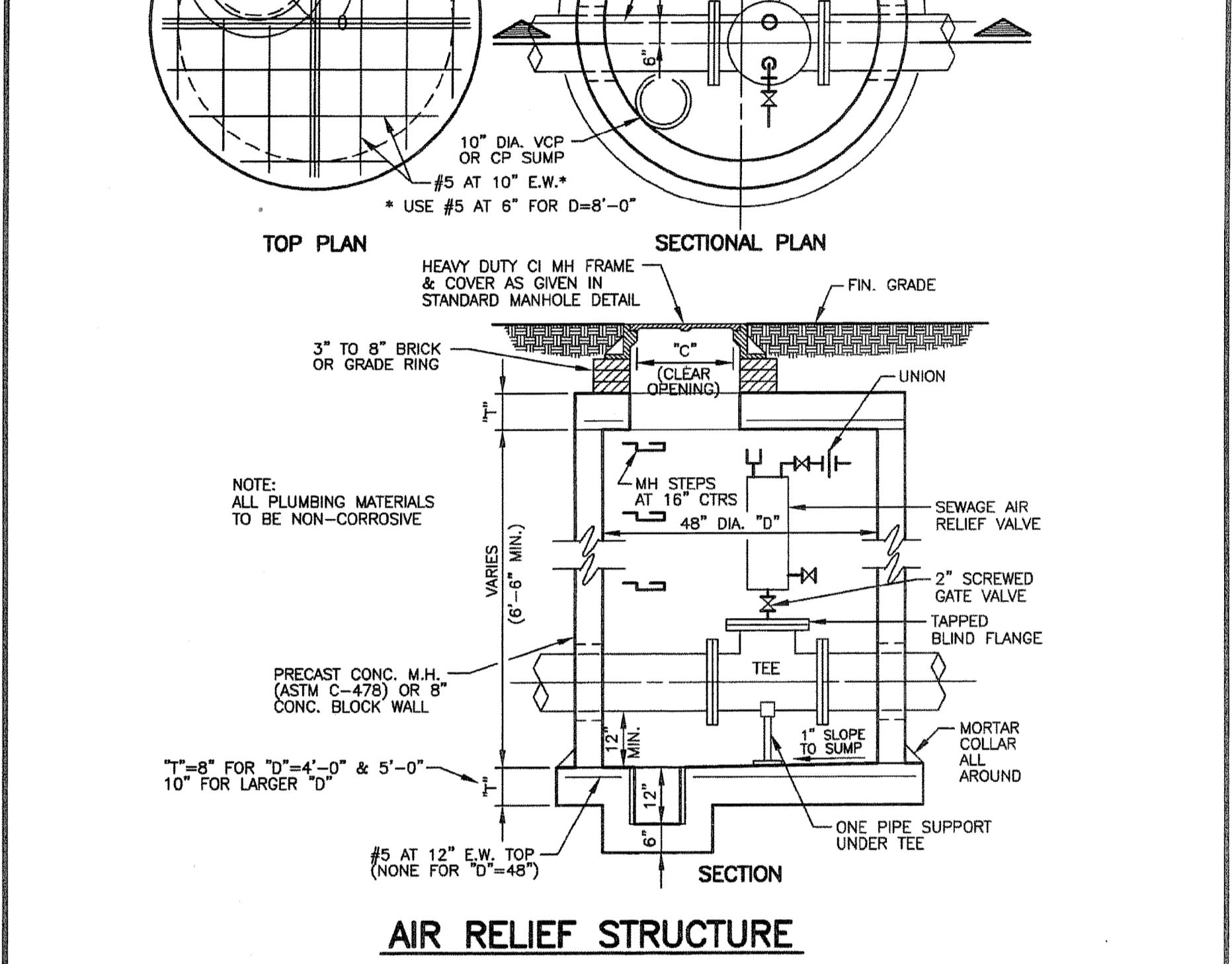
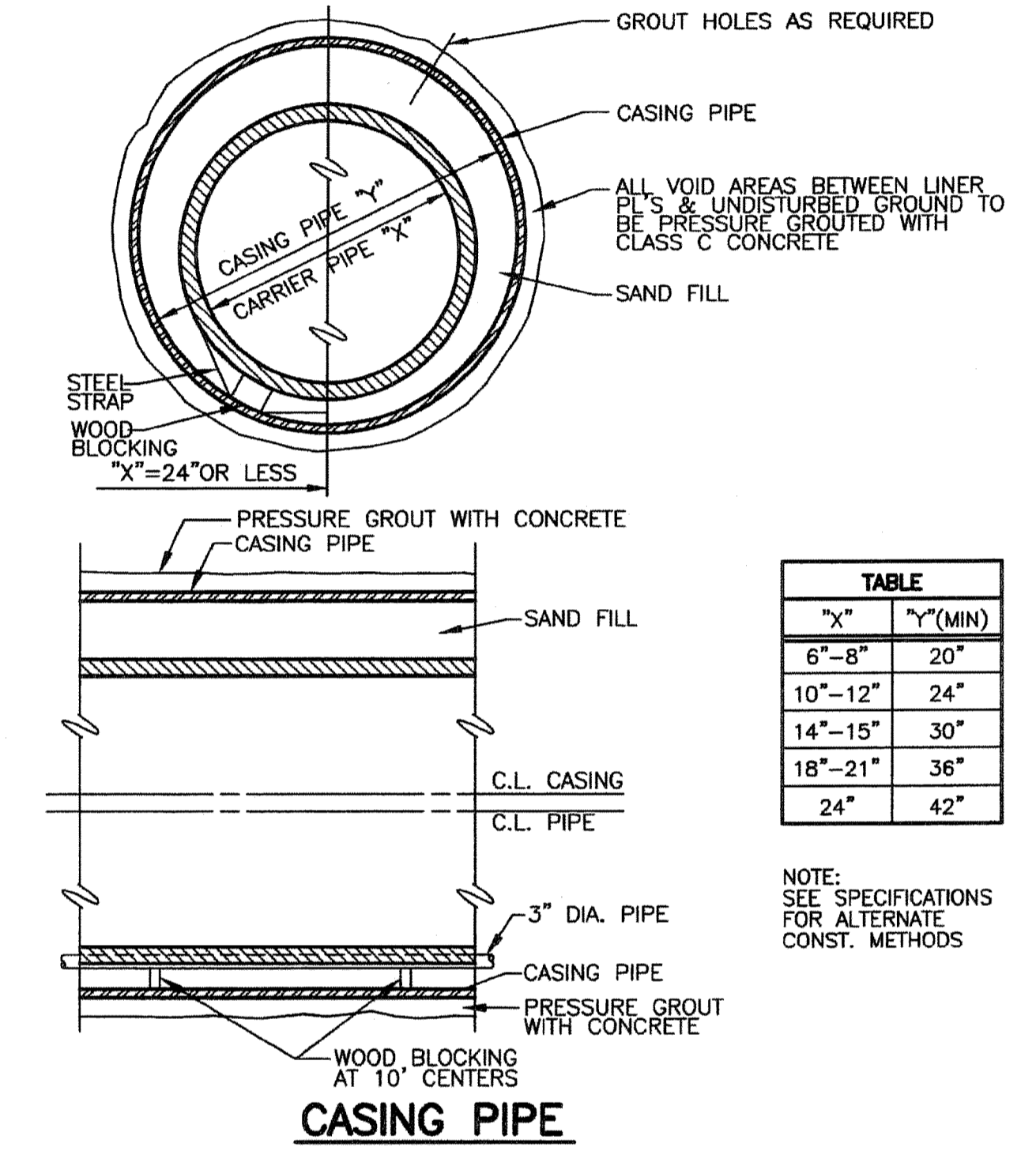
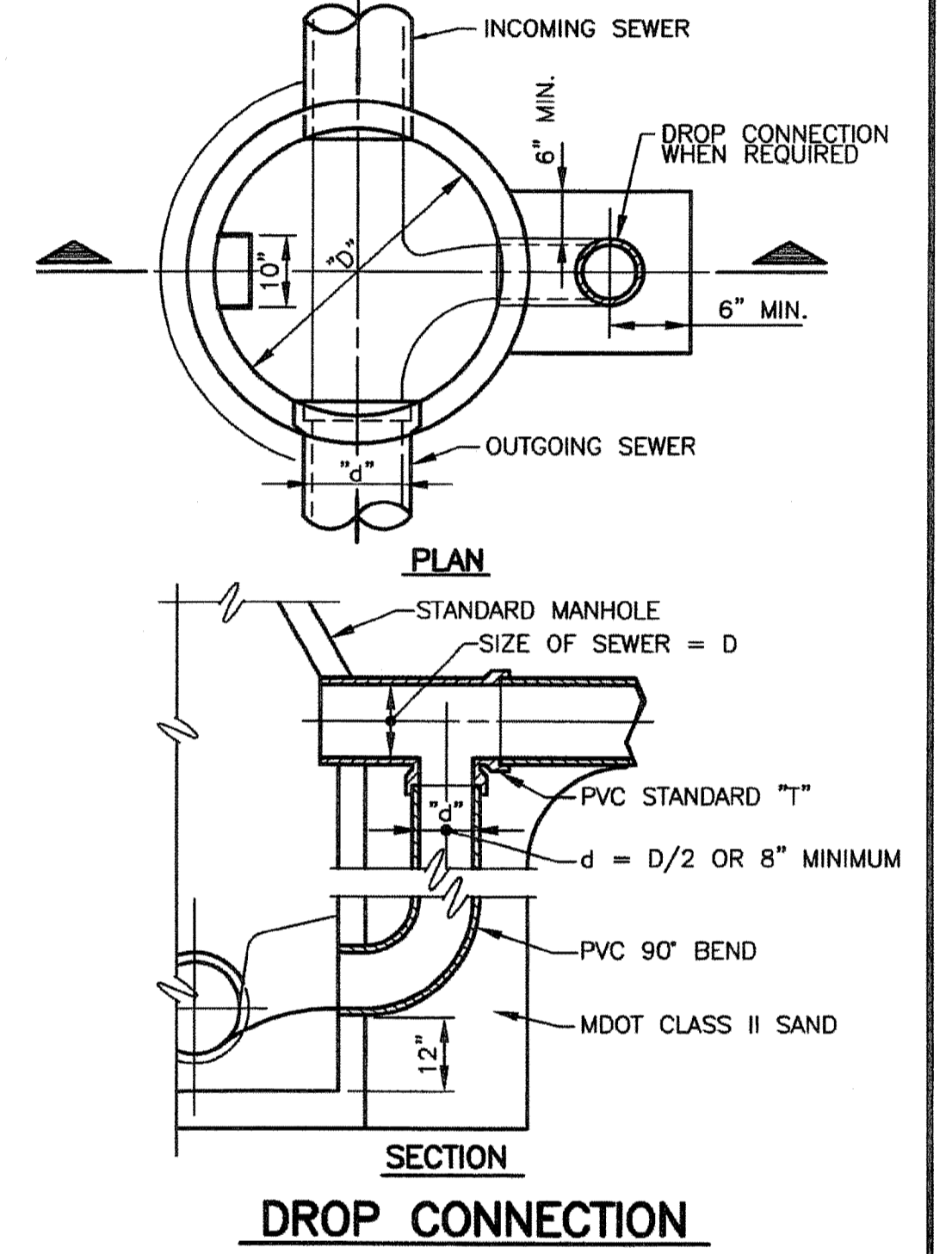
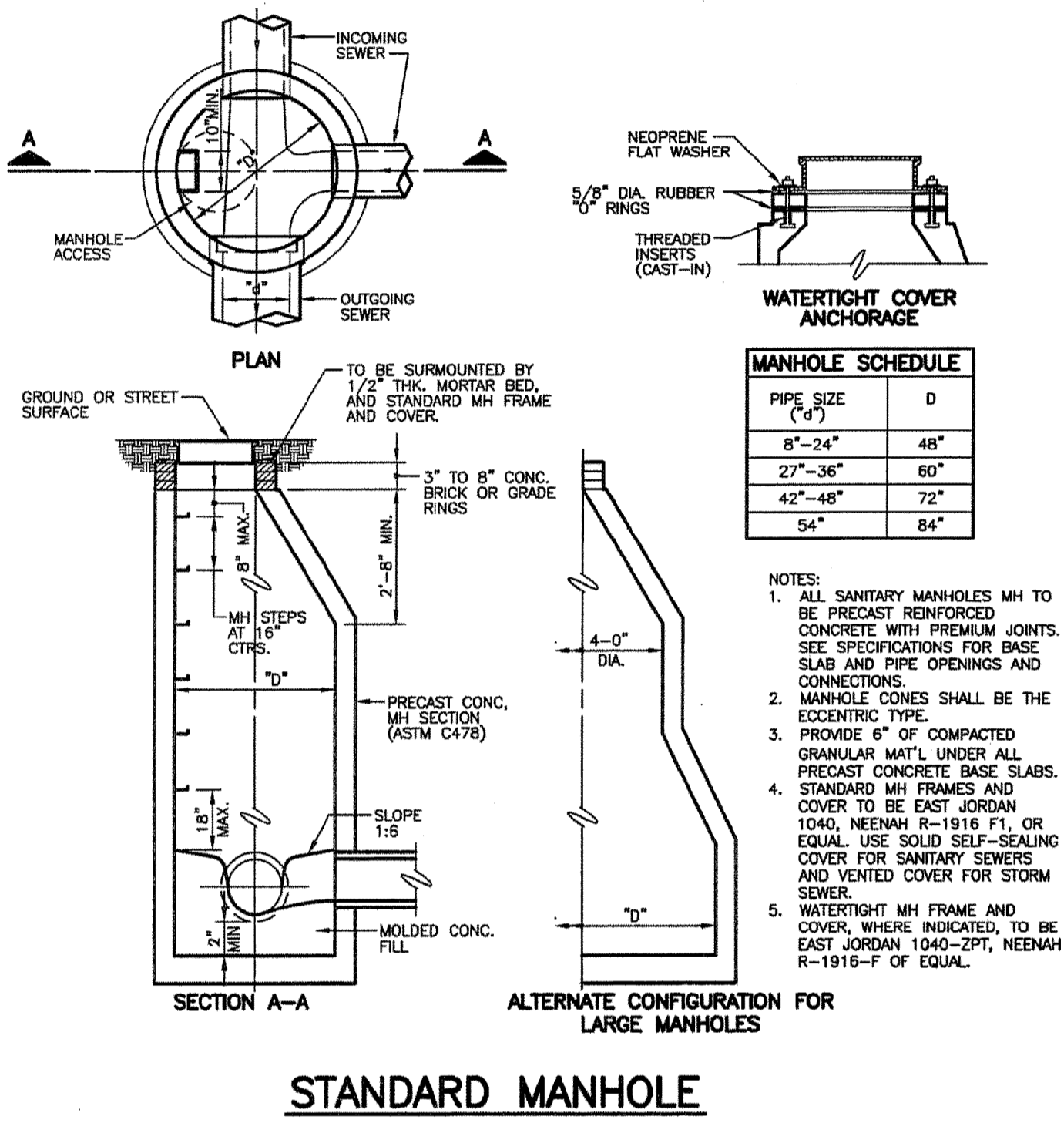
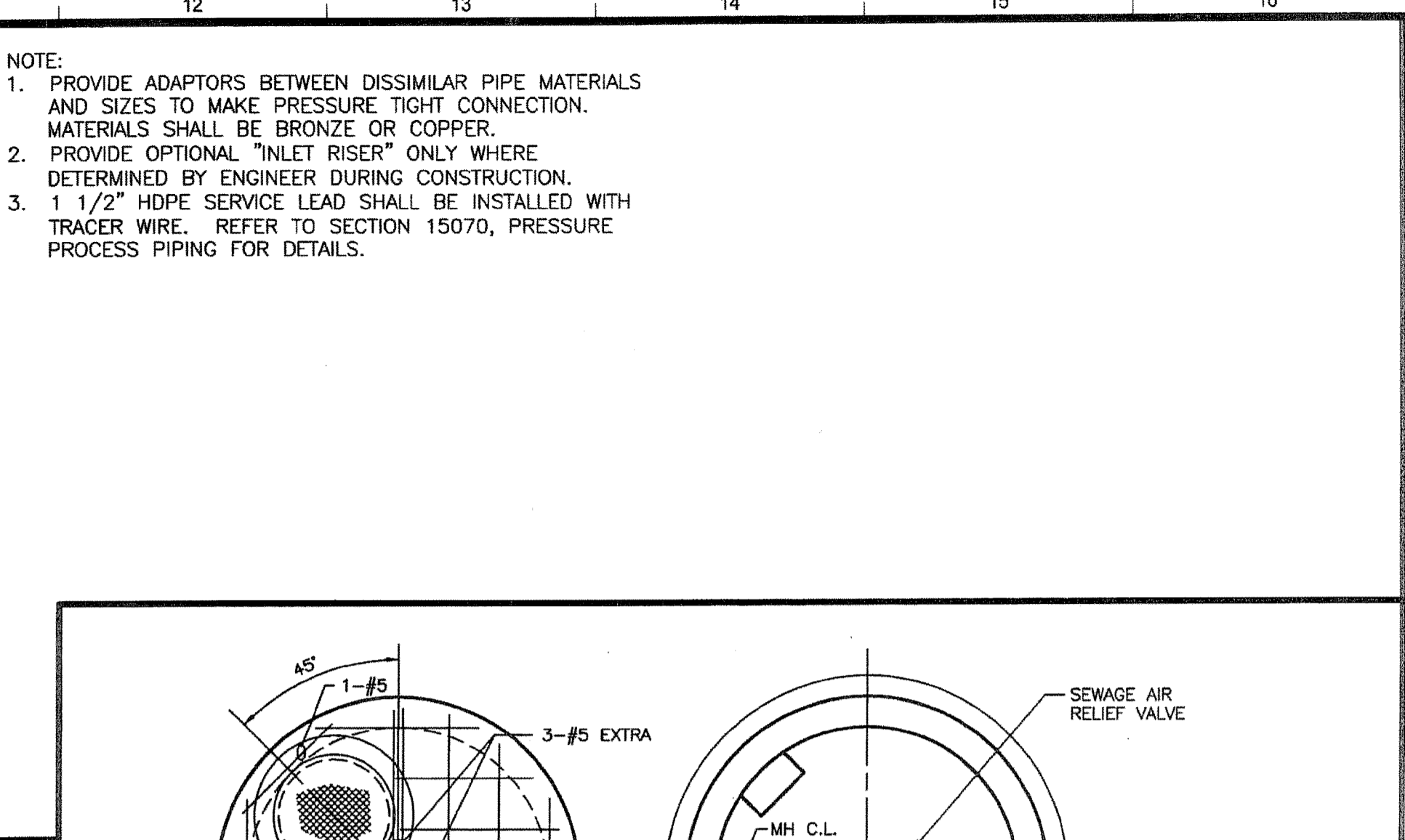
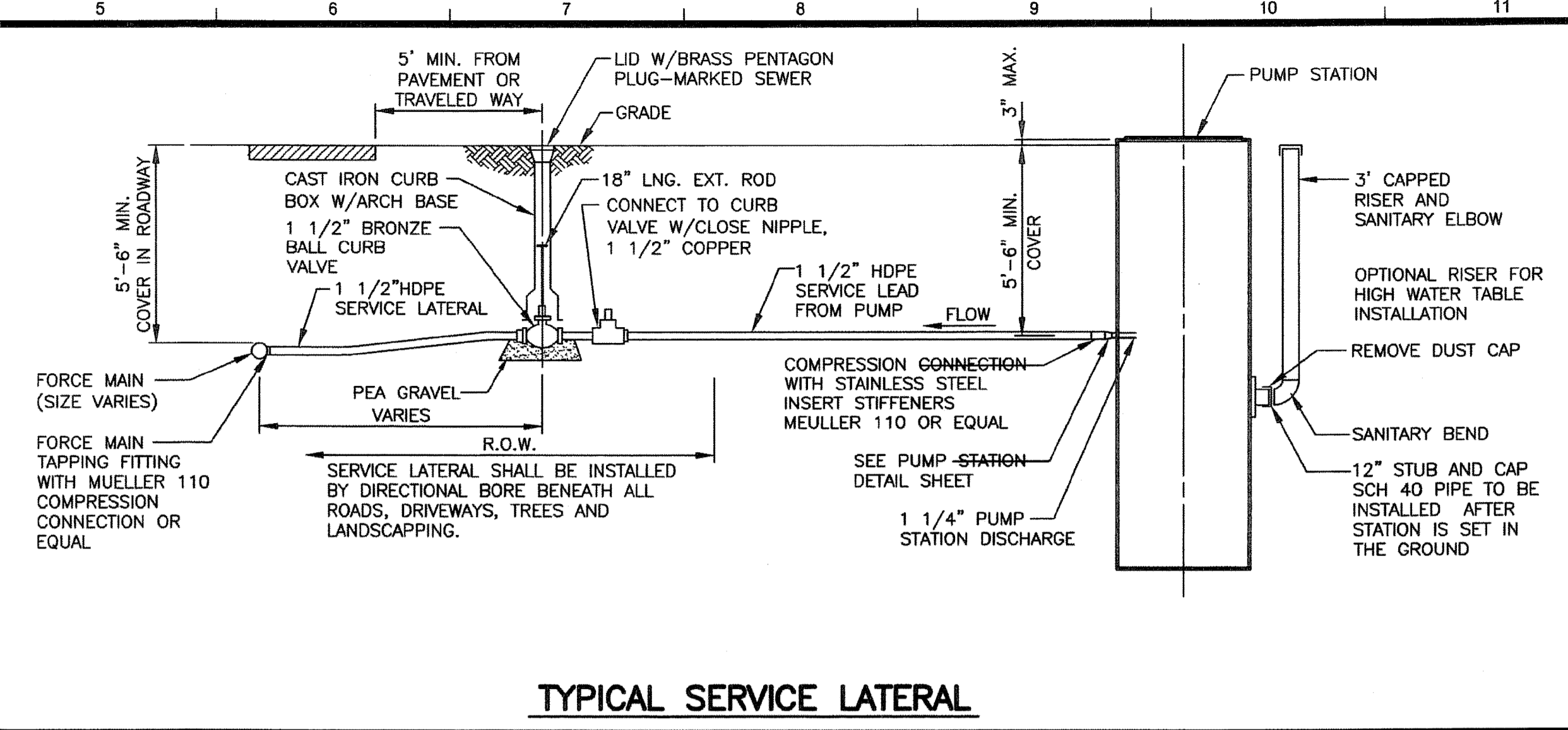
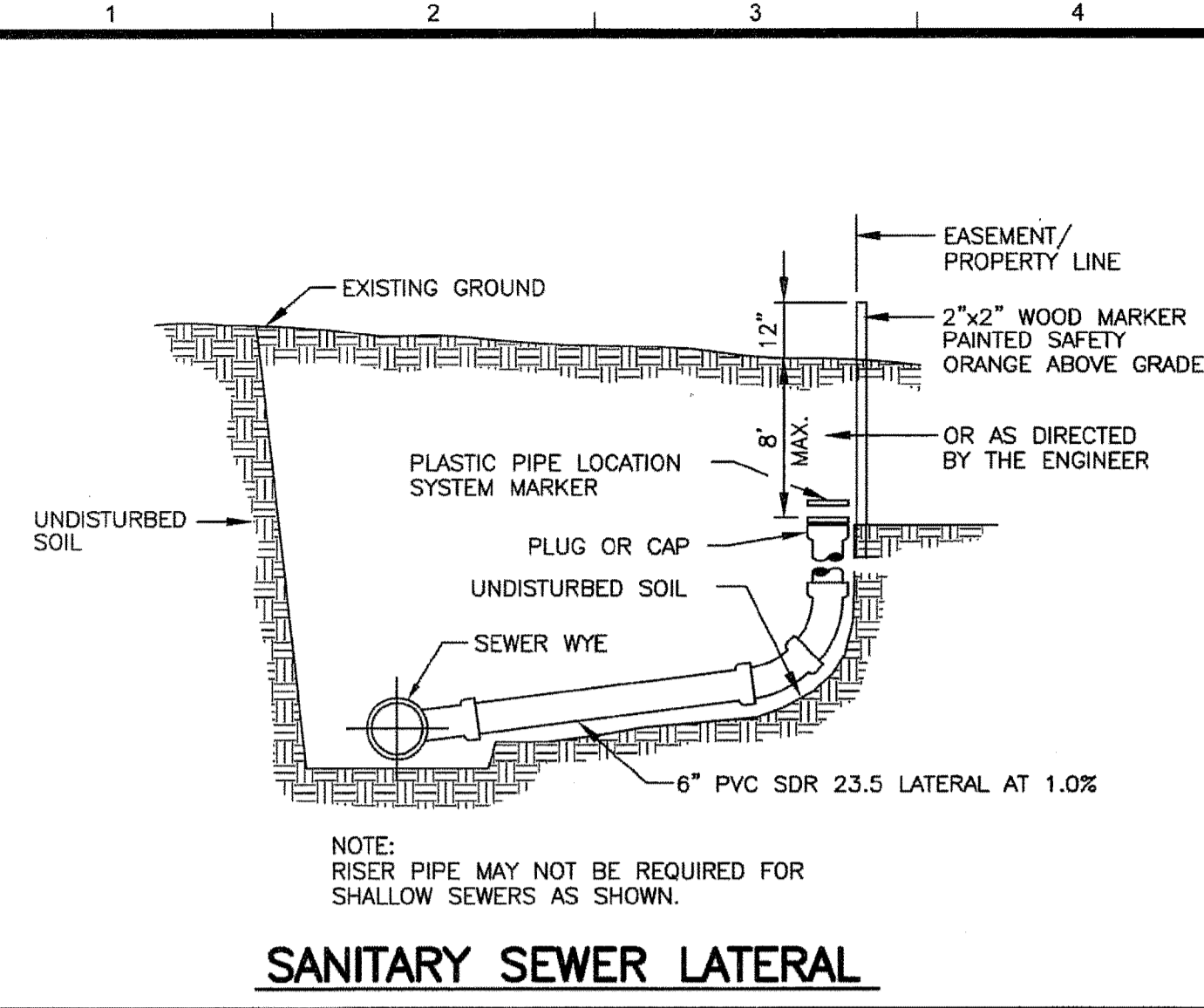


Legal Description (as provided):  
 Land in the County of Livingston, Township of Genoa, State of Michigan is described as follows: A part of the Northeast fractional quarter of Section 6, Town 2 North, Range 5 East, Michigan, described as follows: Commencing at the East 1/4 corner of said Section 6; thence North 1 degrees 17 minutes 20 seconds East 673.30 feet along the East Section line to the Northerly right-of-way line of Grand River Avenue (70 1/2 feet wide); thence North 61 degrees 40 minutes 16 seconds West 1686.45 Feet along said right-of-way line to the westerly right-of-way line of a 66 foot wide private road easement for ingress and egress as recorded in Liber 582, Page 33, Livingston County Records and the point of beginning of this parcel to be described; thence continuing North 61 degrees 40 minutes 16 seconds West 141.06 feet along said Northerly right-of-way line of Grand River Avenue to the Southeast corner of "Earl Lake Heights No. 1", a subdivision as duly laid out, platted and recorded in Liber 7 of Plats, Page 8, Livingston County Records; thence North 2 degrees 25 minutes 39 seconds East 226.04 feet along said subdivision line; thence continuing along said subdivision line North 7 degrees 38 minutes 16 seconds East 156.70 feet; thence South 76 degrees 45 minutes 35 seconds East 224.91 feet; thence South 12 degrees 11 minutes 55 seconds West 277.29 feet to the Northerly right-of-way line of said private road easement; thence North 73 degrees 59 minutes 53 seconds West 4.75 feet along said right-of-way line to the Westerly right-of-way line of said private road easement; thence South 19 degrees 36 minutes 21 seconds West 136.07 feet along said right-of-way line to the point of beginning.

REVISIONS		KYES ENGINEERING BRYAN LAND SURVEYS	
2-15-16	CLIENT REVIEW	2116 HASLETT ROAD, HASLETT, MI 48840	PH. 517-339-1014 FAX. 517-339-8047
3-2-16	SITE PLAN REVIEW	Marshall Office	Ph. 269-781-9800
3-23-16	SITE PLAN REVISIONS	<b>Howell Medical Building</b>	
EXISTING CONDITIONS PLAN			
SCALE: 1" = 30'	DESIGNER: GAP	APPROVED BY: GAP	
DATE: 10-30-15	PROJECT MGR. GAP	SHEET 5 OF 6	
AUTHORIZED BY:		JOB #:	89814
Studio Intrigue Architects, LLC			







Wednesday, July 16, 2008 11:30:05 AM DRAWING: L:\Cadd\BHM\GCM\mg-atc.dwg

**GENOA OCEOLA**  
Sewer and Water Authority

**SANITARY SEWER**  
STANDARD DETAILS

Scale: NONE  
Issued Date: 10-22-2007

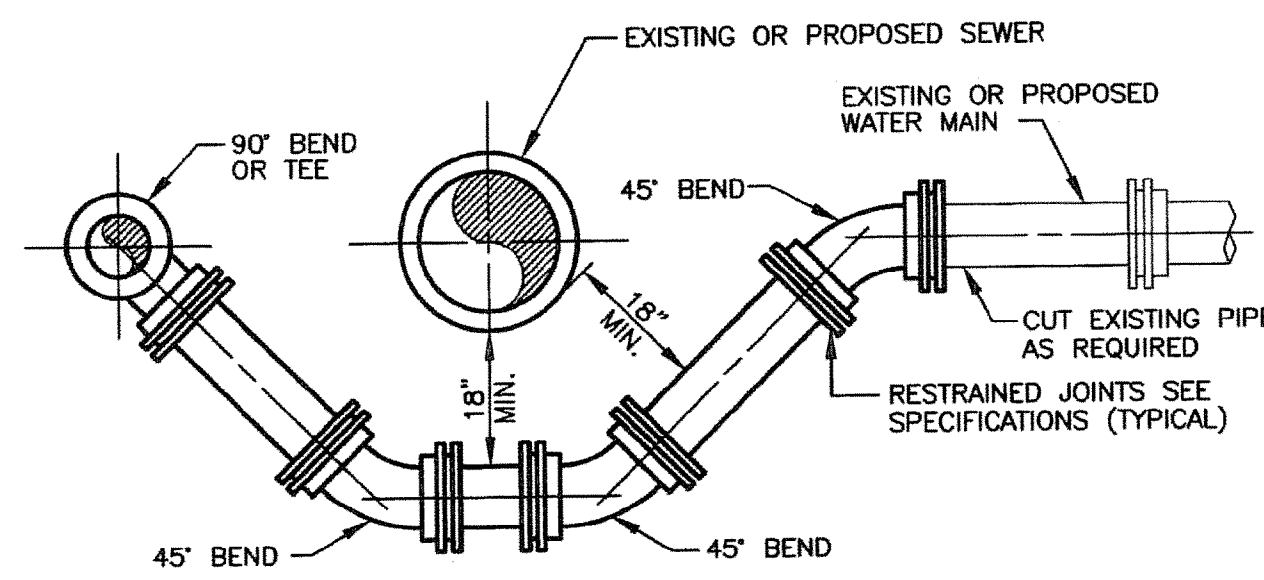
SHEET D1

**PIPE RESTRAINT SCHEDULE**  
GROUND BURIED PRESSURE PIPE - POLYETHYLENE ENCASED DUCTILE IRON PIPE

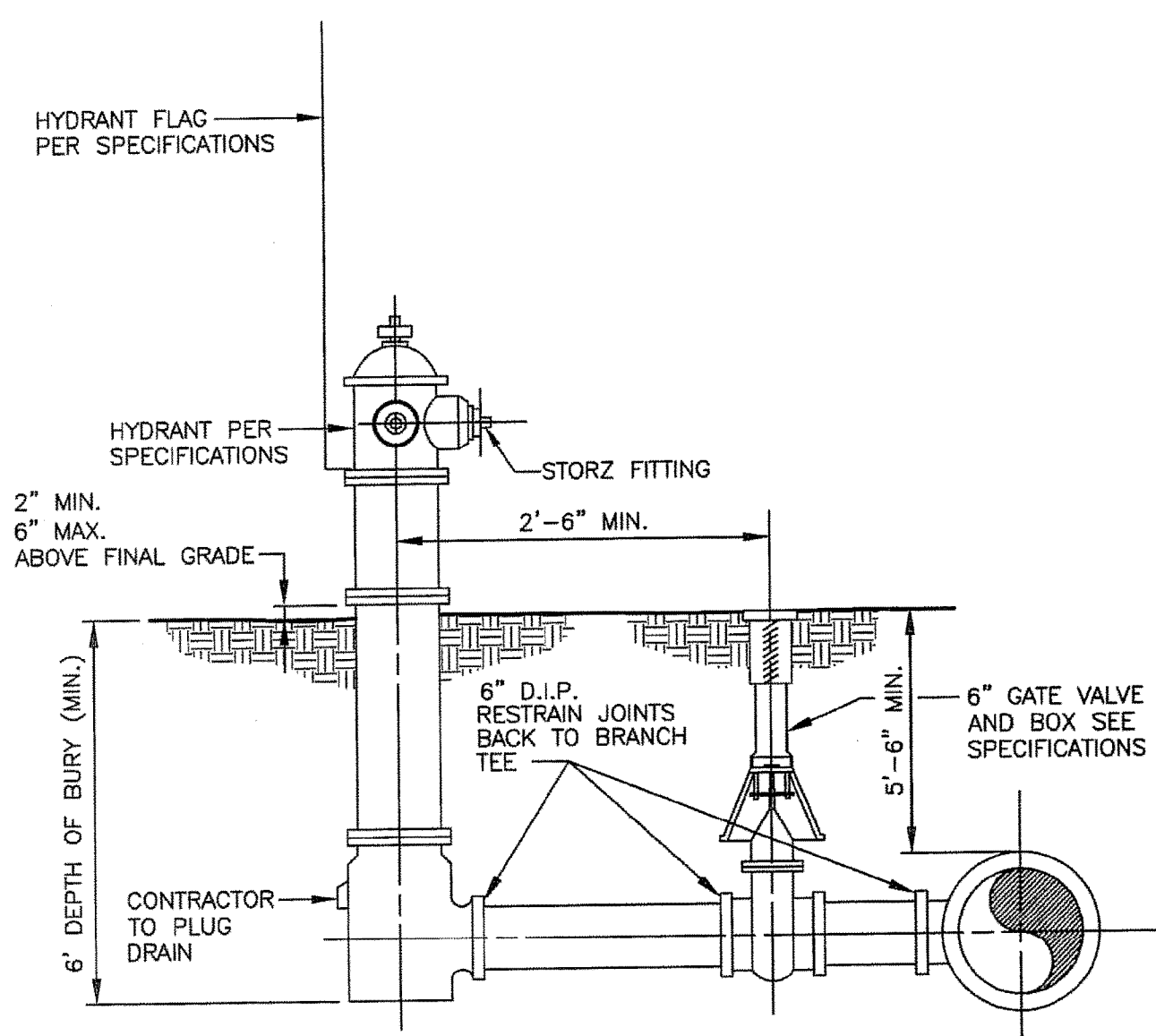
PIPE DIAMETER	TEES, 90° BENDS	45° BENDS	22-1/2° BENDS	11-1/4° BENDS	DEAD ENDS	REDUCERS (ONE SIZE REDUCTION)*	REDUCERS (TWO SIZE REDUCTION)*
4	13	5	3	1	40	--	--
6	19	8	4	2	58	31	--
8	24	10	5	2	75	30	70
12	34	14	7	3	107	57	116
16	43	18	9	4	139	59	137
20	52	22	10	5	169	59	134
24	61	25	12	6	199	60	132
30	73	30	15	7	242	85	168
36	84	35	17	8	281	84	188

- 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.

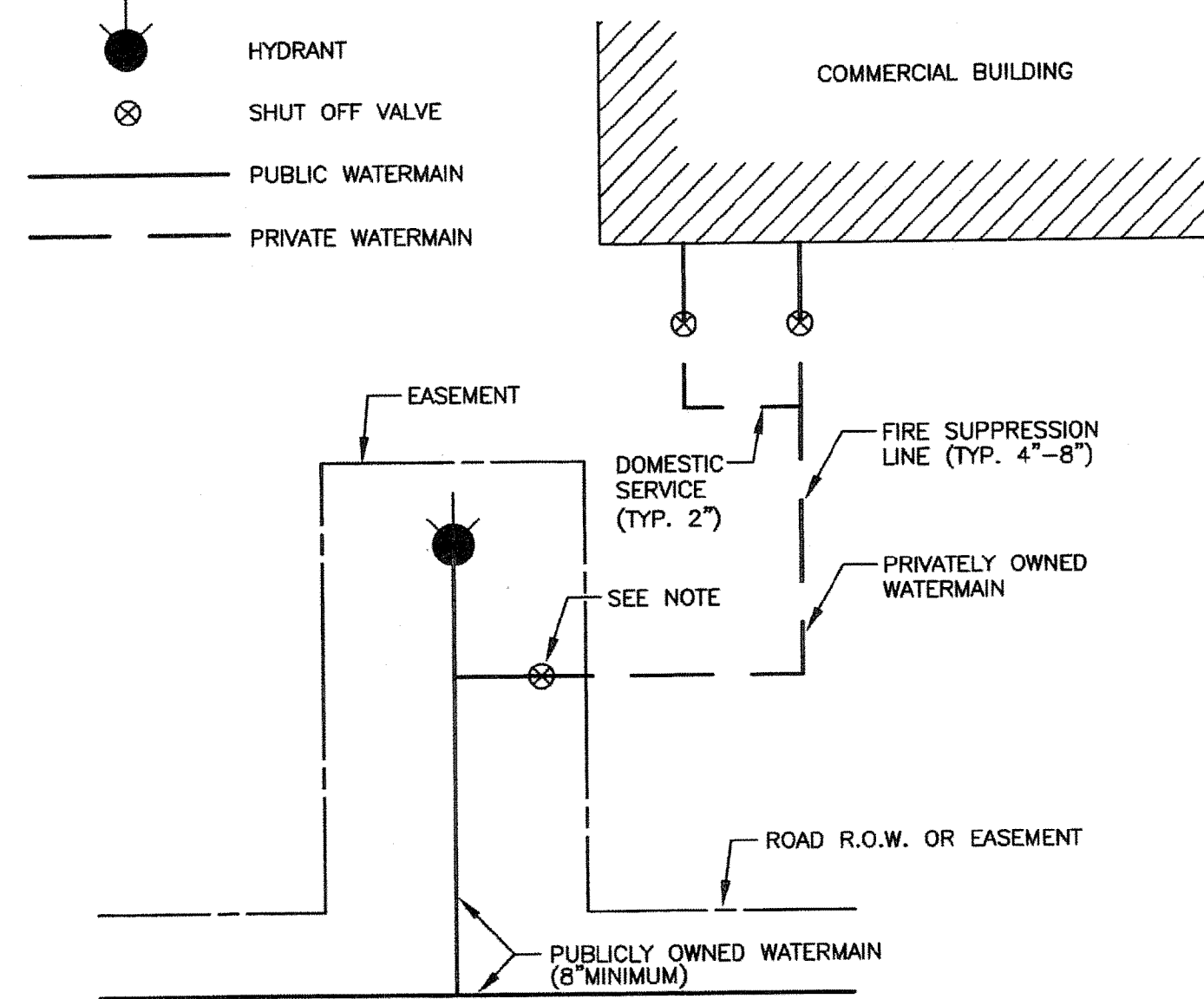
\* SIZE REDUCTION IS BASED UPON THE PIPE DIAMETER SHOWN IN THIS TABLE.  
BASED UPON:  
INTERNAL PRESSURE: 180  
PIPE DEPTH: 5  
BEDDING CLASS: TYPE 4  
SOIL TYPE: GOOD SAND  
SAFETY FACTOR: 2



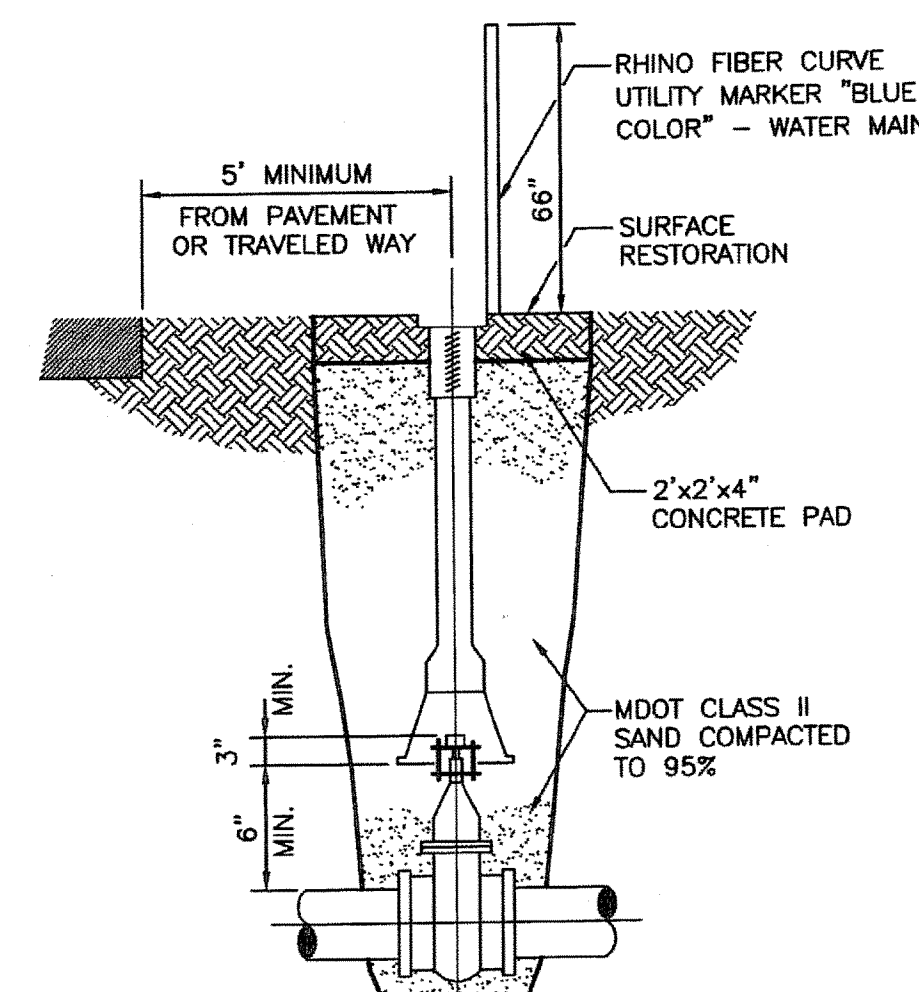
**WATER MAIN RELOCATION**



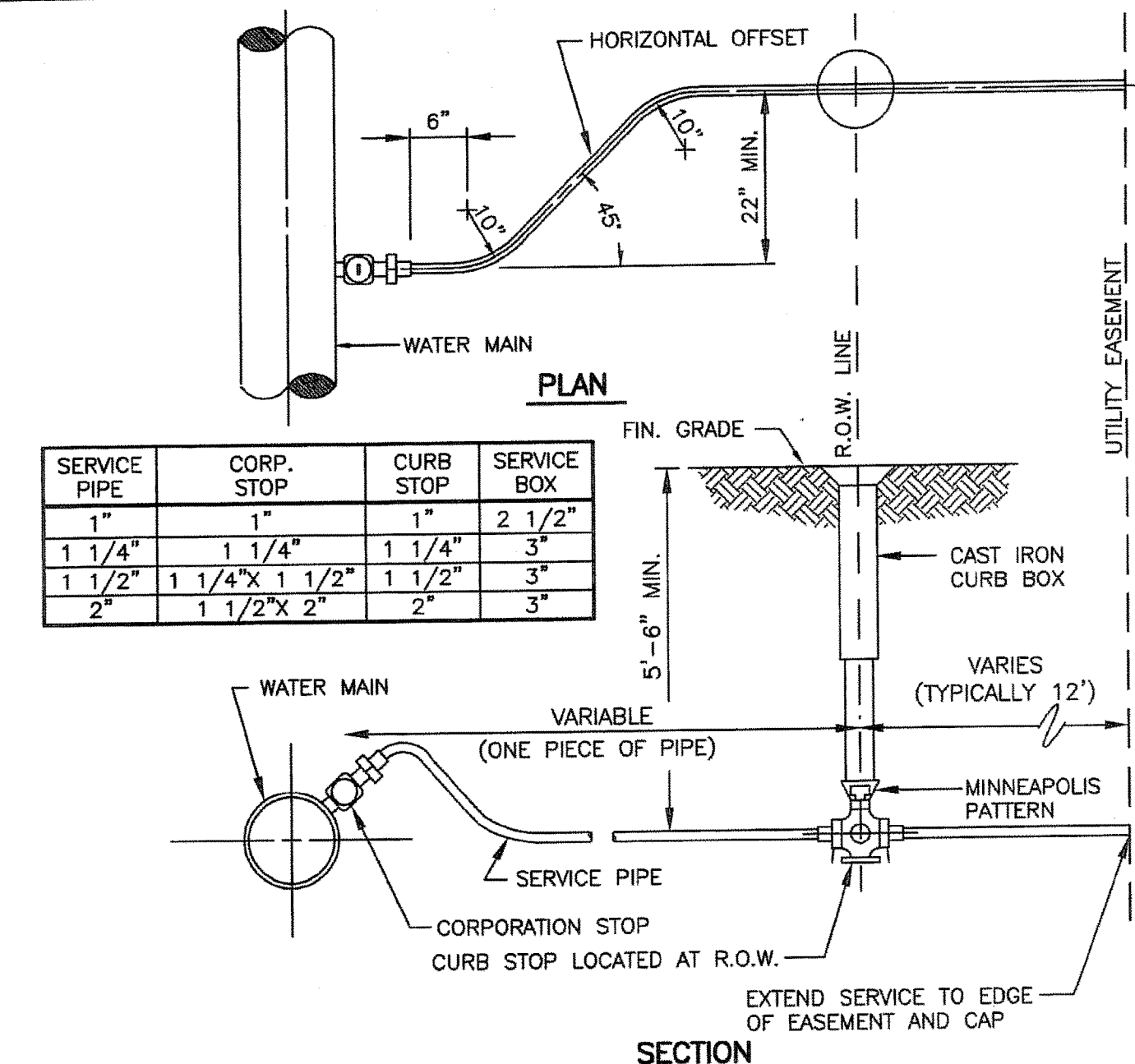
**FIRE HYDRANT ASSEMBLY**



**COMMERCIAL BUILDING WATER SERVICE LAYOUT**

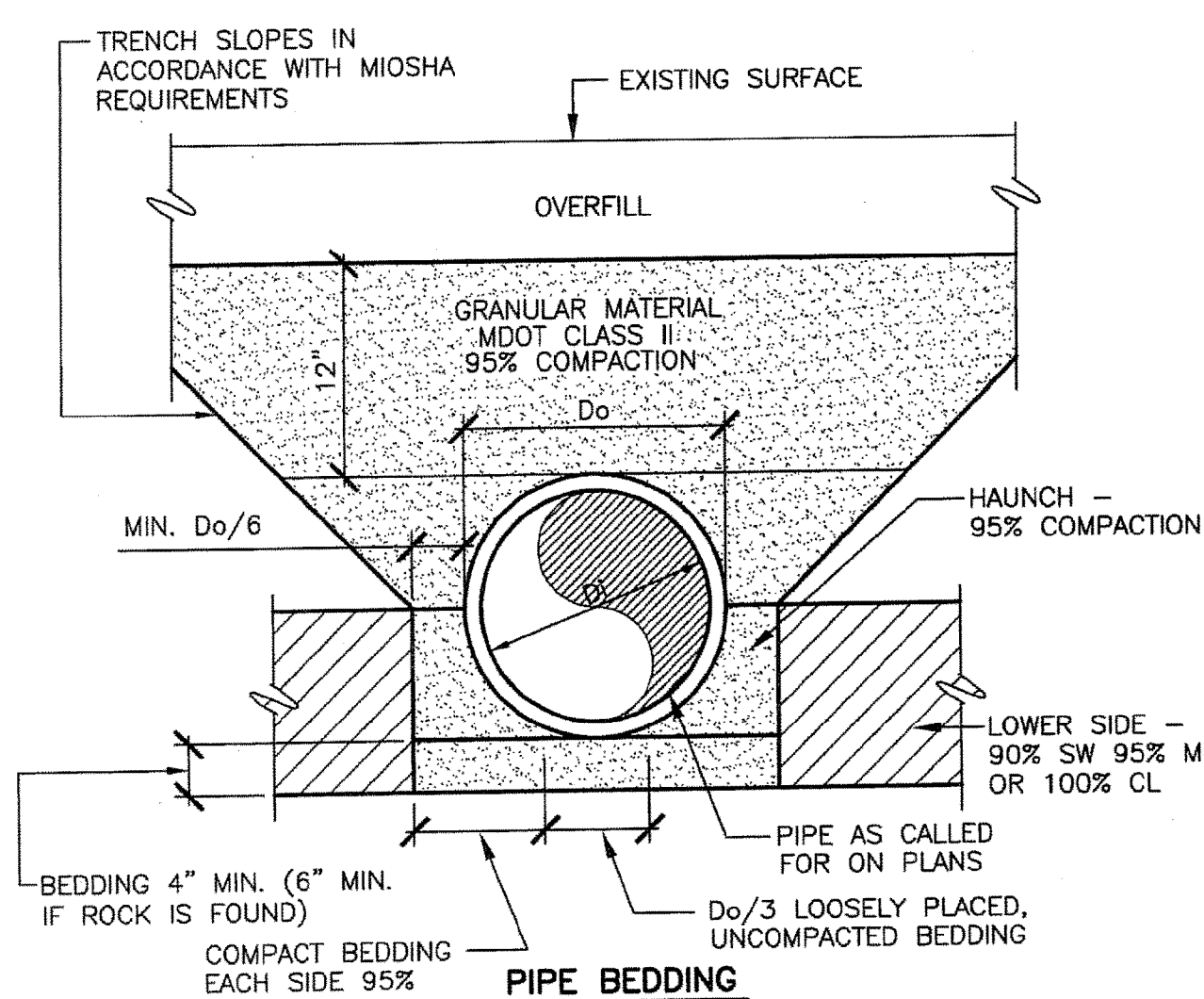


**GATE VALVE AND BOX**

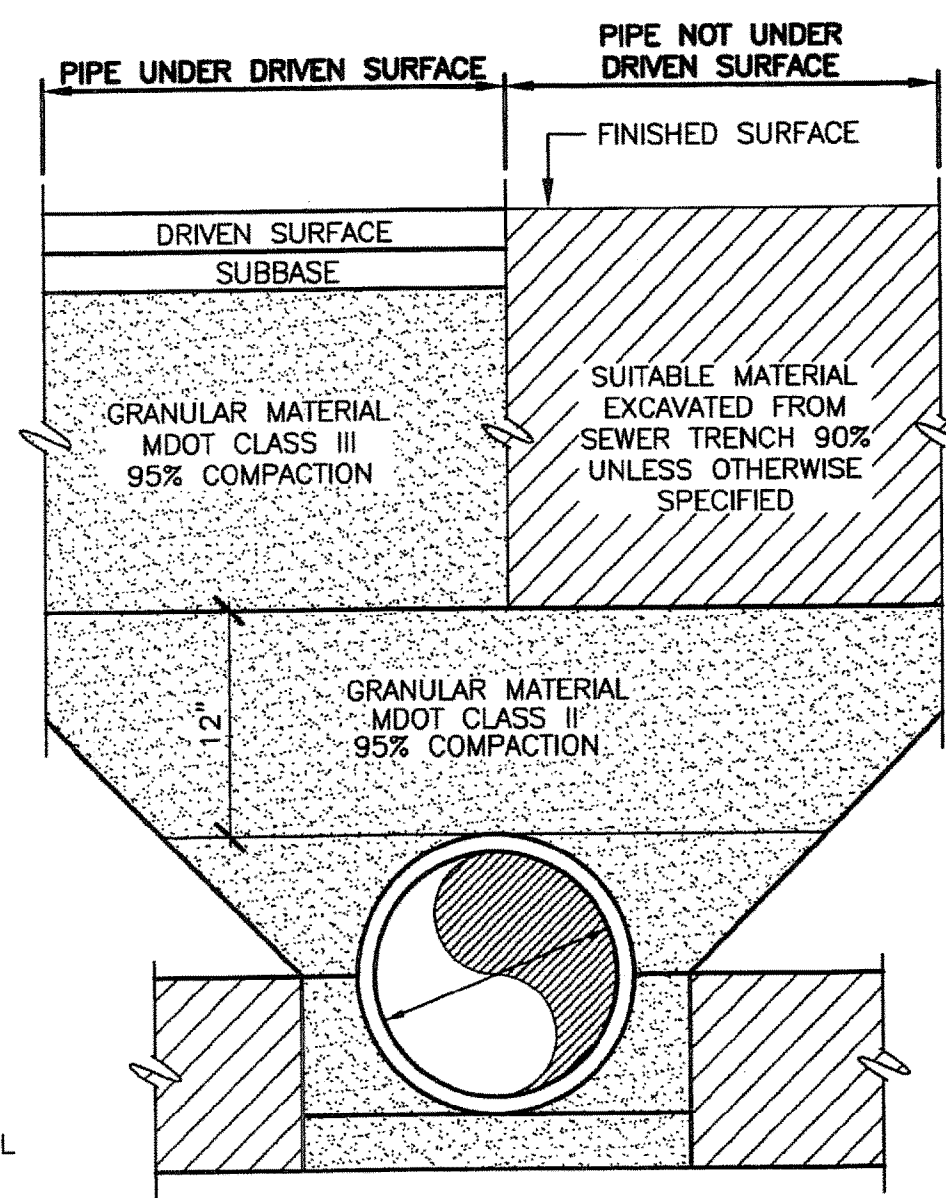


**WATER SERVICE LATERAL**

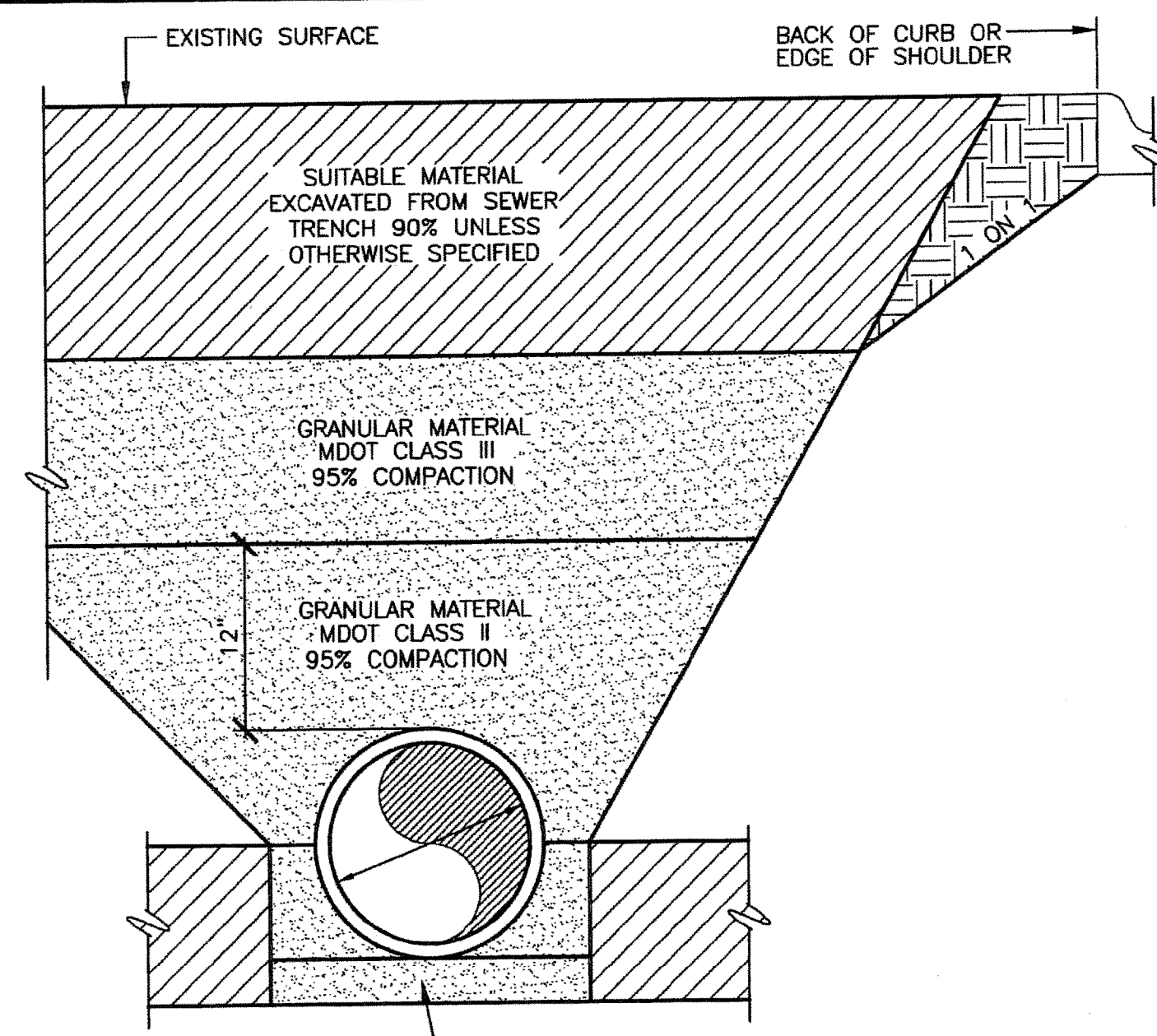
- NOTES:
- COMPACTION PRESENTED AS MINIMUM STANDARD PROCTOR VALUES.
  - MATERIALS AROUND THERMOPLASTIC PIPE WITH DIAMETER < 6 INCHES SHALL PASS 0.5 INCH SIEVE, MATERIALS AROUND OTHER PIPES SHALL PASS 1.5 INCH SIEVE.
  - MATERIALS AROUND HDPE PIPE TO BE MDOT 6A OR 21AA.
  - DRIVEN SURFACE IS DRIVEWAY, PARKING AREA, ROAD BED OR SHOULDER.



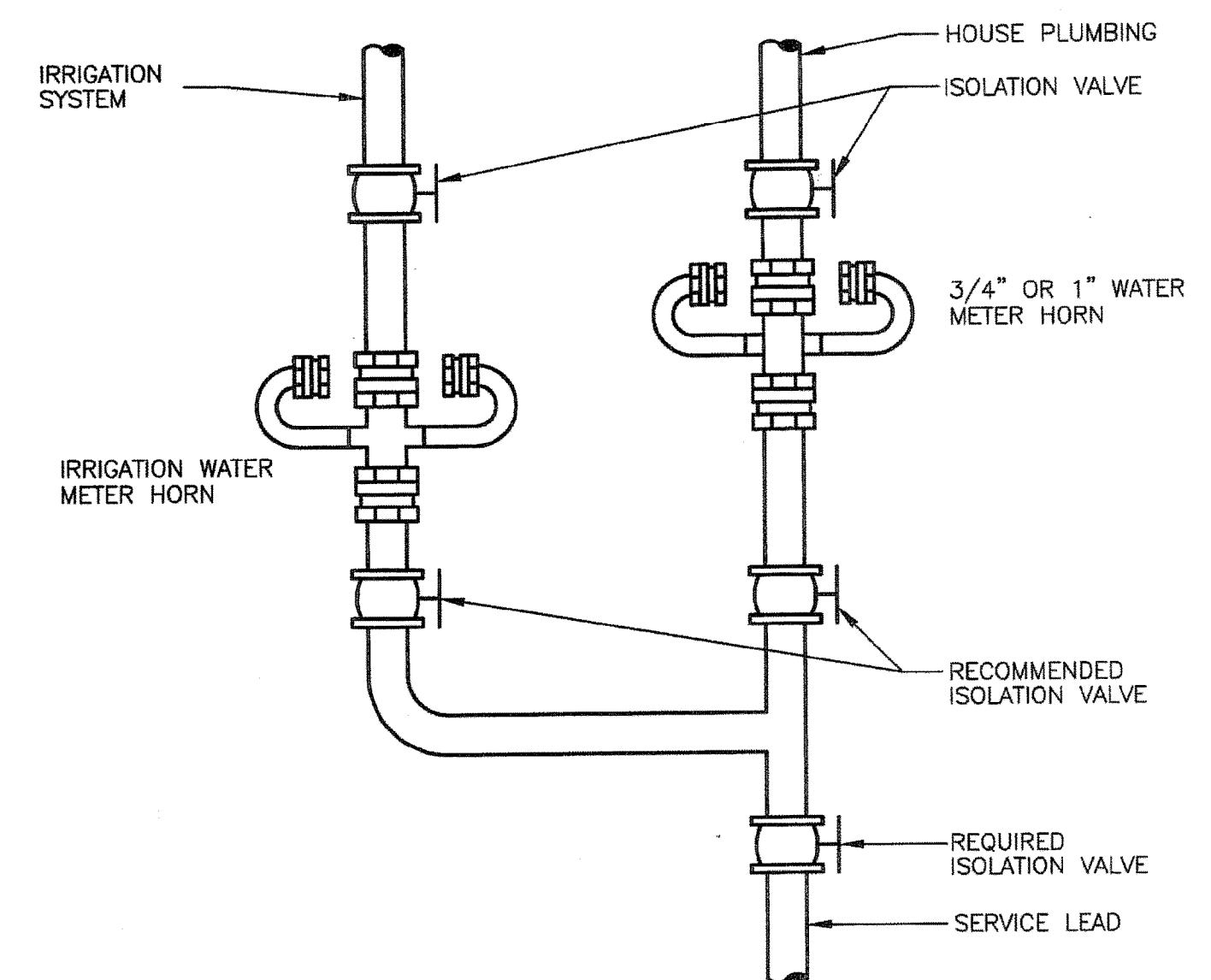
**PIPE BEDDING**



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



**PIPE WITHIN INFLUENCE OF DRIVEN SURFACE**



NOTE:  
ALL METERS ARE TO BE INSTALLED HORIZONTALLY IN A DRY, CLEAN, SANITARY LOCATION THAT IS READILY ACCESSIBLE. THIS DRAWING IS NOT TO SCALE & IS ONLY A REPRESENTATION OF HOW THE METERS SHOULD BE INSTALLED. THE SECOND METER IS OPTIONAL FOR IRRIGATION USAGE. METERS SHOULD NOT BE INSTALLED IN LINE (ONE RIGHT AFTER THE OTHER).

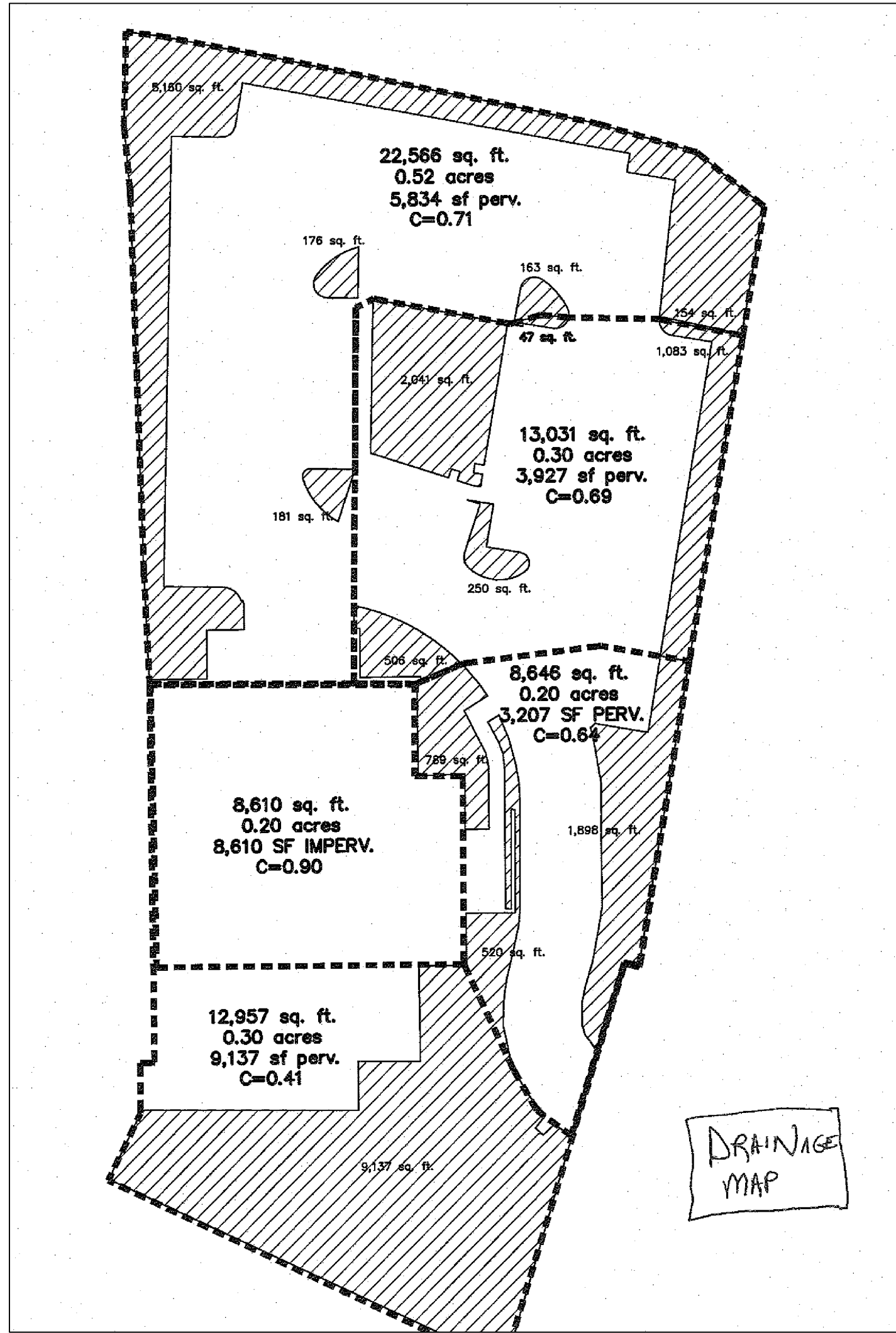
**TYPICAL METER HORN INSTALLATION**

**MARION HOWELL GENOA OCEOLA**  
Sewer and Water Authority

**WATER MAIN STANDARD DETAILS**

Scale: NONE  
Issued Date: 10-22-2007

SHEET 02



STORM DRAINAGE COMPUTATIONS BY: PROJECT: Howell Medical

KEBS, INC. 2116 Haslett Road, Haslett, MI 48840 (517) 339-1014 SHEET # 1 OF 1

CALCULATED BY: GP DATE: 3/2/2016

CHECKED BY: DATE:

**10 YEAR STORM**

STR #	LB#1	TO STR#	LB#2	INCREMENT AC. =	"C" =
				0.52	0.71
INCREMENT "CA" =	0.37	TOT AC. =	0.52	TOT "CA" =	0.37
Q10	1.76	SIZE	12	"V" =	2.88
INV. UP =	977.06	INV. DOWN =	976.60	HYD. %	0.24%
HYD EL UP =	978.26	HYD EL DOWN =	977.99	REMARKS	
RIM EL					

ALLOWABLE OUTFLOW (CFS) = 0.21  
DEVELOPED "CA" = 1.00

**STORAGE CALCULATIONS FOR A 100yr STORM**

$I = \frac{275}{25 + T}$

$Q_p (cfs) = \frac{\text{Allowable outflow}}{\text{Area} \times \text{Runoff coef.}} = 0.211$

$V_1 (cfs/Acre) = \frac{18500 \times T}{25 + T} \times (40 \times Q_p \times T) = 1292$

$V_1 (cft) = V_1 \times \text{Acres} \times \text{Runoff} = 12943$

**STORAGE CALCULATIONS FOR A 50yr STORM**

$I = \frac{200}{33 + T}$

$Q_p (cfs) = \frac{\text{Allowable outflow}}{\text{Area} \times \text{Runoff coef.}} = 0.211$

$V_1 (cfs/Acre) = \frac{14700 \times T}{25 + T} \times (40 \times Q_p \times T) = 9015$

$V_1 (cft) = V_1 \times \text{Acres} \times \text{Runoff} = 8988$

STORAGE COMPUTATIONS FOR: PROJECT: HOWELL MEDICAL - DETENTION

KEBS, Inc. 504 Lansing Road, Charlotte, MI 48813 Ph: 517-543-7076 Fax: 517-543-7023 SHEET # OF

CALCULATED BY: GP DATE: 02/10/16

CHECKED BY: DATE:

ALLOWABLE OUTFLOW (CFS) = 0.21  
DEVELOPED "CA" = 1.00

**STORAGE CALCULATIONS FOR A 100yr STORM**

$I = \frac{275}{25 + T}$

$Q_p (cfs) = \frac{\text{Allowable outflow}}{\text{Area} \times \text{Runoff coef.}} = 0.211$

$V_1 (cfs/Acre) = \frac{18500 \times T}{25 + T} \times (40 \times Q_p \times T) = 1292$

$V_1 (cft) = V_1 \times \text{Acres} \times \text{Runoff} = 12943$

**STORAGE CALCULATIONS FOR A 50yr STORM**

$I = \frac{200}{33 + T}$

$Q_p (cfs) = \frac{\text{Allowable outflow}}{\text{Area} \times \text{Runoff coef.}} = 0.211$

$V_1 (cfs/Acre) = \frac{14700 \times T}{25 + T} \times (40 \times Q_p \times T) = 9015$

$V_1 (cft) = V_1 \times \text{Acres} \times \text{Runoff} = 8988$

**Standpipe Dimensions for Detention Pond (First Flush, Bank Full, 100 yr Flood)**

Storm Outlet: MDOT CB AT GRAND RIVER AVE. Existing "C" Value: 0.20  
Job Name: HOWELL MEDICAL BUILDING Proposed "C" Value: 0.48  
Job Number: E-89814 Maximum Allowable Outflow (CFS): 0.21  
Drainage Area (Acres): 1.51 Required Detention Volume (ft<sup>3</sup>): 12943

**STORAGE PROVIDED**

Elevation (ft)	Area (ft <sup>2</sup> )	Incremental Volume (ft <sup>3</sup> )	Detention Pond Volume (ft <sup>3</sup> )
979.0	5588.000	3035	16623
978.0	4482.000	3995	11588
977.0	3508.000	3049	7593
976.0	2590.000	2171	4544
975.00	1752.000	1407	2373
974.0	1062.000	821	966
973.0	580.000	145	145
972.5	0.000		

Detention Pond Storage Capacity (ft<sup>3</sup>) = 16623

100 yr Flood Storage Requirement (ft<sup>3</sup>) = 12943 Storage Elevation (ft) = 978.27

Area =  $Q / (0.62 \times \text{SQRT}(2.4 \times h))$   
 $Q_{FF} + Q_{BF}$  (CFS) = 0.06 A 1.0" diameter hole has an area of 0.0055 ft<sup>2</sup>  
 $Q_{100} - (Q_{FF} + Q_{BF})$  (CFS) = 0.15 Use 4 1.0" holes at 976.45

Bank Full Storage Requirement (ft<sup>3</sup>) = 5922 Storage Elevation (ft) = 976.45

$(V_{BF} - 8170 \times (A_0 \times C))$  The bank full storm is the 24 hour, 2 year storm event.  
Check first flush holes:  
 $V_1$  (ft<sup>3</sup>) = -3986 A 1" diameter hole has an area of 0.0055 ft<sup>2</sup>  
 $Q_{FF}$  (CFS) = 0.04  $Q_{BF}$  (CFS) = -0.09 Use 0 1" holes at  
 $T_{FF}$  (hrs) = 37.0  $(Q_{FF} - 2/3 T)$  (ft<sup>3</sup>) = 0.89 (FF holes are sufficient, < 40 hrs, First flush orifices are sufficient) Discharge Area (ft<sup>2</sup>) = -0.0200

First Flush Storage Requirement (ft<sup>3</sup>) = 2631 Storage Elevation (ft) = 975.12

$(V_{FF} - 1815 \times (A_0 \times C))$  The first flush storm is the first 1" of rain over the entire watershed.  
Allowable  $Q_{FF}$  (CFS) = 0.030 A 1.0" diameter hole has an area of 0.0055 ft<sup>2</sup>  
 $(Q_{FF} - 2/3 T)$  (ft<sup>3</sup>) = 1.46  
Discharge Area (ft<sup>2</sup>) = 0.005  $T_{FF}$  (hrs) = 22.1 Use 1 1.0" holes at 972.50  
(Area =  $Q / (0.62 \times \text{SQRT}(2.4 \times h))$ )

KEBS INC. 2116 Haslett Road, Haslett, MI 48840 (517) 339-1014  
Runoff Detention Required: First Flush 2631 CFT, Bank Full 5922 CFT, 100 Year 12943 CFT  
By: BRUCE PORTER Date: 2/25/2016

**BIO-RETENTION TRENCH # 1** Job Name: HOWELL MEDICAL, Job Number: 89814, Date:

CALCULATED C VALUE Area: 0.52 ac.

Calculated  $C_{avg}$  = 0.71

REQUIRED FIRST FLUSH VOLUME: 671 cft

BIO-RETENTION TRENCH CAPACITY: 672 cft

T / BIO-RETENTION TRENCH: 981.00 ft.

ASSUME TRENCH WIDTH: 18 ft.

SIZE OF UNDERDRAIN: 6 in.

AREAS:

6 in topsoil/compost	9 cft/ft	e = 1
8 in 2ns sand	12 cft/ft	e = 0.75
18 in 6AA stone	42.00 sf	### cft/ft e = 1
6 in Pipe Dia.	0.20 cft/ft	
4 in. Pipe Bedding		

VOLUME (SOLIDS):

topsoil/compost	4.5 cft/ft
2ns Sand	6.86 cft/ft
6AA Stone	20.9 cft/ft

TOTAL VOLUME OF SOLIDS: 32.3 cft/ft

TOTAL VOLUME: 62.80 cft/ft

VOLUME OF VOIDS: 30.54 cft/ft

LENGTH OF BIO-RETENTION TRENCH: 21.971 ft, 22 ft

LENGTH USED IN DESIGN: 22 ft

REQUIRED FIRST FLUSH VOLUME: WIDTH 18 ft, LENGTH 22 ft

SQUARE FEET NEEDED: 396 sq.ft.

IE. OF UNDERDRAIN: 977.83 ft

**BIO-RETENTION TRENCH # 2** Job Name: HOWELL MEDICAL, Job Number: 89814, Date:

CALCULATED C VALUE Area: 0.30 ac.

Calculated  $C_{avg}$  = 0.69

REQUIRED FIRST FLUSH VOLUME: 376 cft

BIO-RETENTION TRENCH CAPACITY: 413 cft

T / BIO-RETENTION TRENCH: 981.80 ft.

ASSUME TRENCH WIDTH: 30 ft.

SIZE OF UNDERDRAIN: 6 in.

AREAS:

6 in topsoil/compost	15 cft/ft	e = 1
6 in 2ns sand	15 cft/ft	e = 0.75
12 in 6AA stone	55.00 sf	### cft/ft e = 1
6 in Pipe Dia.	0.20 cft/ft	
4 in. Pipe Bedding		

VOLUME (SOLIDS):

topsoil/compost	7.5 cft/ft
2ns Sand	8.58 cft/ft
6AA Stone	27.4 cft/ft

TOTAL VOLUME OF SOLIDS: 43.5 cft/ft

TOTAL VOLUME: 84.80 cft/ft

VOLUME OF VOIDS: 41.32 cft/ft

LENGTH OF BIO-RETENTION TRENCH: 9.0997 ft, 9 ft

LENGTH USED IN DESIGN: 10 ft

REQUIRED FIRST FLUSH VOLUME: WIDTH 30 ft, LENGTH 10 ft

SQUARE FEET NEEDED: 300 sq.ft.

IE. OF UNDERDRAIN: 979.30 ft

Michigan Department of Transportation 2484 (06/07)

**DRAINAGE DESIGN CHECKLIST FOR ACCESSING STATE TRUNKLINES**

ALL FIELDS SHALL BE COMPLETED!

Design Summary

Frequency	Existing flow to MDOT ROW		Proposed flow to MDOT ROW				Water Surface Elevation (ft)
	Discharge (cfs)	Run off Volume (cft)	Discharge (cfs)	Velocity* (ft/s)	Run off Volume (cft)	Discharge (cfs)	
10-year Storm Event	0.21	126	4.38	N/A	2628		250.2
50-year Storm Event	0.27	162	5.52	N/A	3312		315.0
100-year Storm Event Harmful Interference Evaluated	0.29	174	5.98	N/A	3588		344 (978.27 USE CH)
Drainage Area (Acres)	0.24		1.51				
Design Storage Volume (cft)							13,943

\* Not applicable (N/A) if "sheet flow" into MDOT right of Way, or detention is proposed.  
\*\* Difference in volume between the proposed and existing conditions.  
i.e. Required Storage Volume = Proposed Volume - Existing Volume.  
or (N/A) if Proposed Volume < Existing Volume  
\*\*\* Not required, i.e. Proposed discharge is less than or equal to the existing discharge.

**Certification**

I, \_\_\_\_\_ P.E., have prepared the attached plans and specifications for the proposed drainage system. The proposed outlet control from this drainage system is discharged at a flow rate equal to or less than the existing flow rate conditions into the MDOT storm water conveyance system; the velocity discharged is properly dissipated; there exists sufficient storage on the permit applicant's property for all the range of flows summarized above, so that no harmful interference to MDOT ROW or adjacent properties will be caused as a result of utilizing this facility. This discharge to MDOT's stormwater system will not cause a violation of MDOT's National Pollution Discharge Elimination System storm water discharge permit.

Michigan Professional Engineer License Number: \_\_\_\_\_

This document shall be sealed in the space provided to the left and submitted with the permit package.

REVISIONS

3-2-16 SITE PLAN REVIEW
3-23-16 SITE PLAN REVISIONS

KEBS, INC. KYES ENGINEERING BRYAN LAND SURVEYS  
2116 HASLETT ROAD, HASLETT, MI 48840  
PH. 517-339-1014 FAX. 517-339-8047  
Marshall Office Ph. 269-781-9800

**Howell Medical Building**

STORM CALCULATIONS

SCALE: NONE	DESIGNER: G.A.P.	APPROVED BY: G.A.P.
DATE: 10-30-15	PROJECT MGR: G.A.P.	SHEET D3
AUTHORIZED BY: Studio Intrigue Architects, LLC		JOB # 89814

# PLANT SCHEDULE

Shade Trees	Key	Quantity	Botanical Name	Common Name	Size	Remarks
AR	7	Acer rubrum 'Frank Jr.'	Redpointe Maple	2.5" Cal.	Min. 6' Branch Height	
AB	5	Acer rubrum 'Bowhall'	Bowhall Maple	2.5" Cal.	Min. 6' Branch Height	
CO	2	Celtis occidentalis	Hackberry	2.5" Cal.	Min. 6' Branch Height	
GT	4	Gleditsia triacanthos var. inermis	Thornless Honeylocust	2.5" Cal.	Min. 6' Branch Height	
LT	3	Liriodendron tulipifera	Tulip Tree	2.5" Cal.	Min. 6' Branch Height	
TD	5	Taxodium distichum 'Mickelson'	Shawnee Brave Bald Cypress	2.5" Cal.	Min. 6' Branch Height	
TT	5	Tilia tomentosa 'Sterling'	Sterling Silver Linden	2.5" Cal.	Min. 6' Branch Height	

Evergreen Trees	Key	Quantity	Botanical Name	Common Name	Size	Remarks
AC	3	Abies concolor	Concolor Fir	6' Tall	Non-sheared	
JV	8	Juniperus virginiana 'Hetz Columnaris'	Hetz Columnaris Juniper	6' Tall	Non-sheared	
PI	1	Pinus flexilis 'VanderWolf's Pyramid'	VanderWolf's Pyramid Limber Pine	6' Tall	Non-sheared, Specimen	
PO	8	Picea omorika	Serbian Spruce	6' Tall	Non-sheared	

Ornamental Trees	Key	Quantity	Botanical Name	Common Name	Size	Remarks
AG	3	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	6' Tall	Multi-stem	
AP	1	Acer palmatum dissectum 'Crimson Queen'	Crimson Queen Japanese Maple	4' Tall	Specimen	
CF	2	Cercis canadensis 'Forest Pansy'	Forest Pansy Redbud	2" Cal.	Specimen	
SR	1	Syringa reticulata 'Ivory Silk'	Japanese Tree Lilac	2" Cal.	Specimen	

Evergreen Shrubs	Key	Quantity	Botanical Name	Common Name	Size	Remarks
BG	22	Buxus 'Green Velvet'	Green Velvet Boxwood	18" Tall	3' O.C.	
BM	7	Buxus 'Green Mountain'	Green Mountain Boxwood	24" Tall	3.5' O.C.	
PA	10	Picea abies 'Nidiformis'	Bird's Nest Spruce	24" Spread	3.5' O.C.	

Deciduous Shrubs	Key	Quantity	Botanical Name	Common Name	Size	Remarks
CE	4	Cephalanthus occidentalis 'Sugar Shack'	Sugar Shack Buttonbush	24" Tall	5' O.C.	
CR	12	Cornus sericea 'Kelsey'	Dwarf Red-osier Dogwood	24" Tall	4' O.C.	
CN	3	Cornus sericea 'Isanti'	Isanti Dogwood	24" Tall	6' O.C.	
HS	15	Hydrangea serrata 'Tuff Stuff'	Tuff Stuff Hydrangea	24" Tall	3' O.C.	
HA	8	Hydrangea arborescens 'Annabelle'	Annabelle Hydrangea	24" Tall	4' O.C.	
HP	18	Hydrangea paniculata 'Pinky Winky'	Pinky Winky Hydrangea	36" Tall	6' O.C.	
PF	73	Potentilla fruticosa 'Lundy'	Happy Face Potentilla	18" Spread	3' O.C.	
PO	8	Physocarpus opulifolius 'Summer Wine'	Summer Wine Ninebark	36" Tall	6' O.C.	
RK	49	Rosa 'KnockOut'	Knock Out Rose	18" Tall	3' O.C.	
SP	22	Syringa x 'Penda'	Blooming Purple Lilac	24" Tall	4.5' O.C.	
SJ	15	Spiraea japonica 'Double Play Red'	Double Play Red Spirea	24" Spread	3' O.C.	
SW	26	Spiraea japonica 'Walburna'	Magic Carpet Spirea	18" Spread	3' O.C.	
WF	37	Weigela florida 'Alexandra'	Wine and Roses Weigela	24" Tall	4' O.C.	

Perennials & Ornamental Grasses	Key	Quantity	Botanical Name	Common Name	Size	Remarks
CK	5	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	1 Gallon	3' O.C.	
CV	28	Coreopsis verticillata 'Zagreb'	Zagreb Coreopsis	1 Gallon	18" O.C.	
GR	26	Geranium x 'Rozanne'	Rozanne Geranium	1 Gallon	2.5' O.C.	
HH	53	Hemerocallis 'Happy Returns'	Happy Returns Daylily	1 Gallon	18" O.C.	
HL	34	Hemerocallis 'Little Business'	Little Business Daylily	1 Gallon	18" O.C.	
LK	15	Liatris spicata 'Kobold'	Kobold Liatris	1 Gallon	18" O.C.	
NF	28	Nepeta x faassenii 'Purrsian Blue'	Purrsian Blue Catmint	1 Gallon	2' O.C.	
PH	22	Pennisetum alopecuroides 'Hameln'	Hameln Dwarf Fountain Grass	1 Gallon	3' O.C.	
PR	8	Perovskia atriplicifolia 'Filigran'	Filigran Russian Sage	1 Gallon	3' O.C.	
SV	12	Salvia verticillata 'Endless Love'	Endless Love Sage	1 Gallon	2' O.C.	

Native Deciduous Shrubs	Key	Quantity	Botanical Name	Common Name	Size	Remarks
CS	4	Cornus sericea	Red-osier Dogwood	1 Gallon	6' O.C.	
MP	3	Myrica pensylvanica	Bayberry	1 Gallon	6' O.C.	

Native Forbs	Key	Quantity	Botanical Name	Common Name	Size	Remarks
AN	6	Anemone canadensis	Canada Anemone	Quart		
HM	38	Hibiscus moscheutos	Rose Mallow	Plug	18" O.C.	
SI	38	Silphium perfoliatum	Cup Plant	Plug	18" O.C.	

Native Shrub and Forb Supplier:  
Wildtype design, native plants, & seed, ltd.  
Mason, MI  
Telephone: 517-244-1140

Miscellaneous Materials	Quantity	Material Type	Quantity	Material Type
532 L.F.	Aluminum Edging	63.5 C.Y.	Shredded Hardwood Mulch (3" Depth)	
20.5 C.Y.	Finished Compost for Planting Beds (1" Depth)	2,275 S.Y.	Sod	

# SEDS & FORB SEED MIX

Seed Mix Suppliers:  
Michigan Wildflower Farm  
Portland, MI  
Telephone: 517-647-6010

Cardno  
Walkerton, IN  
Telephone: 574-586-2412

Total Area for seed mix to be applied to: 3,200 S.F. After seeding is completed, install DS75 Erosion Control Blanket by North American Green over entire seed mix area. Install native deciduous shrubs and forbs in soil by cutting slits in erosion control blanket.

Botanical Name	Common Name	PLS (Ounces)
Carex vulpinoidea	Brown Fox Sedge	1.75
Carex muskingumensis	Palm Sedge	1.25
<b>Total</b>		<b>3.00</b>
<b>Forbs:</b>		
Iris virginica	Blue Flag	1.25
Rudbeckia triloba	Brown-Eyed Susan	1.25
Solidago riddellii	Riddell's Goldenrod	0.75
Zizia aurea	Golden Alexander	1.25
<b>Total</b>		<b>4.50</b>

# GENERAL NOTES

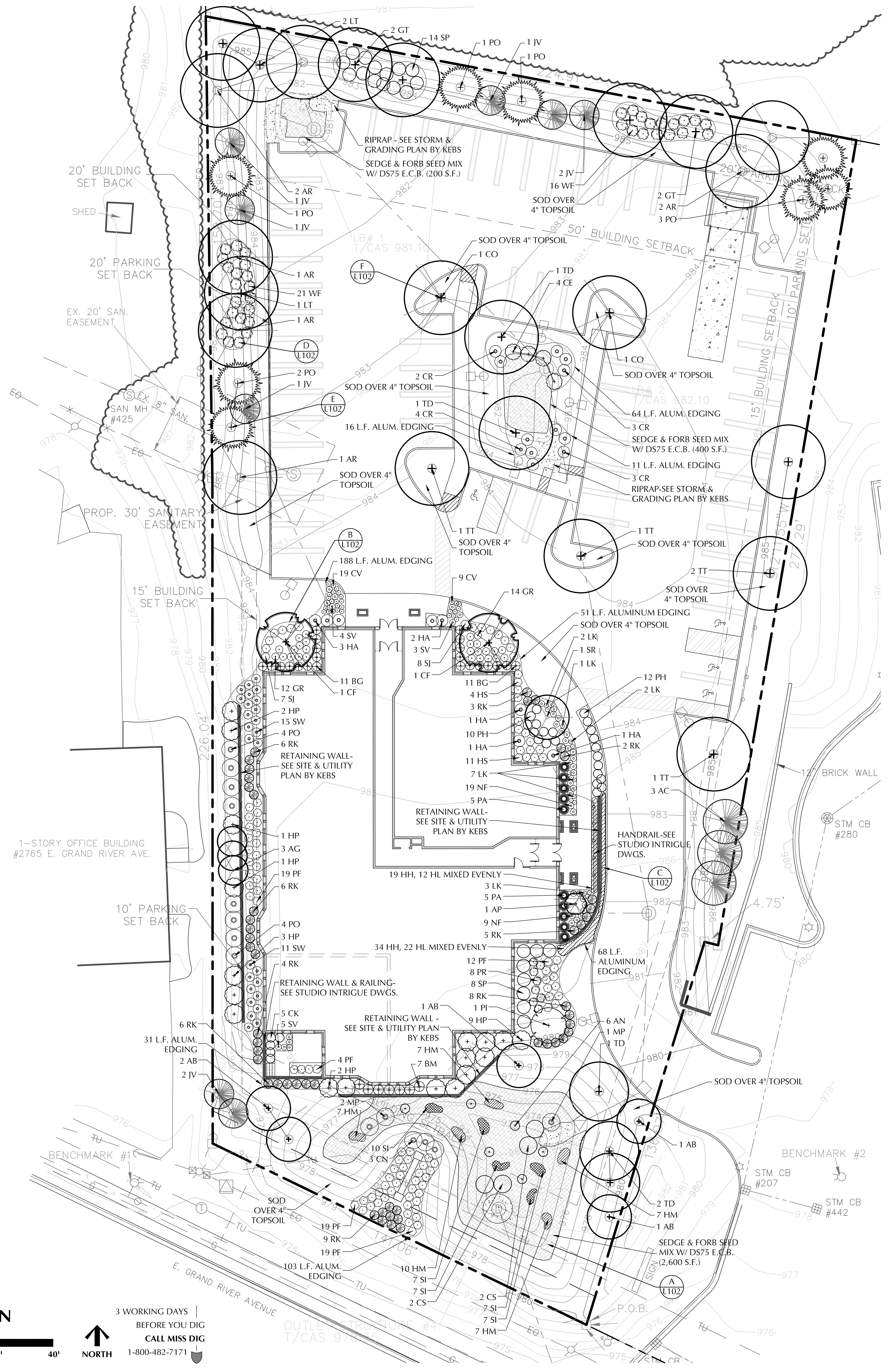
- Quantities shown are for the convenience of the contractor only. Contractor is responsible for verifying quantities, and for providing sufficient materials to complete the job per plan.
- Contractor shall secure and pay for all permits, fees, and inspections necessary for the proper execution of this work and comply with all codes applicable to this work.
- Contractor shall call MISS DIG System, Inc. (800) 482-7171 three full working days before work commences to locate underground utility locations. Contractor shall avoid all existing utilities, underground and overhead where applicable, and is responsible for any damage.
- Contractor shall verify all existing conditions in the field prior to construction and shall notify Landscape Architect of any variance.
- Some field adjustments may be necessary to ensure that there are no conflicts between existing and proposed plants.
- The contractor is responsible for protecting all existing vegetation to be preserved.
- Material quality and measurement shall conform to the most recent edition of the American Standard for Nursery Stock, ANSIZ60.1 by AmericanHort.
- All plants shall be installed per the landscape plan. Plantings not found to be in compliance shall be replanted correctly at no additional expense to the owner.
- An approved pre-emergent herbicide shall be applied in all proposed planting beds at a rate specified by manufacturer for each plant variety.
- Where planting area meets turf area and edging is not specified, the contractor shall provide a trench edge. Mulch all planting areas to the bedline shown.
- Ensure positive drainage away from all structures.
- Fine grade, fertilize and sod/seed all disturbed areas resulting from construction. All areas shall drain completely and shall not pond or puddle.
- Aerate existing turf where it has been compacted by equipment.

# REFERENCE SYMBOLS



# ABBREVIATIONS

TYPE	DESCRIPTION
ALUM.	ALUMINUM
CAL.	CALIPER
C.Y.	CUBIC YARD
DWGS.	DRAWINGS
E.C.B.	EROSION CONTROL BLANKET
EX.	EXISTING
GAL.	GALLON
L.F.	LINEAR FEET
MAX.	MAXIMUM
MIN.	MINIMUM
O.C.	ON CENTER
S.F.	SQUARE FEET
S.Y.	SQUARE YARD



# LANDSCAPE PLAN

SCALE: 1" = 20'  
SCALE IN FEET: 0' 10' 20' 40'

3 WORKING DAYS BEFORE YOU DIG  
CALL MISS DIG  
1-800-482-7171

**ELEMENTS STUDIO inc.**  
LANDSCAPE ARCHITECTURE  
907 Britten Ave., Lansing, MI 48910  
www.ElementsStudio.net | P: (517) 599-7152

CLIENT:  
SDS Property, LLC  
30880 Pear Ridge Rd.  
Farmington Hills, MI 48334

**HOWELL MEDICAL OFFICES**  
COUNTY OF LIVINGSTON, TOWNSHIP OF GENOA, MICHIGAN  
**LANDSCAPE PLAN**



REVISIONS:	REVISION #	DATE
Rev. Site Plan Rvw		3/23/16
Review		4/22/16

DATE:  
3/2/16 - Site Plan Review

PROJECT NUMBER:  
HF1601

DRAWN BY:  
JF  
CHECKED BY:  
JF

SCALE:  
AS INDICATED

SHEET NUMBER:

**L101**



KEY	
	RESIDENTIAL BUFFER ZONE
	COMMERCIAL BUFFER ZONE

SITE DATA	
HOWELL MEDICAL OFFICES	
ZONING: GENERAL COMMERCIAL	
ADJACENT ZONING:	
NORTH: LOW DENSITY RESIDENTIAL (LDR)	
SOUTH: GENERAL COMMERCIAL (GC)	
EAST: GENERAL COMMERCIAL (GC)	
WEST: SUBURBAN RESIDENTIAL (SR), GENERAL COMMERCIAL (GC)	
LOT AREA: 73,097.42	
BUILDING COVERAGE	
MAX ALLOWED: 35%	
PROPOSED: 12,882.47 / 73,097.42 = 0.1762 (17.62%)	
IMPERVIOUS COVERAGE	
MAX ALLOWED: 75%	
PROPOSED: 42,128.86 / 73,097.42 = 0.5763 (57.63%)	

REVISION	DATE
PRELIMINARY	07/23/15
REVISION	07/31/15
SITE PLAN REVIEW	03/02/16
SITE PLAN REVISIONS	03/23/16
BUDGETING	04/06/16
REVIEW	04/22/16

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PARKING DATA	
GENOA TWP. PARKING REQUIREMENTS:	
MEDICAL OFFICES OF DOCTORS/DENTIST:	
01 SPACE : 200 SF (GROSS)	
12,882 SF (GROSS) / 200SF (GROSS) = 64 SPACES	
64 SPACES REQUIRED	
66 SPACES PROVIDED	
BARRIER FREE PARKING:	
51-75 SPACES = 3 REQUIRED B.F. SPACES	
3 BARRIER FREE SPACES REQUIRED	
5 BARRIER FREE SPACES PROVIDED	
ADVANCE AUTO SITE:	
6781 SF (GROSS) / 250SF (GROSS) = 27.1 SPACES	
EXISTING PARKING: 31 SPACES	
PROPOSED PARKING: 27 SPACES	
REQUIRED PARKING: 27 SPACES	
*NET LOSS OF 04 SPACES DUES TO CROSS ACCESS EASEMENT	

**NOTE:**  
ELECTRICAL CONTRACTOR TO COORDINATE CONDUIT LOCATION FOR SITE POWER/LIGHTS  
E.C. TO PROVIDE 02 NYLON FULL STRINGS IN ALL BURIED CONDUIT  
RUN ALL CONDUIT PARALLEL AND PERPENDICULAR TO THE SITE

**studio [intrigue] architects**  
ARCHITECTS  
114 S. WASHINGTON AVE. • SUITE 100 • LANSING • MICHIGAN • 48202  
517.372.8804 PHONE • 517.372.8805 FAX • WWW.STUDIOINTRIGUE.COM



Project Type  
**MEDICAL OFFICE DEVELOPMENT**

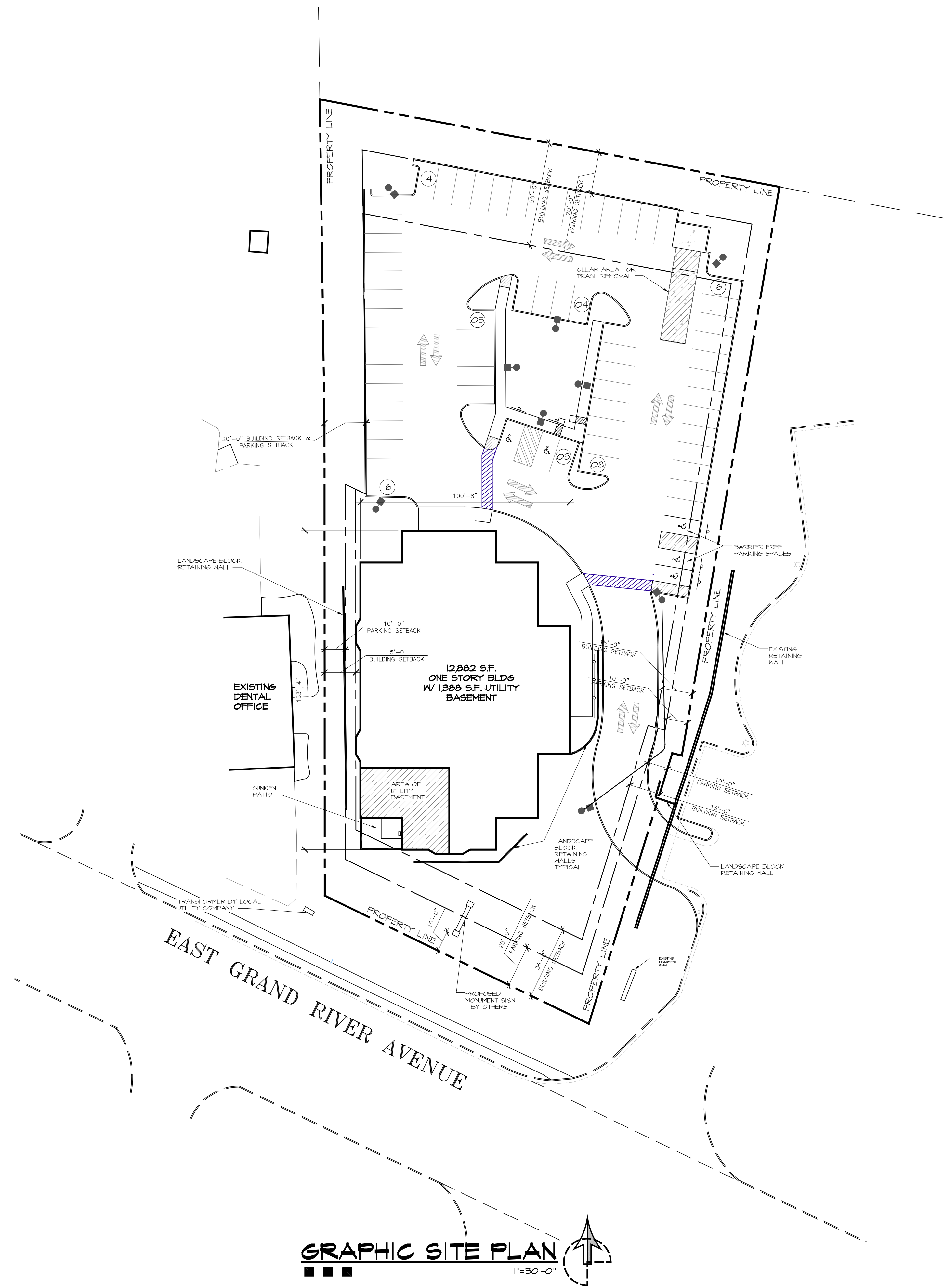
Project  
**HOWELL MEDICAL OFFICES**  
2765 EAST GRAND RIVER  
HOWELL, MICHIGAN 48843

Client  
**SDS PROPERTIES LLC**  
30880 PEAR RIDGE RD  
FARMINGTON HILLS, MI 48334

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Project Number  
**15.062**

Sheet  
**C-100**



**GRAPHIC SITE PLAN**  
1"=30'-0"

**PRELIMINARY NOT FOR CONSTRUCTION**

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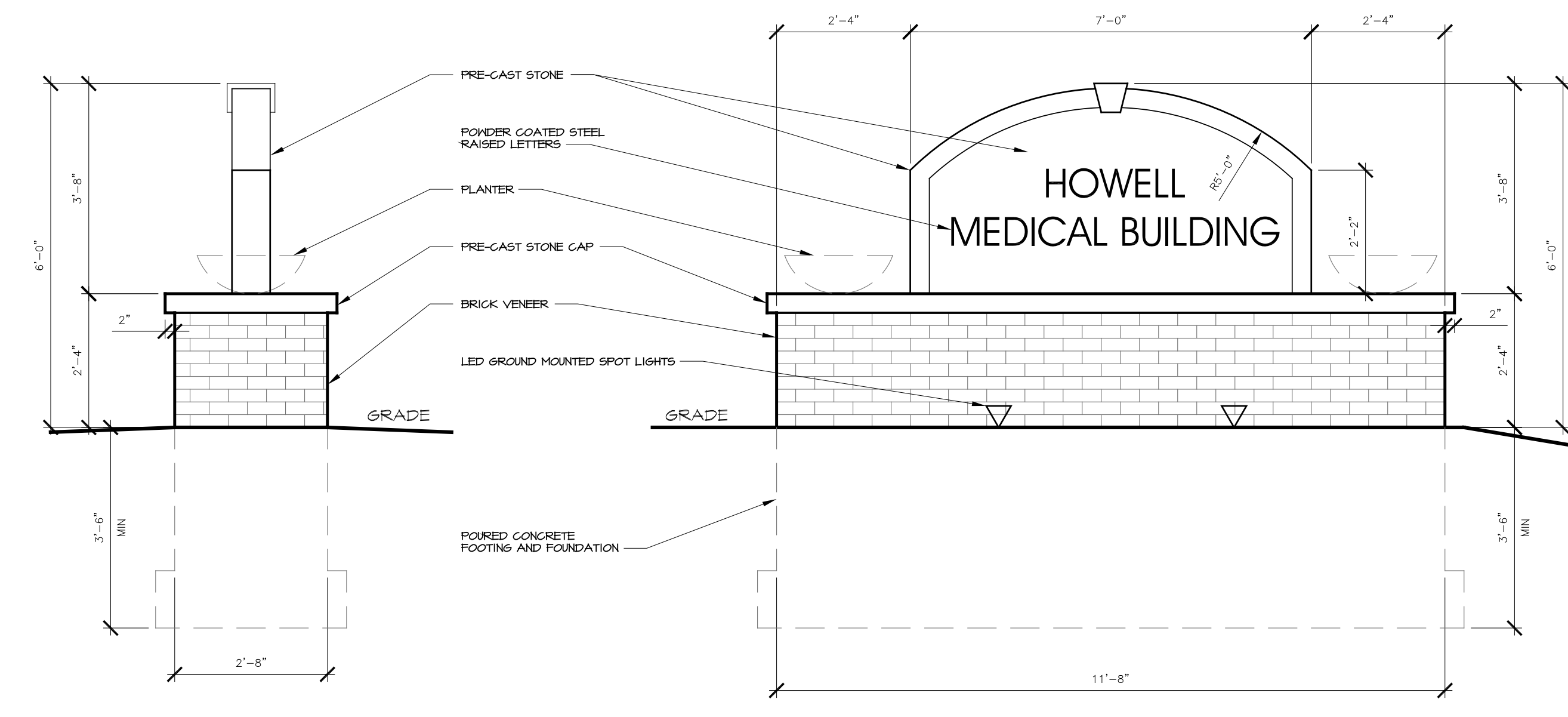
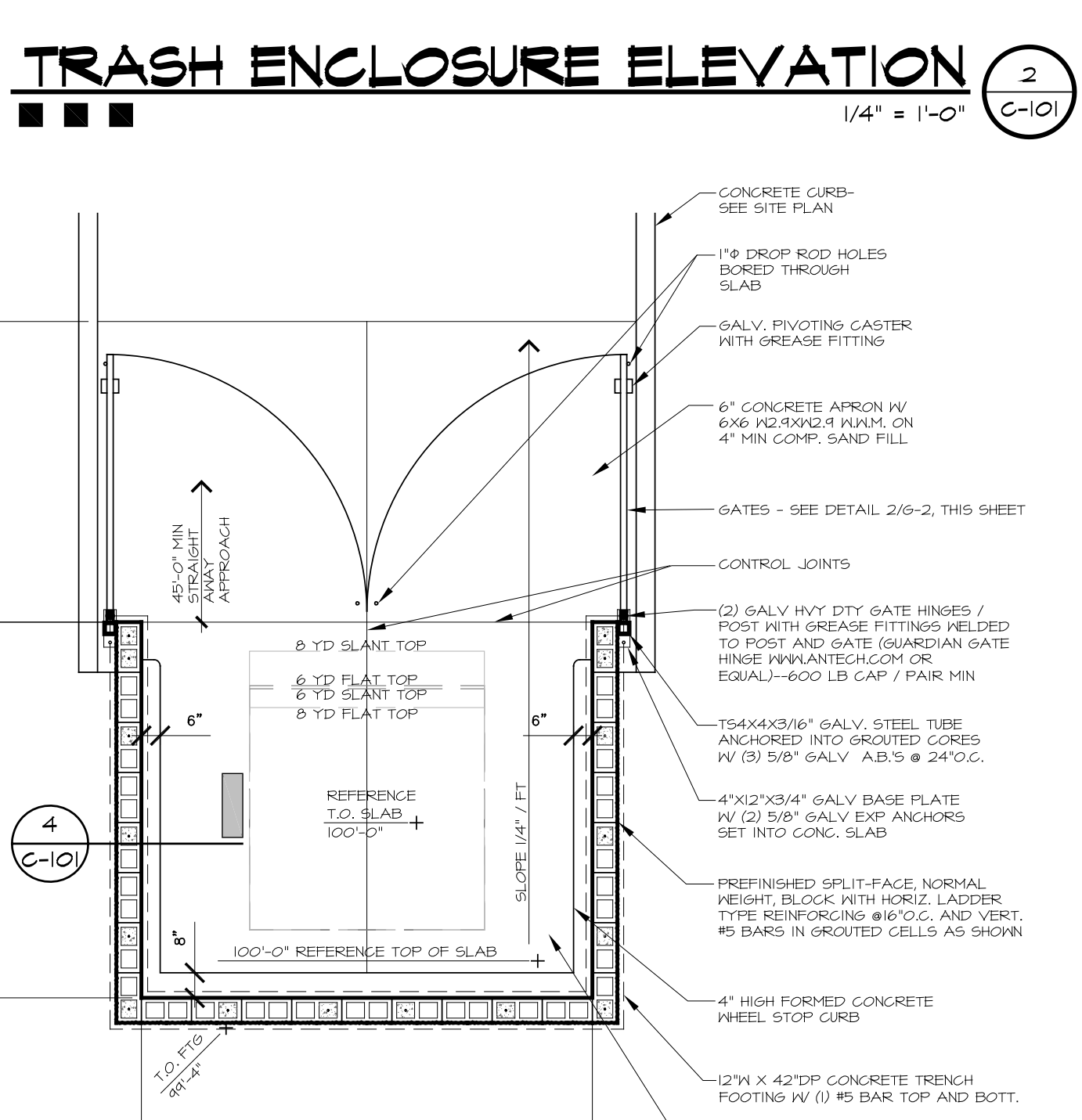
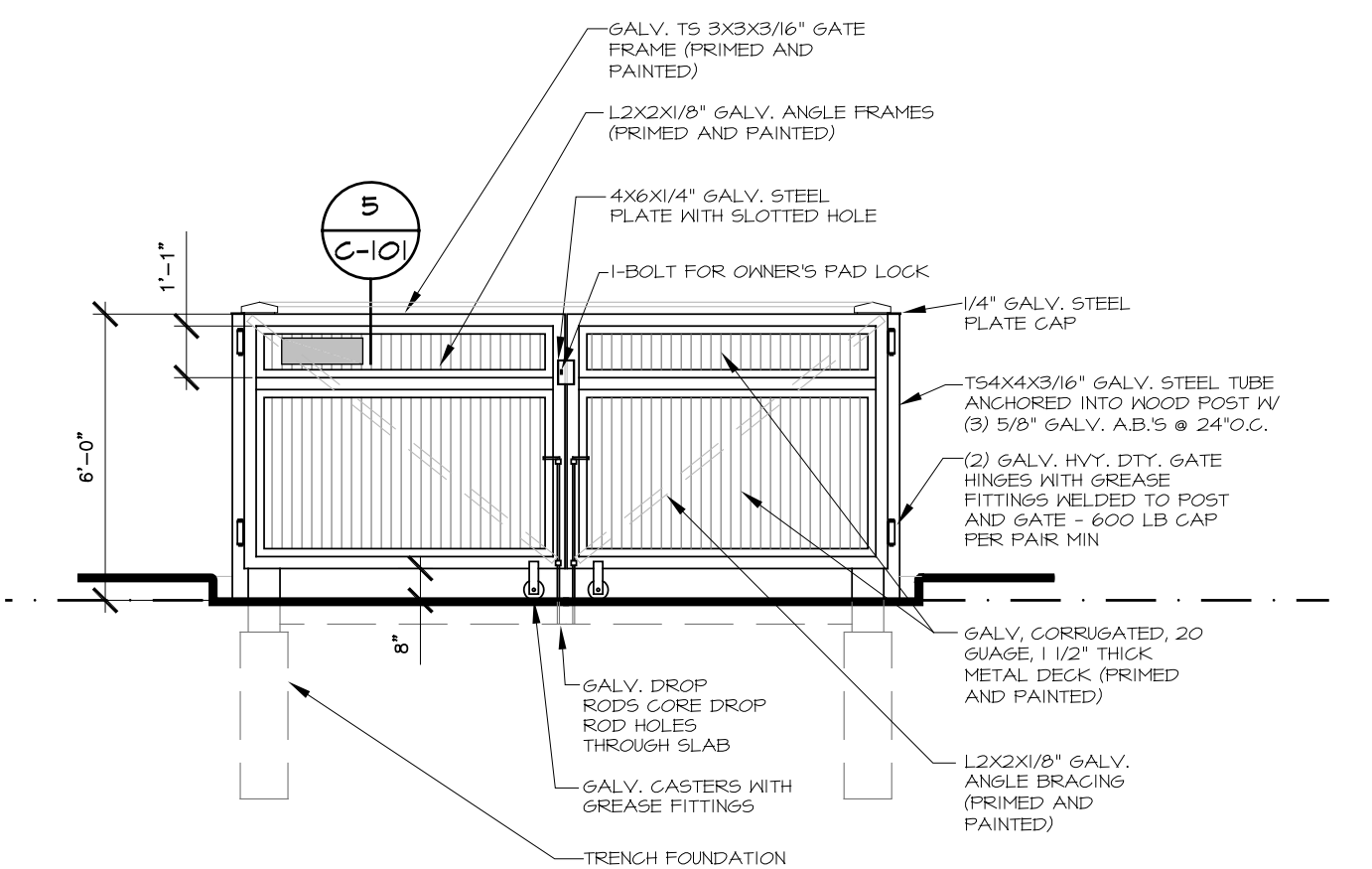
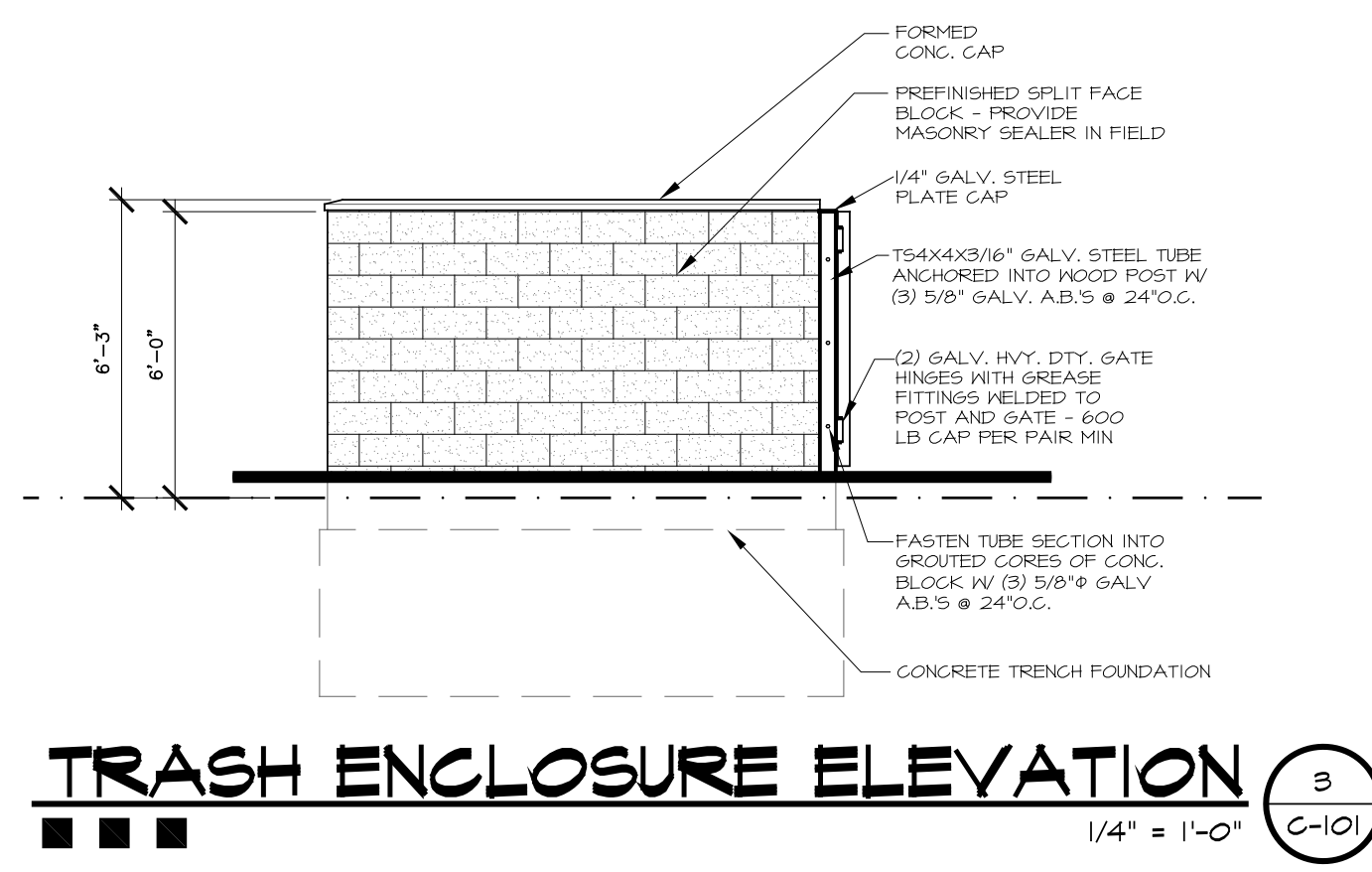
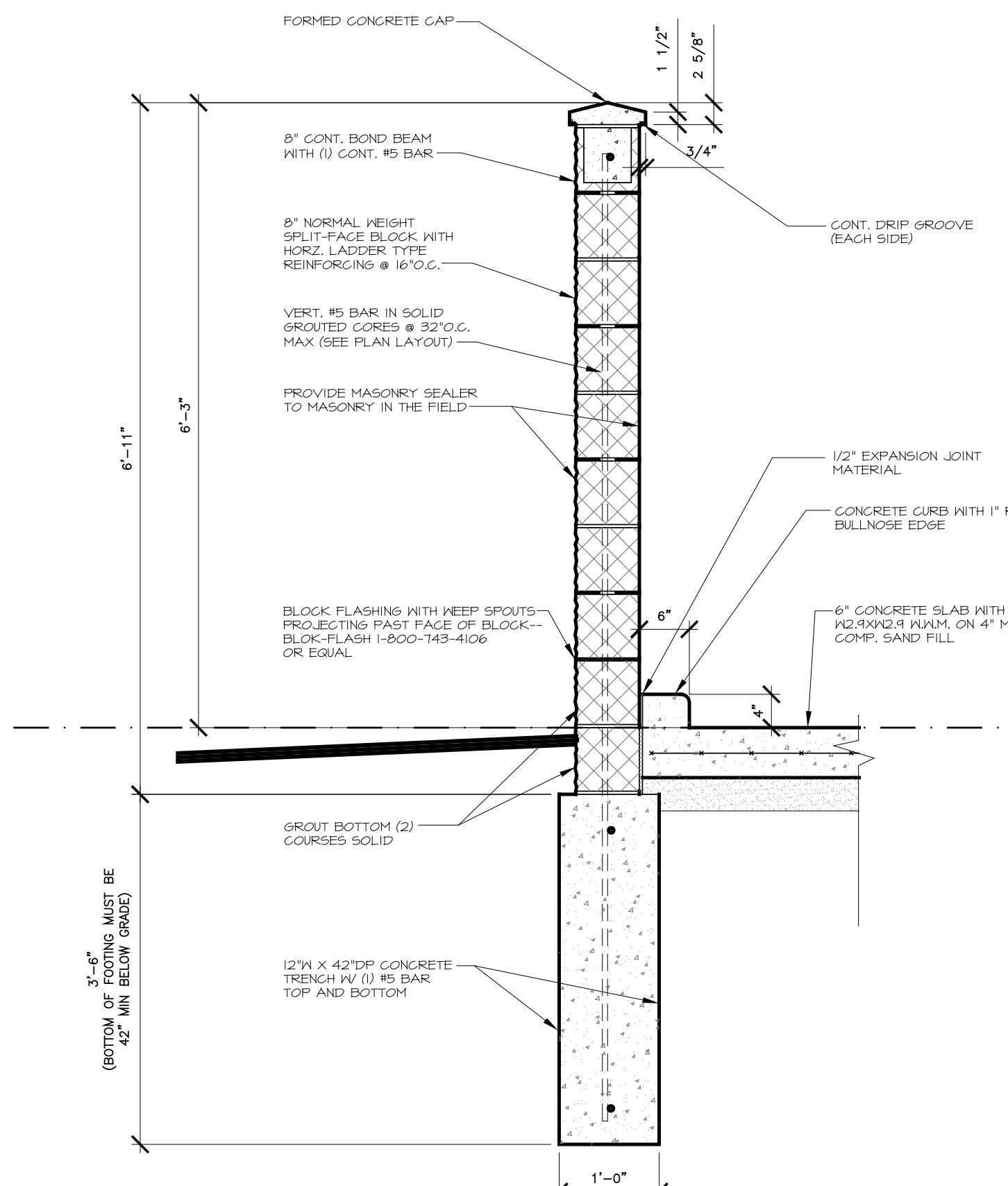
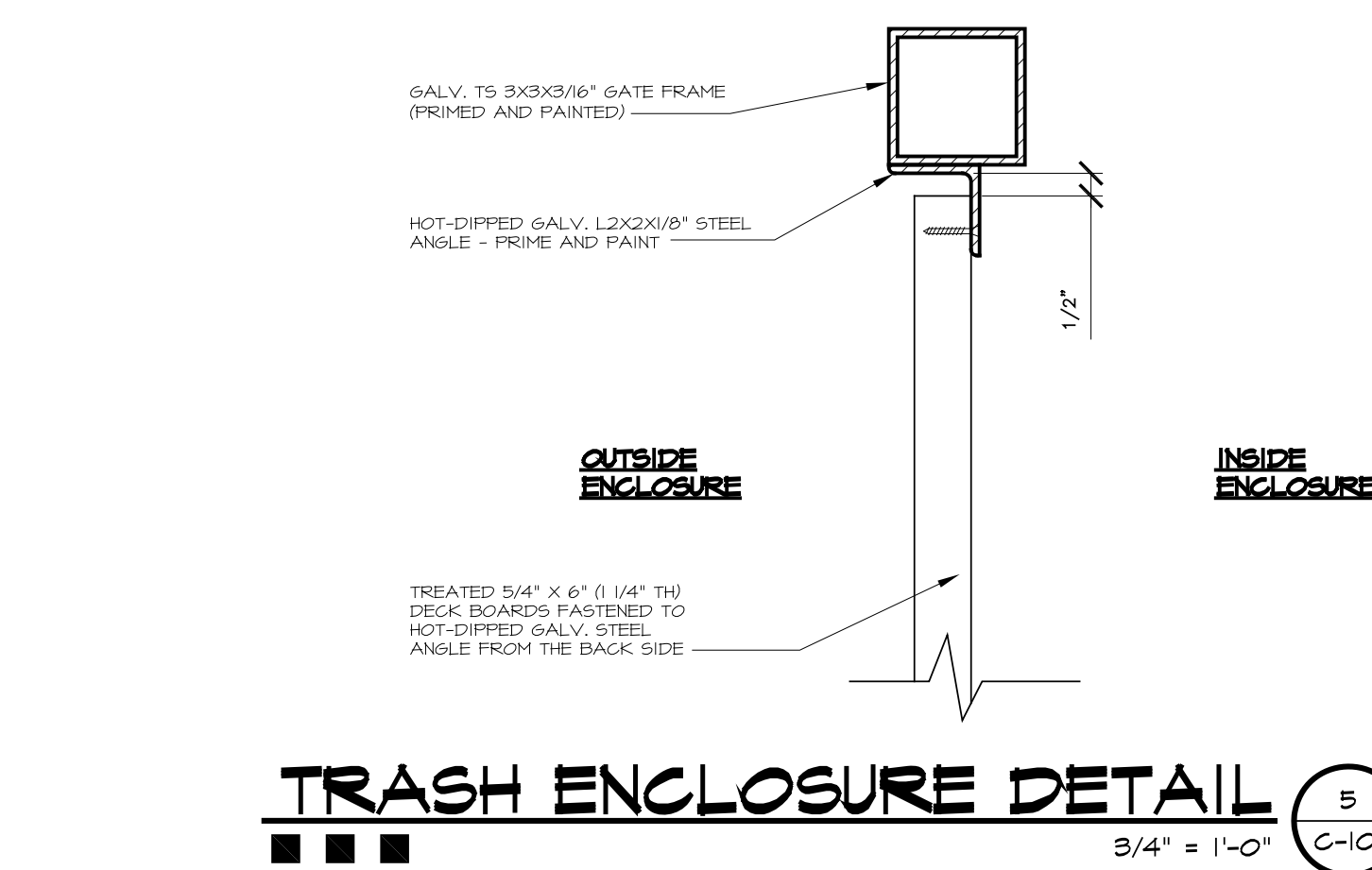
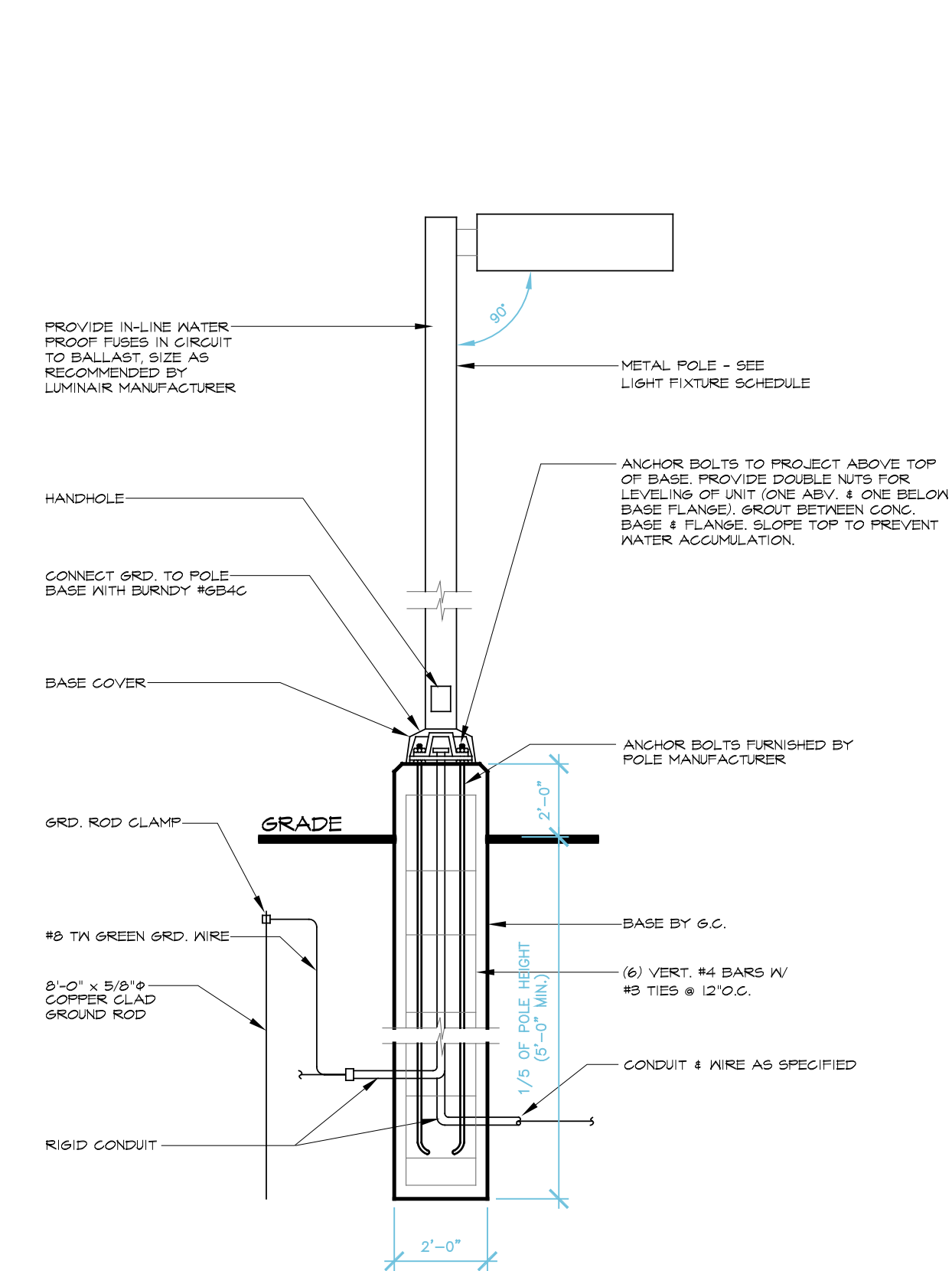
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SITE PLAN REVISIONS
BUDGETING
REVIEW
03/23/16
04/06/16
04/22/16

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Project Type  
**MEDICAL OFFICE DEVELOPMENT**

Project  
**HOWELL MEDICAL OFFICES**

2765 EAST GRAND RIVER  
HOWELL, MICHIGAN 48843

Client  
**SDS PROPERTIES LLC**

30880 PEAR RIDGE RD  
FARMINGTON HILLS, MI 48334

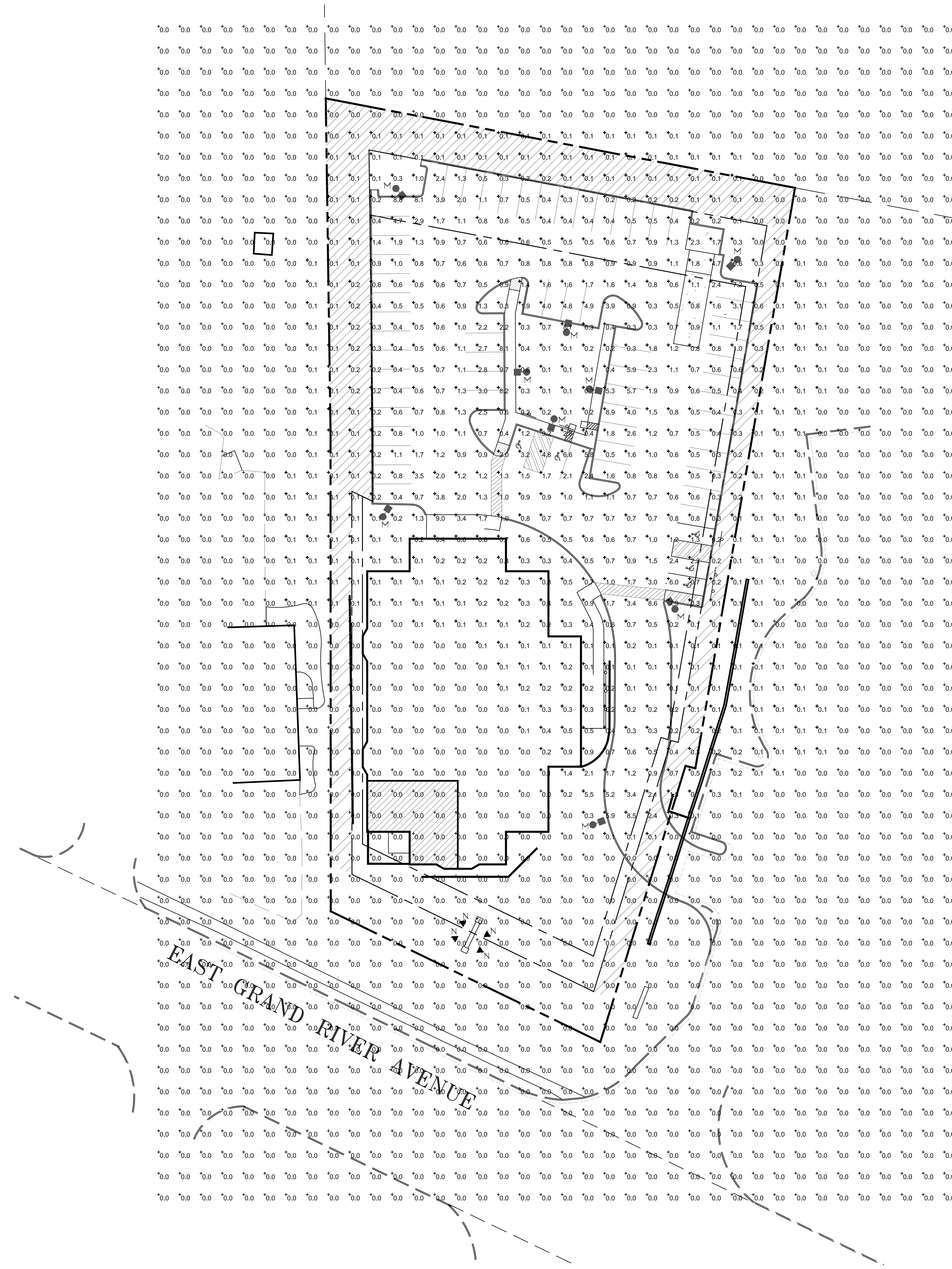
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Project Number  
**15.062**

Sheet  
**C-101**



LIGHT FIXTURE SCHEDULE				
MARK	MANUFACTURER	MODEL NUMBER	LAMPS	REMARKS
M	LITHONIA	D-SERIES SIZE 1	LED	3 HEAD PER POLE - 14FT POLES PHOTOMETRIC SENSOR / TIMER
O	LITHONIA	OLBF 6 30K DDB	10.5W 3000K LED	EXTERIOR SPOT LIGHT PHOTOMETRIC SENSOR / TIMER



**PHOTOMETRIC SITE PLAN**  
1"=30'-0"

**PRELIMINARY  
NOT FOR  
CONSTRUCTION**

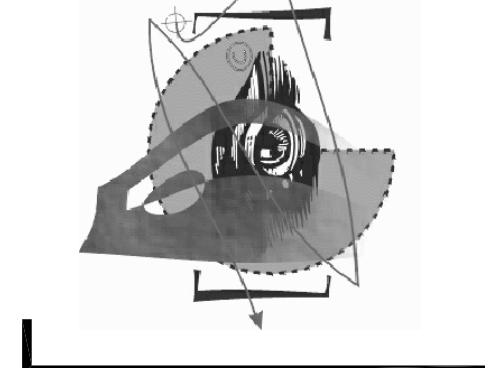
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SITE PLAN REVISIONS
REVIEW

03/23/16
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STATE OF MICHIGAN  
DAVID C. VANDERKOLK  
ARCHITECT  
NO. 46738  
LICENSED ARCHITECT

Project Type  
**MEDICAL OFFICE DEVELOPMENT**

Project  
**HOWELL MEDICAL OFFICES**  
2765 EAST GRAND RIVER  
HOWELL, MICHIGAN 48843

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**15.062**

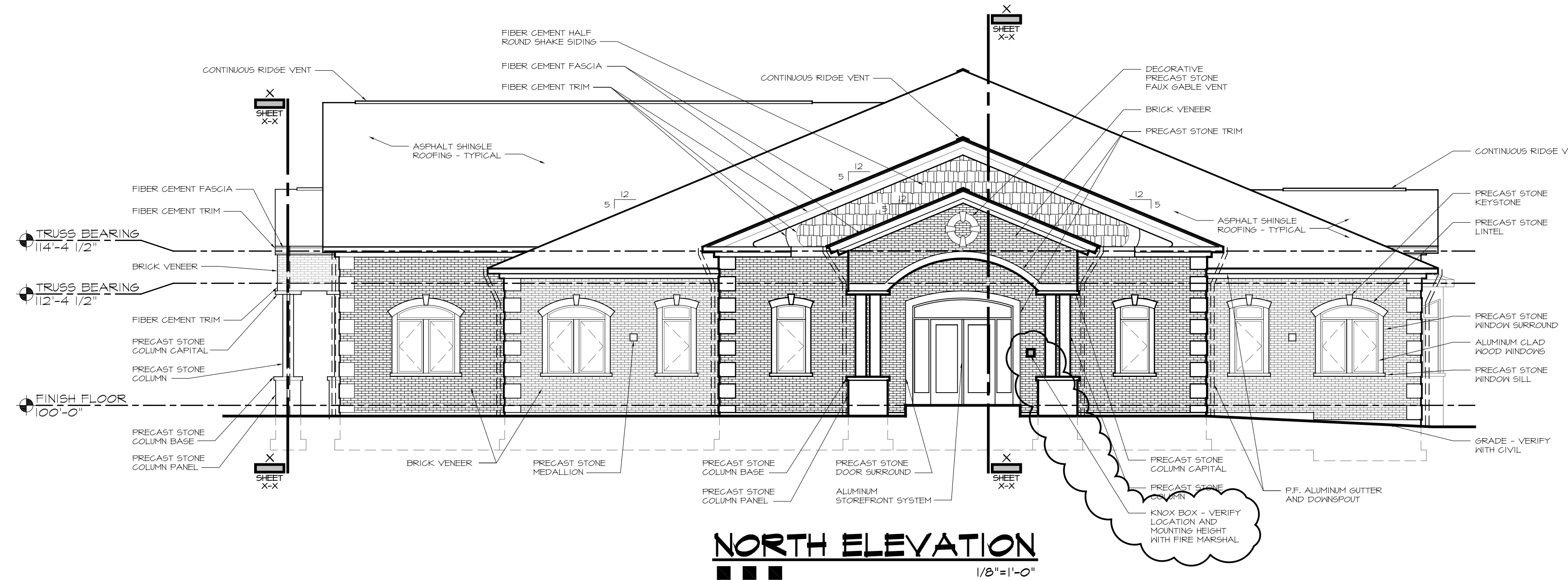
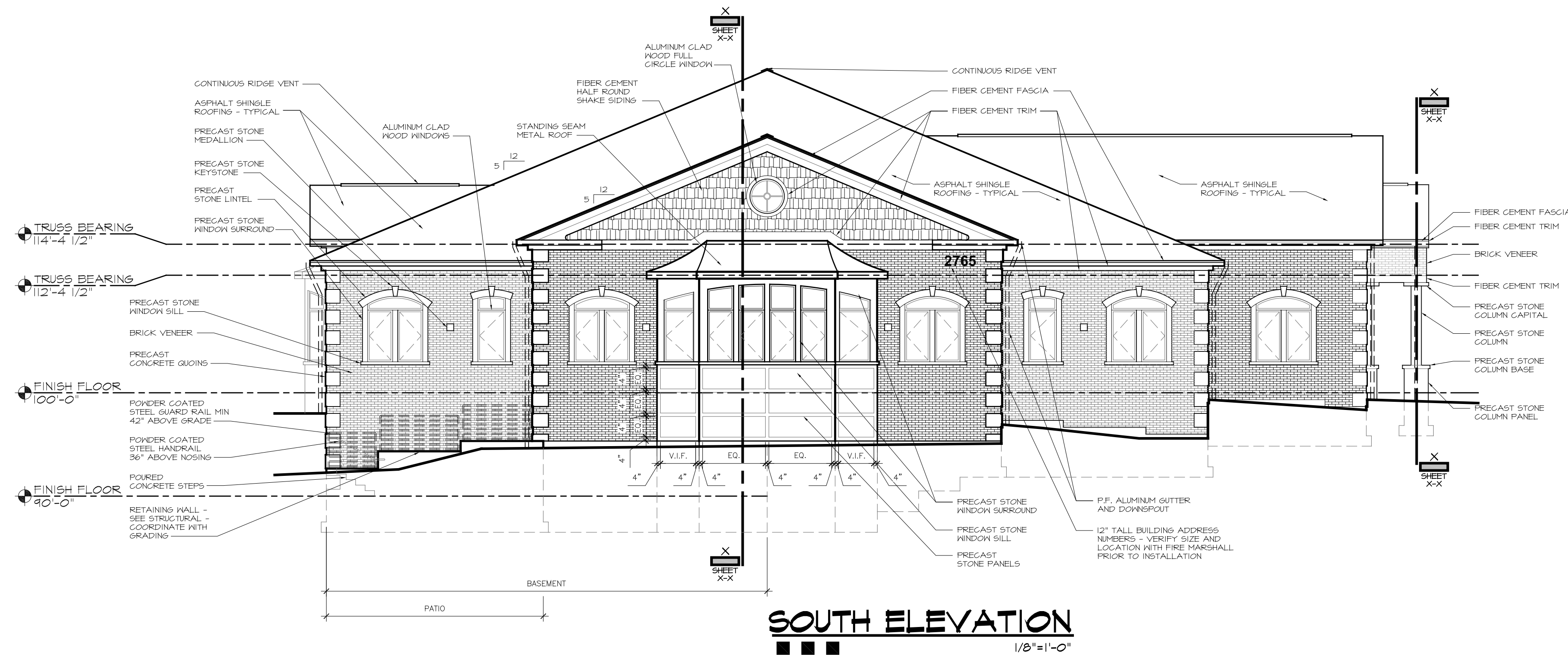
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**C-102**

2007 MI ENERGY CODE / ASHRAE 90.1-2007 ENVELOPE REQ'MTS							TABLE 5.5-5 (LIVINGSTON COUNTY, MI)	
OPAQUE ENVELOPE ELEMENT	MIN R REQ'D	R PROP.	MIN. CONT. INSUL. REQ'D	CONT. INSUL. PROP.	MAX U PERMITTED	U PROP.	ENVELOPE COMPLIANCE NOTES	
ROOF	30	30	20	N/A	0.027	0.026	1. THE BUILDING ENVELOPE SHALL BE SEALED, GULKED, GASKETED, AND/OR WEATHERSTRIPPED TO MINIMIZE AIR LEAKAGE.	
WALLS, ABOVE GRADE	13	21	3.0	2.5	0.064	0.043	2. AIR LEAKAGE THROUGH PENETRATION AND DOORS SHALL BE LESS THAN 0.4 GPM/SF (1.0 GPM/SF FOR GLAZED SHWING ENTRANCE DOORS) WHEN TESTED IN ACCORDANCE WITH NFRA 400.	
WALLS, BELOW GRADE	N/A	21	7.5	10	N/A	0.035	EXCEPTIONS: FIELD FABRICATED PENETRATION AND DOORS.	
FLOORS	30	30	N/A	N/A	0.030	0.033	FOR GARAGE DOORS (IF APPLICABLE) TESTED IN ACCORDANCE WITH NAGDM 105.	
SLAB ON GRADE	NR	N/A	N/A	N/A	N/A	N/A	3. U FACTORS SHALL BE DETERMINED IN ACCORDANCE WITH NFRG 100.	
OPAQUE DOORS	N/A	N/A	N/A	N/A	0.700	0.700 MAX	4. SOLAR HEAT GAIN COEFFICIENT (SHGC) SHALL BE DETERMINED IN ACCORDANCE WITH NFRG 200.	
							5. VISIBLE LIGHT TRANSMITTANCE SHALL BE DETERMINED IN ACCORDANCE WITH NFRG 200.	
FENESTRATION	MAX U FIXED ALLOW	MAX U FIXED PROP.	MAX U OPER. ALLOW	MAX U OPER. PROP.	MAX SHGC ASSEM. ALLOW	MAX SHGC ASSEM. PROP.	N/A - NOT APPLICABLE	
WINDOWS 14%	.35	.44	.35	.44	NR	.55	NR - NOT REQUIRED	
SKYLIGHTS	N/A	N/A	N/A	N/A	N/A	N/A	ASSEM. - ASSEMBLY	
							CONT. - CONTINUOUS	
							INSUL. - INSULATION	
							MIN. - MINIMUM	
							PROP. - PROPOSED	

STOREFRONT SHALL MEET A MAX U-VALUE OF 0.55 / SHGC OF 0.40

EXTERIOR FINISH SCHEDULE					
MATERIAL	FINISH	MANUFACTURER	MODEL / TYPE / SERIES	COLOR	COMMENTS
BRICK VENEER	X	X	X	X	X
PRECAST PANEL	SMOOTH	HERITAGE CAST STONE	HEARTLAND SERIES	SNOWCAP	X
PRECAST SILL	SMOOTH	HERITAGE CAST STONE	SILL 10	SNOWCAP	X
PRECAST LINTEL	SMOOTH	HERITAGE CAST STONE	SUR 30 F	SNOWCAP	X
PRECAST SURROUND	SMOOTH	HERITAGE CAST STONE	SUR 20 F	SNOWCAP	X
KEYSTONE	SMOOTH	HERITAGE CAST STONE	KEY 40 F	SNOWCAP	X
MEDALLION	SMOOTH	HERITAGE CAST STONE	MED 30 F	SNOWCAP	X
PRECAST COLUMN	SMOOTH	HERITAGE CAST STONE	ARCHITECTURAL SERIES	SNOWCAP	X
PRECAST CAP	SMOOTH	HERITAGE CAST STONE	FLAT PIER CAP	SNOWCAP	X
PRECAST QUIN	SMOOTH	HERITAGE CAST STONE	QSK 601TF	SNOWCAP	X
FIBERCEMENT SHAKE	PRE-FINISHED	JAMES HARDIE	STAGGERED EDGE PANEL	COBBLE STONE	X
FIBERCEMENT TRIM	PRE-FINISHED	JAMES HARDIE	4/4 NTS SMOOTH	ARCTIC WHITE	X
FIBERCEMENT FASCIA	PRE-FINISHED	JAMES HARDIE	4/4 NTS SMOOTH	ARCTIC WHITE	X
FIBERCEMENT SOFFIT	PRE-FINISHED	JAMES HARDIE	VENTED SMOOTH	ARCTIC WHITE	X
WINDOWS	PRE-FINISHED	PELLA	PELLA 450 SERIES	WHITE	X
DOORS	PRE-FINISHED	TUBELITE	14000 SERIES	CLEAR ANODIZED	STANDARD STYLE / 1" INSULATED GLAZING
STOREFRONT	PRE-FINISHED	TUBELITE	14000 SERIES	CLEAR ANODIZED	1" INSULATED GLAZING
ASPHALT SHINGLES	-	X	X	X	X
METAL ROOFING	PRE-FINISHED	BERRIDGE	CURVED TEE-PANEL	TERRA-COTTA	X
GUTTERS	PRE-FINISHED	-	-	WHITE	X
DOWNSPOUTS	PRE-FINISHED	-	-	WHITE	X

- ALL METAL ROOFING SHALL BE PROVIDED W/ SNOW & ICE SLIDE PROTECTORS.
- ALL GAS PIPING SHALL BE PAINTED.
- PROVIDE SEALANT BETWEEN ALL DISSIMILAR MATERIALS - COLOR TO MATCH ADJACENT PRIMARY MATERIAL.
- ALL MASONRY SHALL RECEIVE A FIELD-APPLIED MASONRY SEALER: PROSOCCO SILOXANE OR EQUAL, WHERE MASONRY IS ADJACENT TO CONCRETE FLATWORK OR ASPHALT PAVING, THE LOWER 4'-0" OF THE MASONRY SHALL BE SEALED WITH PROSOCCO SALTGUARD OR EQUAL.



**PRELIMINARY NOT FOR CONSTRUCTION**

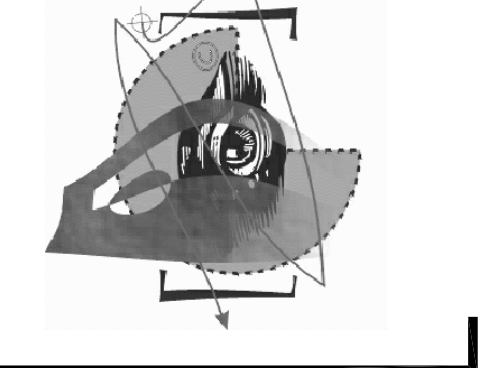
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SITE PLAN REVIEW  
03/02/16  
03/23/16

03/02/16  
03/23/16

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STATE OF MICHIGAN  
 DAVID C. VANDERKOLK  
 ARCHITECT  
 46738  
 LICENSED ARCHITECT

Project Type  
**MEDICAL OFFICE DEVELOPMENT**

Project  
**HOWELL MEDICAL OFFICES**  
 2765 EAST GRAND RIVER  
 HOWELL, MICHIGAN 48843

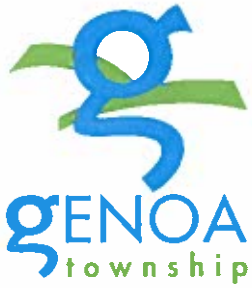
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Project Number  
**15.062**

Sheet  
**A-301**





2911 Dorr Road  
Brighton, MI 48116  
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genoa.org

## MEMORANDUM

**TO:** Honorable Board of Trustees

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

**DATE:** April 28, 2016

**RE:** **FLAGSTAR BANK – PROVIDENCE/FORMER LATSON ELEMENTARY PUD**  
Environmental Impact Assessment and Final PUD Site Plan

**MANAGER'S REVIEW:**

I have reviewed the revised final PUD site plan for a proposed free-standing Flagstar Bank building within the Former Latson Elementary School Property PUD. Under the PUD Agreement for this site, banks with up to 3 drive-through teller windows are permitted by right. As such, the request requires review and approval of the site plan and Environmental Impact Assessment.

This project was recommended for approval by the Township Planning Commission on April 11, 2016. My review of the revised submittal was focused on compliance with the outstanding items discussed at the Planning Commission and my suggested action on this item is as follows:

**IMPACT ASSESSMENT** - I recommend **APPROVAL** of the Environmental Impact Assessment with the condition that the applicant provide a corrected date on page 1 to reflect the last submittal date of April 25, 2016.

**SITE PLAN** - I recommend **APPROVAL** of the final PUD site plan revised on 4/25/16 with the following conditions:

1. An agreement will be prepared by the petitioner and the land owner to provide for a 5' wide sidewalk along the east side property line with an appropriate financing and cost sharing agreement in place subject to review and approval by the Township attorney. The Township recognizes that the sidewalk may not be installed until after sanitary sewer is installed.
2. The location of the ground sign shall be reviewed and approved by Township staff for compliance with the PUD and Zoning Ordinance. It is understood that the ground sign may not be constructed in the location shown on plans.
3. All requirements of the Township Engineer and Utility Authority shall be complied with and construction plan review and permits shall be required.

### **SUPERVISOR**

Gary T. McCririe

### **CLERK**

Paulette A. Skolarus

### **TREASURER**

Robin L. Hunt

### **TRUSTEES**

H. James Mortensen

Jean W. Ledford

Todd W. Smith

Linda Rowell

### **MANAGER**

Michael C. Archinal

Board of Trustees  
**Flagstar Bank**  
April 28, 2016  
Page 2 of 2

4. Any utility easement or connection fees due shall be provided prior to issuance of a land use permit.
5. The requirements of the Brighton Area Fire Department will be complied with.

Should you have any questions concerning this matter, please do not hesitate to contact me.

Sincerely,



Kelly VanMarter

Assistant Township Manager/Community Development Director



**GENOA CHARTER TOWNSHIP**  
**Application for Site Plan Review**

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

APPLICANT NAME & ADDRESS: Flagstar Bank  
*If applicant is not the owner, a letter of Authorization from Property Owner is needed.*

OWNER'S NAME & ADDRESS: ST. JOHN PROVIDENCE HEALTH SYSTEM

SITE ADDRESS: TBD PARCEL #(s): 11-09-100-036

APPLICANT PHONE: ( ) OWNER PHONE: (248) 331-4667

OWNER EMAIL: ADAM.WESTMICK @ASCENSION.ORG

LOCATION AND BRIEF DESCRIPTION OF SITE: The site is located on the east side of South Latson Rd, approximately 1700 feet south of the Grand River Ave intersection. The property has 210 feet of frontage along South Latson Rd, the entire width of the site. To the west on the opposite side of South Latson Road is non-residential planned unit development use. To the north of the site is undeveloped property in which a two phase project involving medical office buildings are being developed. Undeveloped property to the east and south of the site is zoned as non-residential planned unit development. The subject property is currently undeveloped, non-residential planned unit development (NRPUD).

BRIEF STATEMENT OF PROPOSED USE: The proposed use is to be zoned as regional commercial (RC) and be utilized as a bank that features a drive-thru service.

THE FOLLOWING BUILDINGS ARE PROPOSED: Flagstar Bank building - 3,315 SF

**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: [Signature]

ADDRESS: 18000 West Nine Mile, Ste 1200 Southfield, MI 48075

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

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

### FEE EXCEEDANCE AGREEMENT

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

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

Michael Boccia for PROCTOR BANK  
30150 TELEGRAPH #150 BINGHAM PROMS, MI 48025  
248 320 9920

A call to the public at 7:17pm with no response.

**Planning Commission disposition of petition:**

**A. Recommendation of Environmental Impact Assessment (3-2-16)**

**Moved** by Commissioner Lowe to recommend approval of the amended impact assessment dated March 2, 2016 conditioned upon the corrections noted this evening being included.

**Supported** by Commissioner Mortensen. **Motion carried unanimously.**

**B. Disposition of Site Plan (3-23-16)**

**Moved** by Commissioner Mortensen to approve the site plan for the Howell Medical Center dated March 23, 2016 subject to the following:

1. The building design materials and colors shown this evening are acceptable and the sample board will become property of the Township.
2. The number of barrier free parking spaces will be increased by 2 resulting in the elimination of 3 standard spaces.
3. The lighting plan and light fixture details is subject to Township staff review and approval to comply with the ordinance.
4. The conditions contained in Tetra Tech's letter dated March 28, 2016 will be revised tomorrow and the applicant shall comply with the conditions prior to issuance of a land use permit.
5. The requirements of the Brighton Area Fire Authority shall be complied with.
6. Approval of the site plan is contingent on Board approval of the Environmental Impact Assessment.

**Supported** by Commissioner Rauch. **Motion carried unanimously.**

**OPEN PUBLIC HEARING 2 Review of a site plan and impact assessment for a proposed Flagstar Bank on parcel 11-0 -100-038 located on the east side of Latson Road, north of I- 6, Howell. The project is within the Providence/Former Latson Elementary School Planned Unit Development and is petitioned by Flagstar Bank.**

Brent LaVanway with Boss Engineering and Mike Boggio with MBA architects are present on behalf of the petitioner. . The site is located on the St. John Providence PUD/Former Latson Elementary Site. The site shares the access driveway with St. John that aligns with Grand Oaks Drive. They are proposing 19 parking spaces. The site will have pedestrian access. We have added a bike rack at the suggestion of the consultant.

Mr. Boggio presents a picture showing the building for review by the Commission. He explains that this a typical red brick with limestone Flagstar Bank prototype building. It has clear anodized aluminum windows and a grayish shingle. The drive-up teller lanes are on the south side and won't interfere with pedestrians. The photograph presented is a prototype and shows what the building materials will look like.

Chris Gruba presents the LSL review letter. The action tonight is to recommend approval of the site plan and environmental impact assessment because it is within a PUD. The applicant needs to add a revision date to the plan. The east and south elevations have



too much EFIS per the Ordinance requirement. Mr. Boggio indicates that the average of all sides is 18%. There are 2 sides that don't meet the requirement. Chairman Brown asks if they can make revisions to bring the building into compliance. Mr. Boggio responds that they can but would prefer not to.

Mr. Gruba states that the ordinance requires an 8' wide bike path along the Latson Road frontage. The plans show a 5' sidewalk. Commissioner Mortensen believes the punting the sidewalk to future isn't enough. He believes there needs to be an easement and a commitment for shared cost. Mr. Boggio states that Flagstar will agree to pay for 1/3 of the cost. The Commission discussed the sidewalk requirement to the adjacent properties. Without knowing how they will develop it is difficult to require a sidewalk. The Commission would prefer to have the 20' sanitary sewer easement also be written to allow a future sidewalk and for the bank and the owner to provide an agreement regarding construction and financial obligations to be reviewed and approved by the Township attorney.

Mr. Gruba suggests that consideration should be given to a cross access easement to the parcel to the south. Commissioner Rauch questioned if the plan is to raise the other properties when they develop. He is concerned that this project is going to raise up the site 5' which is going to cause problems for the other properties. Mr. LaVanway confirmed that Flagstar is raising their site and stated that the current thought is that the other properties need to add significant fill to transition to the basin.

Mr. Gruba suggests additional landscaping be provided to help screen the mechanical equipment and Mr. Boggio agrees. The Commission also discussed whether or not additional ornamental lighting should be considered. It was the consensus that since Providence only provided 2 along their frontage and due to topography the plan is acceptable as submitted.

Mr. Gruba provides that the sign base should be brick and they should add a note to the sign plans stating they will comply with the changeable message sign requirements. Mr. Boggio agrees. The flagpole is proposed at 50 feet and the ordinance has a maximum of 40 feet. Mrs. VanMarter supports the 50' flagpole and would like to see the Planning Commission use their PUD discretion to allow the taller flag pole. She indicates that she is updating the ordinance to allow taller flag poles and she views them as an amenity to the site and community that should be encouraged. The Commissioners agreed.

Commissioner Rauch inquired about the location of the monument sign on the plans. Mr. Boggio stated that they would like to come back to address the sign location if a deviation is needed. He agrees the proposed location is problematic but he is not prepared to address it this evening. Commissioner Rauch expressed concern with a location for monument signs for the undeveloped area east and west of this site. He suggested an integrated signage plan that would provide a single sign at the entrance to address this outlot and others. The Commission agrees that they can come back with a revised sign plan.

Mr. Markstrom reviews his letter with only minor comments regarding ensuring adequate cover on the sanitary sewer lead installation. They have worked with Boss to serve the site with gravity.

Chairman Brown reviewed the Fire Department and tap fee letters contained in the packet. He comments the applicant on a flawless impact assessment.

Call to public at 8:14pm with no response.

**Planning Commission disposition of petition:****A. Recommendation of Environmental Impact Assessment (3-23-16)**

**Moved** by Commissioner Lowe to recommend approval of the Environmental Impact Assessment to the Township Board conditioned on Board approval of the site plan.

**Supported** by Commissioner Mortensen. **Motion carried unanimously.**

**B. Recommendation of Final PUD Site Plan (3-23-16)**

**Moved** by Commissioner Mortensen to recommend Board approval of the Final PUD Site Plan subject to the following:

1. Revision dates shall be added to the site plan.
2. The applicant will increase natural materials on the two sides of the building to meet the 80% requirement in the PUD.
3. An agreement will be prepared by the petitioner and the land owner to provide for a 5' wide sidewalk along the east side property line with an appropriate financing and cost sharing agreement in place subject to review and approval by the Township attorney. The Planning Commission recognizes that the sidewalk may not be installed until after sanitary sewer is installed.
4. Landscaping will be added to screen the mechanical equipment area and the revised landscape plan shall be approved by Township staff.
5. The base of the ground sign will be brick to match the building and a note will be added to the plans acknowledging compliance with the changeable message requirements in the Ordinance. The location of the ground sign may be reviewed and approved by Township staff if it complies with PUD and Ordinance. It is understood that the ground sign may not be constructed in the location shown on plans.
6. The requirements of the Township Engineer in their letter dated March 28, 2016 will be complied with.
7. The requirements of the Brighton Area Fire Department will be complied with.
8. The sanitary sewer and sidewalk easement will be combined on the plans so there will be one 20' wide sewer/sidewalk easement and the 5' sidewalk easement will be removed.

**Supported** by Commissioner McManus. **Motion carried unanimously.**

**OPEN PUBLIC HEARING 3 Review of a sketch plan for two proposed boat storage buildings. The property is located at 57 6 E. Grand River, Howell. The request is petitioned by the Wonderland Marine.**

Gary Mitter is present to represent Wonderland Marine. He states that the plans have not changed since 1999. The approved plan was prepared as a master plan of the property because that is what the Township asked us to provide at that time. We submitted the same plans to you this evening because nothing has changed. The proposed building is a match to the existing buildings. We are just implementing the master plan.

Commissioner Mortensen states that the revised sketch plan crosses out the remaining buildings and asks if the intention is to remove the 7 other barns from the plans. Mr. Mitter responds that the north 3 barns will never be built. He states it would be nice to think the back row would be all barns but he would just like to ask approval for the 2 now



March 29, 2016

Planning Commission  
Genoa Township  
2911 Dorr Road  
Brighton, Michigan 48116

<b>Attention:</b>	Kelly Van Marter, AICP Assistant Township Manager and Planning Director
<b>Subject:</b>	Flagstar Bank – Site Plan Review #2
<b>Location:</b>	Latson Road – East side of Latson Road, just north of I-96
<b>Zoning:</b>	NRPUD (Non-Residential Planned Unit Development)

Dear Commissioners:

At the Township’s request, we have reviewed the revised site plan (dated 3/2/16) proposing a new Flagstar Bank building. As a side note, the revision date has not been included on the current site plan and we request the applicant add such to avoid confusion moving forward.

The subject site is part of a larger Planned Unit Development (PUD) on the former Latson Elementary School property. The proposed project has been reviewed for compliance with the Genoa Township Zoning Ordinance and the PUD Agreement for this site.

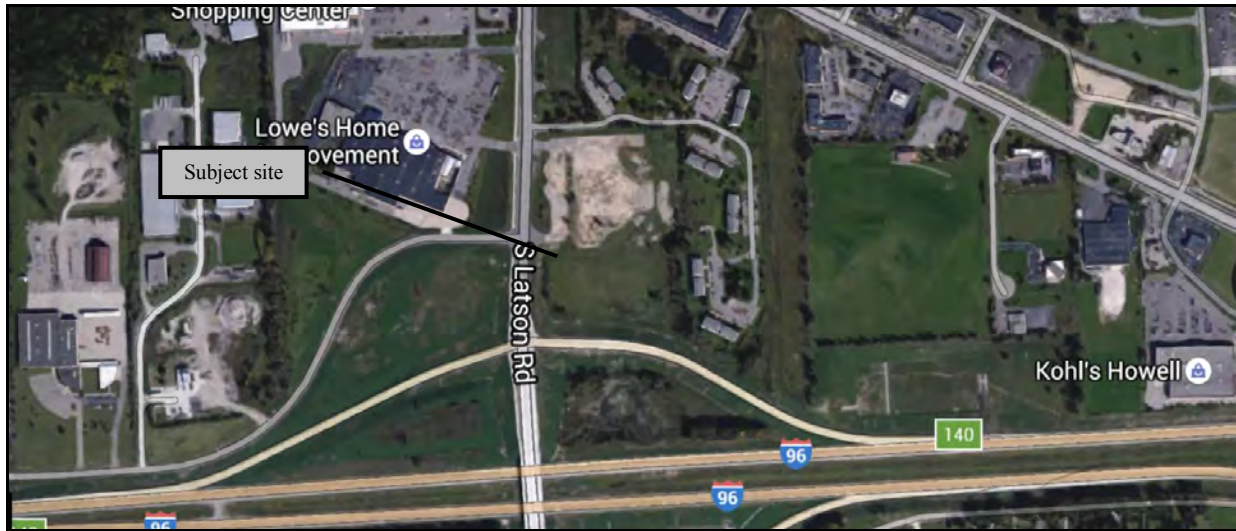
**A. Summary**

1. The applicant needs to add the revision date to the current site plan.
2. The PUD Agreement requires that each building face contain at least 80% natural materials. The south and east elevations are slightly deficient.
3. The site plan must be corrected to show the required 8’ wide bike path within the Latson Road right-of-way.
4. The applicant may wish to include a cross-access easement for the property south of the site.
5. The mechanical equipment on the east side of the building needs to be screened with landscaping.
6. The applicant may need to provide additional ornamental light fixtures along Latson Road.
7. The base of the proposed ground sign must be brick to match the building.
8. We request the applicant include a note on the signage plan acknowledging the requirements for electronic changeable message signs.
9. The proposed flag pole must be reduced to no more than 40’ in height.

**B. Proposal/Process**

The applicant requests site plan review and approval for a proposed free-standing Flagstar Bank building within the Former Latson Elementary School Property PUD.

Under the PUD Agreement for this site, banks with up to 3 drive-through teller windows are permitted by right. As such, the request requires review and approval of the site plan and Environmental Impact Assessment.



*Aerial view of site and surroundings (looking north)*

**C. Site Plan Review**

**1. Dimensional Requirements.** As shown in the table below, the proposed development complies with the dimensional standards for this PUD:

District	Lot Size		Minimum Setbacks (feet)				Max. Height	Max. Coverage
	Lot Area (acres)	Width (feet)	Front Yard	Side Yard	Rear Yard	Parking		
NRPUD	1	120	20	10	20	0 front 5 side/rear	75'	50% building 85% impervious
Proposal	1.01	210	71.37	86.76 (N) 63 (S)	54.18	2 (front) 10 side/rear	26'	7.51% building 59% impervious

**2. Building Design and Materials.** Proposed elevations, including colors and materials, are subject to review and approval by the Planning Commission. The applicant has indicated that color sample boards will be presented at the Planning Commission meeting.

The primary building material is brick with EIFS accents below the eaves line. The building is further accented by various cast stone medallions and brick soldier course on all four sides. The main entrance to the building has a larger façade with a metal canopy.

The PUD Agreement requires that each wall face contain at least 80% natural materials, such as brick or stone. Based on the calculations provided on Sheet A-2, the amount of EIFS slightly exceeds that permitted on the east and south building elevations.

**3. Parking/Stacking.** Required parking for banks is one space for each 200 square feet of gross floor space, plus two spaces for each ATM (Section 14.04). Given the size of the building and the inclusion of an ATM, 19 parking spaces are required. The revised plan provides 19 spaces, including the 1 barrier-free space required. The parking space and drive aisle dimensions also comply with the Ordinance.

Drive through windows for bank uses require four stacking spaces for the first window and three stacking spaces for each additional window. This requirement is met.

There are no loading areas proposed for the project; however, such spaces are not typically necessary for bank uses.

**Flagstar Bank**

Site Plan Review #2

Page 3

- 4. Pedestrian Circulation.** The site plan provides 7’ wide sidewalks along the north and west sides of the building adjacent to the parking lot. The proposal includes a 5’ wide sidewalk parallel to the north property line, which would connect to the public sidewalk along Latson Road. A connection is also provided between this sidewalk and the building, with crosswalk striping across the drive aisle.

An 8’ wide bike path is required within the Latson Road right-of-way; however, this is currently shown as a 5’ wide sidewalk. The approved PUD site plan for the medical facility within this development provided for the 8’ wide bike path. As such, the plan needs to be corrected to show the required bike path.

Lastly, the applicant has included an easement for a future sidewalk along the east side lot line to provide for better pedestrian circulation throughout the full PUD.

- 5. Vehicular Circulation.** This PUD has 2 access drives along Latson Road. The main access to the PUD and the subject site is via the southerly drive, opposite Grand Oaks Drive.

The revised plans provide a cross-access easement that would connect the site and the undeveloped property to the east in the event it is needed.

The applicant may also wish to include a similar easement for future access to the property south of the site; however, cross-access would be limited due to the one-way drive through lanes.

- 6. Landscaping.** The following table is a summary of the landscaping required by Section 12.02:

Location	Ordinance Requirement	Landscaping Required	Proposed	Comments
<b>Front yard greenbelt</b> (210 ft.) (Latson Rd)	20’ width 1 canopy tree every 40’	6 canopy trees required	20’ width (minimum) 4 canopy trees 2 evergreen trees 2 ornamental trees	Requirements met
<b>Parking lot</b> (19 spaces)	1 tree & 100 SF landscaped area per 10 spaces	2 canopy trees & 190 SF landscaping. 1 tree must be interior parking lot. Front yard parking must be screened by hedge row, 3’ knee wall or berm.	2 canopy trees, row of arborvitae and yews screen parking spaces in front yard	Requirements met
<b>Buffer Zone “C” (North)</b>	10’ width 1 canopy OR evergreen tree OR 4 shrubs per 20’	226’ = 12 canopy OR evergreen trees OR 46 shrubs.	18’ width 7 canopy trees & 38 shrubs	Requirements met
<b>Buffer Zone “C” (East)</b>	10’ width 1 canopy OR evergreen tree OR 4 shrubs per 20’	210’ = 11 canopy OR evergreen trees OR 42 shrubs.	26’ width 11 canopy trees	Requirements met
<b>Buffer Zone “C” (South)</b>	10’ width 1 canopy OR evergreen tree OR 4 shrubs per 20’	192’ = 10 canopy OR evergreen trees OR 39 shrubs.	10’ width 7 canopy or evergreen trees & 20 shrubs	Requirements met

The site plan also identifies ground mounted mechanical equipment on the east side of the building. Per Section 12.02.06, this equipment must be screened with shrubs.

7. **Waste Receptacle and Enclosure.** The site does not provide a waste receptacle, which is not uncommon for financial uses dealing with sensitive information. The applicant has added a note to sheet 4 that trash will be collected internally and picked up via curbside weekly.
8. **Exterior Lighting.** The photometric plan illustrates 5 light poles within the parking lot, lighting under the drive through canopy and building accent lights. The maximum lighting intensity complies with Ordinance requirements.

The revised plan also includes 1 ornamental light pole along Latson Road, as required by the PUD Agreement. Depending on the spacing necessary for these fixtures, the applicant may need to provide additional ornamental lighting.

9. **Signs.** The proposal includes one monument sign, one wall sign and two directional ground signs. The proposed signage is generally in compliance with the Zoning Ordinance; however, the applicant must address the following items:

- The ground sign detail does not identify the base material. The PUD Agreement requires that it match the primary building material; in this instance, brick; and
- We request that a note be added acknowledging the requirements of Section 16.07.02(e) for electronic changeable message signs.

10. **Impact Assessment.** The submittal includes an Impact Assessment notes that the proposed project is not expected to adversely impact natural features, public services/utilities, surrounding land uses or traffic.

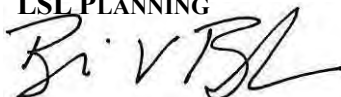
11. **Additional Considerations.** The revised plan includes a bike rack southwest of the building as an additional site amenity per the NRPUD requirements.

A 50' tall flag pole is also proposed southwest of the building; however, Section 11.01.05(b) limits the height to 40'. The applicant must revise the plan accordingly.

Should you have any questions concerning this review, please do not hesitate to contact our office. We can be reached by phone at (248) 586-0505, or via e-mail at [borden@lslplanning.com](mailto:borden@lslplanning.com) and [gruba@lslplanning.com](mailto:gruba@lslplanning.com).

Sincerely,

**LSL PLANNING**



Brian V. Borden, AICP  
Principal Planner



Christopher Gruba  
Project Planner II



March 28, 2016

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

**Re: Flagstar Bank  
Site Plan Review #2**

Dear Ms. Van Marter:

We have reviewed the updated site plan documents from Boss Engineering Inc. dated March 23, 2016, for the subject project. The applicant is proposing a 3,335 sft bank on the east side of Latson Road in an outlot of the Providence Ambulatory Facility. Tetra Tech has reviewed the documents and site plan and offers the following comment.

#### **SITE PLAN**

1. The site sanitary sewer service has been changed to gravity through a public sewer extension constructed to the northeast corner of the property. A review of the proposed sewer depth against the approved construction plans for the site to the north shows that there may be some sections of the proposed sewer main with less than 4 feet of cover, which is less than the Township standard for cover. We recommend the petitioner redesign the sewer to meet the 4 feet of cover requirement which will be checked on the profiles provided during the construction plan review. A sewer easement also should be added to the drawings.

The petitioner has discussed the proposed sewer plan with the Township and addressed our earlier comments. We have no engineering related objections to approval of the site plan provided the petitioner address the sanitary sewer comment above in the construction plans.

Please call if you have any questions.

Sincerely,

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

March 30, 2016

Kelly VanMarter  
Genoa Township  
2911 Dorr Road  
Brighton, MI 48116

RE: Flagstar Bank  
Latson Rd. – S. of 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 March 3, 2016 and the drawings are dated March 2, 2016. The project is for new 3,335 square foot business occupancy to be used as a bank. The plan review is based on the requirements of the International Fire Code (IFC) 2012 edition.

1. Future project submittals shall include the address and street name of the project in the title block. **(Noted to be Provided after Land Division)**  
IFC 105.4.2
2. 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 (West Elevation). The location and size shall be verified prior to installation. **(Not yet assigned, Noted to be provided on West Elevation)**  
IFC 505.1
3. The one-way drive along the east side of the building must be widened to 20'. With a width of 20' wide, both sides shall be marked as a fire lane. Include the location of the proposed fire lane signage and include a detail of the fire lane sign in the submittal. Access roads to site shall be provided and maintained during construction. Access roads shall be constructed to be capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds. **(Revised and shown on Drawing)**  
IFC D 103.6  
IFC D 103.1  
IFC D 102.1  
IFC D 103.3
4. Access around building shall provide emergency vehicles with a turning radius up to 50' outside and a 30' inside. A minimum vertical clearance of 13½ feet shall be maintained throughout. **(Revised and shown on Drawing)**
5. The location of a key box (Knox Box) shall be indicated on future submittals. The Knox box will be located adjacent to the main entrance of the structure. **(Noted on Drawing)**  
IFC 506.1
6. Provide names, addresses, phone numbers, emails of owner or owner's agent, contractor, architect, on-site project supervisor. **(Added to Drawing, Contractor TBD)**





Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department. If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

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

Capt. Rick Boisvert, CFPS  
Fire Inspector



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

**MEMORANDUM**

**TO:** File

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

**DATE:** April 7, 2016

**RE:** Flagstar Bank Connection Fees

This memo will describe the water and sewer connection fees required for the proposed 3,335 square foot Flagstar bank building located within the Providence Medical Center (former Latson Road Elementary School) Planned Unit Development .

**ANALYSIS:** The REU Table provides 0.12 REU’s per employee for a bank. Based on information in the impact assessment the proposed bank would have 14 employees therefore the connection fees would be:  $0.12 \times 14 = 1.68$  REU’s

**OPTION 1 – CREDITS:**

There is an existing balance of 21.5 REU’s associated with this property. The owner can dedicate the credits for use by the bank if so desired. This would have the following effect:

	Water REU	Sewer REU
Credits per PUD Agreement	27	27
Providence Ph. 1 Medical Office building	-5.5	-5.5
Flagstar Bank	-1.68	-1.68
<b>REMAINING BALANCE</b>	<b>19.82</b>	<b>19.82</b>

**OPTION 2 – PAYMENT:**

If the owner is not transferring the REU credits to the bank outlot the following fees would be applicable:

1.68 REU x \$5,500 per Sewer REU =	\$ 9,240.00
1.68 REU x \$5,000 per Water REU =	\$ 8,400.00
<b>TOTAL DUE =</b>	<b>\$17,640.00</b>

If using option 2, the connection fees are due at the time of Land Use Permit issuance.

**SUPERVISOR**

Gary T. McCririe

**CLERK**

Paulette A. Skolarus

**TREASURER**

Robin L. Hunt

**MANAGER**

Michael C. Archinal

**TRUSTEES**

H. James Mortensen

Jean W. Ledford

Todd W. Smith

Linda Rowell

**IMPACT ASSESSMENT  
FOR  
SITE PLAN PETITION  
“FLAGSTAR BANK”  
GENOA TOWNSHIP, LIVINGSTON COUNTY  
MICHIGAN**

Prepared for:

**MBA ARCHTECTS  
30150 TELEGRAPH RD. SUITE 150  
BINGHAM FARMS, MI 48025  
(248) 258-5155**

Prepared by:

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

September 24, 2015

**15-325 EIA**

## INTRODUCTION

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

## DISCUSSION ITEMS

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

Prepared For:  
MBA Architects  
30150 Telegraph Rd. Suite 150  
Bingham Farms, MI 48025  
(248) 258-5155

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

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

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

The site is located on the east side of South Latson Rd, approximately 1700 feet south of the Grand River Ave intersection. The property has 210 feet of frontage along South Latson Rd, the entire width of the site. To the west on the opposite side of South Latson Road is non-residential planned unit development use. To the north of the site is undeveloped property in which a two phase project involving medical office buildings are being developed. Undeveloped property to the east and south of the site is zoned as non-residential planned unit development. The subject property is currently undeveloped, non-residential planned unit development (NRPUD).

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

The total site area is 1.01 acres. There are 0.08 acres of right-of-way for South Latson Road leaving a total of 0.93 acres of buildable space. There are no wetlands on the property. The site gradually slopes southeast at approximately 1.78%. The trees and shrubs/brush on site are minimal and located along the

west property line within the ditch, while the remainder of the site is open area. The USDA Soil Conservation Service soil classification for the site is Miami-Loam 2-6% slopes.

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

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

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

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

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

To the north in two phases, two medical office buildings are being developed. Phase 1 includes building #1 being 3 stories at 20,500 square feet and the closest of the two medical buildings being proposed to South Latson Road that requires parking, pedestrian circulation and site access. Phase I also includes construction of the detention and forebay storm water management system, sized for the medical buildings, subject property and future developments. Phase II will be constructed at a later date, which includes building #2, and final build out of the required parking and pedestrian walkways.

With the proposed use being a bank, most of the activity on the property would be weekdays 9 AM to 6 PM. Unlike a commercial use, there would be limited evening or weekend traffic with hours of operation being limited.

The increase in light, noise or air pollution would be far less than what is typically associated with a commercial development. Developing a single small bank 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.**

The anticipated occupancy of 14 employees and customers, will have very little negative impact to nearby properties, but may even help the neighboring businesses with additional subsidiary patronage.

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

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

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

The development will tap into an 8" water main that is being provided by others to the north of the site along the access drive to provide water service. For sanitary, gravity sewer will be used from the building to an existing manhole north of the site, located within the medical office parking lot.

The pre-development sanitary flow from this site is zero. Post-development flows based on MHOG sewer standards for the proposed bank is equivalent to 1.68 REU $\text{d}$ .

Bank = 0.12 per employee x 14 = 1.68 REU $\text{d}$

With regards to storm water management, the project will be required to meet all local, county and state storm water and erosion control requirements. All of the required information is included in the Site Plan documents. Most storm water runoff will be directed to the proposed forebay and detention basin of the medical office buildings to the southeast 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, such as gas cans, striping paint, etc.

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

According to the Institute of Transportation Engineers Trip Generation 6th addition, the number of trips generated by this development would be an average of 55 trips per hour (35.18 trips per unit per 1,000sf) during the AM peak hours, and 81 trips per hour (51.23 trips per unit per 1,000 sf) during the PM peak hours. This is based on a drive-in bank 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 site is under 10 acres. Therefore a detailed traffic impact study is not necessary.

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

None at this time.

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

Genoa Township's *Submittal Requirements for Impact Assessment*

Genoa Township Zoning Ordinances

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

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

Trip Generation manual, 6<sup>th</sup> edition, Institute of Transportation Engineers

# SITE PLAN FOR FLAGSTAR BANK

## PART OF THE NW. 1/4, SEC. 9, T2N-R5E GENOA TOWNSHIP, LIVINGSTON COUNTY, MI

PROPERTY DESCRIPTION:

**PROPOSED FLAGSTAR BANK PARCEL:**

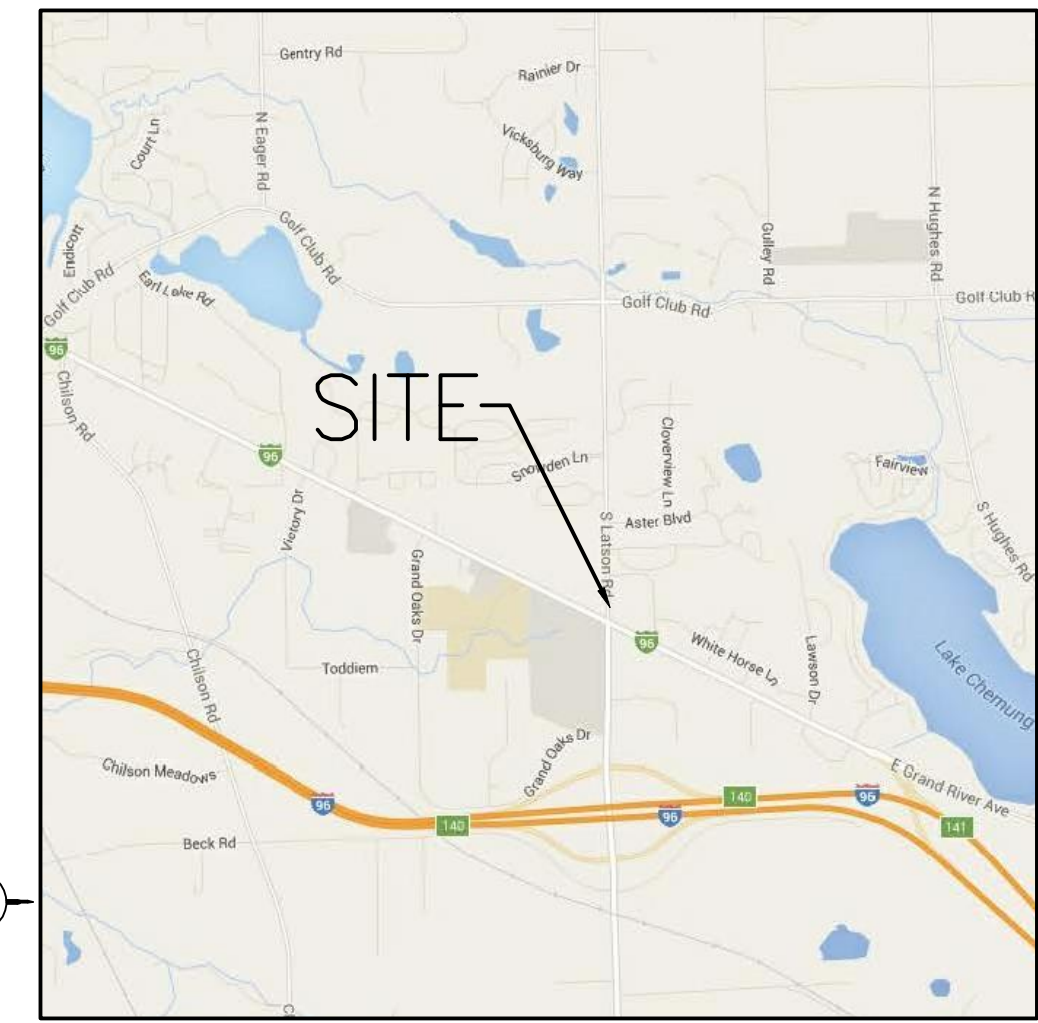
Part of the Northwest 1/4 of Section 9, T2N-R5E, Genoa Township, Livingston County, Michigan, more particularly described as follows: Commencing at the Northwest Corner of Section 9; thence along the North line of Section 8, T2N-R5E, Genoa Township, Livingston County, Michigan, S 87°15'42" W, 3.27 feet; thence along the Proposed Latson Road construction centerline, the following three (3) courses: 1) southerly along an arc right, having a length of 159.72 feet, a radius of 10,000.00 feet, a central angle of 00°54'55", and a long chord which bears S 00°40'20" W, 159.72 feet; 2) S 01°07'48" W, 913.15 feet; 3) southerly along an arc left, having a length of 273.34 feet, a radius of 10,000.00 feet, a central angle of 01°33'58", and a long chord which bears S 00°20'49" W, 273.33 feet, thence N 89°34'04" E, 66.39 feet, to the POINT OF BEGINNING of the Parcel to be described; thence along the West line of Section 9, N 01°46'12" W (recorded as N 02°33'37" W), 102.12 feet; thence N 88°13'48" E, 226.16 feet; thence S 01°46'06" E, 211.07 feet; thence S 88°13'48" W, 193.15 feet; thence along the east line of Latson Road, N 01°46'12" W, 108.18 feet; thence S 89°34'04" W, 33.00 feet, to the POINT OF BEGINNING, containing 1.01 acres, more or less, and subject to the rights of the public over the existing Latson Road. Also subject to any other easements or restrictions of record.

Bearings were established from MDOT, Control No. 47062 & Control No. 47065, Job No. 101622B, for Parcel 227

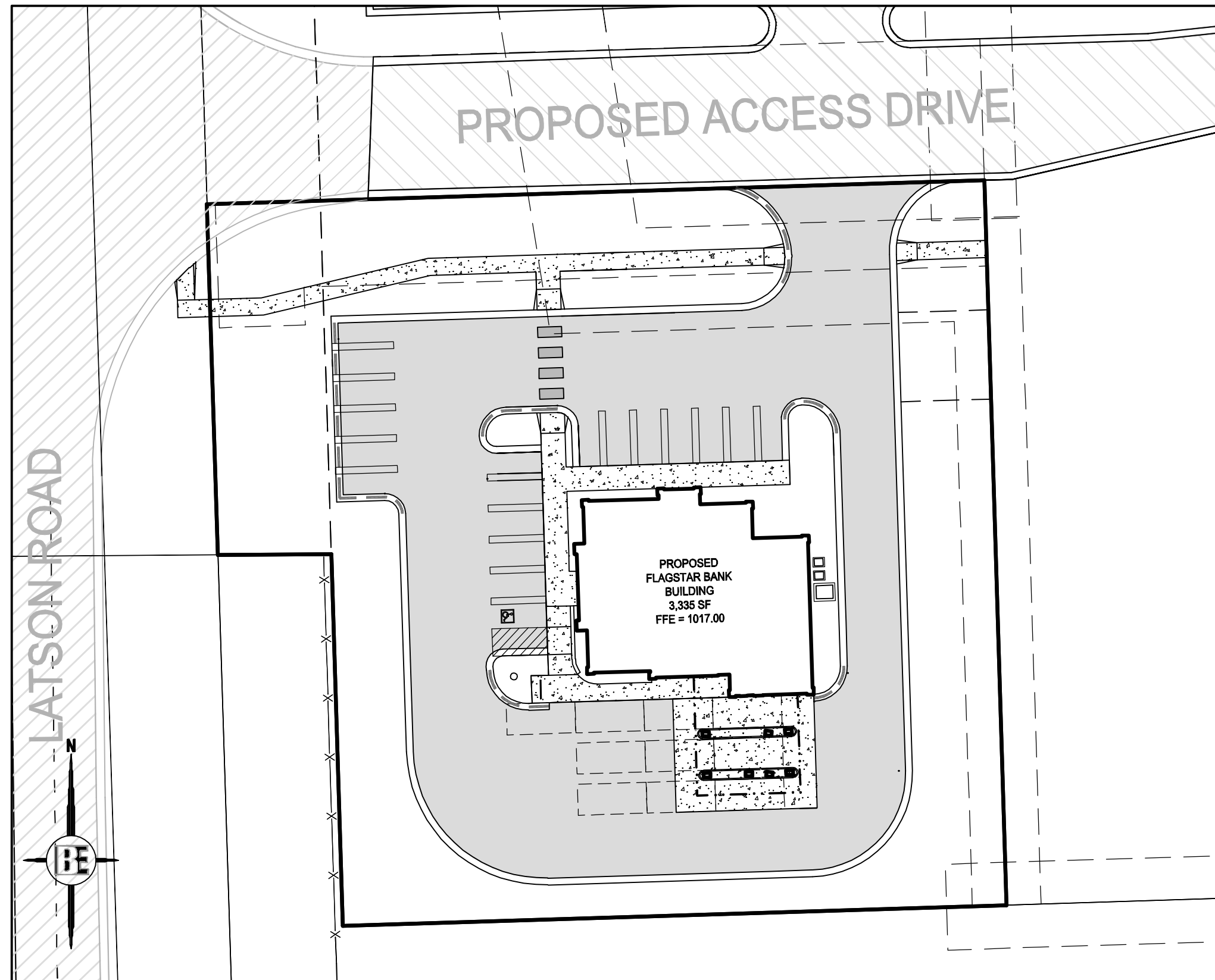
CONSTRUCTION NOTES

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 MANHOLES, 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.
34. ACCESS ROADS TO SITE SHALL BE MAINTAINED DURING CONSTRUCTION.



LOCATION MAP  
NO SCALE



OVERALL SITE MAP  
NO SCALE



NOTE:  
PROPERTY ADDRESS TO BE PROVIDED  
AFTER LAND DIVISION

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	OVERALL SCHEMATIC
4	SITE PLAN
5	GRADING, DRAINAGE & SOIL EROSION CONTROL PLAN
6	OVERALL UTILITY SCHEMATIC
7	UTILITY PLAN
8	LANDSCAPE PLAN
9	CONSTRUCTION DETAILS
10	SANITARY SEWER DETAILS
11	WATER MAIN DETAILS
12	AERIAL SITE OVERVIEW
DRAWINGS PREPARED BY ARCHITECT	
A-1	FLOOR PLAN
A-2	ELEVATIONS
PE-1	PHOTOMETRIC SITE PLAN
	SIGN DRAWINGS
	SIGN DRAWINGS

**FLAGSTAR BANK**

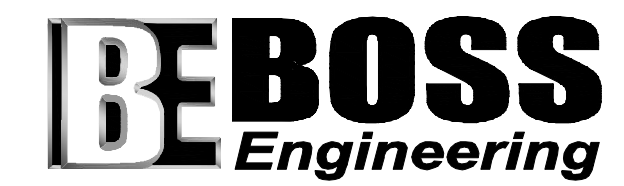
**BANK/OWNER:**

FLAGSTAR BANK  
5151 CORPORATE DRIVE  
TROY, MI 48098  
CONTACT: PAUL BUC, V.P. REP  
PHONE: (248) 312-6447  
E-MAIL: PAUL.BUC@FLAGSTAR.COM

**PREPARED FOR:**

MBA ARCHITECTS  
30150 TELEGRAPH RD.  
SUITE 150  
BINGHAM FARMS, MI 48025  
CONTACT: MICHAEL BOGGIO JR., AIA  
PHONE: (248) 258-5155  
E-MAIL: BOG48@AOL.COM

**PREPARED BY:**



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

FOR SITE PLAN APPROVAL ONLY!  
NOT FOR CONSTRUCTION

2	KS	GENOA TOWNSHIP REVIEW	04/25/16	
1	KS	GENOA TOWNSHIP REVIEW	03/23/16	ISSUE DATE: 3/2/2016
NO	BY	CK	REVISION	DATE
				JOB NO. 15-325



GRAND OAKS DR

L=273.34'  
R=10000.00'  
D=01°33'56"  
CH=500°20'49"W  
273.33'

ZONED: NRPUD -  
NON-RESIDENTIAL  
PLANNED UNIT DEVELOPMENT

APPROXIMATE LOCATION OF 770-MP GAS MAIN  
PER CONSUMERS ENERGY QUARTER SECTION  
MAP #02-55-09-2, OBTAINED FROM  
WEBSITE: www.consumersenergy.com/sms

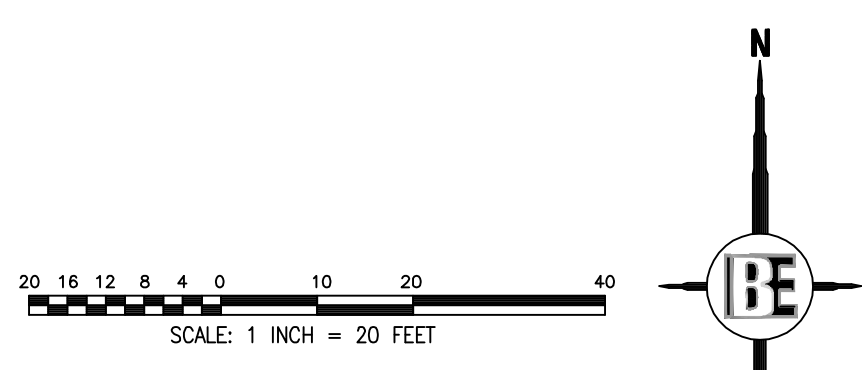
LATSON ROAD

ZONED: NRPUD - NON-RESIDENTIAL  
PLANNED UNIT DEVELOPMENT

1.01 AC  
ZONED: RC - REGIONAL COMMERCIAL

ZONED: NRPUD - NON-RESIDENTIAL  
PLANNED UNIT DEVELOPMENT

ZONED: NRPUD - NON-RESIDENTIAL  
PLANNED UNIT DEVELOPMENT



**EXISTING STORM WATER NARRATIVE**  
THE EXISTING DRAINAGE PATTERNS ARE AS FOLLOWS:  
THE EASTERN HALF OF THE SITE SHEET FLOWS TO THE  
ADJACENT PROPERTY TO THE EAST AND SOUTH.  
THE WESTERN HALF OF THE SITE DRAINS INTO AN EXISTING  
SWALE THAT FLOWS SOUTH TO THE ADJACENT PROPERTY.

**SITE SOIL INFORMATION**  
MoB: MIAMI LOAM, 2-6% SLOPES

**LEGEND**

- 900- EXISTING CONTOUR
- 922.00 EXISTING SPOT ELEVATION
- EXISTING DRAINAGE PATTERN
- POWER POLE
- GUY WIRE
- TRANSFORMER PAD
- ELECTRICAL RISER
- U.G. ELECTRIC MARKER
- ELECTRICAL METER
- LIGHT POLE
- HYDRANT
- GATE VALVE
- MANHOLE
- STORM CATCH BASIN (BEEHIVE)
- STORM CATCH BASIN (SQUARE)
- STORM INVERT
- TELEPHONE RISER
- U.G. TELEPHONE MARKER
- GAS METER
- GAS RISER
- U.G. GAS MARKER
- CABLE TV RISER
- U.G. CABLE TV MARKER
- MAILBOX
- SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- SECTION CORNER
- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- GAS MAIN
- ELECTRIC
- TELEPHONE
- OVERHEAD WIRES
- TO BE REMOVED ASPHALT

**BENCHMARK INFORMATION**  
BM #203: MANHOLE LOCATED EAST OF LATSON ROAD AND SOUTH  
OF ACCESS DRIVE  
ELEVATION = 1018.45 NAVD88

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND PROPOSED UTILITY LOCATIONS IN THE FIELD PRIOR TO ANY CONSTRUCTION. ANY DISCREPANCIES OR CONFLICTS ARE APPLICANT'S RESPONSIBILITY. ANY CONFLICTS ARE APPLICANT'S RESPONSIBILITY.

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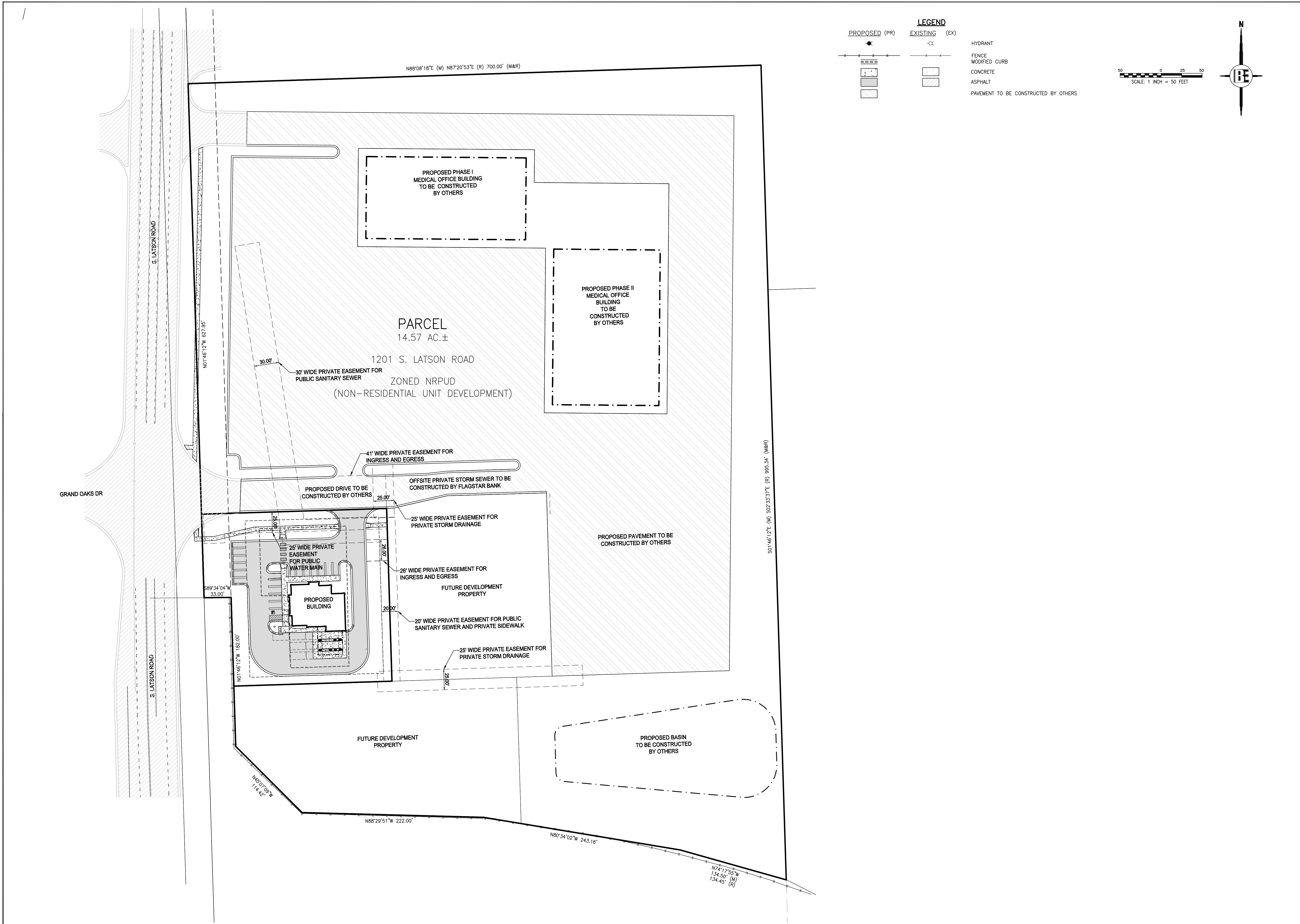
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
800.246.6735 FAX 517.548.1670

PROJECT: FLAGSTAR BANK  
PREPARED FOR: MBA ARCHITECTS  
30160 TELEGRAPH RD, SUITE 160  
BINGHAM FARMS, MI 48025  
248-2585155

TITLE: EXISTING CONDITIONS & DEMOLITION PLAN

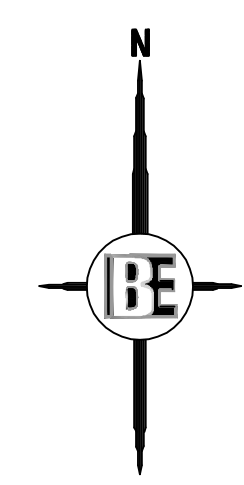
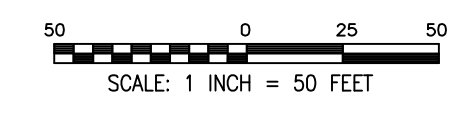
NO	BY	REVISION PER	DATE
1	KS	GENOA TWP. REVIEW	03/23/16
2	KS	GENOA TWP. REVIEW	04/25/16

DESIGNED BY: KS  
DRAWN BY: AEB  
CHECKED BY:  
SCALE 1" = 20'  
JOB NO. 15-325  
DATE 03/02/2016  
SHEET NO. 2



**LEGEND**

PROPOSED (PR)	EXISTING (EX)	
		HYDRANT
		FENCE MODIFIED CURB
		CONCRETE ASPHALT PAVEMENT TO BE CONSTRUCTED BY OTHERS



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PROJECT: FLAGSTAR BANK  
PREPARED FOR: MBA ARCHITECTS  
30160 TELEGRAPH RD, SUITE 160  
BINGHAM FARMS, MI 48025  
248-2585155

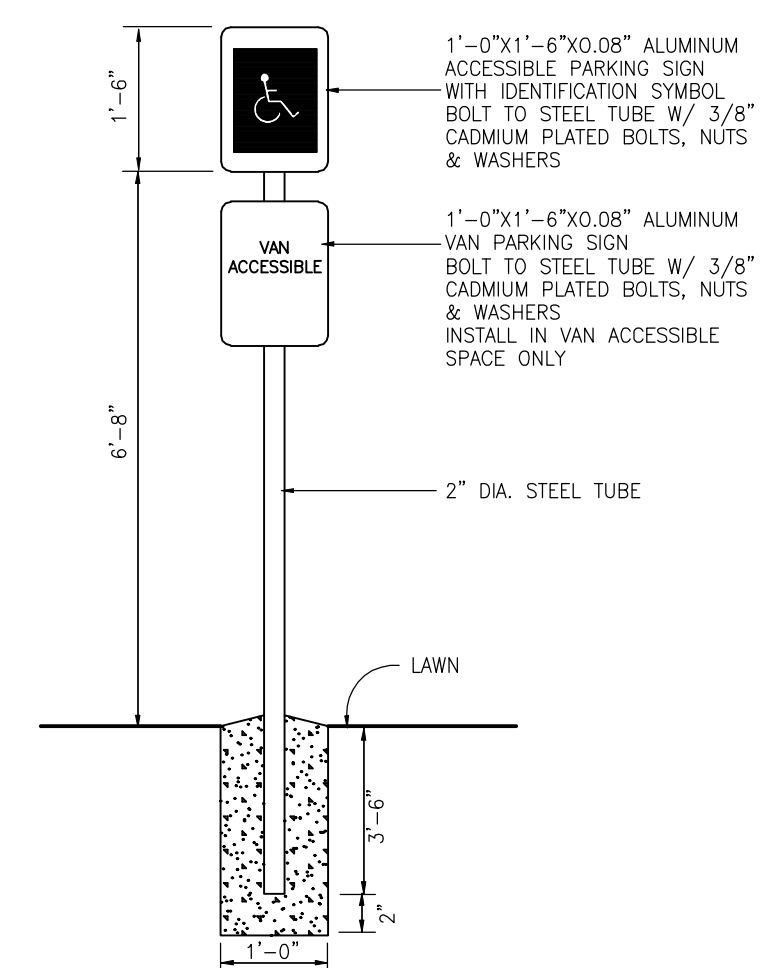
TITLE: OVERALL SCHEMATIC

NO	BY	REVISION	PER	DATE
2	KS	GENOA TWP. REVIEW		04/25/16
1	KS	GENOA TWP. REVIEW		03/23/16

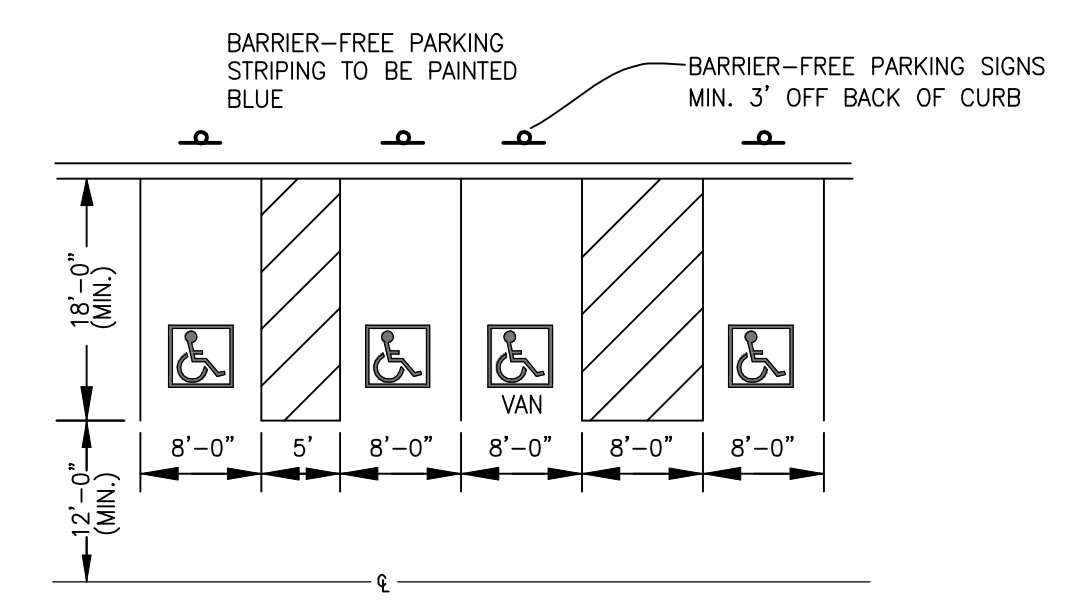
DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY:  
SCALE: 1" = 50'  
JOB NO. 15-325  
DATE 03/02/2016  
SHEET NO. 3

SITE DATA		
ZONING	RC REGIONAL COMMERCIAL	
SITE AREA	1.01 AC (44,152 SF)	
SETBACKS	REQUIRED	PROVIDED
FRONT	70 FT	72.09 FT
SIDE	20 FT	S. 63.00 FT N. 87.40 FT
REAR	50 FT	54.19 FT
PERVIOUS SURFACE	17,727 SF	
IMPERVIOUS SURFACE	26,425 SF	
MAX COVERAGE	REQUIRED	PROVIDED
BUILDING	35%	7.51%
IMPERVIOUS SURFACE	75%	59%
NOTE: TRASH TO BE COLLECTED INTERNALLY AND PICKED UP CURBSIDE WEEKLY		

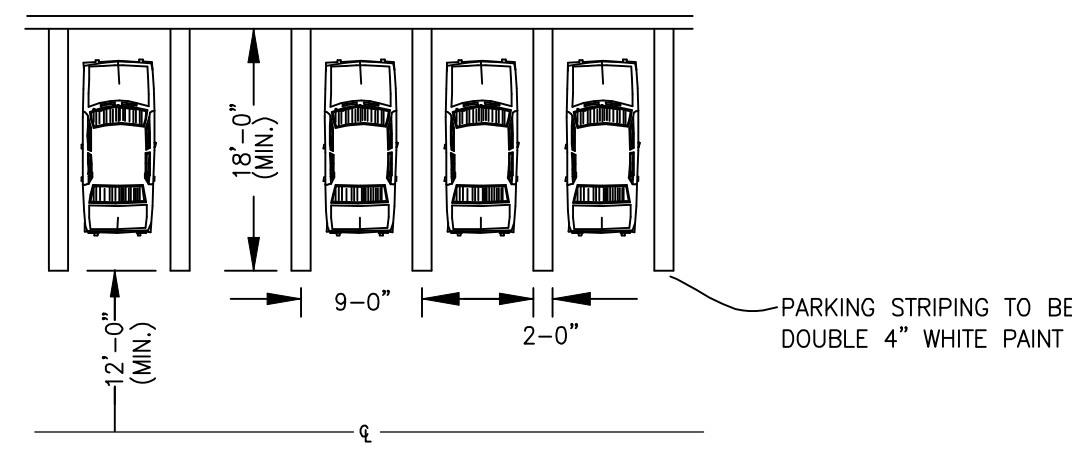
PARKING LOT DATA		
SETBACKS	REQUIRED	PROVIDED
FRONT	20 FT	20 FT
SIDE	10 FT	S. 10 FT N. 28.41 FT
REAR	10 FT	10 FT
SPACES REQUIRED	SPACES PROVIDED	
1 SPACE/200 SF OF GROSS FLOOR SPACE (3,315 SF/200=17 SPACES)		
2 SPACES/ATM (1 ATM = 2 SPACE)		
4 STACKING SPACES/ FIRST DRIVE UP WINDOW (4 STACKING SPACES)	19 SPACES 10 STACKING SPACES	
3 SPACES/ EACH ADDITIONAL DRIVE UP WINDOW		
TOTAL = 19 SPACES, 10 STACKING SPACES		
BARRIER FREE SPACES	REQUIRED	PROVIDED
	1	1



HANDICAP PARKING SIGN DETAIL  
(NO SCALE)



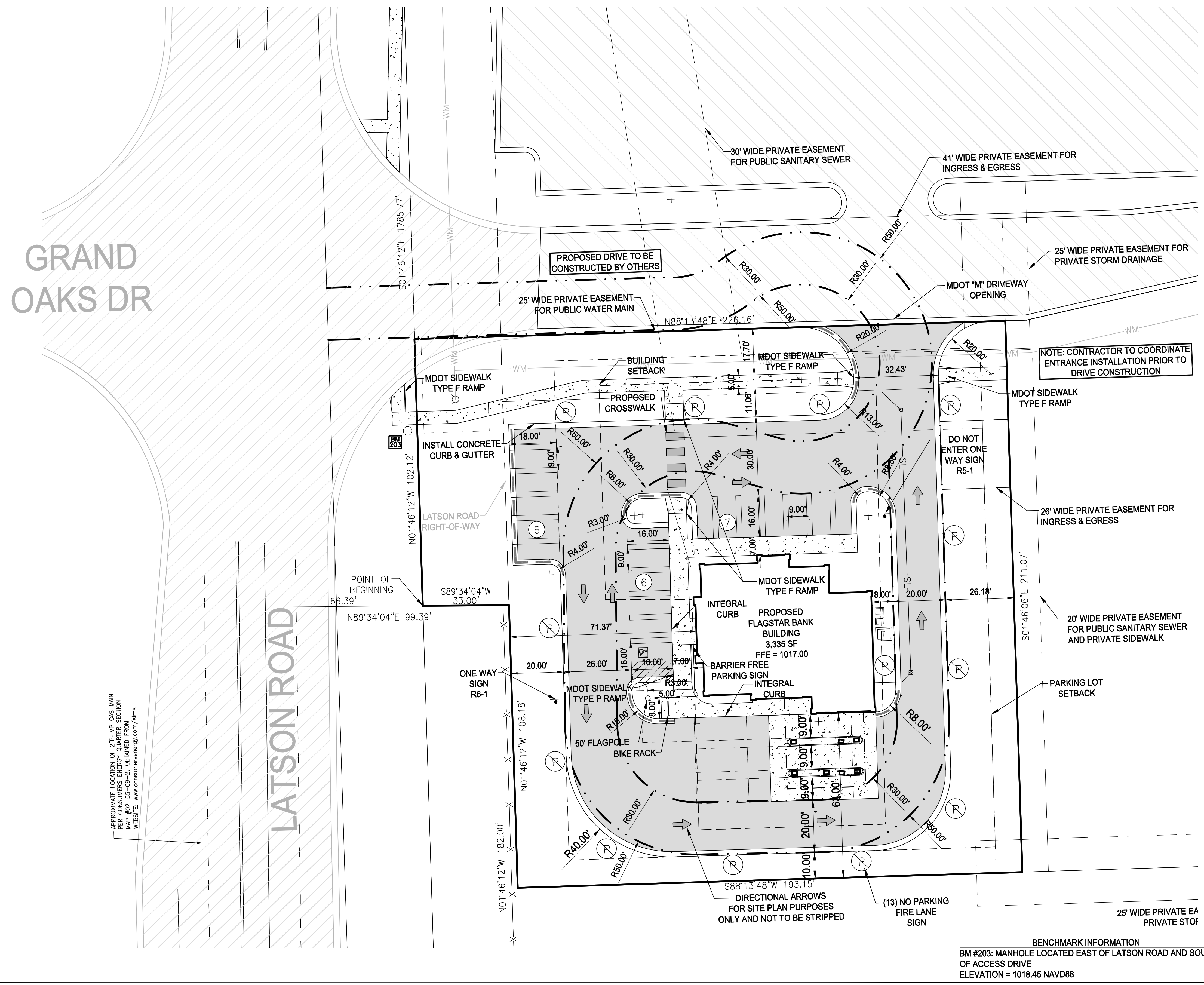
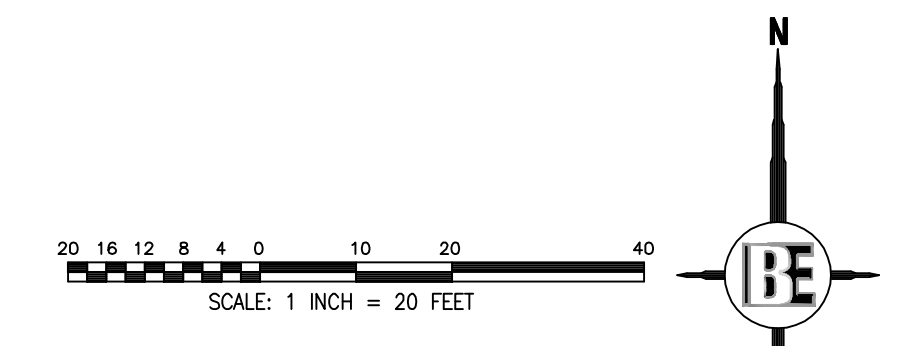
TYPICAL BARRIER FREE PARKING SPACE  
(NO SCALE)



TYPICAL PARKING SPACE  
(NO SCALE)

**LEGEND**

PROPOSED (PR)	EXISTING (EX)	
FFE	FFE	FINISHED FLOOR ELEVATION
+	+	HYDRANT
---	---	FENCE
---	---	SIGN
---	---	MODIFIED CURB
---	---	CONCRETE
---	---	ASPHALT
---	---	PAVEMENT TO BE CONSTRUCTED BY OTHERS
---	---	'FIRE LANE NO PARKING' SIGN
---	---	FIRE TRUCK ACCESS
---	---	DRIVE THRU VEHICLE STACKING SPACES



APPROXIMATE LOCATION OF 2" P-MF GAS MAIN PER CONSUMERS ENERGY QUARTER SECTION MAP #02-55-09-2, OBTAINED FROM WEBSITE: www.consumersenergy.com/sims

NOTE: CONTRACTOR TO COORDINATE ENTRANCE INSTALLATION PRIOR TO DRIVE CONSTRUCTION

BENCHMARK INFORMATION  
BM #203: MANHOLE LOCATED EAST OF LATSON ROAD AND SOUTH OF ACCESS DRIVE  
ELEVATION = 1018.45 NAVD88

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PROJECT: FLAGSTAR BANK  
PREPARED FOR: MBA ARCHITECTS  
30160 TELEGRAPH RD, SUITE 160  
BINGHAM FARMS, MI 48025  
248-256-5156

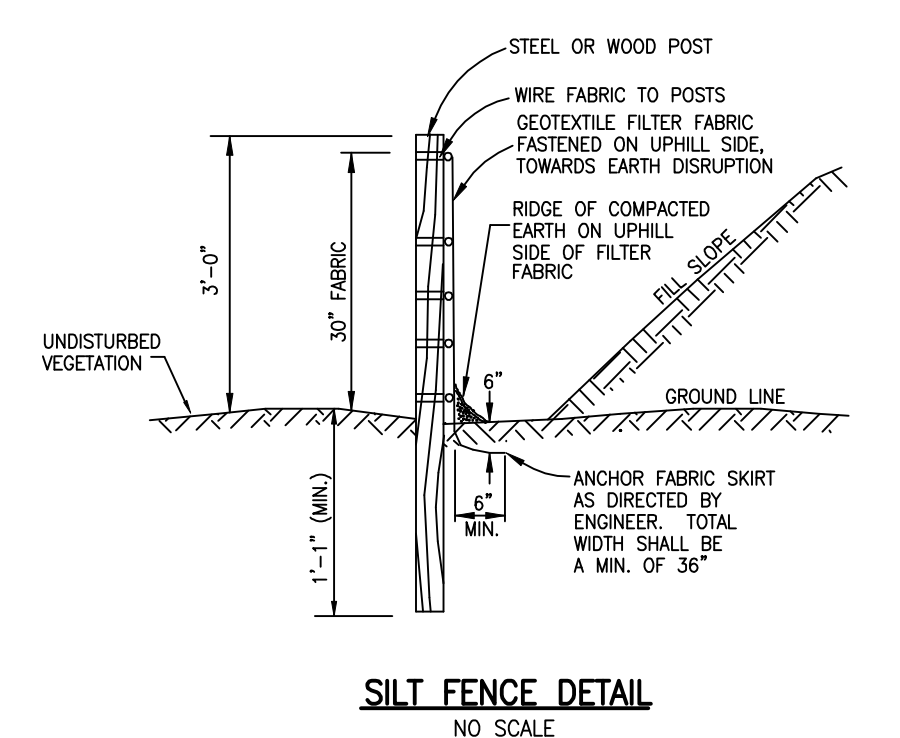
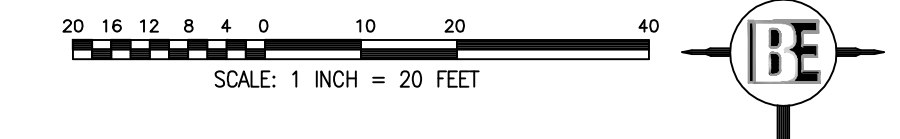
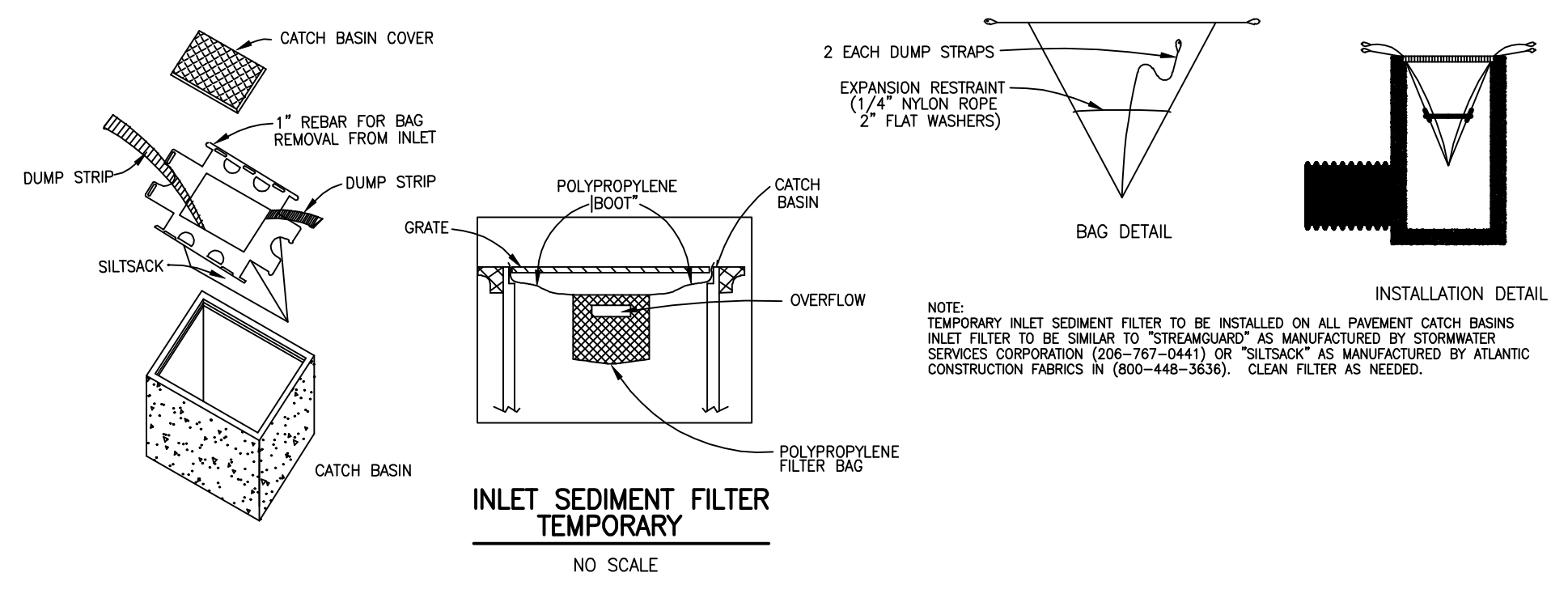
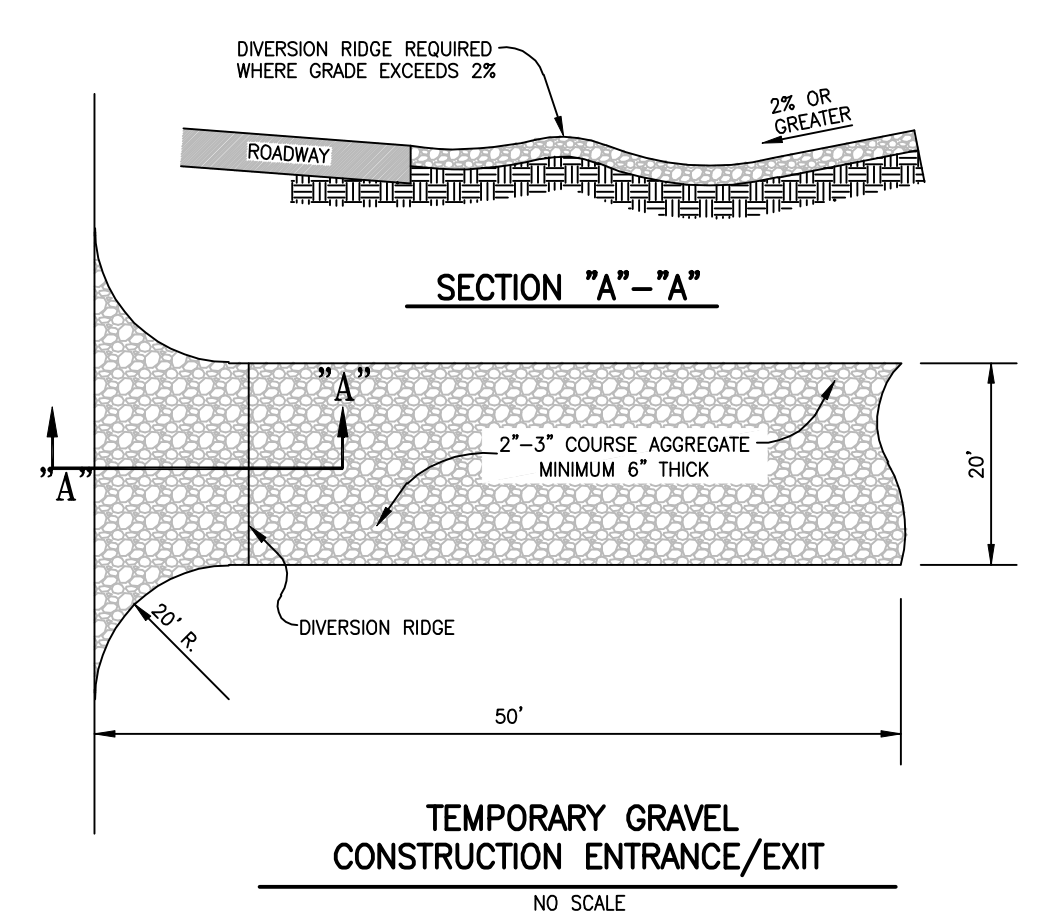
TITLE: SITE PLAN

NO	BY	REVISION	PER	DATE
1	KS	GENOA TWP. REVIEW		03/23/16
2	KS	GENOA TWP. REVIEW		04/25/16

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY:  
SCALE: 1" = 20'  
JOB NO. 15-325  
DATE 03/02/2016  
SHEET NO. 4

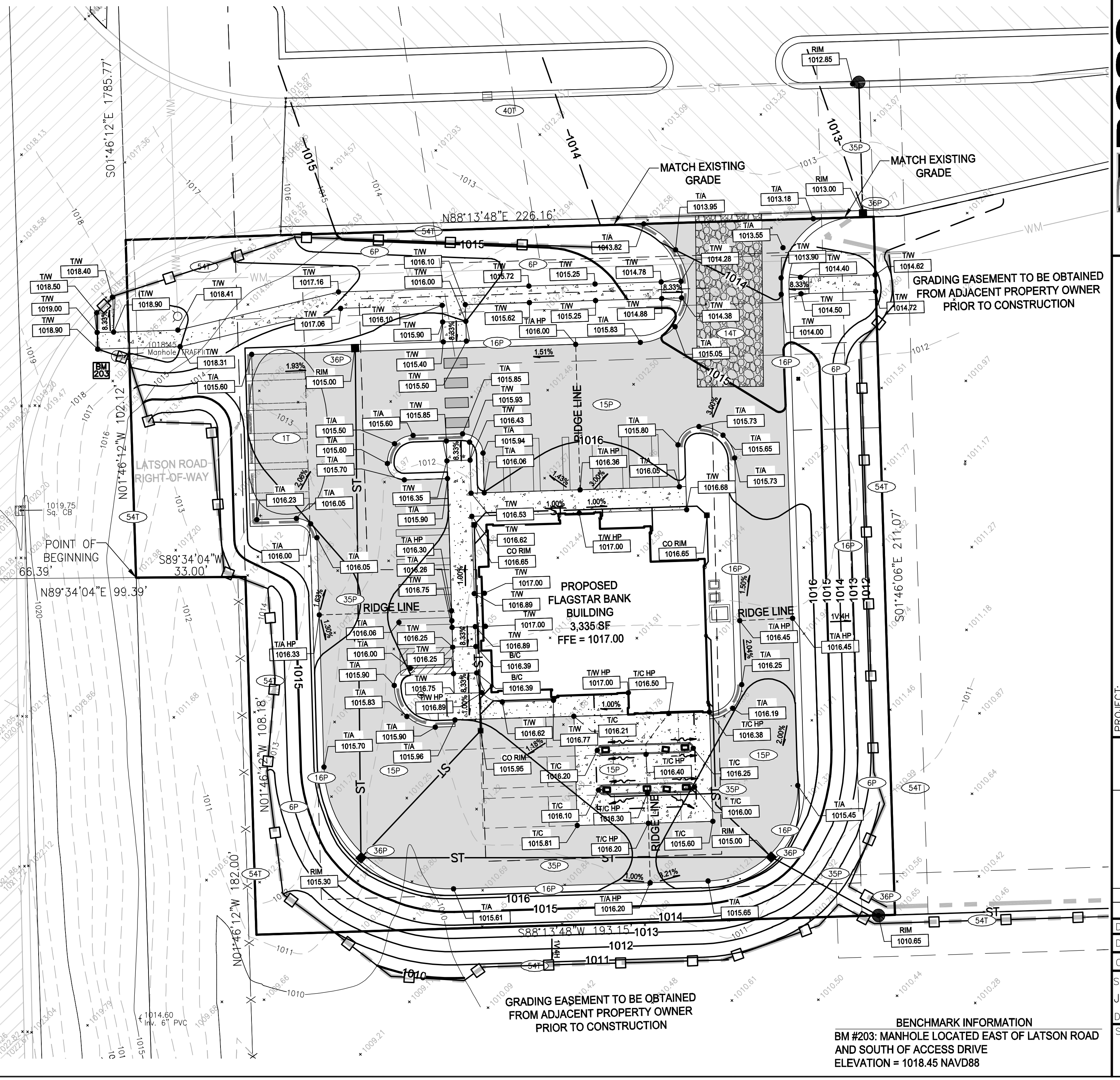
**LEGEND**

PROPOSED (PR)	EXISTING (EX)	DESCRIPTION
900	900	CONTOUR TO BE CONSTRUCTED BY OTHERS
T/C	T/C	STORM DRAINAGE FLOW
XXX.XX	+922.08	SPOT ELEVATION
FFE	FFE	FINISHED FLOOR ELEVATION
FG	FG	FINISHED GRADE ELEVATION
T/A	T/A	TOP OF ASPHALT
T/C	T/C	TOP OF CURB / CONCRETE
RIM	RIM	RIM ELEVATION
MH	MH	MANHOLE STRUCTURE
CB	CB	CATCHBASIN STRUCTURE
ES	ES	END-SECTION
GV	GV	GATEVALVE STRUCTURE
HY	HY	HYDRANT
SN	SN	SANITARY SEWER
SL	SL	SANITARY LEAD
FM	FM	FORCE MAIN
ST	ST	STORM SEWER
WM	WM	WATER MAIN
WL	WL	WATER LEAD
OH	OH	OVERHEAD WIRE
C	C	CABLE
E	E	ELECTRIC
G	G	GAS
MH	MH	MANHOLE
INLET / CATCHBASIN	INLET / CATCHBASIN	INLET / CATCHBASIN
FLARED END-SECTION	FLARED END-SECTION	FLARED END-SECTION
GATE VALVE	GATE VALVE	GATE VALVE
HYDRANT	HYDRANT	HYDRANT
FENCE	FENCE	FENCE
SILT FENCE	SILT FENCE	SILT FENCE
LIMITS OF GRADING/CLEARING	LIMITS OF GRADING/CLEARING	LIMITS OF GRADING/CLEARING
MODIFIED CURB	MODIFIED CURB	MODIFIED CURB
CONCRETE	CONCRETE	CONCRETE
ASPHALT	ASPHALT	ASPHALT
PAVEMENT TO BE CONSTRUCTED BY OTHERS	PAVEMENT TO BE CONSTRUCTED BY OTHERS	PAVEMENT TO BE CONSTRUCTED BY OTHERS
SOIL EROSION CONTROL MEASURE	SOIL EROSION CONTROL MEASURE	SOIL EROSION CONTROL MEASURE
(P=PERMANENT, T=TEMPORARY)	(P=PERMANENT, T=TEMPORARY)	(P=PERMANENT, T=TEMPORARY)



GRAND OAKS DR

LATSON ROAD



**CONTROLS & MEASURES NARRATIVE**

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

**CONTROLS & MEASURES POST CONSTRUCTION SEQUENCE**

ACTIVITY	DAILY	WEEKLY	MONTHLY	AS REQUIRED
MAINTAIN LANDSCAPING, REPLACE MULCH		X	X	X
CLEAN INLETS		X	X	X
COLLECT LITTER		X	X	X
SWEEP PAVED AREAS		X	X	X
SCRAPE PAVED AREAS	X			X

**SOIL EROSION CONTROL MEASURES**

MEASURE	DESCRIPTION
1	STRIPPING & STOCKPILING TOPSOIL
6	SEEDING WITH MULCH ORER MATS
14	AGGREGATE COVER
15	PAVING
16	CURB & DITCH
35	STORM SEWER
36	CATCH BASIN, DRAIN INLET
40	INLET SEDIMENT FILTER
54	SILT FENCE

**SITE SOIL INFORMATION**  
MoB: MIAMI LOAM, 2-6% SLOPES

P = PERMANENT, T = TEMPORARY  
TOTAL DISTURBED AREA = 0.99 AC (43,350 SF)

GRADING EASEMENT TO BE OBTAINED FROM ADJACENT PROPERTY OWNER PRIOR TO CONSTRUCTION

**BENCHMARK INFORMATION**  
BM #203: MANHOLE LOCATED EAST OF LATSON ROAD AND SOUTH OF ACCESS DRIVE  
ELEVATION = 1018.45 NAVD88

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

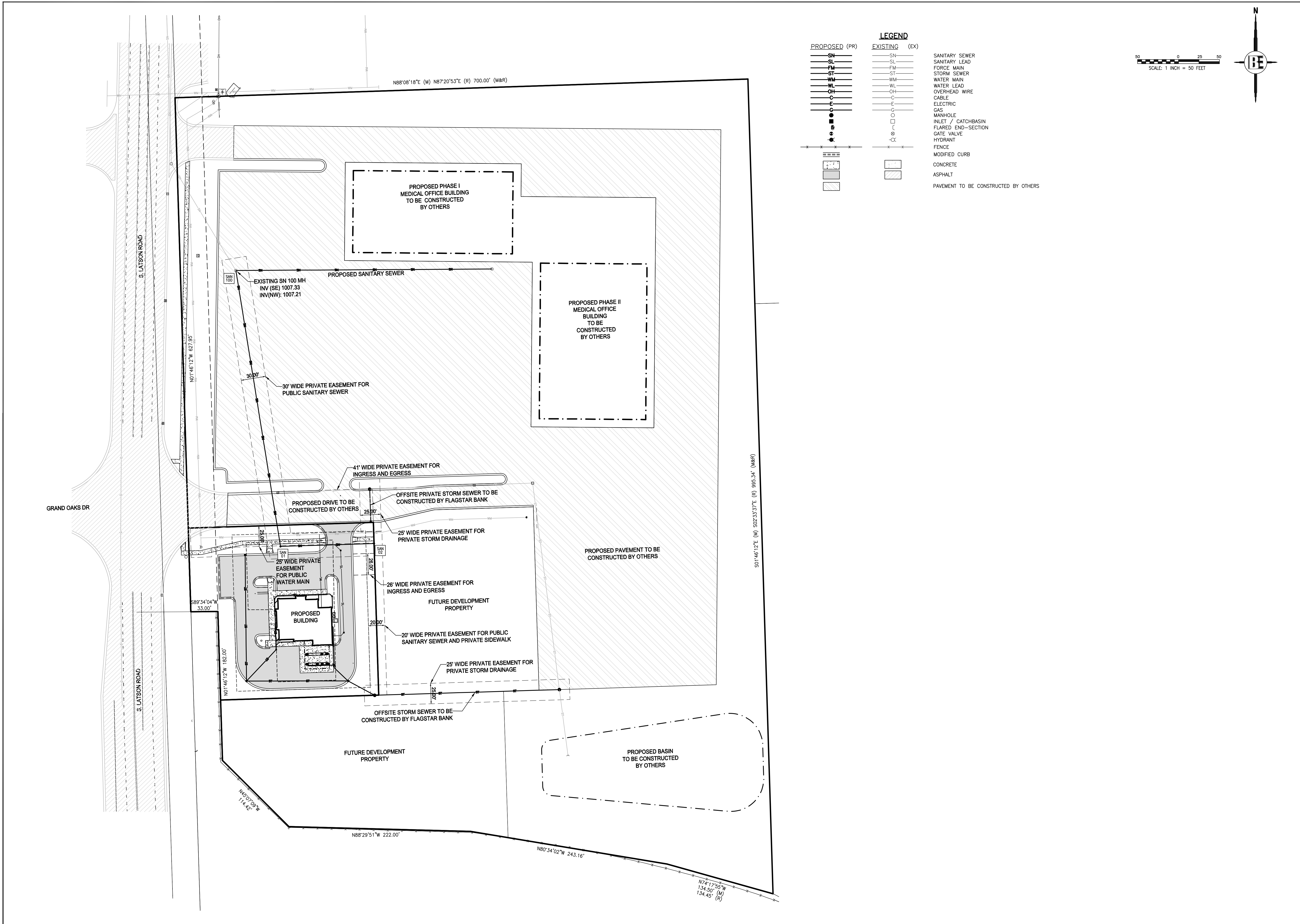
**BE ENGINEERING**  
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3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
800.246.6735 FAX 517.548.1670

**FLAGSTAR BANK**  
MBA ARCHITECTS  
30160 TELEGRAPH RD, SUITE 160  
BINGHAM FARMS, MI 48025  
248-2585155

PROJECT: **GRADING, DRAINAGE & SOIL EROSION CONTROL PLAN**  
PREPARED FOR: **FLAGSTAR BANK**  
DATE: 03/23/16

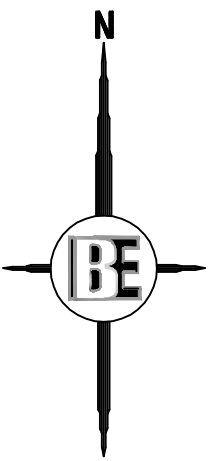
NO	BY	REVISION PER	DATE
1	KS	GENOA TWP. REVIEW	04/25/16
2	KS	GENOA TWP. REVIEW	03/23/16

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY:  
SCALE 1" = 20'  
JOB NO. 15-325  
DATE 03/02/2016  
SHEET NO. 5



**LEGEND**

<b>PROPOSED (PR)</b>	<b>EXISTING (EX)</b>	
SN	SN	SANITARY SEWER
SL	SL	SANITARY LEAD
FM	FM	FORCE MAIN
ST	ST	STORM SEWER
WM	WM	WATER MAIN
WL	WL	WATER LEAD
OH	OH	OVERHEAD WIRE
C	C	CABLE
E	E	ELECTRIC
G	G	GAS
M	M	MANHOLE
I	I	INLET / CATCHBASIN
F	F	FLARED END-SECTION
V	V	GATE VALVE
H	H	HYDRANT
F	F	FENCE
C	C	MODIFIED CURB
C	C	CONCRETE
A	A	ASPHALT
		PAVEMENT TO BE CONSTRUCTED BY OTHERS



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**FLAGSTAR BANK**  
MBA ARCHITECTS  
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BINGHAM FARMS, MI 48025  
248-2585155

PROJECT: **OVERALL UTILITY SCHEMATIC**

PREPARED FOR:

TITLE:

NO	BY	REVISION PER	DATE
2	KS	GENOA TWP. REVIEW	04/25/16
1	KS	GENOA TWP. REVIEW	03/23/16

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY:

SCALE 1" = 50'  
JOB NO. 15-325  
DATE 03/02/2016

SHEET NO. **6**

**STORM STRUCTURE SCHEDULE**

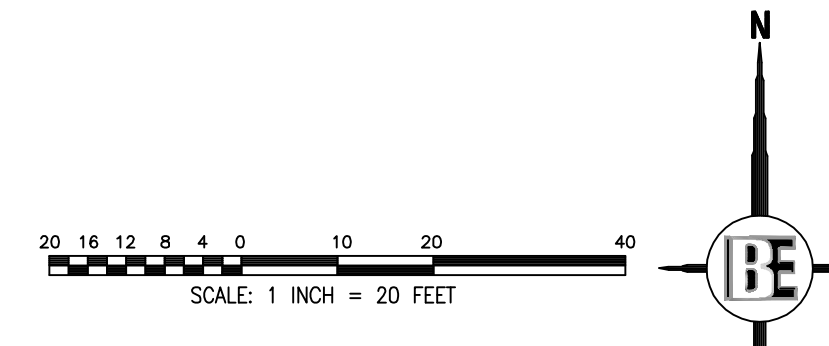
<b>MH 01</b> 4' DIA MDOT COVER A RIM = 1005.5 INV NW 12" 999.87 EX INV N 30" 996.17 EX INV S 30" 996.17 NO SUMP	<b>CO 06</b> ROOF DRAIN-STORM CLEANOUT RIM = 1015.95 INV N 6" 1011.31 INV SW 6" 1011.31
<b>MH 02</b> 4' DIA MDOT COVER A RIM = 1010.65 INV NW 12" 1006.65 INV E 12" 1006.65 NO SUMP	<b>CO 07</b> ROOF DRAIN-STORM CLEANOUT RIM = 1016.65 INV NE 6" 1011.93 INV S 6" 1011.93
<b>CB 03</b> 4' DIA MDOT COVER K RIM = 1015.00 INV NW 6" 1012.156 INV W 12" 1009.76 INV SE 12" 1007.756 2' SUMP	<b>CO 08</b> ROOF DRAIN-STORM CLEANOUT RIM = 1016.65 INV S 6" 1012.66 INV NW 6" 1012.66
<b>CB 04</b> 4' DIA MDOT COVER K RIM = 1015.30 INV N 12" 1010.38 INV E 12" 1010.38 INV NE 6" 1010.78 2' SUMP	<b>MH 10</b> 4' DIA MDOT COVER A RIM = 1012.85 EX INV W 12" 1009.04 EX INV E 12" 1009.04 INV S 12" 1009.04 2' SUMP
<b>CB 05</b> 4' DIA MDOT COVER K RIM = 1015.00 INV S 12" 1011.15 2' SUMP	

**STORM PIPE SCHEDULE**

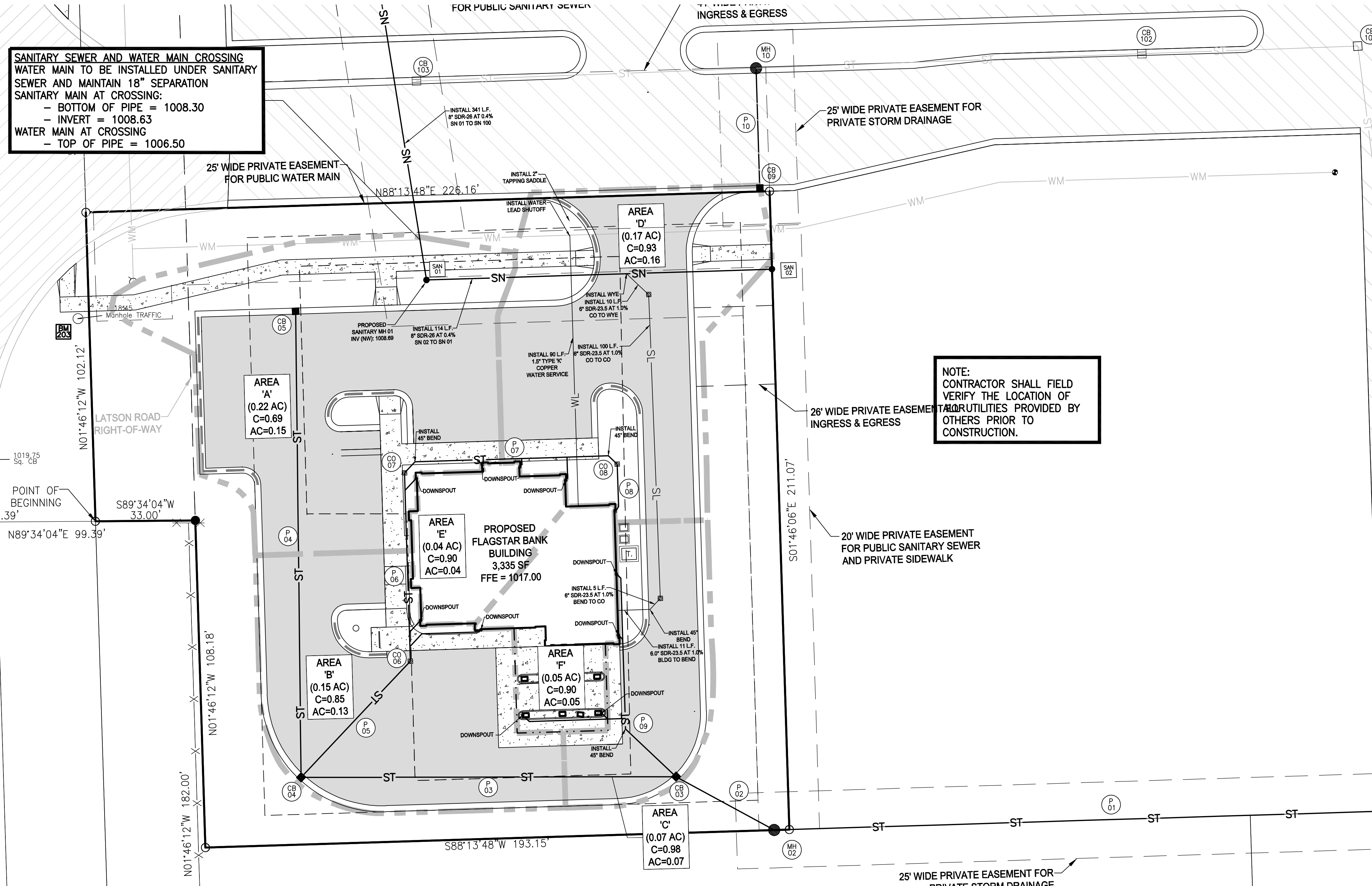
PIPE	LENGTH	SIZE	TYPE	SLOPE
1	226	12	C-76 CLV	3.00%
2	37	12	C-76 CLV	3.00%
3	124	12	C-76 CLV	0.50%
4	154	12	C-76 CLV	0.50%
5	53	6	PVC SDR 23.5	1.00%
6	62	6	PVC SDR 23.5	1.00%
7	73	6	PVC SDR 23.5	1.00%
8	14	6	PVC SDR 23.5	1.00%
9	73	6	PVC SDR 23.5	1.00%
10	40	12	C-76 CLV	0.32%

**LEGEND**

<p><b>PROPOSED (PR)</b></p> <ul style="list-style-type: none"> <li>FFE</li> <li>FG</li> <li>T/A</li> <li>T/C</li> <li>RIM</li> <li>MH</li> <li>CB</li> <li>DS</li> <li>ES</li> <li>GV</li> <li>HY</li> <li>•</li> <li>○</li> <li>□</li> <li>⊗</li> </ul>	<p><b>EXISTING (EX)</b></p> <ul style="list-style-type: none"> <li>FFE</li> <li>FG</li> <li>T/A</li> <li>T/C</li> <li>RIM</li> <li>MH</li> <li>CB</li> <li>DS</li> <li>ES</li> <li>GV</li> <li>HY</li> <li>⊗</li> <li>⊘</li> <li>□</li> <li>⊖</li> </ul>	<p>FINISHED FLOOR ELEVATION FINISHED GRADE ELEVATION TOP OF ASPHALT TOP OF CURB / CONCRETE RIM ELEVATION MANHOLE STRUCTURE CATCHBASIN STRUCTURE DOWNSPOUT END-SECTION GATEVALVE STRUCTURE HYDRANT GATE VALVE HYDRANT</p>	<p><b>PROPOSED (PR)</b></p> <ul style="list-style-type: none"> <li>SN</li> <li>SL</li> <li>FM</li> <li>ST</li> <li>WM</li> <li>WL</li> <li>OL</li> <li>C</li> <li>C</li> <li>⊗</li> <li>○</li> <li>□</li> <li>⊖</li> </ul>	<p><b>EXISTING (EX)</b></p> <ul style="list-style-type: none"> <li>SN</li> <li>SL</li> <li>FM</li> <li>ST</li> <li>WM</li> <li>WL</li> <li>OL</li> <li>C</li> <li>C</li> <li>⊗</li> <li>○</li> <li>□</li> <li>⊖</li> </ul>	<p>SANITARY SEWER SANITARY LEAD FORCE MAIN STORM SEWER WATER MAIN WATER LEAD OVERHEAD WIRE CABLE ELECTRIC GAS MANHOLE INLET / CATCHBASIN FLARED END-SECTION CLEANOUT</p>	<p><b>PROPOSED (PR)</b></p> <ul style="list-style-type: none"> <li>⊗</li> <li>○</li> <li>□</li> <li>⊖</li> <li>▨</li> <li>▧</li> <li>▩</li> </ul>	<p><b>EXISTING (EX)</b></p> <ul style="list-style-type: none"> <li>⊗</li> <li>○</li> <li>□</li> <li>⊖</li> <li>▨</li> <li>▧</li> <li>▩</li> </ul>	<p>FENCE SIGN STORM SEWER LABEL LIMITS OF DRAINAGE MODIFIED CURB CONCRETE ASPHALT PAVEMENT TO BE CONSTRUCTED BY OTHERS</p>
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**SANITARY SEWER AND WATER MAIN CROSSING**  
WATER MAIN TO BE INSTALLED UNDER SANITARY SEWER AND MAINTAIN 18" SEPARATION  
SANITARY MAIN AT CROSSING:  
- BOTTOM OF PIPE = 1008.30  
- INVERT = 1008.63  
WATER MAIN AT CROSSING:  
- TOP OF PIPE = 1006.50



**NOTE:**  
CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF UTILITIES PROVIDED BY OTHERS PRIOR TO CONSTRUCTION.

APPROXIMATE LOCATION OF 4" DR. GAS MAIN  
SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE AND GUARANTEE IS  
MADE BY THE CONTRACTOR. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR  
VERIFYING THE LOCATION OF ALL UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION.  
AND PROPOSED UTILITY LOCATIONS IN THE FIELD PRIOR TO CONSTRUCTION.  
CONTACTS ARE APPARENT ON THE LOCATION OR DEPTH EITHER  
CORRELATION FROM THE PLAN.

PROJECT: FLAGSTAR BANK  
LOCATION: LIVINGSTON COUNTY  
DATE: 3/20/2016  
DESIGNER: KS

EXISTING/PROPOSED	PIPE	FROM	TO	DRAIN AREA	AREA A	AREA IMPERV	AREA PERV	RUNOFF COEFF	EQUIV. AREA A * C	INTEN-SITY I	TIME OF CONC. Tc	ADD'L RUNOFF	RUNOFF (CFS)	PIPE LENGTH (LF)	PIPE DIA. (IN)	VELOCITY FLOWING FULL (FPS)	HYDRAULIC GRADIENT SLOPE %	ACTUAL SLOPE USED	MANINGG FLOW CAPACITY	MANINGG'S VELOCITY (FT/SEC)	TIME (MIN)	HG ELEV UPPER END	HG ELEV LOWER END	RIM ELEV UPPER END	INVERT UPPER END	INVERT LOWER END	DROP DISTANCE (FT)	RIM- INV	RIM- HG >1	PIPE COVER >2.667
PROPOSED	4	CB05	CB04	A	0.22	0.15	0.07	0.69	0.15	4.38	15.00	0.18	0.66	154	12	2.25	0.24%	0.50%	2.53	3.22	0.80	1011.95	1011.18	1015.00	1011.15	1010.38	2.00	3.85	3.05	2.85
PROPOSED	3	CB04	CB03	B	0.15	0.14	0.01	0.85	0.13	4.29	15.00	0.18	1.39	124	12	2.86	0.40%	0.50%	2.53	3.22	0.64	1011.18	1010.56	1015.30	1010.38	1009.76	7.24	4.92	4.12	3.92
PROPOSED	2	CB03	MH02	C	0.07	0.06	0.01	0.80	0.06	4.22	16.44	0.21	5.91	37	12	5.91	1.69%	3.00%	6.19	7.88	0.08	1008.56	1007.45	1015.00	1007.76	1006.65	8.25	7.24	6.44	4.24
PROPOSED	1	MH02	MH01				0.00	0.00	0.00	4.21	16.52		1.85	226	12	1.85	1.69%	3.00%	6.19	7.88	0.48	1007.45	1000.67	1010.65	1006.65	996.65	2.50	4.00	3.20	3.00
EXISTING		MH01	ES100				0.00	0.00	0.00	4.17	17.00		1.85	81	30	4.70	0.31%	1.44%	49.35	10.05	0.13	998.17	997.00	1005.50	996.17	995.00		9.33	7.33	4.63
PROPOSED	9	DS	CB03	F	0.05	0.05	0.00	0.90	0.05	4.38	15.00		0.21	73	6	2.22	0.60%	1.00%	0.56	2.87	0.42	1013.29	1012.56	1017.00	1012.89	1012.16	4.00	4.11	3.71	3.61
PROPOSED	8	DS	CO08	E	0.04	0.04	0.00	0.90	0.04	4.38	15.00		0.18	14	6	2.15	0.56%	1.00%	0.56	2.87	0.08	1013.20	1013.06	1017.00	1012.80	1012.66		4.20	3.80	3.70
PROPOSED	7	CO08	CO07				0.00	0.00	0.00	4.37	15.08		0.18	73	6	2.15	0.56%	1.00%	0.56	2.87	0.42	1013.06	1012.33	1016.65	1012.66	1011.93		3.99	3.59	3.49
PROPOSED	6	CO07	CO06				0.00	0.00	0.00	4.32	15.51		0.18	62	6	2.15	0.56%	1.00%	0.56	2.87	0.36	1012.33	1011.71	1016.65	1011.93	1011.31		4.72	4.32	3.49
PROPOSED	5	CO06	CB04				0.00	0.00	0.00	4.28	15.87		0.18	53	6	2.15	0.56%	1.00%	0.56	2.87	0.31	1011.71	1011.18	1015.95	1011.31	1010.78		4.64	4.24	3.52
PROPOSED	10	CB09	MH10	D	0.17	0.12	0.05	0.69	0.12	4.38	15.00		0.53	40	12	1.80	0.16%	0.32%	2.02	2.57	0.26	1009.97	1009.84	1013.00	1009.17	1009.04		3.83	3.03	2.83
EXISTING		CB103	MH10	G	0.31	0.31	0.00	0.90	0.28	4.38	15.00		1.22	112	12	3.27	0.52%	0.86%	3.31	4.22	0.44	1010.80	1009.84	1014.66	1010.00	1009.04		4.66	3.86	3.66
EXISTING		MH10	CB102				0.00	0.00	0.00	4.33	15.44	0.53	1.75	128	12	3.75	0.68%	0.86%	3.31	4.22	0.51	1009.84	1008.74	1012.85	1009.04	1007.94		3.81	3.01	2.81

**BENCHMARK INFORMATION**  
BM #203: MANHOLE LOCATED EAST OF LATSON ROAD AND SOUTH OF ACCESS DRIVE  
ELEVATION = 1018.45 NAVD88

**STRUCTURE FRAMES & COVERS**

COVER	TYPE	USE	MANUFACTURER OR EQUAL		TYPE OF COVER OR GRATE
			EAST JORDAN	NEENAH	
A	MH	ALL	1120	R-1415	SANITARY—SELF SEALING STORM—VENTED
K	CB & INLET	TYPE C & F CURB	7045	R-3031-B	FLAT GRATE WITH VERT. 4" OPEN THROAT

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACTS ARE APPARENT ON THE LOCATION OR DEPTH EITHER CORRELATION FROM THE PLAN.

BEFORE YOU DIG  
1-800-487-7171

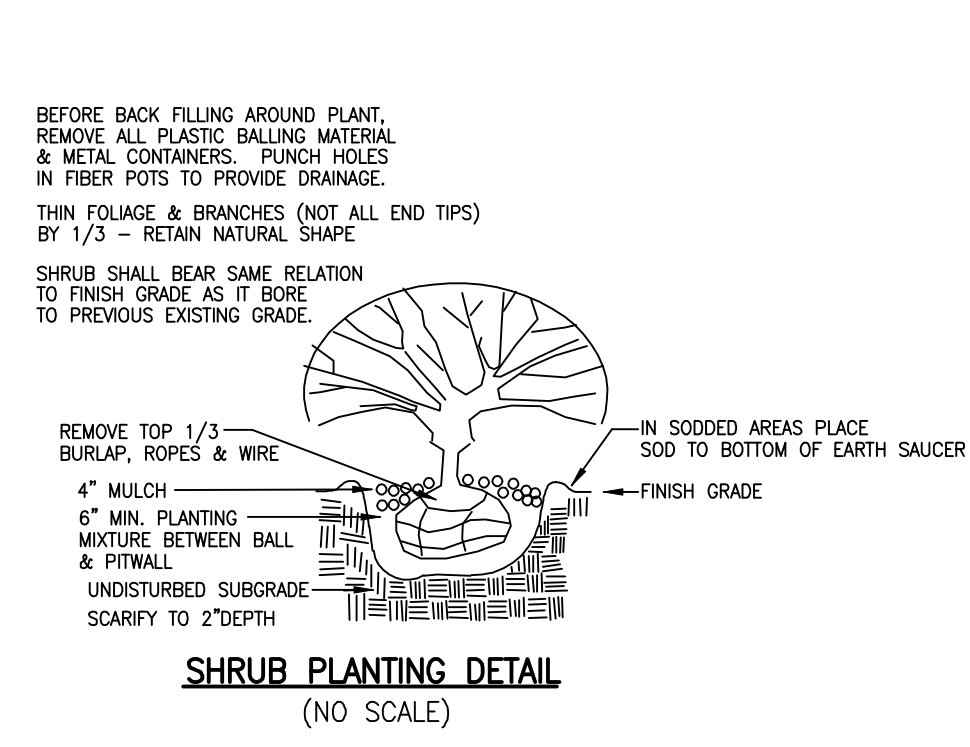
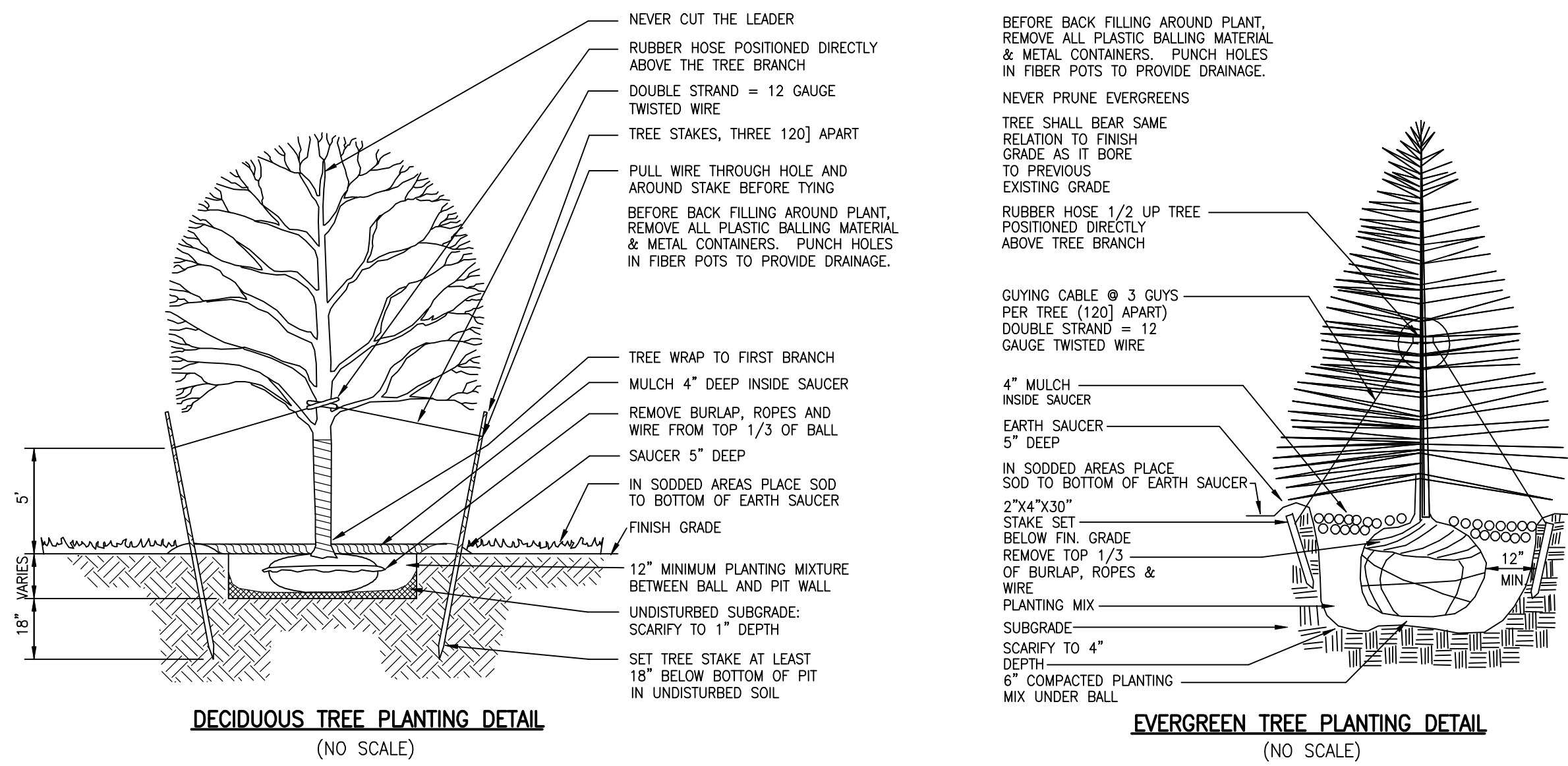
**BEBOSS Engineering**  
Engineers Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
800.246.6735 FAX 517.548.1670

**FLAGSTAR BANK**  
MBA ARCHITECTS  
30150 TELEGRAPH RD, SUITE 150  
BINGHAM FARMS, MI 48025  
248-2885158

PROJECT: FLAGSTAR BANK  
PREPARED FOR: LIVINGSTON COUNTY  
TITLE: UTILITY PLAN

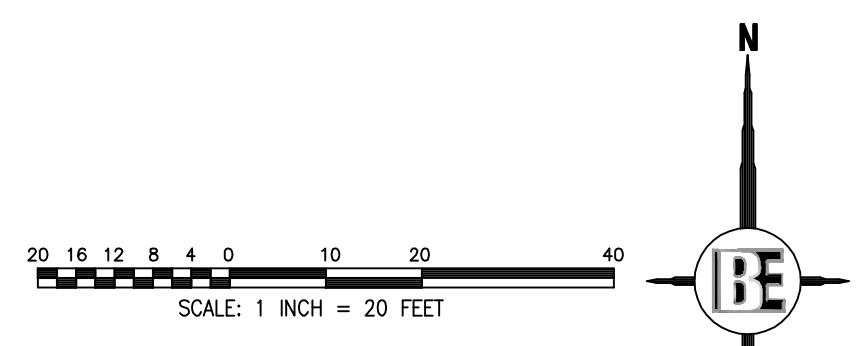
NO	BY	REVISION	PER	DATE
1	KS	GENOA TWP. REVIEW		03/23/16
2	KS	GENOA TWP. REVIEW		04/25/16
3	KS	GENOA TWP. REVIEW		03/02/2016

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY:  
SCALE 1" = 20'  
JOB NO. 15-325  
DATE 03/02/2016  
SHEET NO. 7



**LEGEND**

PROPOSED (PR)	EXISTING (EX)	
FM	FM	FORCE MAIN
ST	ST	STORM SEWER
WM	WM	WATER MAIN
WL	WL	WATER LEAD
		MANHOLE
		INLET / CATCHBASIN
		FLARED END-SECTION
		GATE VALVE
		HYDRANT
		SIGN
		MODIFIED CURB
		CONCRETE
		ASPHALT
		PAVEMENT TO BE CONSTRUCTED BY OTHERS

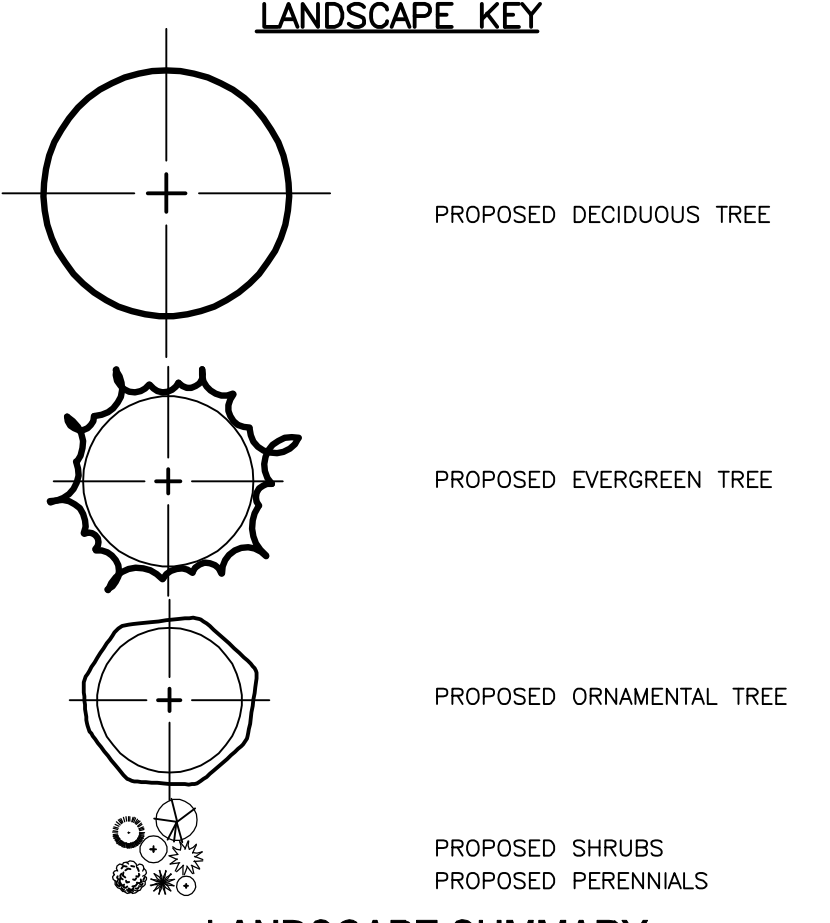


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BEFORE YOU DIG  
1-800-487-7171

**PLANT LIST**

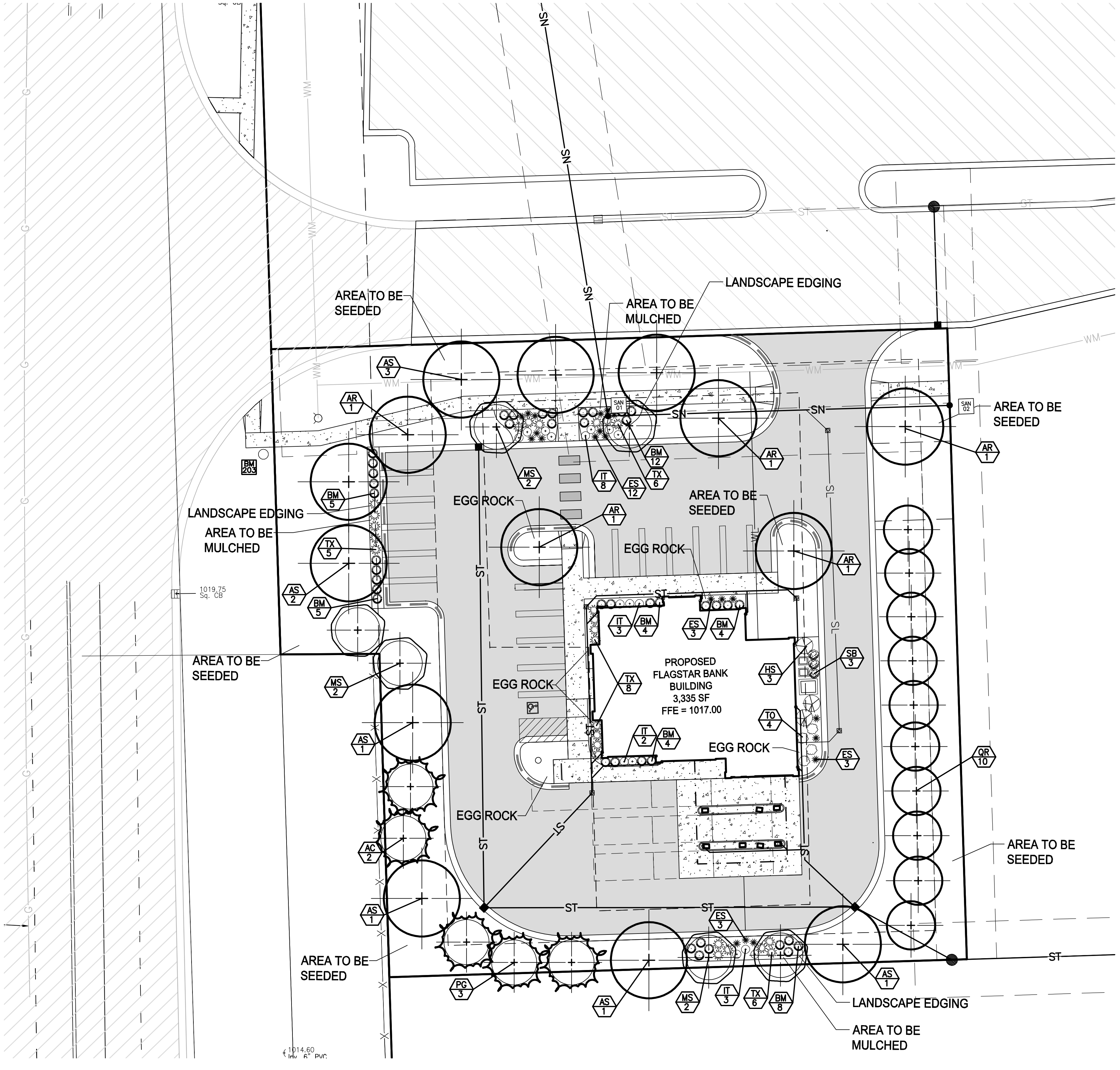
KEY	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
<b>TREES</b>					
AC	2	<i>Abies concolor</i>	White Fir	6' Hgt	B&B
AR	5	<i>Acer rubrum 'Armstrong'</i>	Armstrong Red Maple	2.5" cal	B&B
AS	9	<i>Acer saccharum 'Legacy'</i>	Legacy Sugar Maple	2.5" cal	B&B
MS	6	<i>Malus sargentii</i>	Sargent Crab	2" cal	B&B
PG	3	<i>Picea glauca 'Densata'</i>	White Spruce	6" hgt	B&B
QR	10	<i>Quercus robur 'Fastigiata'</i>	Columnar English Oak	2.5" cal	B&B
<b>SHRUBS</b>					
BM	16	<i>Buxus x microphylla koreana</i>	Korean Boxwood	15"-18" hgt	B&B
HS	3	<i>Hibiscus syriacus</i>	Rose-of-Sharon	24"-36" hgt	B&B
IT	16	<i>Itea virginica 'Sprich'</i>	Little Henry Sweetspire	24" hgt	B&B
SB	3	<i>Spiraea x bumalda 'Goldflame'</i>	Goldflame Spirea	24"-30" hgt	B&B
TX	25	<i>Taxus x media 'Densiformis'</i>	Dense Spreading Yew	24" hgt	B&B
TO	4	<i>Thuja occidentalis 'Golden Globe'</i>	Golden Globe Arborvitae	24" hgt	B&B
<b>PERENNIALS</b>					
ES	21	<i>Eragrostis spectabilis</i>	Purple Love Grass		Cont



**LANDSCAPE SUMMARY**

Location	Ordinance Requirement	Landscaping Required	Proposed
Front Yard Greenbelt (210 ft.)	20' width 1 canopy tree every 40'	6 canopy trees required	20' width 4 canopy trees 2 evergreen trees 2 ornamental trees
Parking Lot (19 Spaces)	1 tree & 100 SF landscaped area per 10 spaces	2 canopy trees and 190 sf of landscaping. 1 tree must be interior parking lot. Front yard parking must be screen by hedge row, 3' knee wall or berm	2 canopy trees 454 sf landscaping
Buffer Zone "C" (North)	10' width 1 canopy OR evergreen tree OR 4 shrubs per 20'	12 canopy OR evergreen trees OR 46 shrubs	34' width 5 canopy trees 2 ornamental trees 26 shrubs
Buffer Zone "C" (East)	10' width 1 canopy OR evergreen tree OR 4 shrubs per 20'	11 canopy OR evergreen trees OR 46 shrubs	26' width 11 canopy trees
Buffer Zone "C" (South)	10' width 1 canopy OR evergreen tree OR 4 shrubs per 20'	10 canopy OR evergreen trees OR 39 shrubs	10' width 2 canopy trees 3 evergreen trees 2 ornamental trees 17 shrubs

**BENCHMARK INFORMATION**  
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 248-2885158

PROJECT: \_\_\_\_\_ PREPARED FOR: \_\_\_\_\_ TITLE: \_\_\_\_\_

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1	KS	GENOA TWP. REVIEW		03/23/16

DESIGNED BY: KS  
 DRAWN BY: KS  
 CHECKED BY: \_\_\_\_\_

SCALE 1" = 20'  
 JOB NO. 15-325  
 DATE 03/02/2016  
 SHEET NO. 8

GENERAL LANDSCAPE NOTES:

- 1. ALL PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING MUNICIPALITY AND SHALL BE NURSERY GROWN. ALL SIZES AND MEASUREMENTS SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. ALL PLANT MATERIAL SHALL BE OF SELECTED SPECIMEN QUALITY AND HAVE A NORMAL HABIT OF GROWTH. ALL PLANT MATERIAL IS SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
2. ALL PLANT MATERIALS SHALL BE BALLED AND BURLAPPED STOCK OR CONTAINER STOCK. NO BARE ROOT STOCK IS PERMITTED. ALL PLANT BALLS SHALL BE FIRM, INTACT AND SECURELY WRAPPED AND BOUND.
3. ALL PLANT BEDS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND OTHER EXTRANEIOUS OBJECTS AND POOR SOILS TO A MINIMUM DEPTH OF 12 INCHES AND BACKFILLED TO GRADE WITH PLANTING MIX (SEE BELOW).
4. PLANTING MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL FROM ON SITE, 1 PART PEAT, AND 5 POUNDS OF SUPERPHOSPHATE PER CUBIC YARD OF MIX. INGREDIENTS SHALL BE THOROUGHLY BLENDED TO A UNIFORM CONSISTENCY.
5. ALL PLANT BEDS AND INDIVIDUAL PLANTS SHALL BE MULCHED WITH A 4 INCH LAYER OF SHREDDED BARK MULCH.
6. ALL PLANTS AND PLANT BEDS SHALL BE THOROUGHLY WATERED UPON COMPLETION OF PLANTING AND STAKING OPERATIONS.
7. THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF 1 YEAR FROM THE DATE THE WORK IS ACCEPTED, IN WRITING, BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE, WITHOUT COST TO THE OWNER, WITHIN A SPECIFIED PERIOD TIME, ALL DEAD PLANTS, AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE ARCHITECT DURING AND AT THE END OF THE GUARANTEE PERIOD. REPLACEMENT STOCK SHALL CONFORM TO THE ORIGINAL REQUIREMENTS.
8. EDGING, WHERE NOTED ON THE PLANS, SHALL BE BLACK ALUMINUM EDGING, 3/16" X 4". INSTALL PER MANUFACTURER'S INSTRUCTIONS. ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRREGULARITIES.
9. 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.
10. 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.
11. 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.
12. 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 DISCD AND SHALL BE GRADED IN CONFORMANCE WITH THE GRADING PLAN.
13. 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.
14. ALL PLANT MATERIALS SHALL BE FREE OF WEEDS, INSECTS AND DISEASE.
15. ALL LANDSCAPE AREAS ARE TO IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.

LIVINGSTON COUNTY SOIL EROSION PERMIT TEMPLATE TEMPORARY CONTROLS AND SEQUENCE

- 1. NOTIFY LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE 24 HOURS PRIOR TO START OF GRADE WORK.
2. IN ACCORDANCE WITH PUBLIC ACT NO. 53, OF 1974 THE PERMIT HOLDER SHALL CALL MISS DIG FOR STAKING AND LOCATING OF UTILITIES, AT LEAST 72 HOURS IN ADVANCE OF THE START OF ANY WORK.
PERMITTING STANDARDS
3. 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.
4. ALL TEMPORARY EROSION CONTROL DEVICES AS NOTED ON PLANS SHALL BE INSTALLED PRIOR TO THE START OF MASSIVE EARTH DISTRIBUTION.
5. PLAN DOES DENOTE A DETAILED EROSION CONTROL DEVICE TO RESTRICT TRACKING OF MATERIAL ONTO THE HIGHWAY. STONE DIAPERS SHALL BE INSTALLED AT ALL INGRESS/EGRESS AREAS OF THE SITE PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. DIAPERS SHALL BE OF CRUSHED STONE AND SHALL HAVE A MINIMUM LENGTH OF 100' LINEAL FEET.
6. 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
7. 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.
8. 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.
9. BURLAP AND PEA STONE FILTERS WILL NEED TO BE CHANGED AFTER EACH RAINFALL.
10. COUNTY CODE REQUIRES A MINIMUM PIPE SIZE OF 12" IN DIAMETER. IF SMALLER PIPE IS NEEDED FOR OUTLET PURPOSES THE 12" CAN BE BAFFLED TO THE CORRECT SIZE. ALL PIPE SHALL MEET THE 12" DIAMETER CODE SIZE.
11. ALL STORM DRAINAGE PIPE 30" IN DIAMETER OR LARGER SHALL BE POINTED, AT THE JOINTS ON THE INSIDE WITH MORTAR, AFTER BACKFILLING.
12. IT WILL BE NECESSARY FOR THE DEVELOPER TO HAVE THE STORM DRAINAGE LINES CLEANED PRIOR TO FINAL INSPECTION BY THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE. IF REQUIRED, THIS WORK SHALL BE DONE BY A PROFESSIONAL SEWER CLEANING FIRM AND CERTIFIED IN WRITING BY THE PROJECT ENGINEER. ALL SUMPS AND TEMPORARY SILT TRAPS SHALL ALSO BE CLEANED AT THIS TIME.
STABILIZATION
13. ALL UNIMPROVED DISTURBED AREAS SHALL BE RE-TOP SOILED, WITH A MINIMUM OF 3" OF MATERIAL, SEEDED, MULCHED AND TACKED WITHIN 15 DAYS OF THE COMPLETION OF THE MASSIVE EARTH DISRUPTION. IN THE NON-GROWING SEASON STRAW MATTING WILL SUFFICE. HYDROSEEDING WILL BE AN ACCEPTABLE ALTERNATE FOR MULCHING. EXTREME CARE SHOULD BE EXERCISED IN SPRING AND FALL PERIODS AS A FROST WILL BREAK THE BIND OF THE HYDROSEEDING, WHICH WILL AFFECT THE EFFECTIVENESS OF THIS PROCEDURE.
14. IN THE NON-GROWING SEASON, TEMPORARY STABILIZATION OF MASSIVELY EXPOSED AREAS FOR WINTER STABILIZATION SHALL BE DONE WITH STRAW MATTING.
15. PERMIT FEES DURING THE WINTER PERIOD OF NON-CONSTRUCTION, (DECEMBER 1 THROUGH MARCH 31), SHALL NOT BE IMPOSED IF THE PERMIT HOLDER TEMPORARILY STABILIZES THE EXPOSED AREAS WITH STRAW MATTING, AND OTHER APPROVED CONTROLS, AND OBTAINS A WINTER STABILIZATION CERTIFICATE FROM THIS OFFICE.
16. PERIODIC INSPECTIONS WILL BE MADE THROUGHOUT THE COURSE OF THE PROJECT. IT WILL BE THE RESPONSIBILITY OF THE MANAGERS OF THE PROJECT TO CONTACT THIS OFFICE FOR THE FINAL INSPECTION AT THE END OF THE PROJECT.
17. THIS COMMERCIAL PERMIT IS VALID FOR THE MASS EARTH MOVEMENT, THE INSTALLATION OF ROADS, DRAINS, AND UTILITIES AND IS NOT FOR ANY SINGLE FAMILY RESIDENCE. ALL RESIDENTIAL BUILDERS WILL NEED TO SECURE WAIVERS AND OR PERMITS AS NECESSARY FOR EACH LOT IN THIS DEVELOPMENT AT THE TIME APPLICATION FOR SINGLE FAMILY RESIDENCE IS MADE.
18. THE ISSUING BUILDING DEPARTMENT SHALL NOT ISSUE THE CERTIFICATE OF OCCUPANCY UNTIL THE FINAL INSPECTION LETTER FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE HAS BEEN OBTAINED.
19. PER THE LIVINGSTON COUNTY DRAIN COMMISSIONER THE SEEDING, FERTILIZER AND MULCH MINIMUM QUANTITIES SHALL BE AS FOLLOWS:
TOP-SOIL 3" IN DEPTH
GRASS SEED 210 LBS. PER ACRE
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
HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%, IN SUCH CASES STABILIZATION SHALL BE DONE WITH SEED AND STRAW MULCH WITH A TACKIFIER.

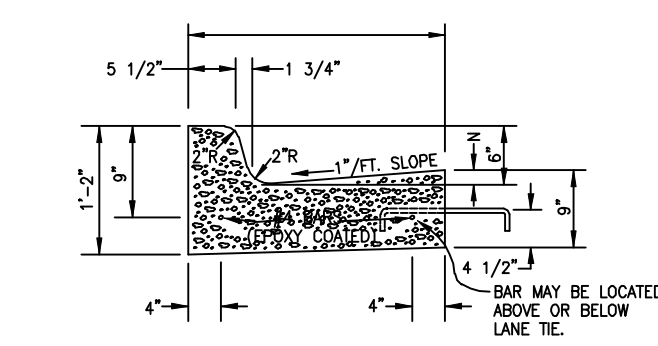
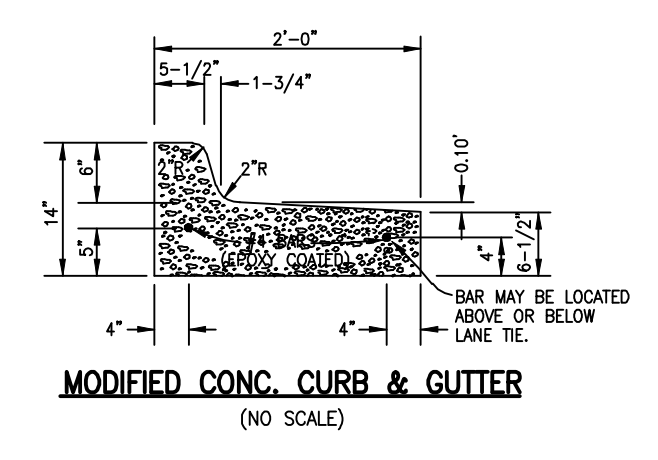
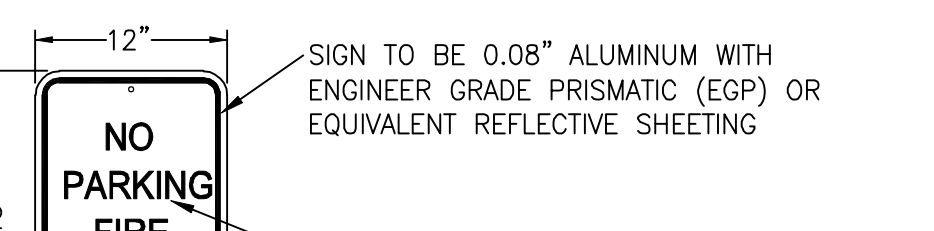
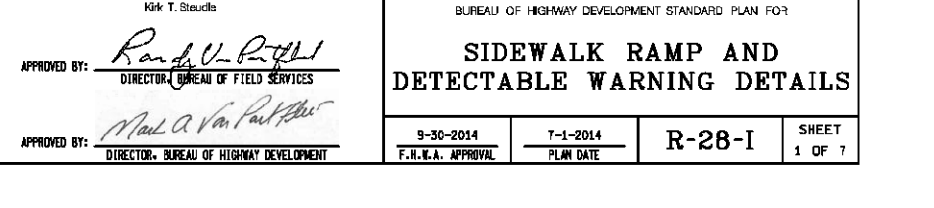
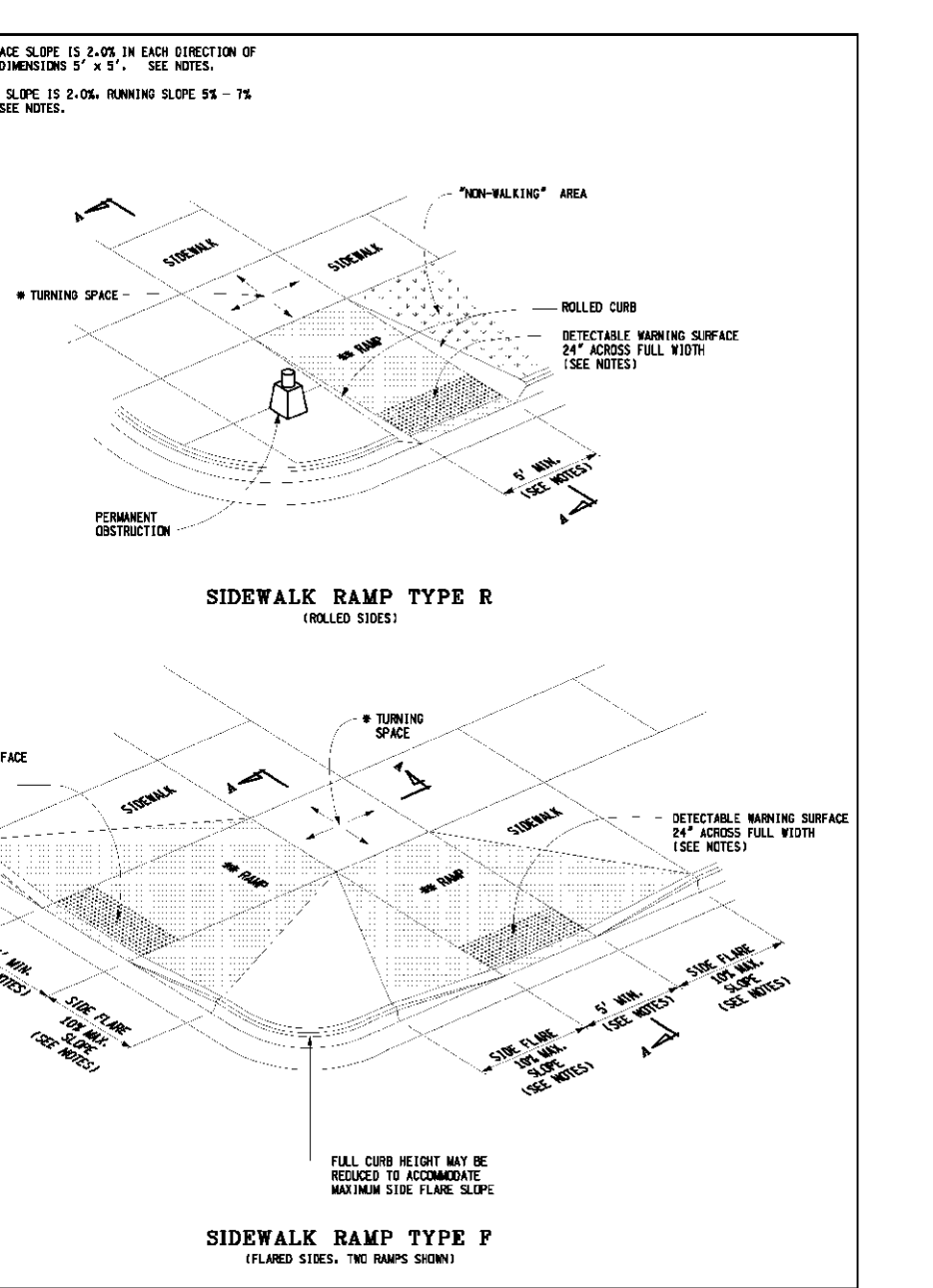
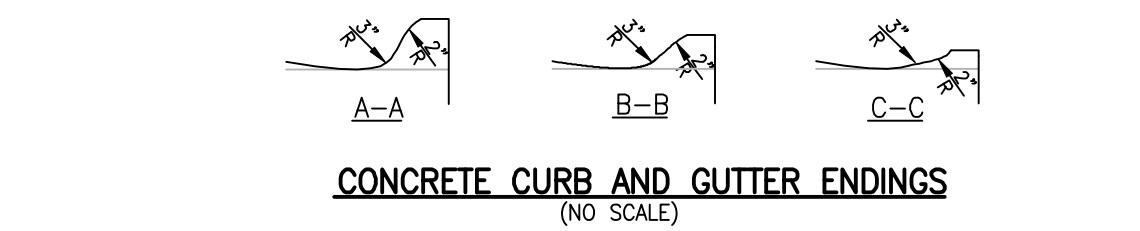
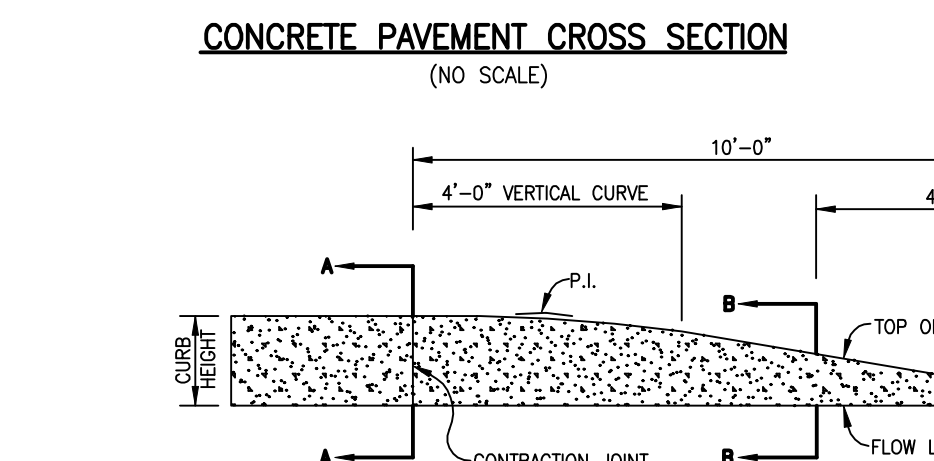
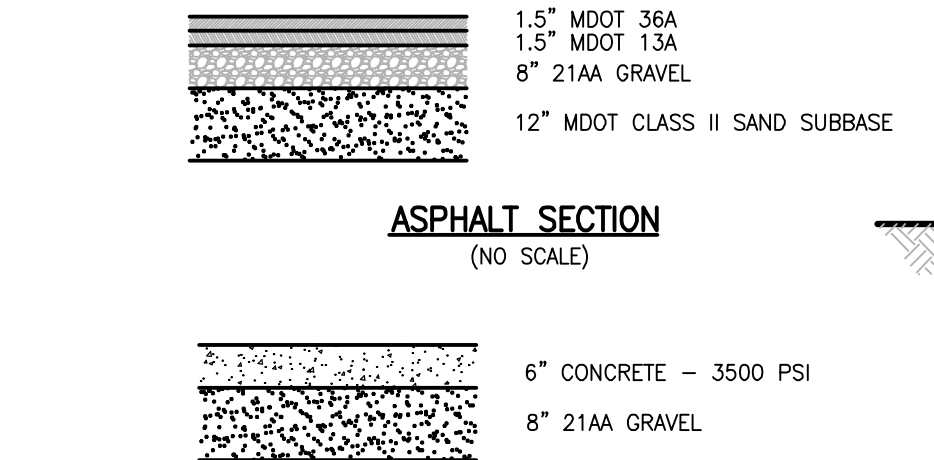
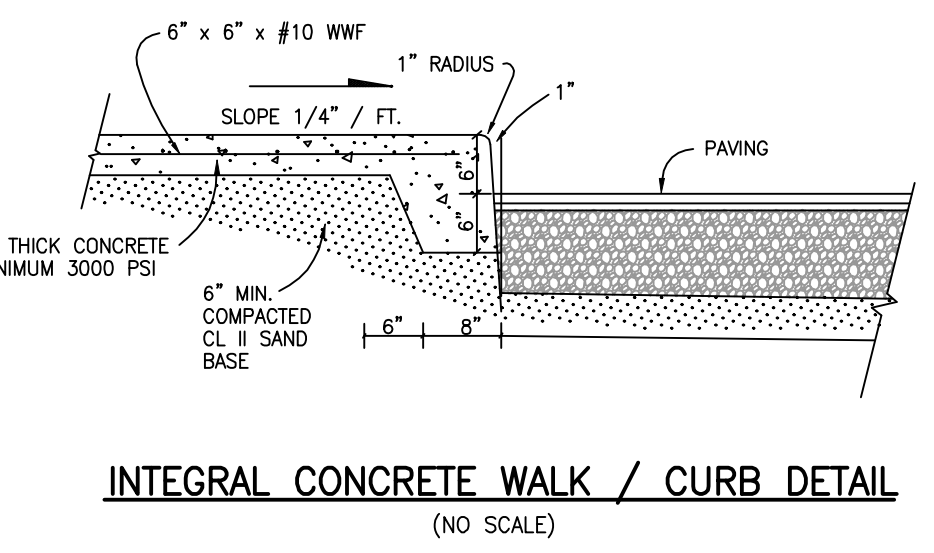
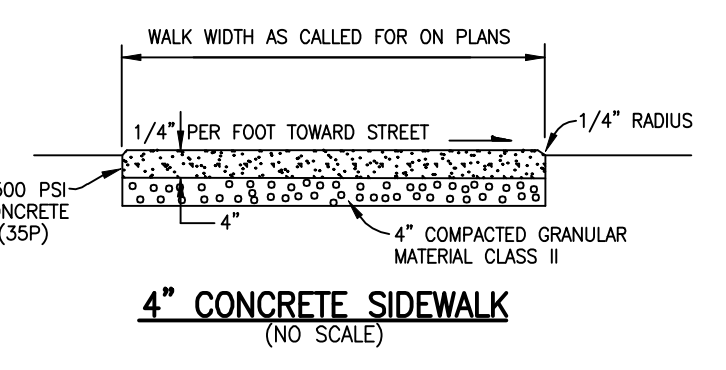
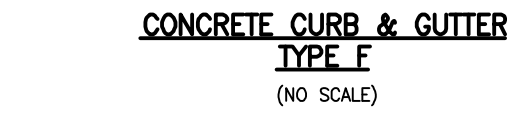
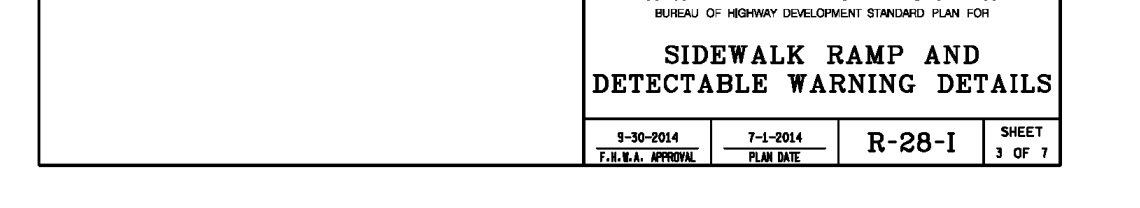
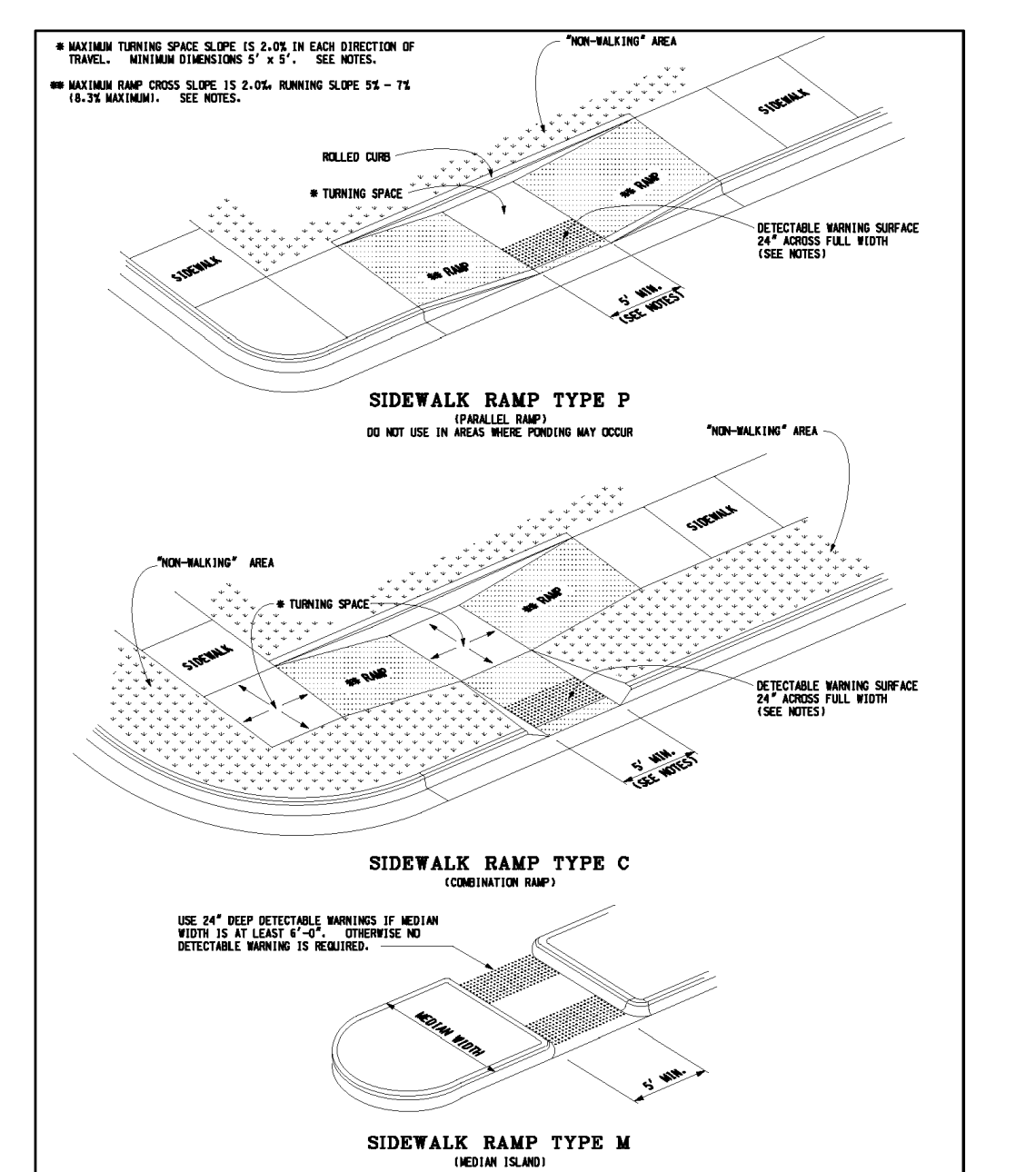


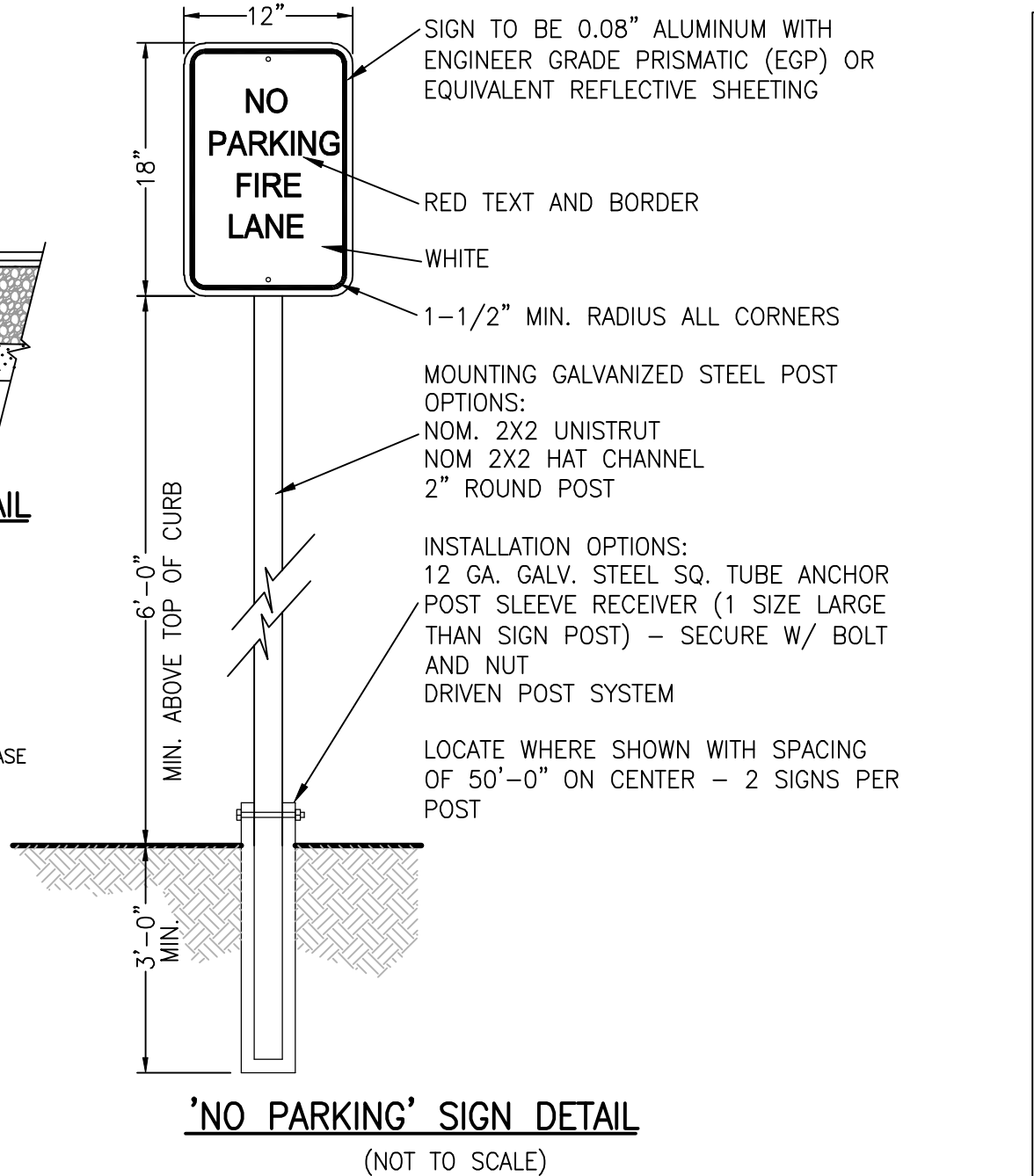
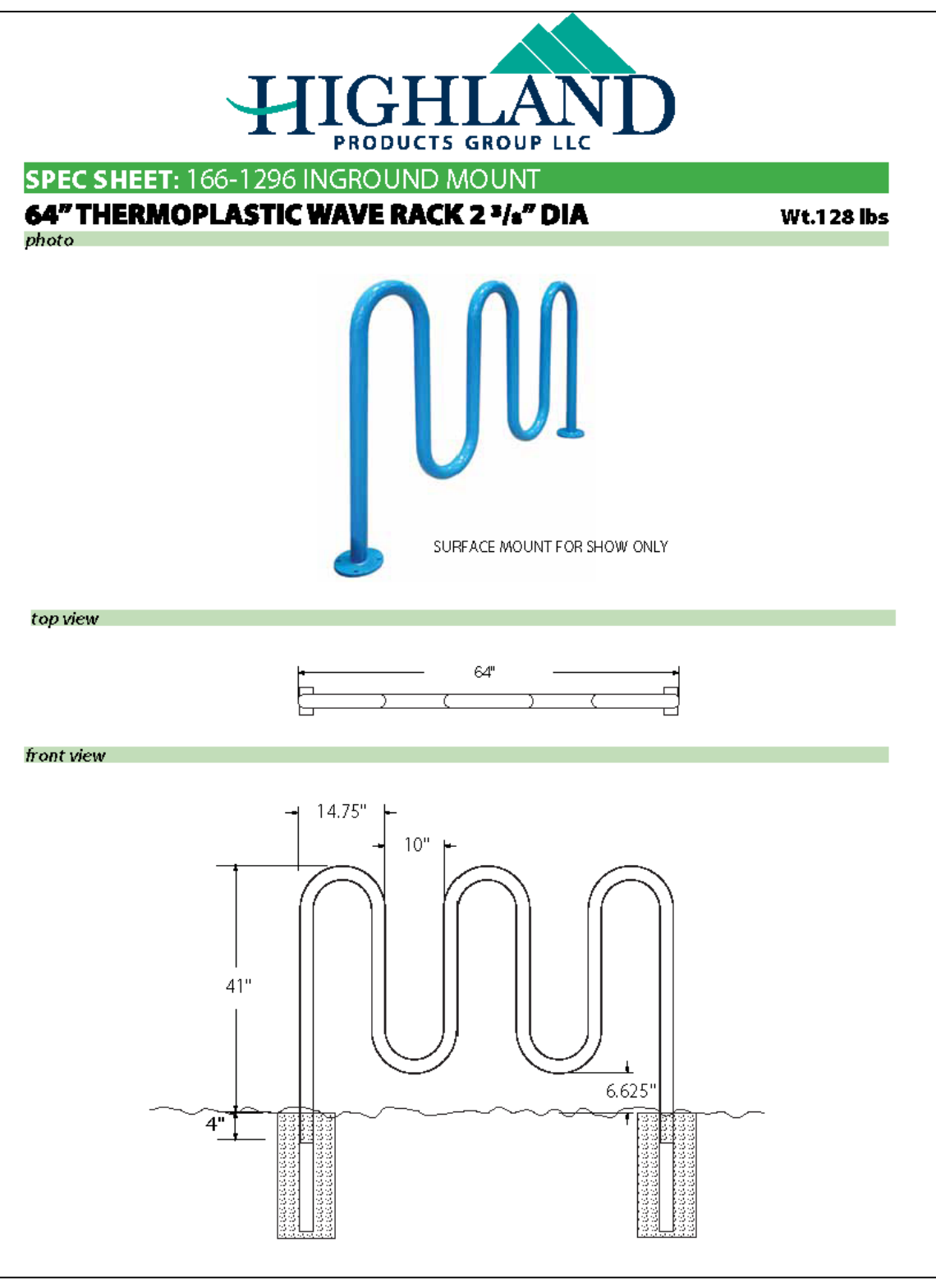
Table with columns: DETAIL, DIMENSIONS, LANE, CONCRETE TYPE, COUNTRY/UNIT. Rows include details F1 through F6 with various dimensions and concrete specifications.



MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN 701. Includes project details like 'SIDEWALK RAMP AND DETECTABLE WARNING DETAILS' and 'R-28-1 SHEET 1 OF 1'.



MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN 701. Includes project details like 'SIDEWALK RAMP AND DETECTABLE WARNING DETAILS' and 'R-28-1 SHEET 1 OF 1'.



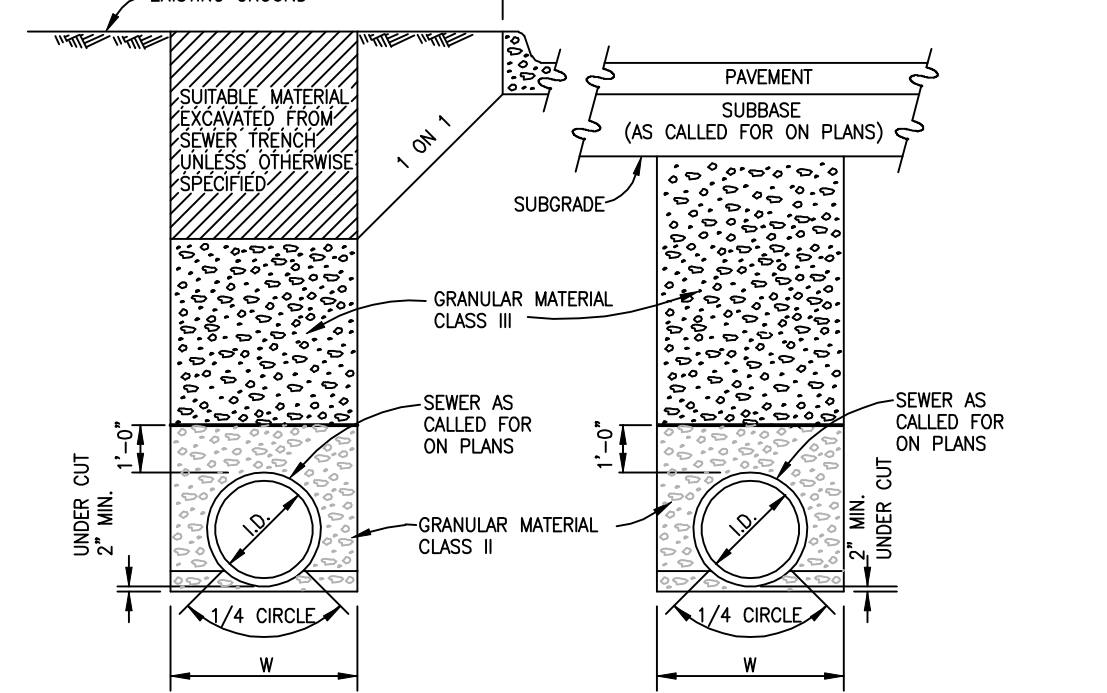
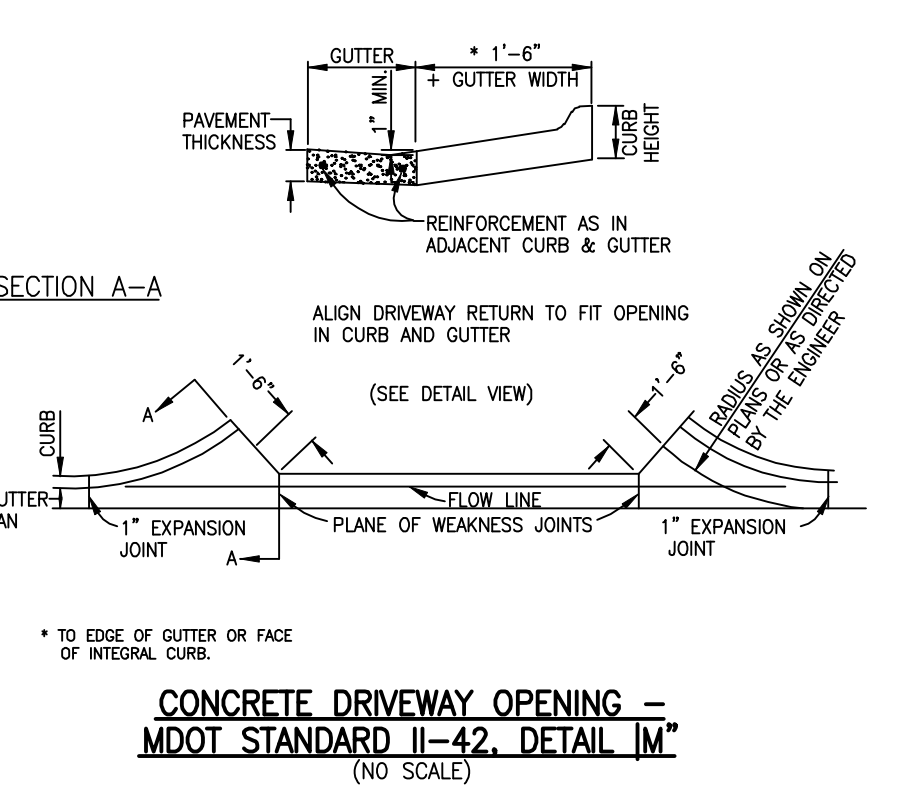
CONSTRUCTION SEQUENCE

Table with columns: DAY, ACTION. Lists construction steps from 1 to 9, including installing silt fence, site demolition, building construction, and final cleanup.

NOTE

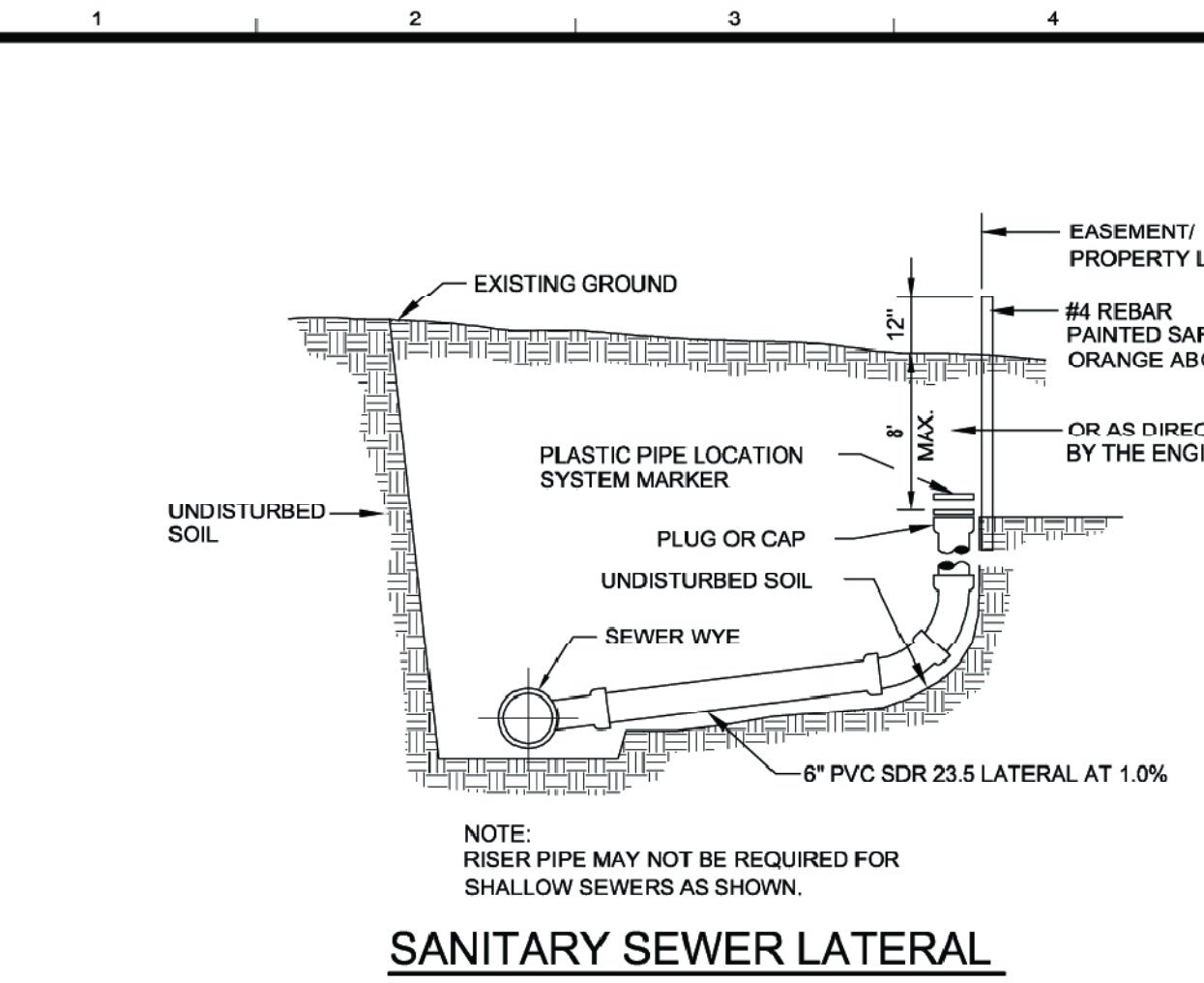
THE TIMING IN THE CONSTRUCTION SEQUENCE IS AN APPROXIMATION OF THE AMOUNT OF TIME NEEDED FOR EACH STEP/PROCESS. SOME STEPS WILL BE GOING ON CONCURRENTLY WITH OTHERS (IE. THE BUILDING WILL BE AMIDST CONSTRUCTION WHILE CURB AND GUTTER WILL BE INSTALLED) BUT THE OVERALL ORDER OF EVENTS WILL BE LISTED TO ENSURE PROPER SITE CONSTRUCTION ACTIVITY MAINTENANCE.
1. STRUCTURAL SEDIMENT CONTROLS NEED TO BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS AS WELL AS WITHIN 24 HOURS AFTER A STORM EVENT.
2. CONTRACTOR TO INSTALL INLET SEDIMENT FILTERS ON ALL CATCH BASINS AND INLETS UNLESS OTHERWISE NOTED.

- 20. SANITARY SEWER TAP TO THE LIVINGSTON SANITARY COUNTY DRAIN, SHALL ONLY BE MADE AFTER SECURING IN WRITING CLEARANCE FROM GENOA TOWNSHIP AND A SEWER TAP PERMIT FROM THE LIVINGSTON COUNTY DEPARTMENT OF BUILDING & SAFETY.
21. A TAP PERMIT WILL BE NEEDED BY THE OWNER/DEVELOPER OF THIS PROJECT TO TAP TO THE LEGALLY ESTABLISHED COUNTY STORM DRAIN. THE OWNER/DEVELOPER SHALL MAKE A WRITTEN REQUEST TO THE DRAIN COMMISSIONER TO REQUEST THE TAP TO THE STORM SEWER. THE FEES FOR SUCH TAP ARE AS FOLLOWS:
A. NON REFUNDABLE ADMINISTRATIVE FEE OF \$50.00, TO BE PAID AT THE TIME OF APPLICATION.
B. INSPECTION FEES ARE BASED ON TIME AND MATERIAL BASIS FROM PORT TO PORT FOR THE ON-SITE INSPECTOR. INSPECTORS RATE, VEHICLE MILEAGE, AND 0.5 HOURS OF REPORT PREPARATION TIME WILL BE CHARGED, AS WELL AS ANY NECESSARY MATERIALS. TIME AND MATERIAL FEES ARE PAID AT THE COMPLETION OF THE TAP INSTALLATION.

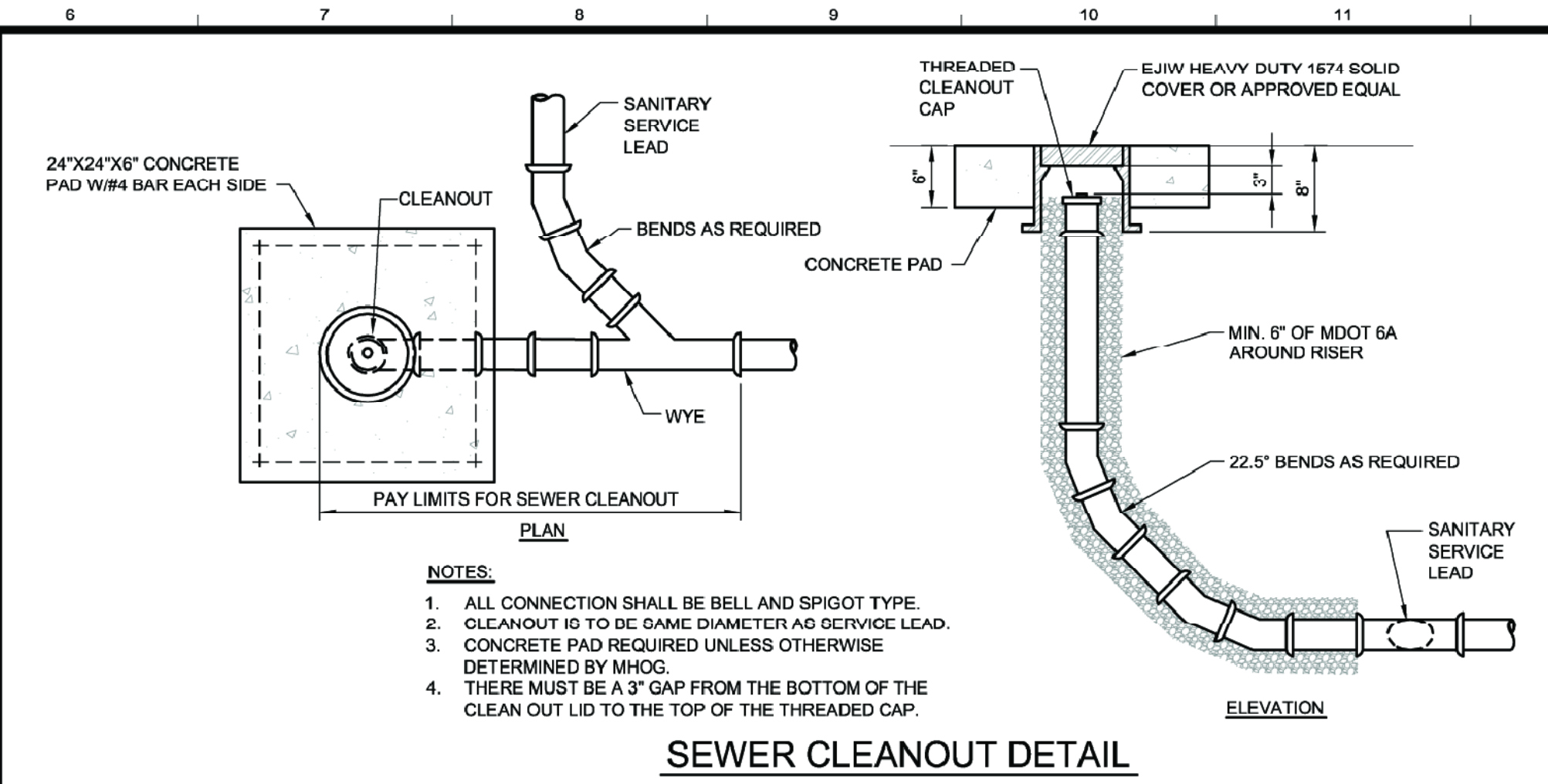


Professional engineering and architectural information including: BEBOSS Engineering (Engineers, Surveyors, Planners, Landscape Architects), FLAGSTAR BANK, MBA ARCHITECTS, and construction notes & details. Includes contact information for Grand River Ave. and Bingham Farms, MI.

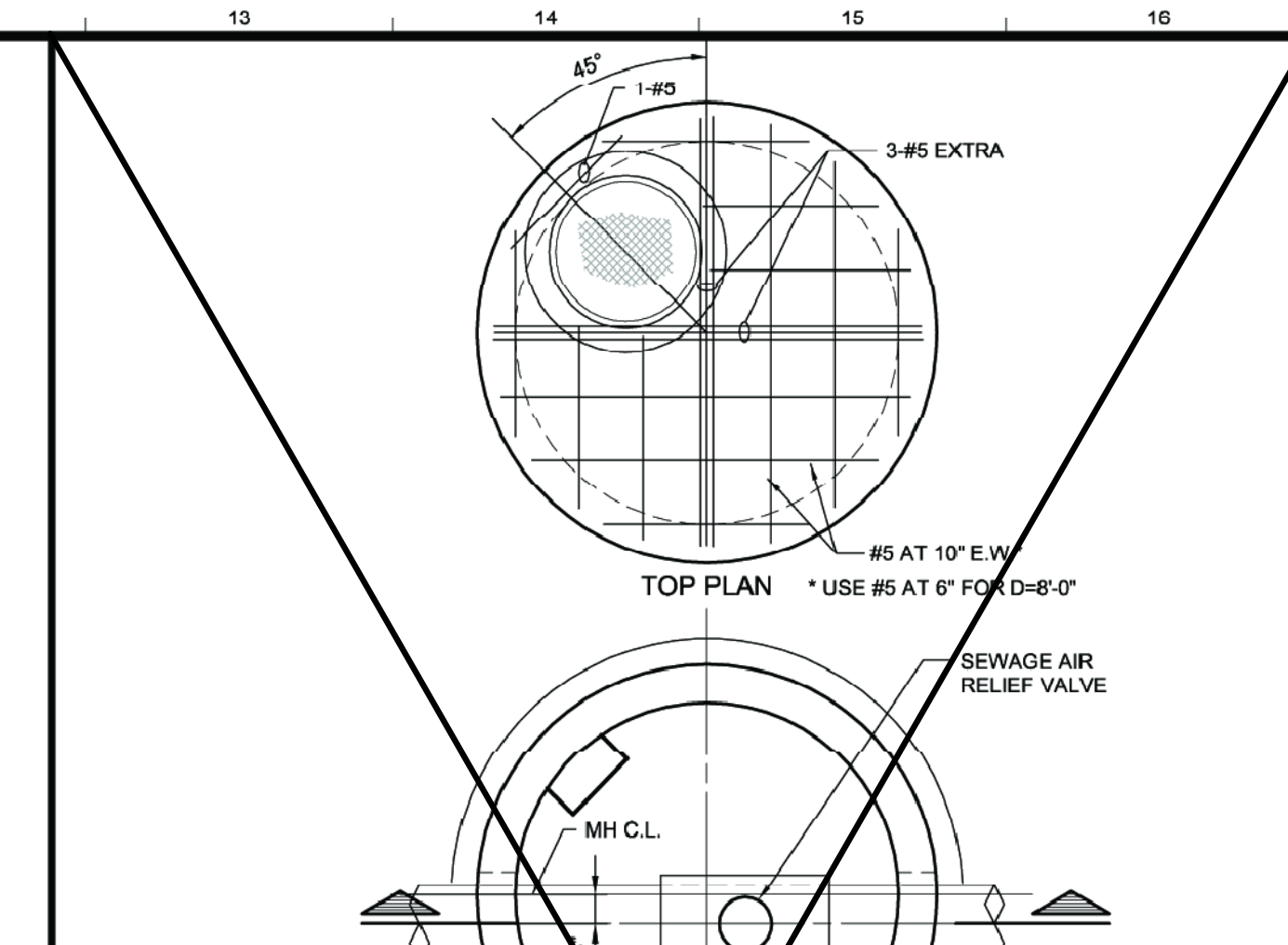




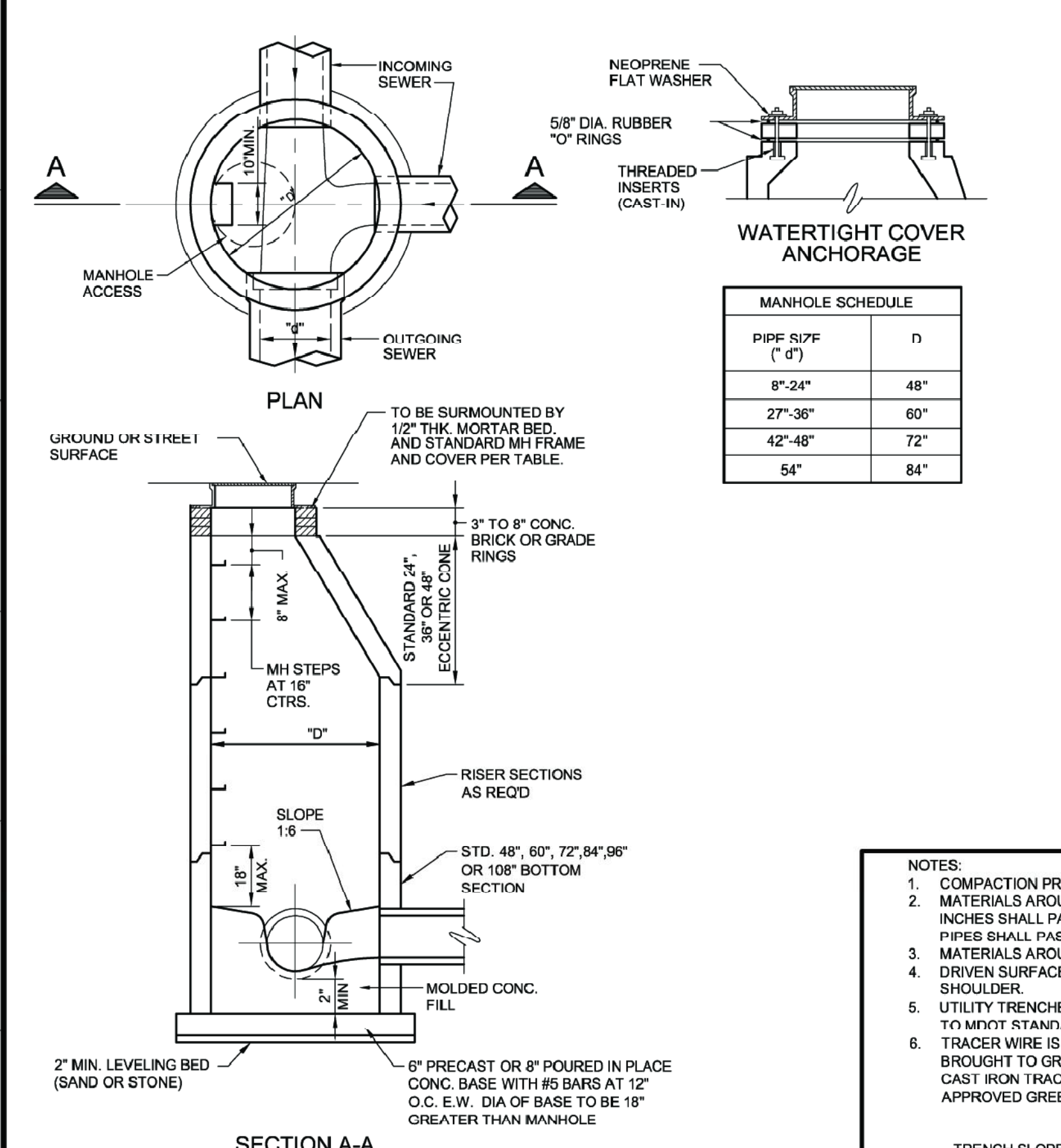
**SANITARY SEWER LATERAL**



**SEWER CLEANOUT DETAIL**

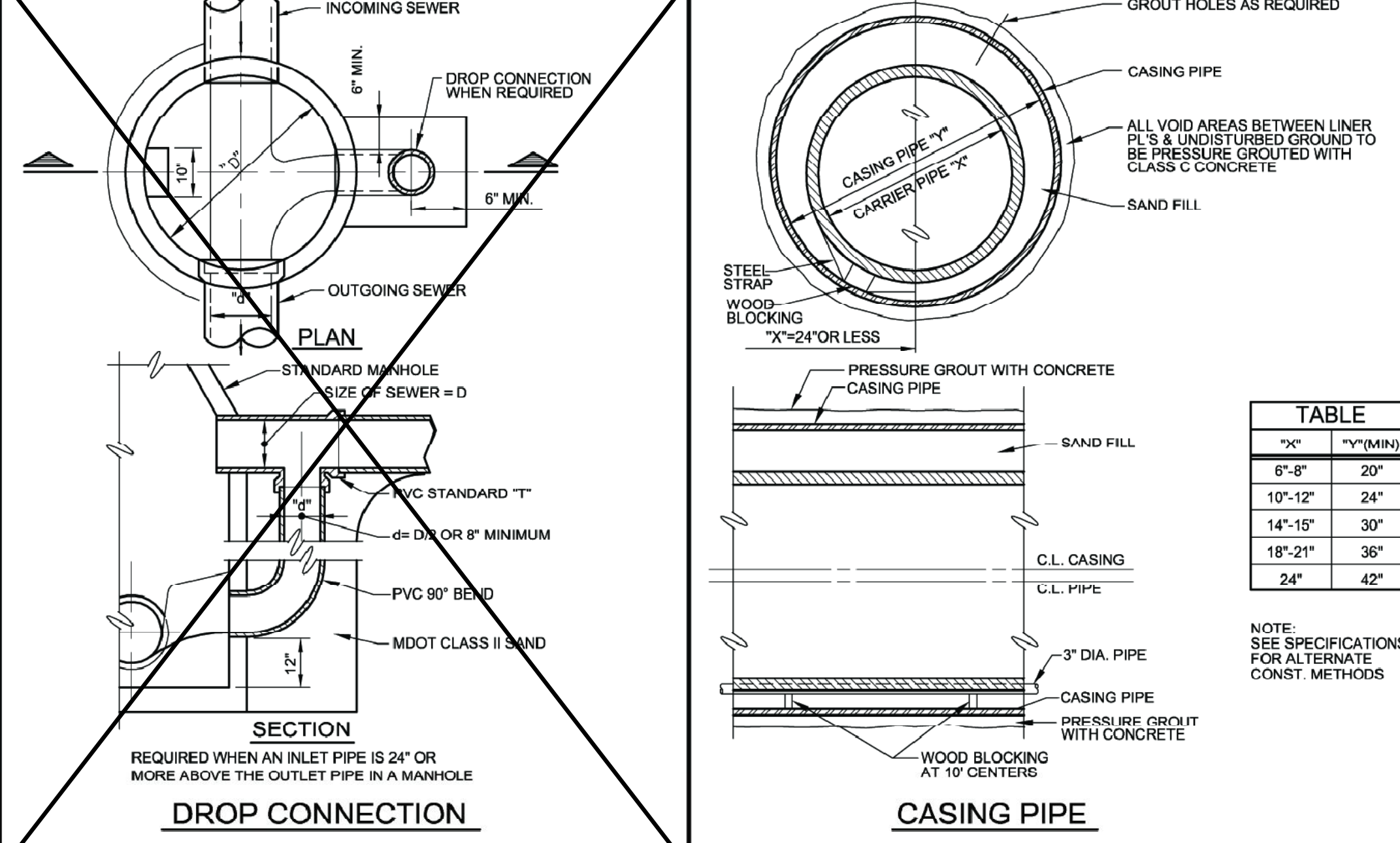


**AIR RELIEF STRUCTURE**



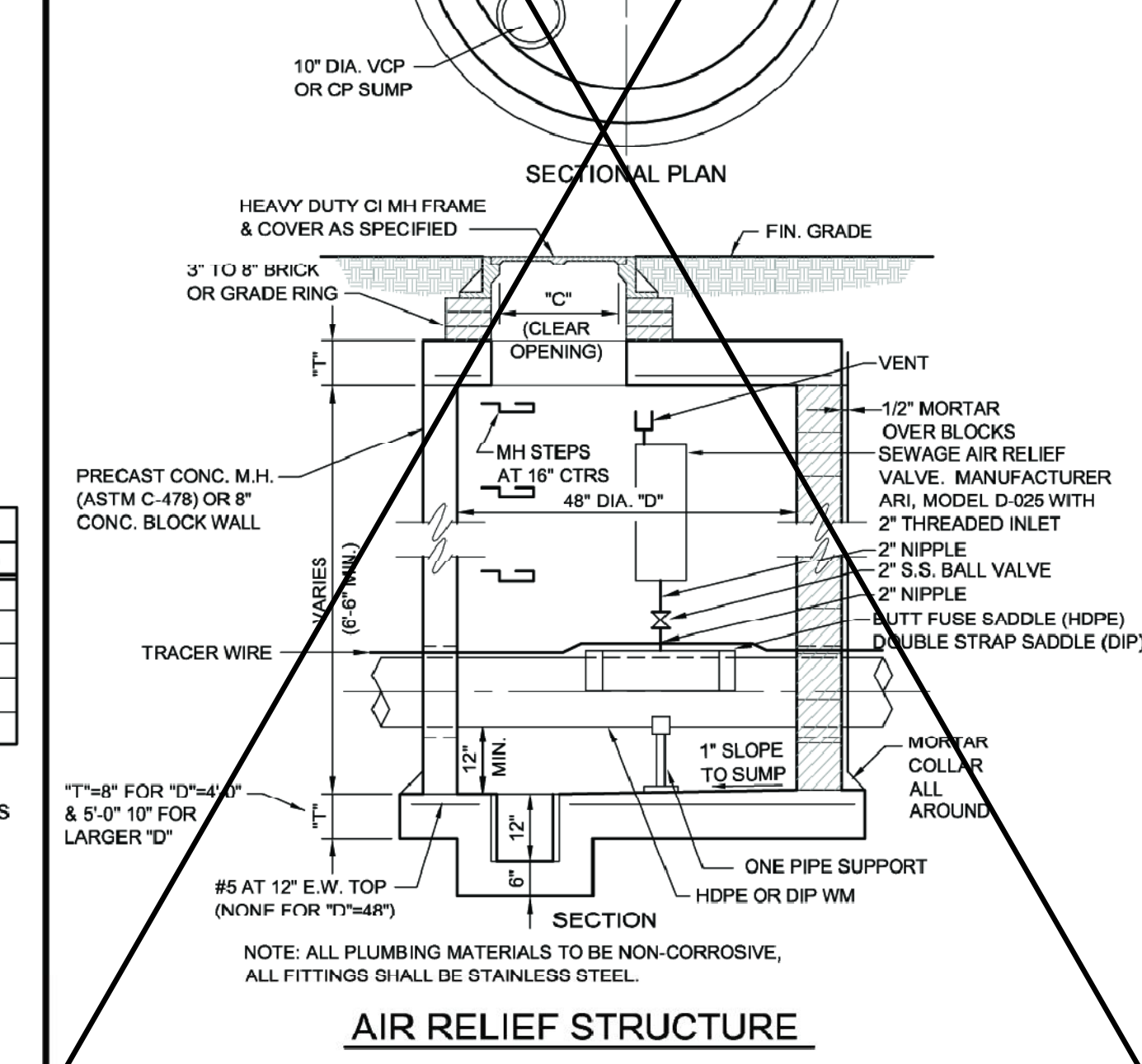
**WATERTIGHT COVER ANCHORAGE**

PIPE SIZE ("d")	D
8"-24"	48"
27"-36"	60"
42"-48"	72"
54"	84"

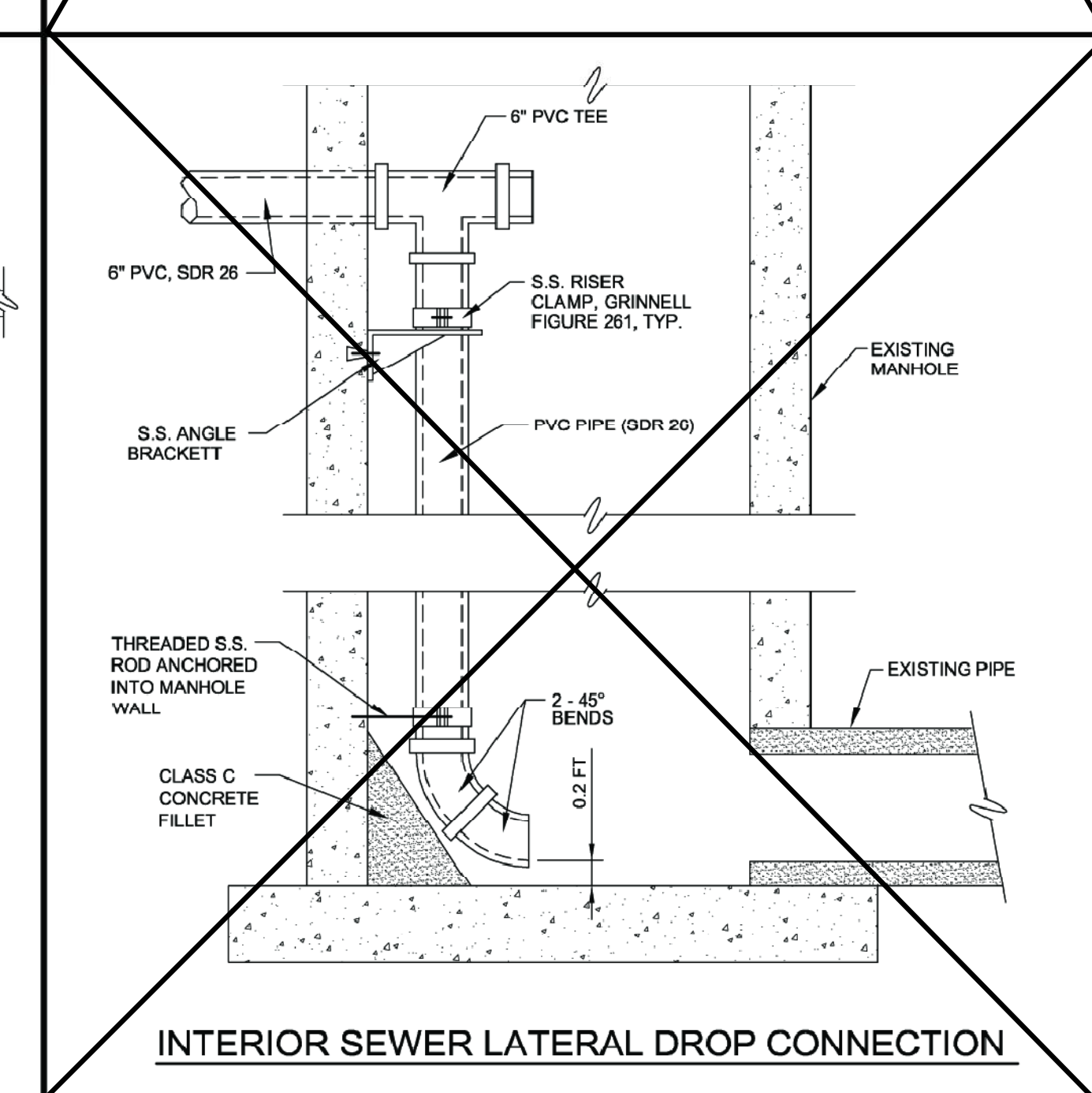


**DROP CONNECTION**

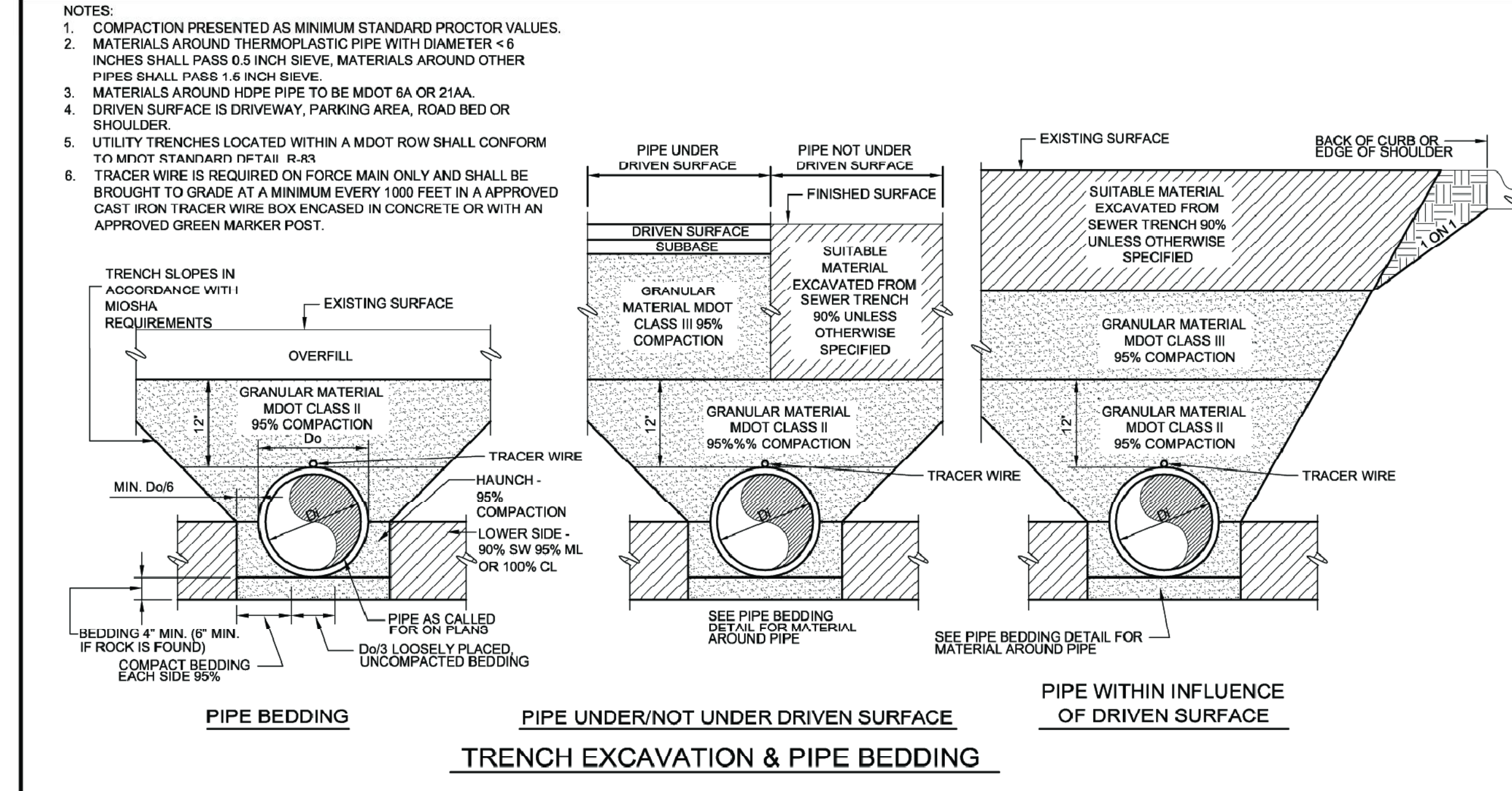
**CASING PIPE**



**SECTIONAL PLAN**



**INTERIOR SEWER LATERAL DROP CONNECTION**



**TRENCH EXCAVATION & PIPE BEDDING**

NOTES:

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

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

**STANDARD MANHOLE**



**GENOA OCEOLA**  
Sewer and Water Authority

Scale: NONE  
Issued Date: JANUARY - 2014

**SANITARY SEWER STANDARD DETAILS**

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**BEBOSS Engineering**  
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**FLAGSTAR BANK**  
MBA ARCHITECTS  
30160 TELEGRAPH RD., SUITE 160  
BINGHAM FARMS, MI 48025  
248-2885158

**SANITARY SEWER DETAILS**

PROJECT: \_\_\_\_\_  
PREPARED FOR: \_\_\_\_\_  
DATE: \_\_\_\_\_

NO.	BY	REVISION	PER	DATE
1	KS	GENOA TWP. REVIEW		04/25/16
2	KS	GENOA TWP. REVIEW		03/23/16

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY: \_\_\_\_\_  
SCALE: \_\_\_\_\_  
JOB NO. 15-325  
DATE 03/02/2016  
SHEET NO. 10

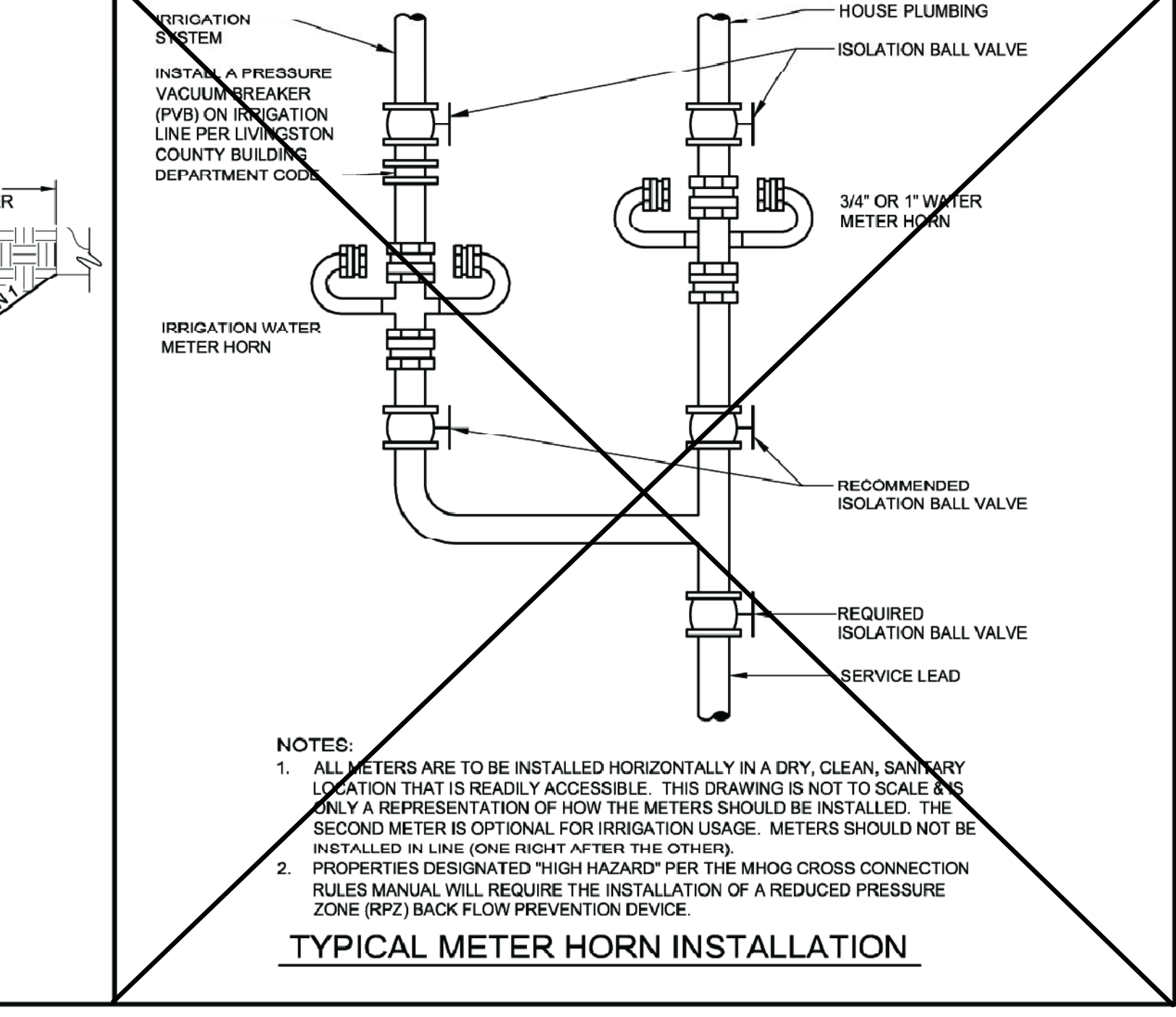
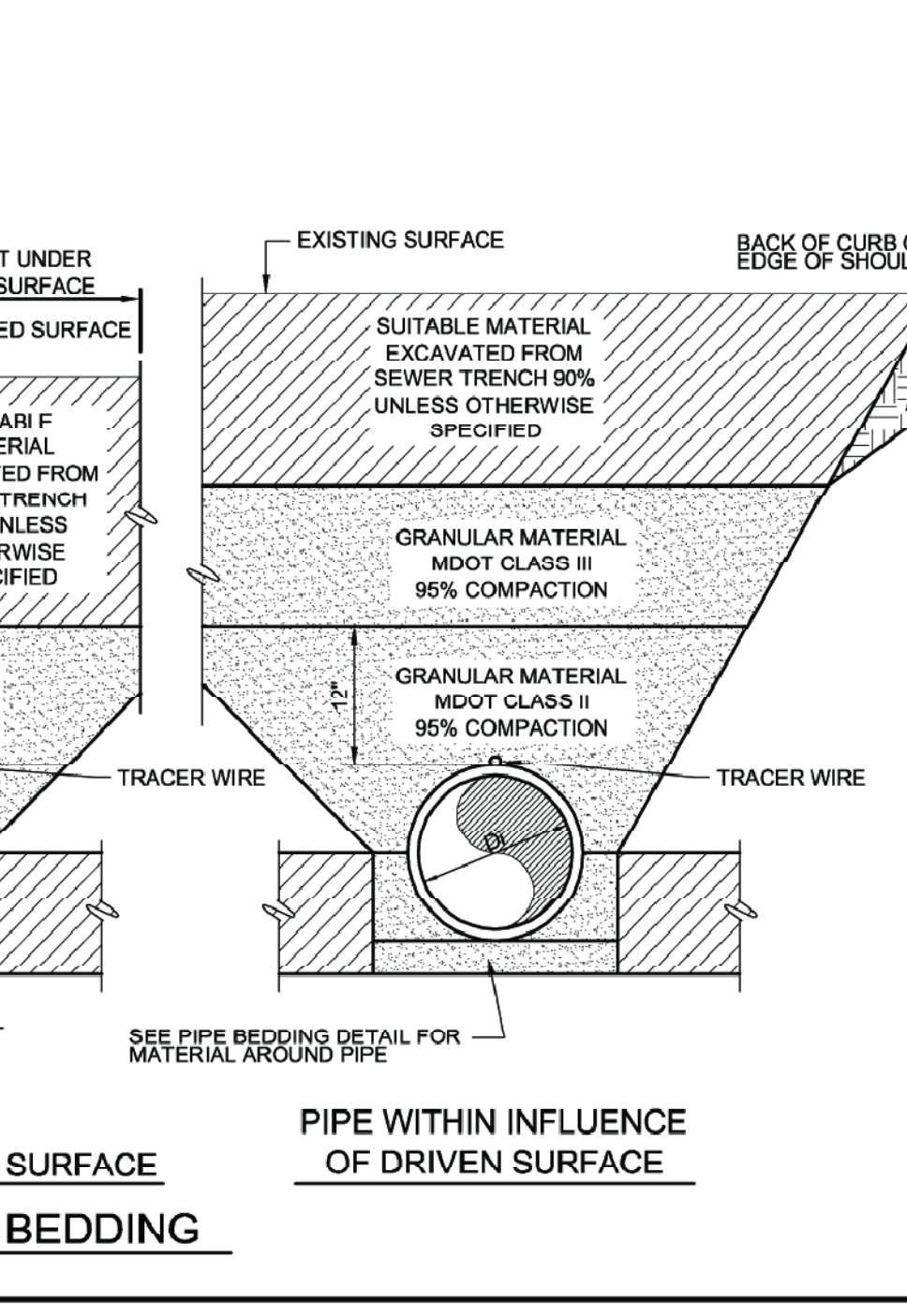
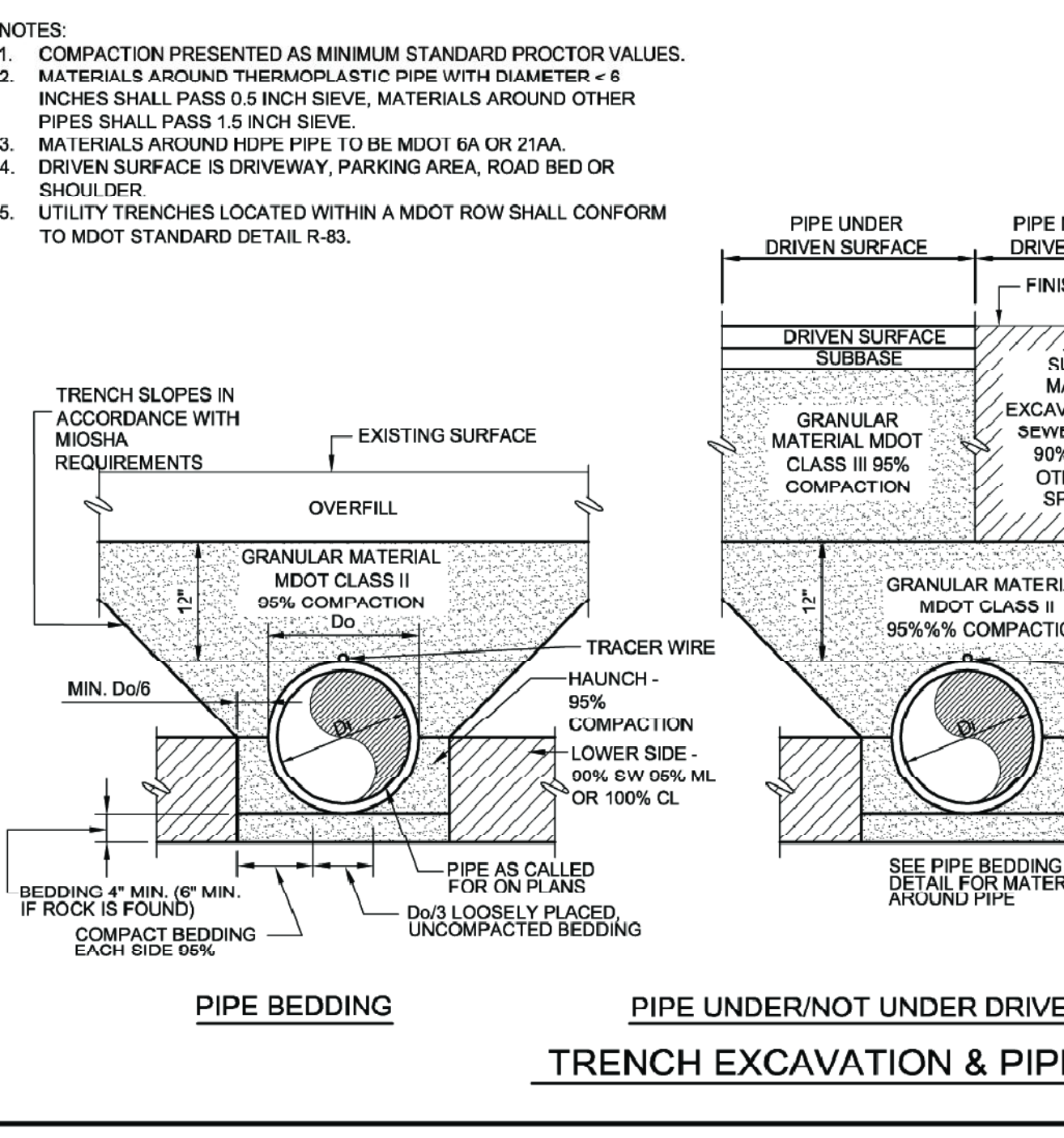
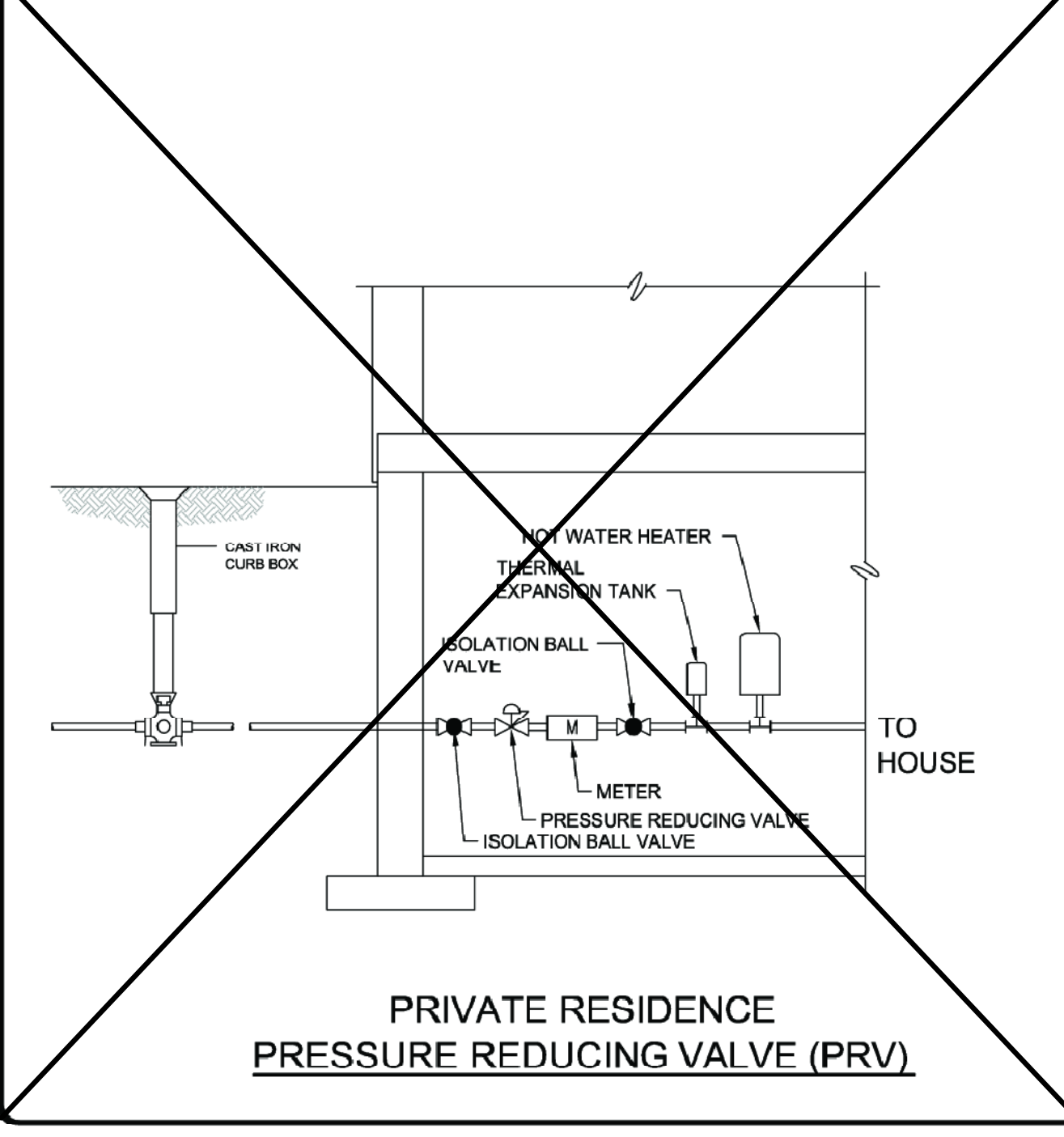
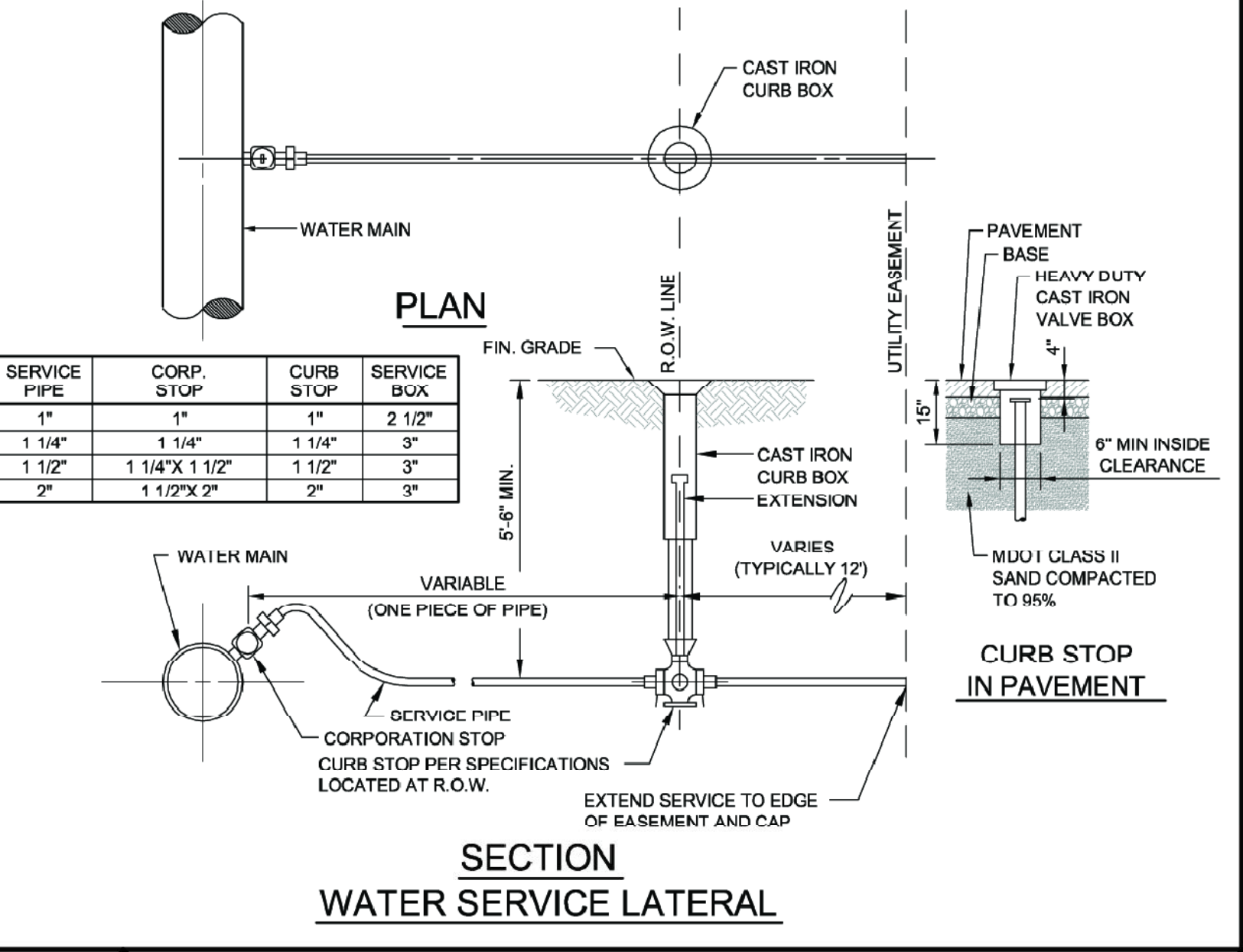
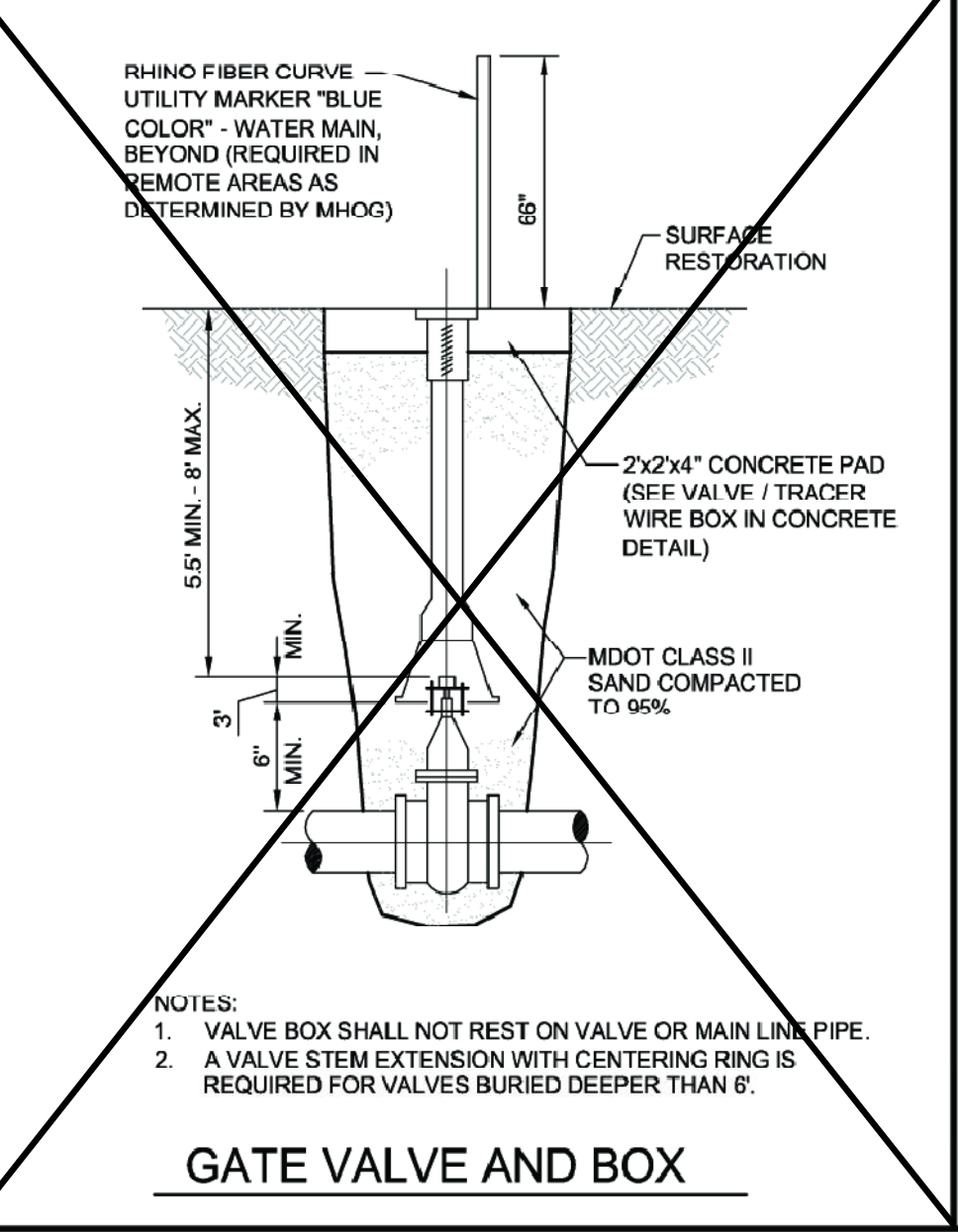
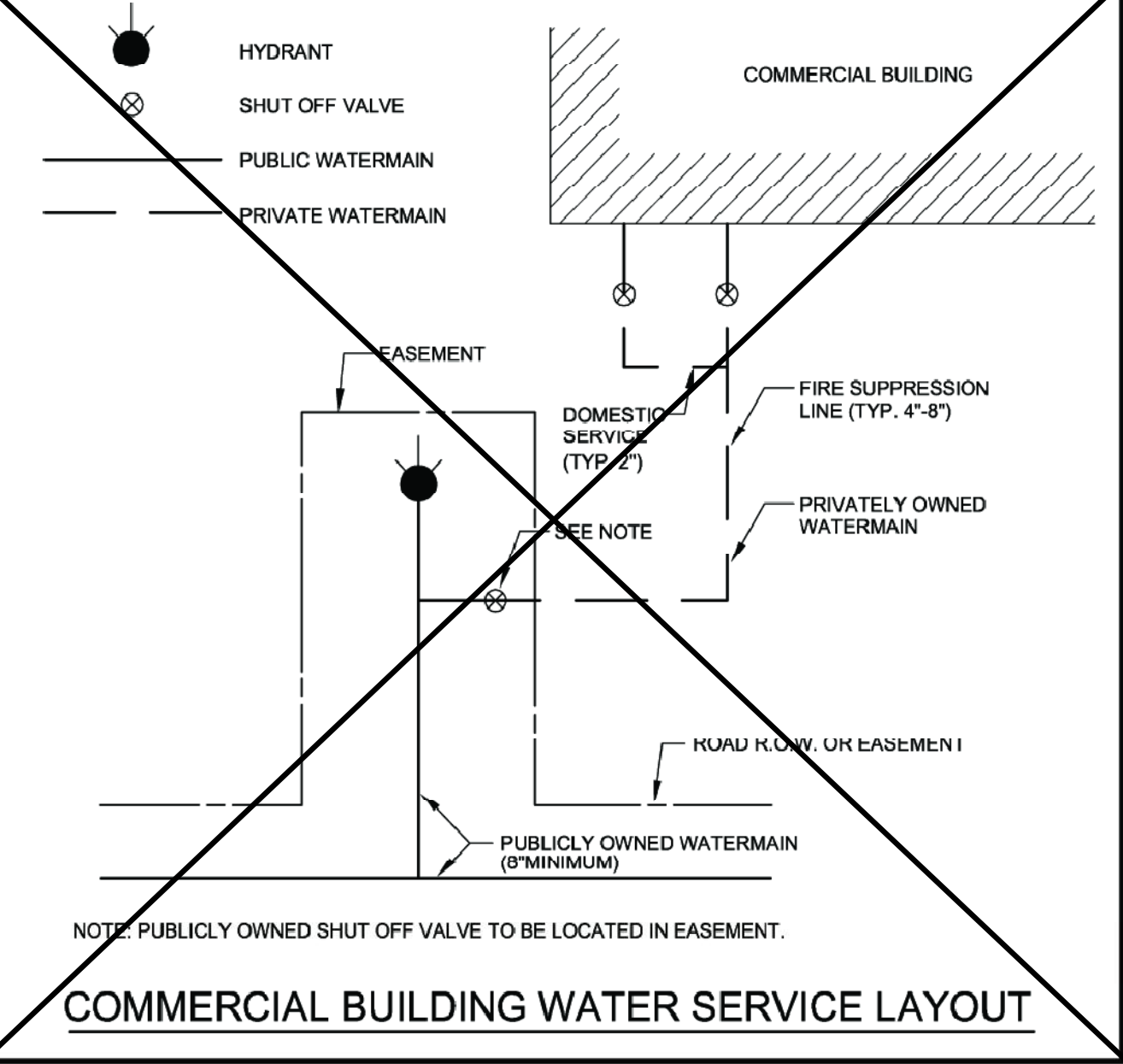
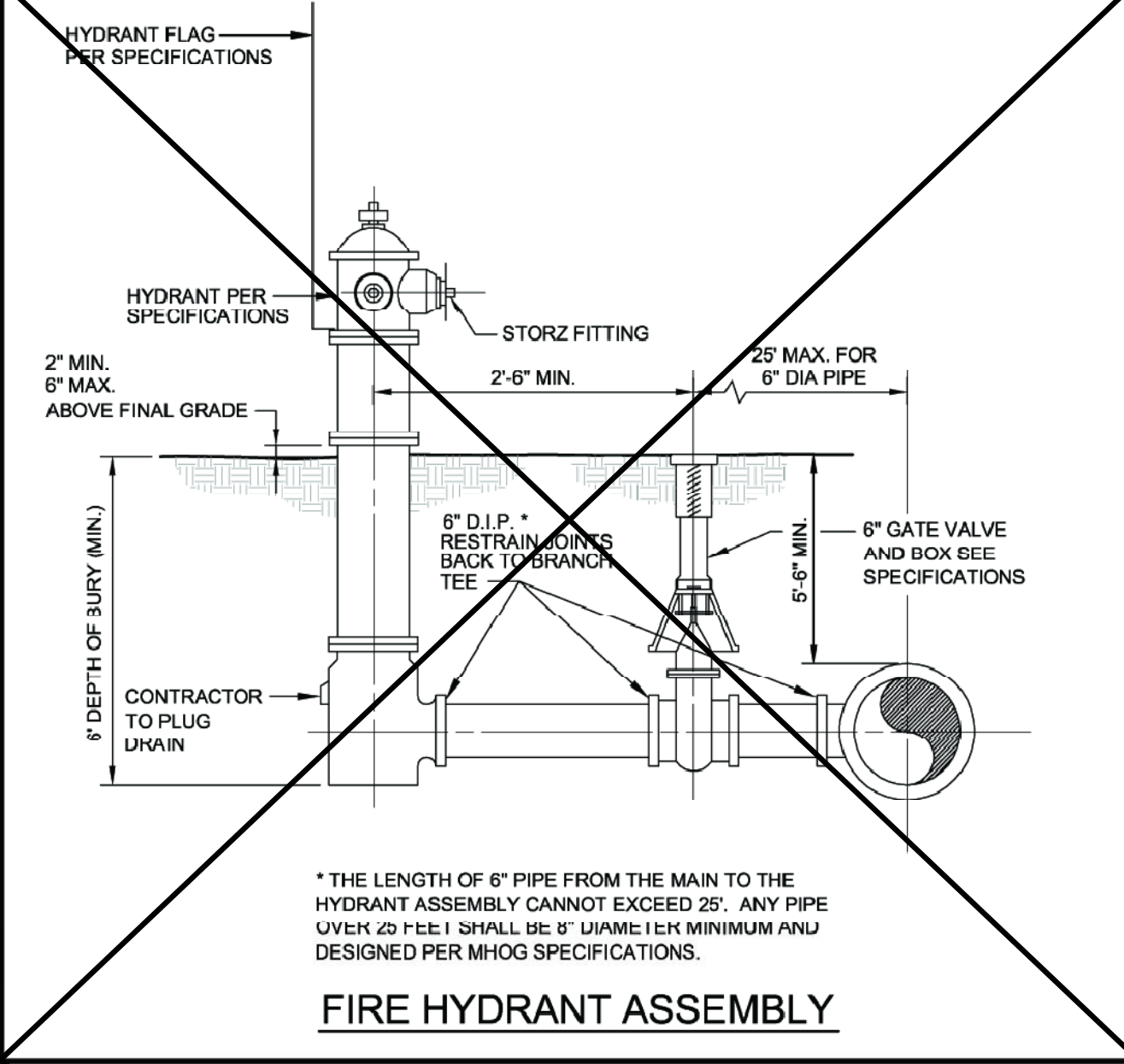
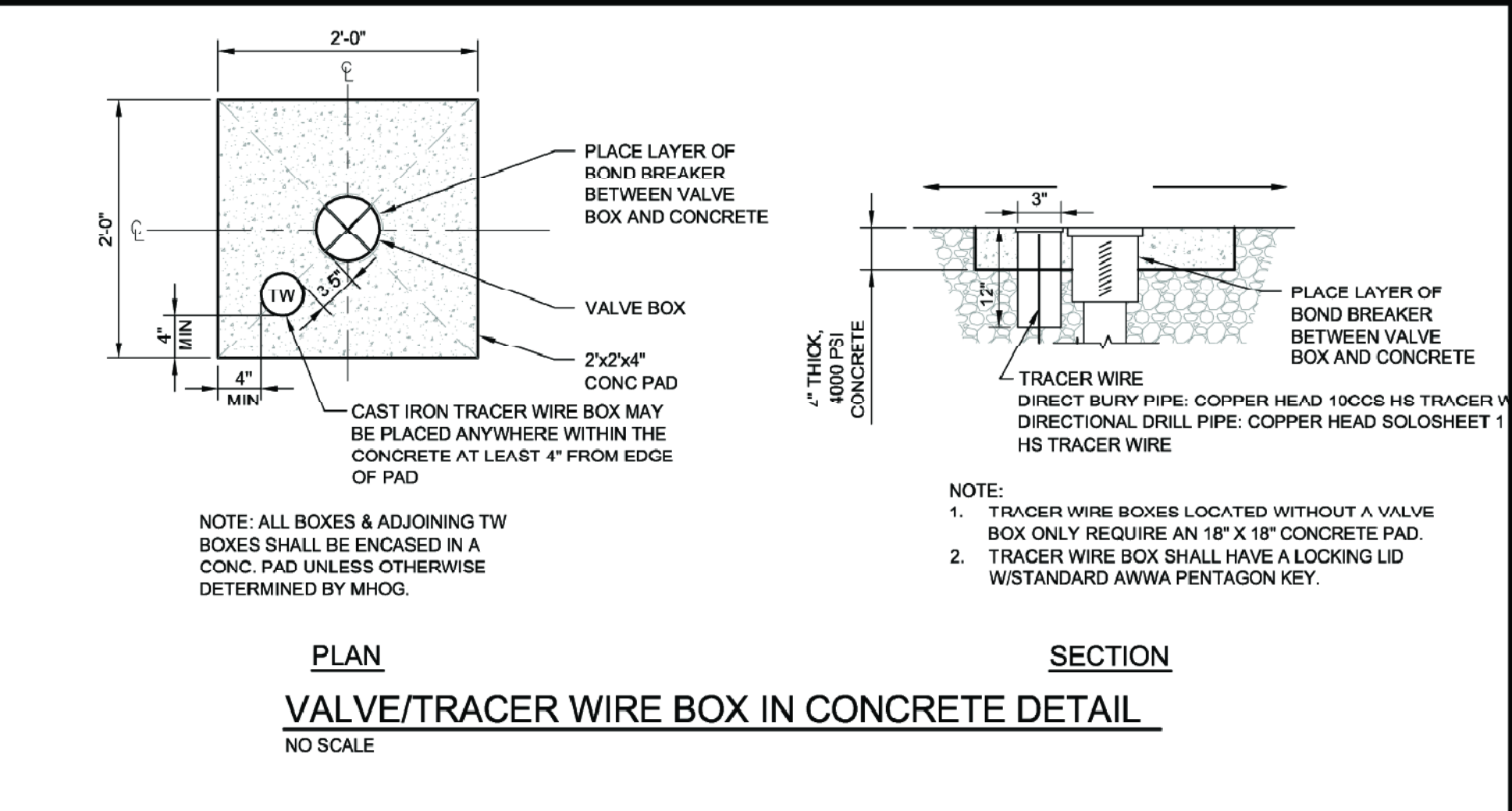
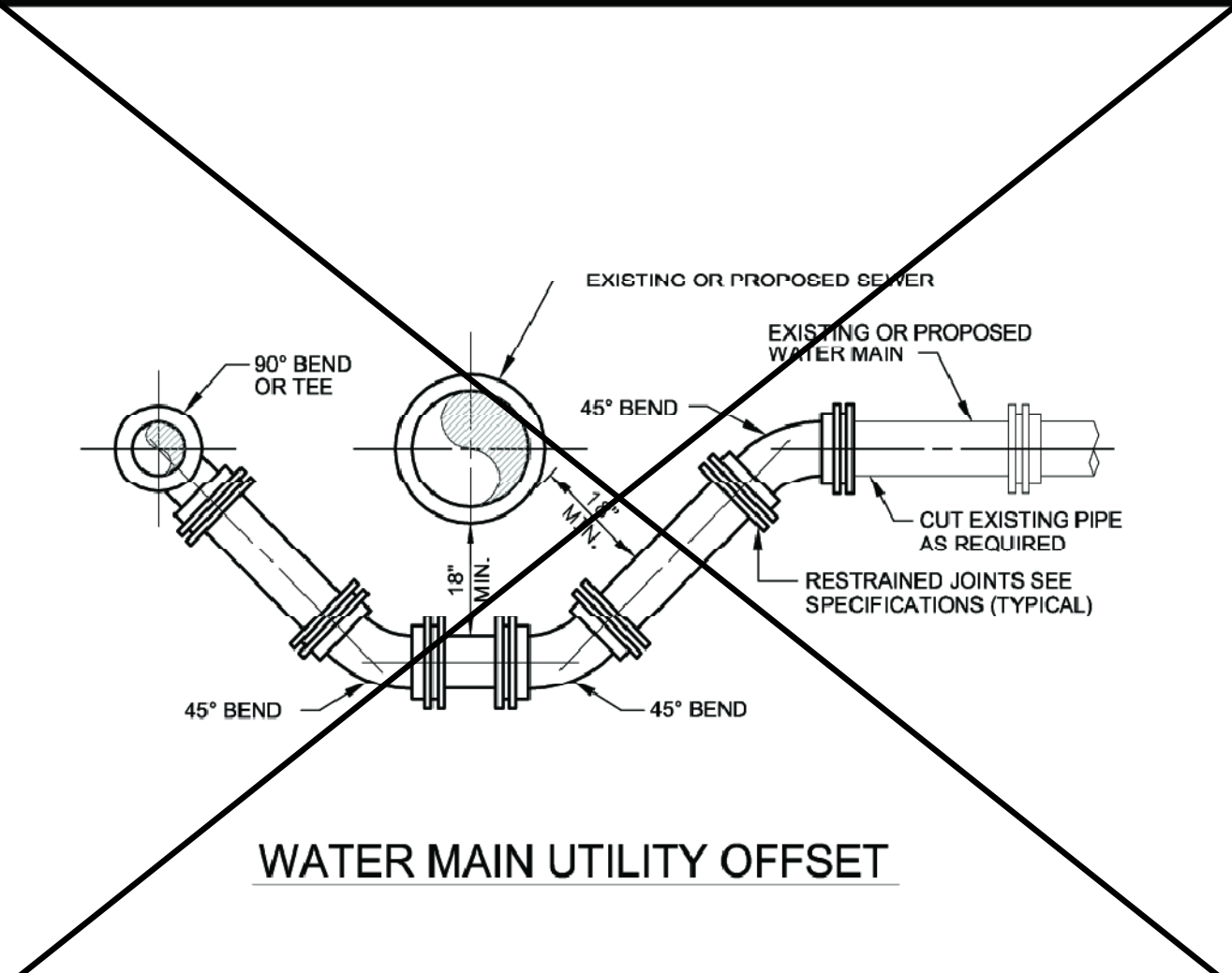
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### PIPE RESTRAINT SCHEDULE

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	64	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 THE 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: 6  
BEDDING CLASS: TYPE 4  
SOIL TYPE: GOOD SAND  
SAFETY FACTOR: 2



**MARION HOWELL OCEOLA GENOA**  
Sewer and Water Authority

**WATER MAIN STANDARD DETAILS**

Scale: NONE  
Issued Date: JANUARY - 2014

**BE BOSS Engineering**  
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**FLAGSTAR BANK**  
 MBA ARCHITECTS  
 30160 TELEGRAPH RD, SUITE 160  
 BINGHAM PARKS, MI 48025  
 248-2585155

**WATER MAIN DETAILS**

PROJECT: MARION HOWELL OCEOLA GENOA Sewer and Water Authority

PREPARED FOR: NONE

NO.	BY	REVISION PER	DATE
1	KS	GENOA TWP. REVIEW	04/25/16
2	KS	GENOA TWP. REVIEW	03/23/16
1	KS	GENOA TWP. REVIEW	03/23/16

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY:  
SCALE  
JOB NO. 15-325  
DATE 03/02/2016  
SHEET NO. 11



WALMART  
SUPERCENTER

LOWE'S HOME  
IMPROVEMENT

PRENTIS APARMENTS

PROPOSED  
MEDICAL OFFICE  
CENTER TO BE  
CONSTRUCTED  
BY OTHERS

PROPOSED  
SITE

PROPOSED  
FUTURE  
DEVELOPMENT  
PROPERTY

PROPOSED  
FUTURE  
DEVELOPMENT  
PROPERTY

PRENTIS APARMENTS

GRAND OAKS DR

GRAND OAKS DR

S. LATSON RD.

S. LATSON RD.

E. GRAND RIVER AVE.

I-96 OFF RAMP

I-96 ON RAMP



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BEFORE YOU DIG  
1-800-482-7171  
DIG

**BEBOSS**  
Engineering  
Engineers Surveyors Planners Landscape Architects

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PROJECT: FLAGSTAR BANK  
PREPARED FOR: MBA ARCHITECTS  
30160 TELEGRAPH RD, SUITE 160  
BINGHAM FARMS, MI 48025  
248-2885158

TITLE: AERIAL SITE OVERVIEW

NO	BY	REVISION PER	DATE
2	KS	GENOA TWP. REVIEW	04/25/16
1	KS	GENOA TWP. REVIEW	03/23/16
NO	BY	REVISION PER	DATE

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY:

SCALE  
JOB NO. 15-325  
DATE 03/02/2016  
SHEET NO. 12

PROPOSED:

**FLAGSTAR BANK**



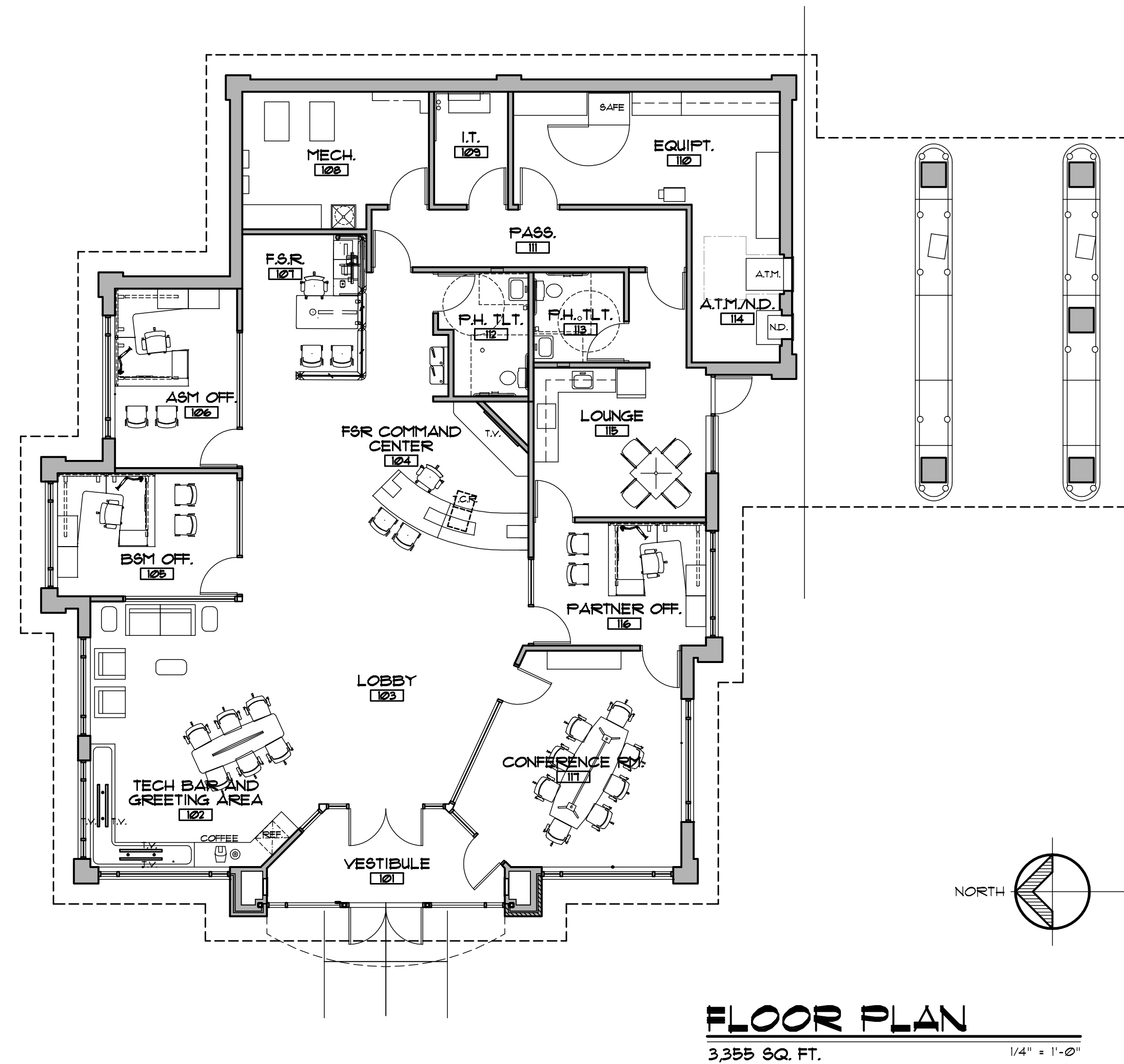
BRANCH #032  
LATSON ROAD  
GENOA TOWNSHIP, MI

Sheet Title:  
**FLOOR PLAN**

Issued For:  
03/02/2016

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Sheet No.



**FLOOR PLAN**

3,355 SQ. FT.

1/4" = 1'-0"

**MICHAEL A. BOGGIO ASSOCIATES**

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Suite 150  
Bingham Farms, MI 48025  
248.258.5155  
BOGGIOARCHITECTS@COMCAST.NET

PROPOSED:

**FLAGSTAR BANK**



BRANCH #032  
LATSON ROAD  
GENOA TOWNSHIP, MI

Sheet Title:  
**ELEVATIONS**

Issued For:  
03/02/2016  
03/22/2016 REV.  
04/18/2016 REV.

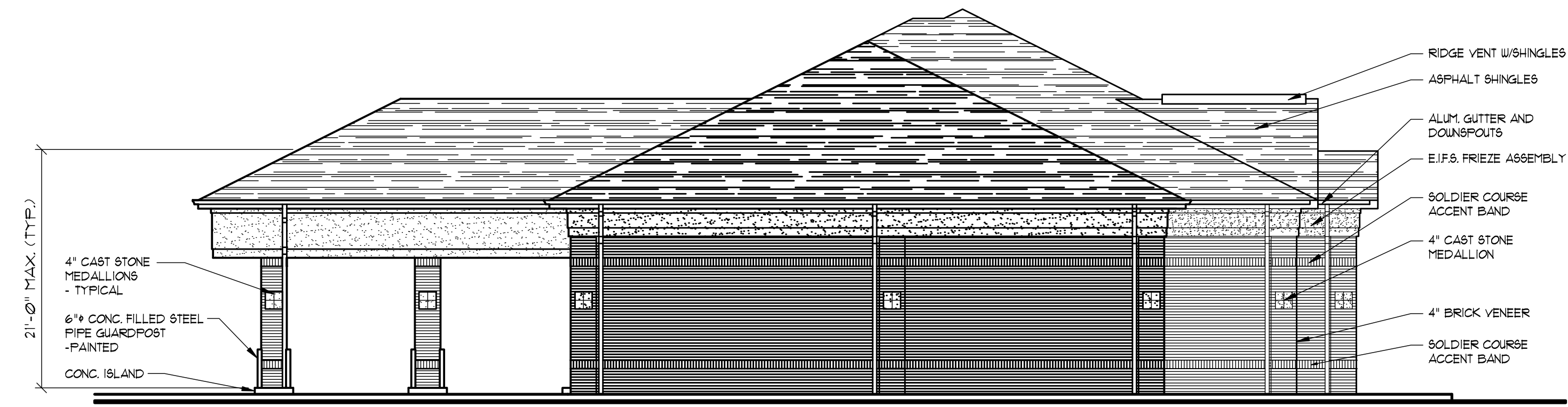
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Sheet No.

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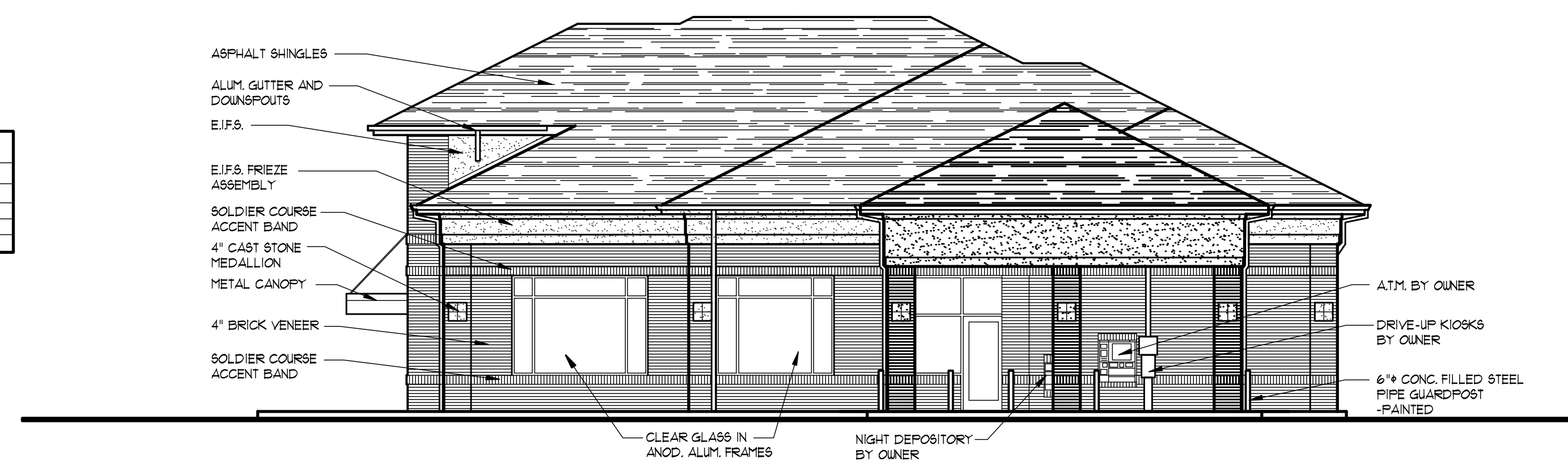


**NORTH ELEVATION**  
1/8" = 1'-0"



**EAST ELEVATION**  
1/8" = 1'-0"

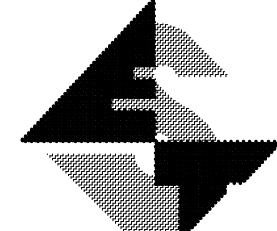
BUILDING MATERIAL PERCENTAGES				
MATERIAL	NORTH	EAST	SOUTH	WEST
BRICK	71%	80.2%	59.3%	51.9%
GLASS	15.5%	0%	21.5%	28.1%
EIFS	1.5%	19.8%	19.2%	16.0%
METAL CANOPY				3.4%



**SOUTH ELEVATION**  
1/8" = 1'-0"



**WEST ELEVATION**  
1/8" = 1'-0"



ETS ENGINEERING, INC.
ENERGY / TECHNOLOGY SOLUTIONS
418-1/2 S. WASHINGTON
P.O. BOX 1116
ROYAL OAK, MI 48068-1116
DFF: 248/744-0360
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PROPOSED:

FLAGSTAR BANK

BRANCH #032
LATSON ROAD
GENOA TOWNSHIP, MI

Sheet Title:
ELECTRICAL
PHOTOMETRIC
SITE PLAN

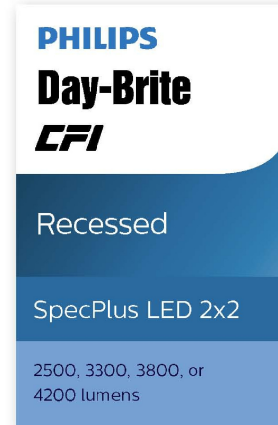
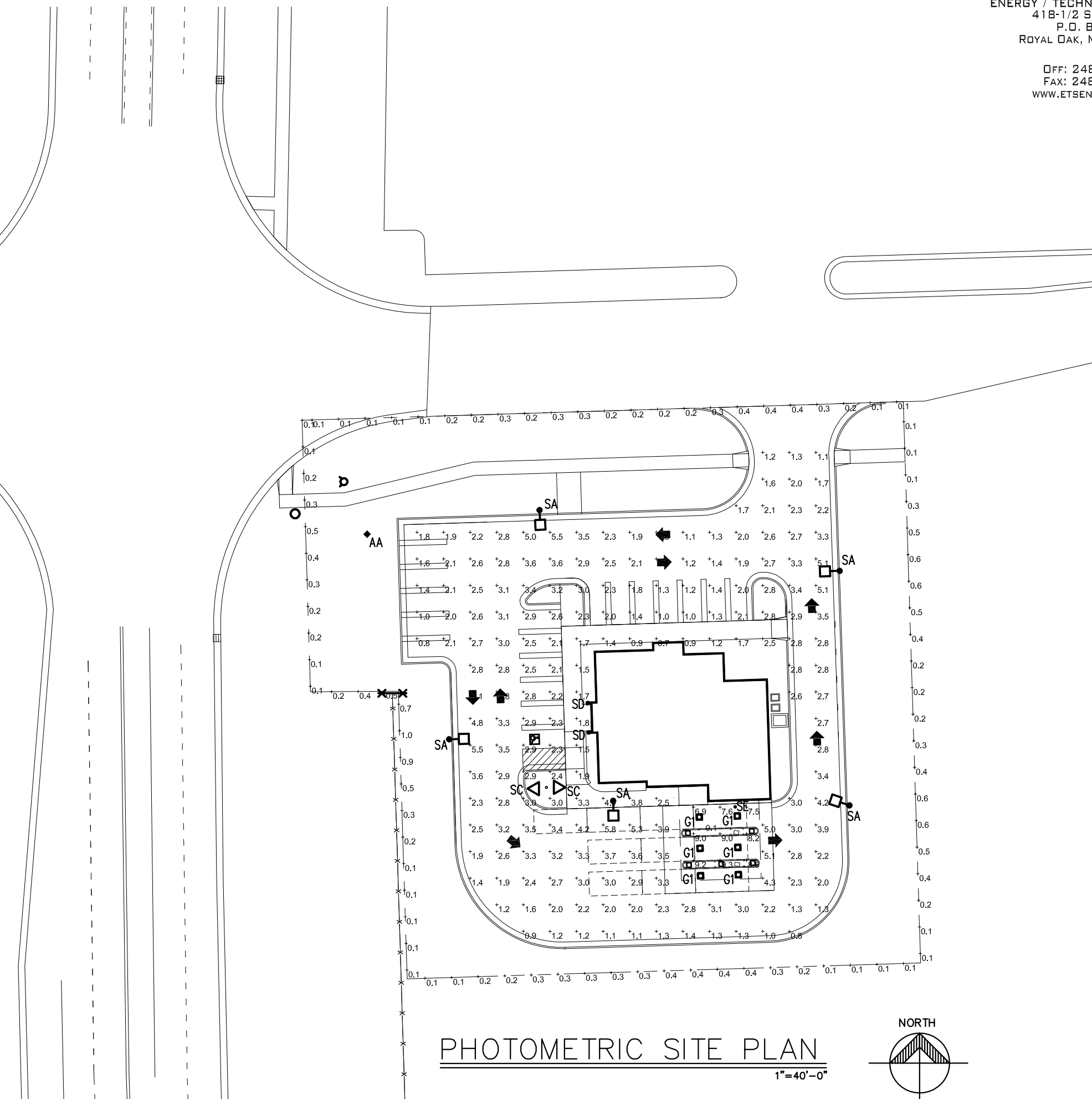
Issued For:
02-12-16 SPA
03-21-16 REVISED

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Sheet No.

Statistics table with columns: Description, Symbol, Avg, Max, Min, Max/Min, Avg/Min. Rows include PARKING & DRIVES, PROPERTY LINE, and UNDER CANOPY.

Schedule table with columns: Symbol, Label, Quantity, Manufacturer, Catalog Number, Description, Lamp, Number Lamps, Light Loss Factor, Wattage. Rows include SA, G1, SC, SD, SE, AA.



Ordering guide table for Philips Day-Brite CFI lamps, listing Part No., Power, Voltage, etc.

Accessories (order separately):
- HAZ2 - 2x2" mounting frame for LED
- TDR1 - 1" spacer mounting frame for LED

SpecPlus, LED 2x2 08/16 page 1 of 3

TYPE G1



EcoForm combines economy with performance in an LED area luminaire. Capable of delivering up to 20,000 lumens or more in a compact, low profile housing. EcoForm offers a new level of customer value.

Ordering guide table for Garco EcoForm luminaires, listing Part No., Catalog, Mounting, LED, Color, Voltage, Finish, Options.

1. Available in 800V configuration for 480VAC.
2. MR11 is a 3.7" depth unit designed for recessed ceiling applications.
3. MR11 is available with a 12" depth for ceiling applications.

EZLED78SF - RAB Lighting product page. Includes product image, LED info, driver info, dimensions, and specifications for the EZLED78SF luminaire.

Progress Lighting 6" Cylinders Wall product page. Includes incandescent and outdoor options, specifications for P5641 and P5642, and technical diagrams.

Gotham 4" Incito Downlight product page. Includes product image, technical specifications, and ordering information for the Incito LED downlight.

Antique Street Lamps AL25 LED Acorn Style product page. Includes product image, technical specifications, and ordering information for the AL25 LED acorn style downlight.

TYPE SA/SB

TYPE SC

TYPE SD

TYPE SE

TYPE AA

PE-1

# Flagstar | #32 Genoa Twp, MI

NOTE: Renderings below utilize sample dimensions derived from client surveys.



## WEST ELEVATION



**A** QTY 1: Illuminated Letterset on Raceways  
Raceways – paint to match



**FAIRMONT**  
SIGN COMPANY

3750 East Outer Drive  
Detroit, MI 48234  
t: 313.368.4000 f: 313.368.9335  
www.fairmontsign.com

Client:



#32  
Latson Road  
Genoa Twp, MI

Date:  
3/02/16

File:  
Accounts/Banks/Flagstar/Elev/  
32 Genoa Twp, MI

Designer:  
RNB

Scale:  
na

Job#	Sheet#
00000	1 of 2

Revision #	Date:
2	4-14-16

Revision Description:

04/18/2016 REV.

Customer  
Approval:

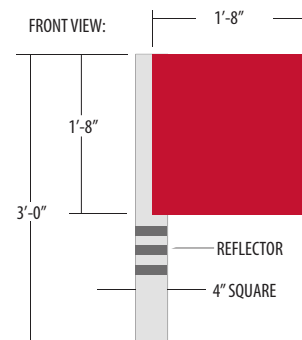
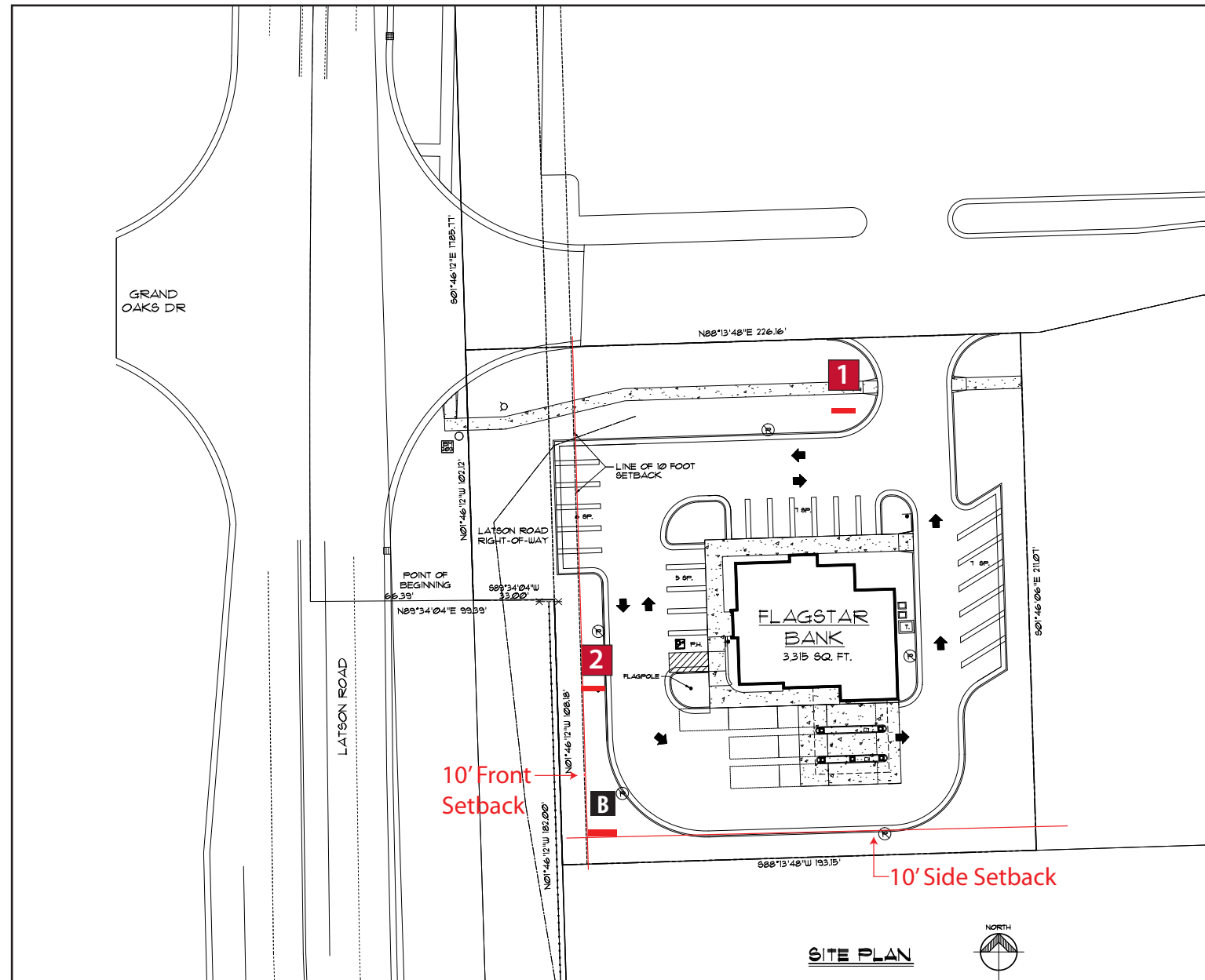
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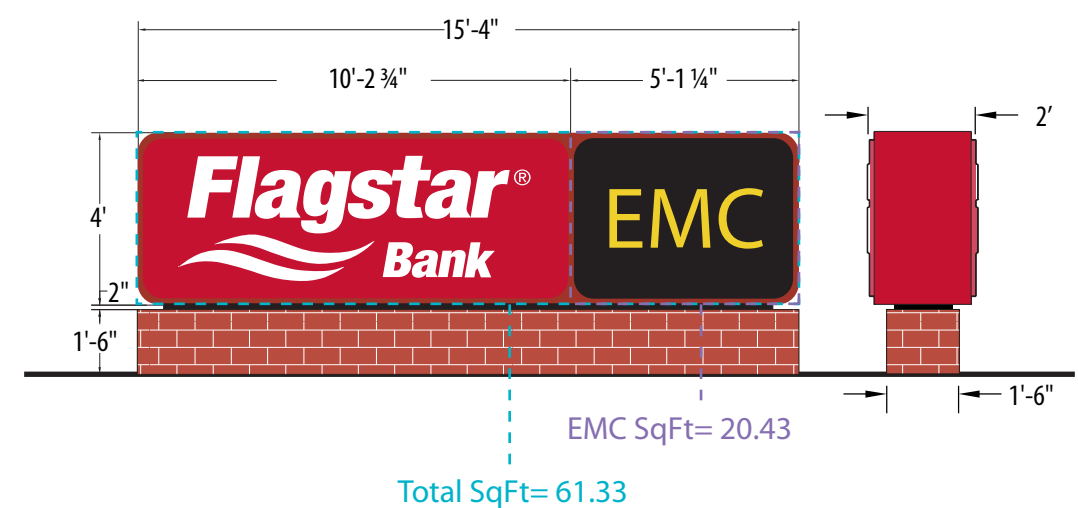
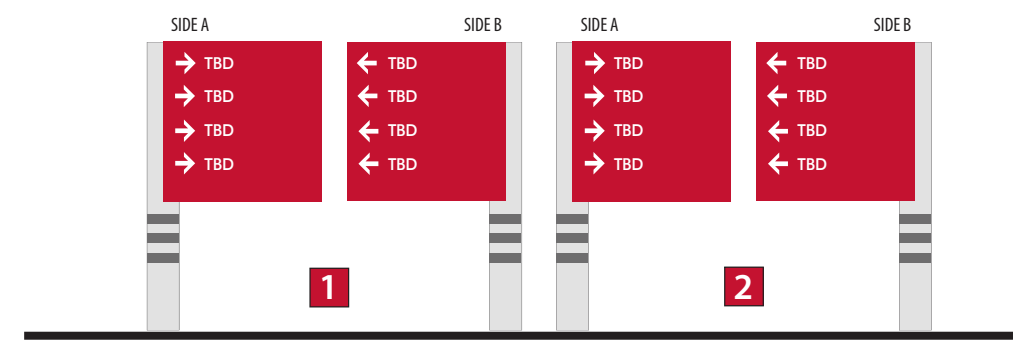
**ALL DIMENSIONS TO BE  
FIELD VERIFIED PRIOR TO  
INSTALLATION**

# Flagstar | #32 Genoa Twp, MI

NOTE: Renderings below utilize sample dimensions derived from client surveys.



**1 2** QTY 2: Non-illuminated D/F Directional Signs – Copy TBD



**B** QTY 1: Monument with EMC

NOTE: See article 16, subsection 16.07.02 for EMC sign regulations

**f.**  
**FAIRMONT**  
 SIGN COMPANY  
 3750 East Outer Drive  
 Detroit, MI 48234  
 t: 313.368.4000 f: 313.368.9335  
 www.fairmontsign.com

Client:  
**Flagstar**  
 Bank  
 #32  
 Latson Road  
 Genoa Twp, MI

Date:  
 3/02/16

File:  
 Accounts/Banks/Flagstar/Elev/  
 32 Genoa Twp, MI

Designer:  
 RNB

Scale:  
 na

Job# 00000 Sheet# 2 of 2

Revision # 2 Date: 4-14-16

Revision Description:  
 04/18/2016 REV.

Customer Approval:

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**ALL DIMENSIONS TO BE FIELD VERIFIED PRIOR TO INSTALLATION**



April 25, 2016

To: Genoa Township Board

From: Polly Skolarus

As you may know the township presently owns and maintains the Chilson Hills Cemetery located off Chilson Road near Oak Pointe. Many years ago, under the direction of Bob Murray, the township sold a portion of the cemetery to Oak Pointe Development. The sale included a maintenance agreement that is now expired. Currently there remain two full size burial sites and 14 cremains sites within the Chilson Hills Cemetery.

The Livingston Sunrise Rotary, under the direction of Don Pobuda, saw to the spring cleanup of Chilson Hills. The Rotary recently withdrew their support after many years of service and dedication to our township. There was a lot of damage to Chilson Hills this past winter including a fallen tree. We have contracted with Karleen Shafer of Landscape Design to clean-up the cemetery and remove the fallen tree. For those who do not know Karleen, she has dedicated many volunteer hours to our township with her extensive knowledge of landscape design and horticulture.

With this board's approval we met with members of St. George Lutheran Church to discuss the purchase of additional cemetery sites as an alternative to building a new cemetery. Today, Gary McCririe and I again met with six members of St. George Lutheran Church for the second time concerning an agreement for the purchase of cemetery sites within their facility. The St. George Lutheran Cemetery is located on Herbst Road in Genoa Township and would accommodate our residents. Discussion included perpetual care, the use of a sexton, our initial cost and subsequent sale of burial sites.

As a result of our meeting we came to a tentative agreement to purchase 122 sites at a cost of \$40,000.00. Our recent budget titled (Building Reserve Fund/Cemetery 271) included a line item allowance for this purchase. We are asking your agreement to this sale.



10 Board 5/11/16



925 W. Grand River Ave.  
Howell, Michigan 48843  
517.546.0693  
517.546.6018 Fax  
www.howallrecreation.org

*"Communities coming together to enrich lives by promoting active and healthy lifestyles"*

To: Joan Runyan  
Livingston County Election Coordinator

From: Paul Rogers  
Executive Director – Howell Area Parks & Recreation Authority

Date: April 25, 2016

Subject: Howell Area Parks & Recreation Authority Millage Proposal

Enclosed are the following documents authorizing placement of the Howell Area Parks & Recreation Authority Millage Proposal on the August 2, 2016 Primary Ballot:

- Resolution calling an election to decide the question of the Authority levying a .5 mill tax for (5) five years for the funding of the Authority.
- Sample Ballot.

If you require further information, please contact me prior to the May 10, 2016 submission deadline.

Cc: Tammy Beal, Marion Township Clerk  
Kathleen McLean, Oceola Township Clerk  
Polly Skolarus, Genoa Township Clerk  
Carolyn Eaton, Howell Township Clerk  
Jane Cartwright, City of Howell Clerk

Enclosures

[SAMPLE BALLOT]  
OFFICIAL BALLOT

HOWELL AREA PARKS AND RECREATION AUTHORITY  
MILLAGE QUESTION ON PRIMARY ELECTION BALLOT

TUESDAY, AUGUST 2, 2016  
LIVINGSTON COUNTY, MICHIGAN

HOWELL AREA PARKS AND RECREATION AUTHORITY MILLAGE PROPOSAL

Shall the limitation on the amount of taxes which may be levied against all taxable real and personal property in the City of Howell, and the portions of Genoa Township, Howell Township, Marion Township and Oceola Township which are contained in the Howell Public School District, Livingston County, Michigan, be increased by .50 mill (an ad valorem tax of \$ .50 per thousand dollars of taxable value) for five (5) years, for the period December 2016 through December 2021 inclusive, for the purposes of funding the Authority's operation, maintenance, acquisition, construction and improvement to public parks, recreation facilities, centers, and programs, and such other related purposes as authorized by Section 5 and Section 11 of Act 321 of 2000, as amended, that being MCL 123.1135 and 123.1141, which millage, if approved and levied, will raise in the first year of levy an estimated \$1,000,000.00?

*The following is for information purposes only:*

*"This proposal will provide the funding needed by the Howell Area Parks and Recreation Authority to continue to offer and expand the current programs, maintain and improve existing facilities, and undertake the critical need of developing a community recreational facility. This proposal will allow the Authority to meet the parks and recreation needs of our public now and in the future."*

YES

NO

**Resolution 16-04 of the Howell Area Parks & Recreation Authority  
Howell, Michigan**

**RESOLUTION CALLING AN ELECTION TO DECIDE THE QUESTION  
OF THE AUTHORITY LEVYING A .50 MILL TAX FOR FIVE YEARS FOR  
THE FUNDING OF THE AUTHORITY**

Wherefore, after due consideration, research and deliberation, the Board of the Authority has determined that a .50 mill tax on all taxable property within the limits of the Authority should be levied for five years to support the funding and operation of the Authority, its operation, maintenance, acquisition, construction and improvement to public parks, recreation facilities, centers, and programs, including an active and passive park system, and to insure that the purposes of the Authority's incorporation are met; and

Wherefore Section 11 of Act 321 of the Public Acts of 2000, as amended, that being MCL 123.1141, provides that an Authority incorporated under that Act may call an election to decide the levy of a millage for the purposes of the Act by resolution; and

Wherefore, Article XIII of the Articles of Incorporation of the Howell Area Parks and Recreation Authority permits the levying of such a millage pursuant to the Act;

Now Therefore, it is hereby resolved by the Board of the Howell Area Parks and Recreation Authority that a question shall be placed on the ballot for the primary election to be held Tuesday, August 2, 2016, wherein the registered electors residing in the Authority shall be asked to decide the following question:

**Shall the limitation on the amount of taxes which may be levied against all taxable real and personal property in the City of Howell, and the portions of Genoa Township, Howell Township, Marion Township and Ocoia Township which are contained in the Howell Public School District, Livingston County, Michigan, be increased by .50 mill (an ad valorem tax of \$ .50 per thousand dollars of taxable value) for five (5) years, for the period December 2016 through December 2021 inclusive, for the purposes of funding the Authority's operation, maintenance, acquisition, construction and improvement to public parks, recreation facilities, centers, and programs, and such other related purposes as authorized by Section 5**

and Section 11 of Act 321 of 2000, as amended, that being MCL 123.1135 and 123.1141, which millage, if approved and levied, will raise in the first year of levy an estimated \$1,100,000.00?

**The following is for information purposes only:**

*"This proposal will provide the funding needed by the Howell Area Parks and Recreation Authority to continue to offer and expand the current programs, maintain and improve existing facilities, and undertake the critical need of developing a community recreational facility. This proposal will allow the Authority to meet the parks and recreation needs of our public now and in the future."*

**Adopted this 19<sup>th</sup> day of April, 2016 by roll call vote.**

**RECORD OF VOTES:        Yeas \_\_\_\_\_**

**Nays \_\_\_\_\_**

**I hereby certify that the foregoing resolution was adopted by the Howell Area Parks and Recreation Authority Board at a regular meeting held on April 19, 2016.**

\_\_\_\_\_, Chairman

\_\_\_\_\_, Secretary

## Mike Archinal

---

**From:** Susan Cyrul <susancyrul@yahoo.com>  
**Sent:** Friday, April 22, 2016 2:25 PM  
**To:** Mike Archinal  
**Subject:** Re: Genoa Twp Park

My brothers and I discussed our plans, and have decided to put them on hold. We are, however, extremely grateful for your generous offer and quick response to our request. Please know how important that walking path is to many people in your area. It's a nice asset - you should be proud!

Thank you, again.

Susan

---

**From:** Mike Archinal <Mike@genoa.org>  
**To:** Susan Cyrul <susancyrul@yahoo.com>  
**Cc:** Kathleen Murphy <kathleen@genoa.org>; Adam VanTassell <Adam@genoa.org>  
**Sent:** Wednesday, April 20, 2016 12:45 PM  
**Subject:** RE: Genoa Twp Park

Susan,

Thank you for your kind comments. It is always rewarding when something you built brings joy to others. Our benches run about \$1,000 each. If that is not in your budget we have a bench at the midpoint of the trail. If you would like to have a plaque affixed to the bench please let me review a proof and I can make that happen. If you would like to make a donation to our park fund it would be appreciated but not necessary. Please let me know if you have any questions.

Michael C. Archinal, AICP MPA  
Manager  
Genoa Charter Township  
810.227.5225  
[mike@genoa.org](mailto:mike@genoa.org)



---

**From:** Kathleen Murphy  
**Sent:** Monday, April 18, 2016 11:34 AM

**To:** Susan Cyrul  
**Cc:** Mike Archinal  
**Subject:** RE: Genoa Twp Park

Good morning Susan,

What a lovely idea to honor your parents this way. I am so glad they found enjoyment at the park, and that your dad still comes here to walk and remember your mom. I hope your dad has a wonderful 87<sup>th</sup> birthday.

I am passing along this email to our Township Manager Mike Archinal (cc'd here). He would be the best person to answer your questions.

Sincerely,

Kathleen

Kathleen Murphy  
Administrative Assistant



Genoa Charter Township  
2911 Dorr Road, Brighton, Michigan 48116  
Phone: (810) 227-5225, Fax: (810) 227-3420  
E-mail: [kathleen@genoa.org](mailto:kathleen@genoa.org), Url: [www.genoa.org](http://www.genoa.org)

---

**From:** Susan Cyrul [<mailto:susancyrul@yahoo.com>]  
**Sent:** Monday, April 18, 2016 11:18 AM  
**To:** Kathleen Murphy  
**Subject:** Genoa Twp Park

I had a question in regards to your park - wasn't sure who to send it to. Thought I'd start here!

My parents have been residents of Genoa Township for many years. They spent many hours walking the pathway around your offices. Especially as they got older and less able to walk long distances, the path offered them a feeling of safety, a nice distance to walk, and was close to home. My mom recently passed on, and dad ( he'll be 87 this week) continues to walk the pathway - always in remembrance of his wife of 68 years. I often meet him over there and walk with him as we remember their lives together.

My question is : Would your township consider allowing us to place a bench along the pathway (I know there is one at this time...) with a plaque of some kind "In honor of ..." with their names on it ... (or something like that)? The park and walkway helped get them through their later years, as they had been so very active all of their lives - until age made them slow down a bit. They have been so grateful to have had access to it - my two brothers and I thought it might be a fun thing to put another bench there somewhere with their names on it - Other parks do it, but your park has been an important part of their later lives. My dad would love that!!

If not, we certainly understand but would appreciate the consideration, if the cost to us is in our budget.



Thank you for your time.

Susan Cyrul  
[susancyrul@yahoo.com](mailto:susancyrul@yahoo.com)

3618 Rainier Drive  
Howell MI 488436

Members Present: Black, Cafmeyer, DeRosier, Lewis, Oemke, Sargent, Thompson

Members Absent:

Staff Present: Director Marlow, Barb Rentola, Sue Strouse, Janice Yaklin

Guests: Peter Bruder, Dan Whisler

- I. President Lewis called the meeting to order at 7:04 p.m. in the Community Room of the Cromaine Village Library.
- II. **Approval of agenda** Agenda Approval  
Moved to approve by Member DeRosier, seconded by Member Black.  
Passed unanimously.
- III. **Approval of Consent Agenda** Consent Agenda Approval  
Member Sargent moved to approve the consent agenda with the addition of the Finance and Personnel Committee minutes handed out at this meeting, seconded by Member Cafmeyer. Passed unanimously.
  - A. Approval of 2/18/16 regular meeting minutes.
  - B. Acknowledge receipt of the February Financial Report and payment of February invoices totaling \$29,659.32 and payroll obligations totaling \$78,031.47.
  - C. Director's Report
  - D. Committee Reports

Community Relations	March 10
Personnel Committee	March 16
Planning Committee	March 8
Finance Committee	March 14
- IV. **Call to the Public:** Call to the Public  
Janice Yaklin said, "Hi."
- V. **Director's Report Update** – The Director shared the following verbally: Director's Update  
Volunteers gave 151 hours last month, of which 127 were Adult Volunteers. We have agreed to take on a new volunteer group—youth ages 13-17 who are enrolled in the Juvenile Offender program of the Livingston County Court. We are the only site in Hartland willing to work with the court. The youth come one Saturday morning each month, with their own supervisors, and will perform a variety of tasks from cleaning and yard care to preparing crafts and assisting in programs. Our most recent court-ordered adult volunteer told Barb that he was very grateful for the opportunity to perform his community service hours here. We treated him with respect, he had meaningful work to do, and he learned a lot more about how valuable Cromaine is in the community.  
  
There were no decisions or action items to be addressed from the February meeting.

President Lewis emailed the Director with a question about the Operating Fund Summary Report in the consent agenda. She wants to receive a report that includes the monthly expenditures per category. This is included in the Profit & Loss statement received by the Finance Committee. She is confident that the information was given before and it needs to be reinstated now.

The first Ignite/XDS meeting with community members to help define and refine the library's message with their input, will be held Wednesday, March 23 at 2:00 pm. Thirteen members of the community, long-time library supporters, were invited to attend, along with the five members of the Community Relations Committee. Five community members are able to attend so far. We look forward to their help moving Cromaine forward with the goal of increased community awareness and engagement.

We have already received a Post-secondary Scholarship Award application, after distribution by the Hartland High School counselor and email from Carolyn McCullough to library teen volunteers.

Only one township has not completed the payment of Cromaine library taxes at this time.

Mary Howard and Member DeRosier just returned from the Harwood training, for which Cromaine received a stipend. Community conversations for the library community will start again—Emily Idzior and Donna Janke will each attend one in April, learning more about Harwood through that experience.

Questions and comments from the Trustees:

Member Oemke said that our participation in the Juvenile Probation Court activity is "a really important thing" for the kids involved. Sue Strouse said that we were participants for about four years some years ago, but Member Oemke believes it was with another branch of the court. Member DeRosier asked when the program will start. Barb Rentola replied the second Saturday of April.

## VI. Discussion

### A. Strategic Plan Vision 2020

President Lewis commented that this is a good team, moving fast. Since increased community interaction is part of the strategy and since neither Members Oemke or Thompson were at the February meeting, President Lewis extended the opportunity to be the regular representative from the Trustees to the Friends' quarterly meetings to both Members. Member Oemke accepted and will attend the next meeting, April 19 at 6:30 pm.

Member Thompson asked if trustees are invited to the March 23, 2:00 pm community meeting. Member Black noted that the three trustees of the committee will be there and a fourth would make a quorum, but the Director cited recent meetings of other groups where a fourth Township trustee was present as a silent observer. In this case, the three Community Relations trustees are to attend as "silent observers," and Member Thompson certainly qualifies as a "long-standing library supporter and community member." Member Thompson will attend. No board decisions will be made at this meeting.

Members Ocmke and Sargent reported briefly on their attendance at the Hartland Consolidated Schools board meeting. The next meeting, April 18, will be attended by Mary Cafmeyer and a to-be-named trustee.

### **B. Review of Board Operating Procedures Manual**

Member Black noted two changes needed: Procedure 8001A - page 2 under the heading "Trustee Election" refers to a likely outdated School Code of 1976, as governing trustee election. There was a recent update, moving school and library board elections to November, so the Director will get this updated. In Procedure 8003 - in the last section "Distribution of the packet" it states that regular monthly meetings [packets] are delivered to the Board at home which is no longer true.

Review of Board  
Operating  
Procedures  
Manual

Member Sargent questioned if the name of the library should be changed throughout the manual (and elsewhere). President Lewis noted that no formal change has been made to the library's name. Member Sargent notes that if change is made, it will be an expensive and complex task.

### **C. Reconfiguration & Renovation Project & Budget Update**

Dan Whisler, Architect Daniels and Zermack, discussed the pursuit of cost reduction options. The budget prepared by Rewold & Son and given to the Planning Committee (as discussed in this packet's Planning Committee meeting minutes) had a construction cost of \$1.926 million, up from the original estimate of \$1.56. Gene Ferrera, working with Dan, has refined the budget and construction cost is now at \$1,898,446. Dan and Gene have worked to prepare a list of possible cost reductions which will be presented to the Planning Committee, along with estimates of savings, on March 30. However, it is clear now that the greatest cost reduction that can be achieved is in changing from full fire suppression throughout the 1927, 1980 and addition, to fire separation. The difference is \$178,000 in savings. Both are acceptable by code. Both are acceptable to the Fire Marshall. Dan plans to meet with the Fire Marshall and the Building Official to discuss fire separation as an alternative.

Reconfiguration  
& Renovation  
Project & Budget  
Update

Dan explained that the difference between fire suppression and fire separation in how it actually works is that a fire will trigger a single sprinkler head and put out the fire in that spot. It is not like it is in the movies, where one fire in a wastebasket, for example, turns an entire building into a shower. Fire separation works by isolating the fire, behind fire walls and doors. Fire separation will slow the fire's growth, but it does not put out the fire. It is dependent on the Fire Department responders to then put out the fire.

There are two possible ways of fire separation in the building. One is to close off the 1927 building at the second floor, with a fire door at the transition point in the hallway by the janitor and technology closet. A second wall of separation would be the wall between the 1980 and the addition and would mean no windows from the addition into the 1980 adult area on the first floor and youth area on the second floor. A second method of fire separation is to have one fire door at the top of the stairway from the first to the second floor, where there is now an occasionally used gate (used for after hour programming, to close off the Youth area).

Dan believes that full fire suppression is the better long-term investment, in addition to being more effective in preserving the legacy of the 1927 building and all of the library's contents. There is one principal concern in the use of fire separation and that is that fire separation requires that all separate areas must have ground level fire exits. The third floor or upper floor of the 1927 building does not qualify. There are three steps to get out the door on the west side of the 1927 building. But it is an existing condition.

Fire separation is a likely cost of \$50-60,000. Full fire suppression is a likely cost of \$230-240,000. When looking for the greatest cost-reduction item, choosing fire separation is the most effective and still meets code.

The timing of the replacement of the air handling unit is subject to many variables. It could be treated as a separate project.

Member DeRosier expressed concern that pursuing a cost-cutting measure at the possible risk of public safety is far too familiar a story in Michigan right now. Dan reiterated that fire separation does meet code--it is acceptable and assures safety, but that code is typically the minimum required.

Member Black asked about the likely extent of water damage when using full fire suppression. The Director reiterated that it will typically be one sprinkler head putting out the fire and not an entire floor or area being showered. Whereas, fire separation not only burns longer (5 minutes until the Fire Department arrives) before being addressed and it has a lot of smoke damage. Plus it is likely when the Fire Department arrives, breaks down a door or windows to get to the fire, then sprays, there will be more water as well as smoke damage.

The Director noted that there are other factors causing the construction cost overage, including the mechanical--replacement of the air handling unit. Dan reported that they are pursuing a rooftop unit for replacement which will solve issues of access. It is one of the project's challenges that the air handling unit was built in the mechanical room in 1980, knowing this equipment wears out, yet an insufficient doorway was provided (only 36" when it needs double doors). This also now has impact on the timeline, which has impact on the owner's costs (which are increasing in addition to the construction cost). However, the overall time required for the project once construction begins is not any longer. It is still ten months, once construction begins.

Member DeRosier asked if the \$1.926 million or now \$1.898 million includes full fire suppression. Dan replied that it does.

Member DeRosier asked how much has been spent bringing the project to this point. The Director replied that the cost this year-to-date is \$60,515. This is in addition to the approximate \$750,000 over the last 15 or more years bringing added space for Cromaïne Library to this point.

Member Sargent asked if we need to enlarge the well or drill a new one. Dan noted that upon investigation it is not just the diameter of the well, but its productivity as well that causes it to be insufficient for fire suppression without

added features. In discussion with the Livingston County representative who is familiar with the library's well, he noted that redrilling would not likely achieve greater productivity. So, the full fire suppression package includes a small fire pump and a 400 gallon reserve tank, which can be filled by the well and be waiting. By the time that might be depleted in the case of a fire, the Fire Department will have arrived with a pumper truck and be able to connect to the fire suppression system. This package of full fire suppression also is a long-term benefit, since it sets the library up for connection to municipal water, when it is brought to this site.

There were no further questions. Dan and Gene will bring the list of possible cost reductions on the project to the Planning Committee meeting on March 30. The Director noted that is one side of the equation. The other side is to take a closer look at the library's finances to see what can be afforded for this overage through decreased operating expenditures this year and next providing greater savings or retention of current invested balances. As President Lewis directed, the Board will then have a special board meeting March 31 to decide how to proceed. Member Cafmeyer noted that she will be unable to attend that meeting, but can participate by phone.

No decisions at this time.

**VII. Information**

Upcoming meeting dates include:

Upcoming Meeting Dates

March 30	Planning Committee, 1:00 pm, Crossroads
March 31	Special Board meeting, 7:00 pm, Village Community Room
April 13	Finance Committee, 1:00 pm, Director's Office
April 13	Personnel Committee, 7:00 pm, Director's Office
April 14	Community Relations, 10:00 am, Crossroads
April 21	Volunteer Recognition Event, 5:30-6:30 pm, Village Community Room; Board of Trustees meeting, 7:00 pm

**VIII. Agenda Items for Next Meeting**

Items for Next Meeting

- Strategic Plan VISION 2020
- Review of Third -quarter statistics
- Distribution of Library Director Evaluation Form
- Review policies:
  - 3010 – Collection Development (Community Relations)
  - 4010 – Public Relations & Public Information (Community Relations)
  - 4020 – Library Meeting Room Use (Community Relations)
  - 4030 – Non-Library Postings, Displays, & Solicitations (Community Relations)

**IX. Call to the Public:**

Public Call

Sue Strouse: "You have a lot of work before you. I speak on behalf of the staff that we appreciate all the thought and time given by the trustees on this project."

Janice Yaklin: "I've been out on three outreach events at churches, one at

Brighton and two in Tyrone, all with Darlene Randolph. We have received such warm welcomes from the pastors, secretarial staff and the church members. The attendees at the events have told us how rewarded they've been by what we've offered all along. It is so heartening to see this cordiality. I know the Harwood project will increase our community interaction even more, but just being present in the community has meant so much to those we've seen at outreach. All of the outreach work has contributed so much and will."

X. **Adjournment:**

Adjournment

Motion by Member Thompson, seconded by Member Black to adjourn at 8:24 pm.

KATHLEEN OEMKE, SECRETARY  
Cromaine District Library Board

Barbara Rentola, Recording Secretary  
Cromaine District Library Board

Documents distributed to the Board for/at this meeting:

- 2/18/16 Proposed Regular Meeting Minutes
- February 2016 Financial Reports & Checks Issued Totals
- February 2016 CDL Investment Performance Report
- Director's Report 3/17/16
- CDL Statistics for February 2016 & updated CDL 4-year Circulation Graph
- Community Relations Committee Minutes, 3/10/16
- Finance Committee Action/Decision List, 3/14/16
- Personnel Committee Meeting Minutes, 3/16/16
- Planning Committee Meeting Minutes, 3/8/16
- Big Read 2016 Flyer
- Informational Flyers & Applications for the Jeanne Smith Teen Library Volunteer Scholarship Award & the Post-Secondary Education Support Scholarship Award
- *Board & Administrator*, March 2016

Cromaine District Library  
Special Board Meeting  
Thursday, March 31, 2016

APPROVED

Members Present: Black, DeRosier, Lewis, Oemke, Sargent, Thompson  
Members Absent: Cafmeyer  
Staff Present: Director Marlow, Barb Rentola, Janice Yaklin  
Guests: Gene Ferrera, Dan Whisler

- I. President Lewis called the meeting to order at 7:02 p.m. in the Community Room of the Cromaine Village Library.
- II. **Approval of agenda** Agenda Approval  
Moved to approve by Member Thompson, seconded by Member Black.  
Passed unanimously.
- III. **Approval of Consent Agenda** Consent Agenda Approval  
Member Thompson moved to approve the consent agenda, seconded by Member Oemke. Passed unanimously.
  - A. Planning Committee March 30
- IV. **Call to the Public:** Call to the Public  
(This call to the public was delayed until the public had a chance to hear the discussion for more informed comment. See below.)
- V. **Discussion** Reconfiguration & Renovation Project & Budget Update
  - A. **Reconfiguration & Renovation Project & Budget Update**  
The Reconfiguration & Renovation project budget estimate and design-development was discussed. The Planning Committee found, after reviewing the 19 possible cost-savings reductions (some of which were mutually exclusive) that the only significant cost-savings that can be realized is if full fire suppression is not part of the project.  
  
Using a fire wall essentially makes the addition a separate building which at 3800 square feet is not required to have fire suppression by code. The 1927 and 1980 buildings are then grandfathered in. The fire wall option was suggested by the Livingston County building department representative as one he would approve. (He would not approve previously discussed compartmentalization options.) This option reduces the construction cost by \$147,400.  
  
Full fire suppression will be the most successful option in terms of life safety but installation will be the most disruptive since piping and heads will need to be installed in every part of all three sections--1927, 1980, and addition. This option is unquestionably in line with code. This option increases the construction cost by \$228,000.  
  
President Lewis asked trustees for their questions.  
Member DeRosier asked if the fire wall eliminates the second floor's view from



staff area into the public Youth area. Dan Whisler said yes. She then asked if full fire suppression is a zoned response (only the sprinkler head in the area with fire goes off vs all the sprinkler heads in all the building go off). Dan said yes. She said if we're doing this, we should do it right.

Member Oemke said she supports full fire suppression.

President Lewis said that she wants the fire wall option because it saves money, its installation will not be as disruptive to library services, and we should not bank on having a fire. She continued at a \$2.3 million project cost, we should get whatever savings are possible; a fire wall provides cost savings.

Member Sargent asked if the addition would be suppressed. Dan replied no. It is not required at 3800 square feet.

Member Black recalled Member DeRosier's comment in the prior board meeting about the choice of saving cost at the risk of human life is too much like the Flint Water Crisis. The fire wall makes sense and it saves money, but if the library has the money then the optimal solution should be pursued. The full fire suppression solution will improve the entire building--all three sections.

Member Sargent said he supports full fire suppression. He said he's not sure we'll do something of this scale ever again at this site, so do it right. He asked if the optimal solution leads to other code issues being required. Dan replied that actually full fire suppression generates "credit" in the building, e.g., allows more exterior glass.

Member Oemke discussed the possibility that eventually the library may move to another site and building. Full fire suppression will make this building more saleable at that time.

Member Thompson said he believes his support of full fire suppression is well known. He said we should do the best we can do for this community. President Lewis shared that Member Cafmeyer weighed in from her vacation and supports full fire suppression.

Member DeRosier asked if the project has full fire suppression will that increase flexibility for traffic flow. It seems the fire wall would restrict access. Dan replied that this design is unlikely to take advantage of it. But that not having a fire wall does allow for future expansion of public area on both floors into the addition, if desired.

#### IV. **Call to the Public:**

Call to the Public

President Lewis asked Janice Yaklin, Barbara Rentola, and Ceci Marlow if they want full fire suppression. All three said yes.

Member Sargent asked if the tank would still be needed. Dan said yes and instead of a 400 gallon tank it will need to be a 4000 gallon tank, buried probably where the two large pines are on the southeast corner. Member Oemke said she thought the tank would only need to be big enough for the Fire Department to get here. Dan said that was a modified fire suppression system that the team, including Hartland's Fire Marshall, believed would be sufficient.

However, the Livingston County Building representative did not approve that option. Member DeRosier asked if there can and will be plantings on top of the tank. Dan said, yes, but no trees. Member Sargent asked about a foam option he thought was discussed previously. Dan and Gene replied that was the Blazemaster piping which is a more flexible form of piping. It could be more easily installed in difficult areas of the existing building. However, it may not be cost effective overall.

**VI. Decision**

**A. Reconfiguration & Renovation Project & Budget Motion**

Decision

Member Sargent moved, and Member Thompson seconded, that the reconfiguration and renovation project go forward as designed with changes as discussed and added cost-savings as possible, including full fire suppression. This is at a current estimate of \$1.945 million construction cost, and a total project cost of \$2.3 million. The motion passed unanimously.

**VII. Call to the Public:**

Public Call

Janice Yaklin said thank you.

President Lewis asked the Director if there was further information. The Director explained that the six sets of monthly financial reports for each of the funds distributed to trustees at this meeting replace those they had received previously. The difference in what they received earlier and these is that these now show the expenditure per category for the month, information which is reviewed and shared in the Finance Committee. The problem originated with the Director using the wrong option on the QuickBooks list of memorized reports and was not the fault of the accounting firm whatsoever. Going forward, one set of options for reports is all that is available to prevent future incomplete reporting at the board meeting.

**VIII. Adjournment:**

Adjournment

Motion by Member Thompson, seconded by Member Sargent to adjourn at 7:36 pm.

KATHLEEN OEMKE, SECRETARY  
Cromaine District Library Board

Barbara Rentola, Recording Secretary  
Cromaine District Library Board

Documents distributed to the Board for/at this meeting:

- Planning Committee Minutes, 3/30/16
- Budget Estimate